

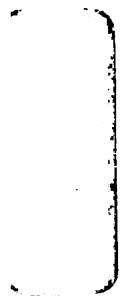
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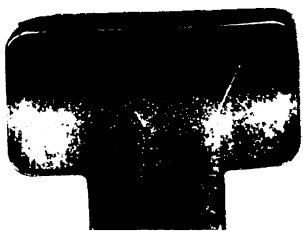
BIOGAS UNA BIBLIOGRAFIA MUNDIAL



ORGANIZACION LATINOAMERICANA DE ENERGIA



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BIOGAS UNA BIBLIOGRAFIA MUNDIAL



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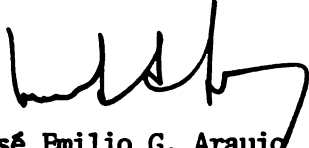
PRESENTACION

La presente bibliografía mundial sobre biogas, corresponde a una operación conjunta llevada a cabo por el Instituto Interamericano de Cooperación para la Agricultura (IICA) y la Organización Latinoamericana de Energía (OLADE), instituciones preocupadas en ofrecer oportuna y eficaz cooperación técnica a sus países miembros para encontrar y desarrollar soluciones viables para hacer frente a la crisis energética actual.

Esta bibliografía con más de 2800 entradas bibliográficas representa la más extensa y actualizada compilación documental existente hoy en día en el mundo sobre biogas y se espera que sea un instrumento de primera línea para los técnicos e instituciones de América Latina y el Caribe que se encuentran abocados en el desarrollo de programas de demostración y fomento de biogas.

Por otra parte es una contribución concreta del Programa de Agroenergía del IICA y del Programa Regional de Biogas de OLADE al Primer Seminario Interamericano de Biogas que se llevará a cabo el próximo mes de noviembre en la Ciudad de Joao Pessoa, Paraiba, Brasil.

La OLADE y el IICA desean dejar constancia de la calificada contribución que se recibió para la elaboración de la presente bibliografía de más de 180 instituciones del mundo, que contestaron la solicitud de colaboración enviando publicaciones e insumos documentales sobre biogas, sin esta oportuna participación internacional hubiera sido imposible hacer entrega de un documento de calidad en el tiempo programado.


José Emilio G. Araujo
Director General del IICA


Gustavo Rodríguez Elizarrarás
Secretario Ejecutivo de OLADE

METODOLOGIA

1998

Este documento incluye 2.807 referencias bibliográficas correspondientes a unidades documentales publicadas sobre Biogas, a nivel mundial.

Con el propósito de cubrir ampliamente la información existente sobre Biogas, se estableció contacto con aquellas organizaciones y personas involucradas en el asunto, las cuales respondieron solícitamente mediante el suministro de listas bibliográficas sobre el tema.

Con la finalidad de incluir la información sobre Biogas en el Banco de Datos sobre Agroenergía creado en forma preliminar en el IICA-CIDIA, se procedió al registro de los datos bibliográficos en hojas de insumo, utilizando la metodología adoptada en el Sistema Interamericano de Información para las Ciencias Agrícolas - AGRINTER.

El documento "Biogas: una Bibliografía Mundial" comprende dos partes: 1) Texto de la bibliografía; 2) Índices.

1. Texto de la Bibliografía

En esta sección, la información se registra en orden alfabético de autores (personales, institucionales).

2. Índices

Se presentan dos tipos de Índices: 1) Autores; 2) Temático/Geográfico.

- Índice de Autores: aunque en la sección principal del documento la información se encuentra indizada por autores, se consideró necesaria la inclusión de este Índice bajo el cual se registran no solamente los autores principales de las unidades documentales sino también los nombres de sus colaboradores.
- Índice Temático/Geográfico: Este Índice se elaboró siguiendo un criterio lógico basado en el alcance temático y geográfico de la Bibliografía, en el que se usan las palabras-claves seleccionadas de los títulos de los documentos; estos conceptos contemplan en forma detallada los aspectos tratados sobre Biogas. En el caso de sinónimos y casi-sinónimos, se proveen referencias de véase y véase además, respectivamente, con el objeto de remitir al usuario de la información a la palabra-clave seleccionada para figurar en el Índice, o a las palabras-claves que representen facetas del tema estrechamente relacionadas entre sí. En cuanto al aspecto geográfico del Índice, se agrupó la información por país, incorporando subdivisiones de temas.

Los Índices mencionados que aparecen al final de la Bibliografía, facilitan al usuario una mayor rapidez para su acceso a la información.

TEXTO DE LA BIBLIOGRAFIA

- * ABE, R. K.; BRAMAN, W. L. y ROGERSON, A. C. Organic recycling and earthworms. In FAO/SIDA Workshop on the Use of Organic Materials as Fertilizers in Asia, Bangkok, Thailand, 1976. Organic recycling in Asia. Roma, FAO, 1978. pp. 205-211. (FAO Soils Bulletin no. 36) (0001)
- ABELES, T. P. Energy and economic analysis of anaerobic digesters. In Jewell, W. J. Energy, agriculture and waste management. Ann Arbor, MI., Ann Arbor Science Publishers, 1975. pp. 353-360. (0002)
- _____. Design and engineering considerations in plug flow farm digesters. In Clean fuels from biomass and waters. s.l., Institute of Gas Technology, 1977. p. irr. (0003)
- _____. y DALE, E. Safety and design considerations for farm digesters. In International Conference on Energy Use Management, 1., USA., 1977. Edited by C. Smith. s.l., Pergamon Press, 1977. v. 1, p. 781. (0004)
- _____.; FREEDMAN, D. C. y DeBAERE, L. A. Bibliography of anaerobic digestion. Rice Lake, Wisconsin, Oasis 2000, 1978. 107 p. (0005)
- _____.; FREEDMAN, D. F. y ELLSWORTH, D. A. Bibliography of anaerobic digestion. 1. ed. Cincinnati, Ohio, Municipal Environmental Protection Agency, 1978. 119 p. (NP-23968). (0006)
- _____.; FREEDMAN, D. F. y DeBAERE, L. A. Energy and economic assessment of anaerobic digesters and biofuels for rural waste management. Rice Lake, Wisconsin, Oasis 2000, 1978. 175 p. (0007)
- * ABELES, T. P.; BROWNLEE, R. y ARNTSON, W. Energy and economic assessment of anaerobic digesters for rural waste management. In Bente Junior, P. F. y Camello, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 244. (0008)
- Investigación en progreso
Publicado también por U.S. Environmental Protection Agency, en 1978.
- _____. A technology assessment of anaerobic digesters using agricultural residues. s.l., 1979. p. irr. (0009)
- Presentado en International Conference on Energy Use Management, 2.
- _____. y ELLSWORTH, D. Farm integrated utility systems. In Biogas and alcohol fuels production. Emmaus, Pennsylvania, J. G. Press, 1980. p. irr. (0010)
- _____. A guide book for farm scale methane digesters; Ozarks Regional Commission. s.l., 1981. p. irr. (0011)
- ABRAM, J. W. y NEDWELL, D. B. Hydrogen as a substrate for methanogenesis and sulfate reduction in anaerobic saltmarsh sediment. Archives of Microbiology 117:93-97. 1978. (0012)
- _____. y NEDWELL, D. B. Inhibition of methanogenesis by sulfate reducing bacteria competing for transferred hydrogen. Archives of Microbiology 117:89-92. 1978. (0013)
- ABRIGO JUNIOR, C. S. Determination of optimum conditions for biogas generation from distillery slop (in the Philippines). Tesis Mag. Sc. in Chemistry. College, Laguna, University of the Philippines, 1980. 95 p. (0014)

ACHARYA, C. N. Decomposition of plant substances of varying composition. *Biochemical Journal* 29:1459-1467. 1935. (0015)

_____. Decomposition of rice straw under anaerobic, aerobic and practically aerobic conditions. *Biochemical Journal* 29(5):1116-1120. 1935. (0016)

_____. Some factors influencing the anaerobic decomposition of rice straw. *Biochemical Journal* 29(4):953-960. 1935. (0017)

_____. Studies on the anaerobic decomposition of plant materials. *Boichemical Journal* 29(3):528-541. 1935. (0018)

_____. Organic manures. New Delhi, Indian Council of Agricultural Research, 1952. p. irr. (0019)

_____. Cowdung gas plants. *Indian Farming* 3(9):16-18, 28. 1953. (0020)

_____. Prospects of compost manure from town-wastes. New Delhi, Indian Council of Agricultural Research, 1954. p. irr. (0021)

_____. y JUNEJA, P. C. Studies on the production of combustible gas and manure from cattle dung. *Indian Science Congress Association Proceedings*, 1954. v. 41, p. 246. (0022)

_____. With this change the cowdung gas plant works better. *Indian Farming* 6(9):10-11, 13. 1956. (0023)

* _____ . Your home needs a gas plant. *Indian Farming* 6(2):27-30. 1956. (0024)

_____. Preparation of fuel gas and manure by anaerobic fermentation of organic materials. New Delhi, Indian Council of Agricultural Research, 1958. p. irr. (Indian Council of Agricultural Research. Bulletin no. 115) (0025)

* ACOSTA, J. A. Caña, carne y también gas metano. *Agroconocimiento (Rep. Dominicana)* 1(10):8-10. 1976. (0026)

* AD HOC PANEL ON METHANE GENERATION FROM HUMAN, ANIMAL, AND AGRICULTURAL WASTES, WASHINGTON, D.C., 1977. Methane generation from human, animal, and agricultural wastes; report. Washington, D. C., National Academy of Sciences. Panel on Methane Generation, 1977. 131 p. (US. National Technical Information Service. PB no. 276469) (0027)

Incluye bibliografías

ADACHI, S. Methane gas fermentation tank. Japón, 1978. 8 p. (Patent 1978-123, 401) (0028)

ADDERLEY, A. E.; SMITH, I. E. y PROBERT, S. D. Anaerobic fermentation of poultry manure. *Applied Energy* 2(3):163-173. 1976. (0029)

AGARDY, F. J.; COLE, R. D. y PEARSON, E. A. Kinetic and activity parameters of anaerobic fermentation systems. Berkeley, University of California, 1963. p. irr. (SERL Rpt No. 63-2) (0030)

AGARWAL, K. C. Ecological effects of production of biogas from human excreta on the enteriopathogens. *Indian Journal of Medical Research* 67(5):737-743. 1978. (0031)

AGENCE NATIONALE POUR LA RECUPERATION ET L'ELIMINATION DES DECHETS, ANGERS, FRANCIA. A recuperação dos detritos; chave de uma agricultura mais produtiva. Angers, 1980. 1 p. (0032)

AGRAWAL, P. K. Microbial fermentation of agricultural wastes into biogas and biomanure by a semi-wet process. In *National Symposium on Biogas Technology and Usage*, New Delhi, 1977. New Delhi, India, 1977. pp. 29-30. (0033)

AGRICULTURAL DEPARTMENT, SARAWAK, MALAYSIA. Methane gas generators. Sarawak, Malaysia, s.f. p. irr. (0034)

- AGRICULTURAL DEVELOPMENT BANK, KATHMANDU, NEPAL. PLANNING RESEARCH AND PROJECT DIV. Agricultural credit project proposal. Kathmandu, Nepal, 1978. 11 p. (0035)
- AGRICULTURAL TOOLS RESEARCH CENTRES, BARDOLI, INDIA. Garbage gas plant as decentralized. Alternative and renewable source of energy and manure. Bardoli, India, s.f. p. irr. (0036)
- ALBERT, J. Harnessing elephant energy. Garden Journal 1(1):2-3. 1977. (0037)
- ALFONSO, L. Metano dai rifiuti di allevamento (come fonte di energia). Avvenire Agricolo 86(2):38-40. 1978. (0038)
- ALICBUSAN, R. V. Biogas production as an alternative energy source. Manila, Filipinas, National Institute of Science and Technology, s.f. p. irr. (0039)
- _____. Biogas systems for countryside development in the Philippines. Manila, Filipinas, National Institute of Science and Technology, s.f. p. irr. (0040)
- _____. Biogas technology - its prospects and problems. Manila, Filipinas, National Institute of Science and Technology, s.f. p. irr. (0041)
- _____. Economic and net-energy analysis of biogas systems. Manila, Filipinas, National Institute of Science and Technology, s.f. p. irr. (0042)
- _____. Methane generator for hospital, abattoir wastes and decomposable garbages: operating procedure and maintenance. Manila, Filipinas, National Institute of Science and Technology, s.f. p. irr. (0043)
- _____. Methane generator for night soil and kitchen wastes: operating procedure and maintenance. Manila, Filipinas, National Institute of Science and Technology, s.f. p. irr. (0044)
- ALICBUSAN, R. V. Methane generator using drums as digesters operating procedure and maintenance. Manila, Filipinas, National Institute of Science and Technology, s.f. p. irr. (0045)
- _____. The Philippine country report on biogas production. Manila, Filipinas, National Institute of Science and Technology, s. f. p. irr. (0046)
- _____. Procedure for multiple unit of biogas digester. Manila, Filipinas, National Institute of Science and Technology, s. f. p. irr. (0047)
- _____. Procedure for single unit methane generator. Manila, Filipinas, National Institute of Science and Technology, s. f. p. irr. (0048)
- _____. Procedure for single unit methane generator using banana peelings. Manila, Filipinas, National Institute of Science and Technology, s. f. p. irr. (0049)
- _____. Production of fuel gas from animal wastes. Manila, Filipinas, National Institute of Science and Technology, s. f. p. irr. (0050)
- _____. Recent development in Philippine production and utilization of biogas. Manila, Filipinas, National Institute of Science and Technology, s. f. p. irr. (0051)
- _____.; JOSE, V. R. y RODULFO, B. R. Preparation and utilisation of methane bacteria as starter in biogas production. Wildlife Society News 12(19): 415-416. 1975. (0052)
- * ALLEN, C. P. Develop a methane and fertilizer system for farm use. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. Y11-130) (0053)

- * ALLEN, C. P. y TURNACLIFF, W. Sunny time energy poultry project. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 231. (0054
- Investigación en progreso
- * ALLEY, R. Mianyang and bio-gas in Sichuan. Eastern Horizon 19(19): 5-13. 1980. (0055
- ALLISON, H. J.; SOUTHERLAND, S. R. y GORDON, C. E. Energy center in Sri Lanka. In Intersociety Energy Conversion Engineering Conference, 11a., State Line, New York, 1976. New York, American Institute of Chemical Engineers, 1976. pp. 58-63. (0056
- ALMADA, A. F. Utilización del biogas. México, D.F., s.f. p. irr. (0057
- * _____; MARTINEZ, A. M. y QUINTERO, R. Digestor Tipo I I E-México, diseño construcción y costos de un digestor de 30 MC para Jicarero Morelos. In Curso Latinoamericano de Biogas, Tº, Guatemala, 1981. Manual de biogas. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 309-322. (0058
- * _____; MARTINEZ, A. M. y QUINTERO, R. Operación y evaluación de un digestor de 40 MC, en Xoxocotla, Morelos. In Curso Latinoamericano de Biogas, Tº, Guatemala, 1981. Manual de Biogas. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 323-333. (0059
- ALONE, B. Z. Anaerobic digestion of city refuse and dung. Indian Journal of Environmental Health 20(2): 134-140. 1978. (0060
- ALVAREZ ASCH, E. Utilización de metano en motores de combustión interna. Tesis Ing. Mec. San José, Universidad de Costa Rica, Facultad de Ingeniería, 1980. p. irr. (0061
- ALVAREZ ASCH, E. y ALVAREZ, C. B. Utilización de metano en motores de combustión interna. II. San José, Universidad de Costa Rica, 1980. p. irr. (0062
- AMARATUNGA, M. A rational approach to bio-gas technology based on the concept of an integrated farming system. Agricultural Engineering 1(1):6-15. 1977. (0063
- AMBALKAR, S. S. Management of cattle yard wastes by recycling. Livestock Advisory 2(9):5-10. 1977. (0064
- AMERICAN PUBLIC HEALTH ASSOCIATION, NEW YORK. Standard methods for the examination of water and waste water. 15. ed. New York, 1976. p. irr. (0065
- LES AMIS DE L'HOMME, FRANCIA. Etude comparative de deux installations de production de gaz biologique. Le Regne de Justice et de Vérité no. 18:7. 1979. (0066
- AMRHEIN, M. y NGAN, F. Response of a packed-bed, fixed-film bioreactor to zinc toxicant. s.l., 1980. 28 p. (0067
- ANAEROBIC DIGESTION of cattle manure as an energy producing, non-conventional beef feedstock. Arvada, CO, Bio-Gas of Colorado, s.f. p. irr. (0068
- ANAEROBIC DIGESTION of chicken manure to methane. Arvada, CO, Bio-Gas of Colorado, s.f. p. irr. (0069
- ANAEROBIC DIGESTION of hog manure. Arvada, CO, Bio-Gas of Colorado, s.f. p. irr. (0070
- ANAEROBIC DIGESTION of livestock wastes into methane gas. Agricultural Engineering Michigan State University Information Series, Acies file no. 1(8):1-18. 1979. (0071

- ANAEROBIC DIGESTION of poultry wastes. Arvada, CO, Bio-Gas of Colorado, s.f. p. irr. (0072)
- ANAEROBIC DIGESTION of thin stillage from a farm scale alcohol plant. Arvada, CO, Bio-Gas of Colorado, s.f. p. irr. (0073)
- ANAEROBIC SLUDGE digestion. Washington, D.C., s.f. p. irr. (Water Pollution Control Federation Manual no. 16) (0074)
- ANANDAKUMAR, M. y SAMPATH, S. R. Effective utilisation of dung on organised dairy farms - a case study. Current Research 5(7):109-111. 1978. (0075)
- ANDERSON, G. K. y DONNELLY, T. Anaerobic digestion of high strength industrial wastewaters. s.l., 1977. 6 p. (0076)
- Presentado en Meeting of the Midland District Centre, Birmingham, 1977.
- ANDERSON, J. Organic digester apparatus and method. s.l., 1977. 12 p. (USA Patente no. 4,046,551) (0077)
- ANDERSON, L. L. Energy potential from organic wastes: review of the quantities and sources. Washington, D.C., Department of Agriculture, 1972. 14 p. (USDA. Information Circular no. 8549) (0078)
- ANDREWS, J. F.; COLE, R. D. y PEARSON, E. A. Kinetics and characteristics of multistage methane fermentation. Berkeley, University of California, 1964. p. irr. (SERL Rpt no. 64-11) (0079)
- _____. A mathematical model for the continuous culture of microorganisms utilizing inhibitory substrates. Biotechnology and Bioengineering 1968:707-723. 1968. (0080)
- _____. Dynamic model of the anaerobic digestion process. Journal of the Sanitary Engineering Division no. 6418:95-116. 1969. (0081)
- ANGLO, P. G.; TANAKA, H. y HAGA, K. Production and desulfurization of biogas from swine waste. Philippine Journal Biol. 7(3):247-258. 1978. (0082)
- _____.; TANAKA, H. y HAGA, K. Study on the production and desulfurization of biogas from swine waste. Kalikasan Journal Biology 7(3):247-288. 1978. (0083)
- _____. y ALICBUSAN, R. V. Fermentation parameters needed to improve biogas production. Reg. Journal Energy Heat Mass Transfer 1(4):251-264. 1979. (0084)
- _____. y ALICBUSAN, R. V. Fermentation parameters needed to improve biogas production (in the Philippines). NSDB Technology Journal 5(2):34-41. 1980. (0085)
- _____. Methane production at village level in the Philippines. Modern Agric. and Industry 9(6). 1981. (0086)
- ANGUS, S.; ARMSTRONG, B. y REUCK, K. M. DE. International thermodynamic tables of the fluid state. V. Methane. Elmsford, New York, Pergamon Press, 1978. 274 p. (Chemical Data Series no. 16) (0087)
- ANIMAL WASTE digestion. In Renzo, D. J. de. Energy from bioconversion of waste materials. Park Ridge, New Jersey, Noyes Data Corporation, 1977. pp. 138-156. (0088)
- ANIMAL WASTE treatment and disposal, advanced systems. Fort Lauderdale, Florida, Associated Naval Architects of Fort Lauderdale, s.f. p. irr. (Associated Naval Architects of Fort Lauderdale. Booklet no. 22) (0089)
- ANNUAL COMPOSTING AND WASTE RECYCLING CONFERENCE, EL PASO, TEXAS, 1974. Proceedings of the annual composting and waste recycling conference. Compost Science 15(3). 1974. (0090)

ANOX PROCESS. Worcester, Evers and Associated Ltd., s.f. p. irr. (0091)

ANTOHIOLI, A. Biogás, uma opção econômica e ecológica. Porto Velho, Brasil, 1980. p. irr. (0092)

_____. Projeto de construção e difusão de biodigestores no meio rural. Porto Velho, Brasil, 1980. 27 p. (0093)

APANDI, M. Biogas development in Indonesia. Bandung, Indonesia, Institute of Technology Bandung. Development Technology Center, 1978. p. irr. (0094)

Presentado en Expert Group Meeting on Biogas Development, Bangkok, 1978.

_____. Biogas and fishculture. Bandung, Indonesia, Institute of Technology Bandung. Development Technology Center, 1979. p. irr. (0095)

Presentado en UNESCO Regional Training Course on Microbiology in Service of an Environmental Management Based Rural Development, Bandung

_____. Utilization of biogas in the field of animal husbandry. Bandung, Indonesia, Institute of Technology Bandung. Development Technology Center, 1979. p. irr. (0096)

Traducido al inglés
Presentado en Seminar on Animal Husbandry

_____. The role of universities in the biogas development in Indonesia. Bandung, Indonesia, Institute of Technology Bandung. Development Technology Center, 1980. p. irr. (0097)

Traducido al inglés
Presentado en Workshop on the Agricultural Waste Utilization

APOYO A cooperativistas. Gas metano Las Chinamas. La Prensa Gráfica, El Salvador; Jul. 9, 1979:40. (0098)

APPA RAO, V. Gobar gas plant source of people's power. People's Action 7(3):42-43. 1973. (0099)

APPROPRIATE TECHNOLOGIES: India adopts Chinese biogas designs. Development Forum no. 3:8. 1978. (0100)

* APPROPRIATE TECHNOLOGY DEVELOPMENT ORGANIZATION, ISLAMABAD, PAKISTAN. Gobar gas: an alternate way of handling the village fuel problem-fertilizer and fuel. Islamabad, s.f. 15 p. (0101)

APPROPRIATE TECHNOLOGY SERIES, BARDOLI, INDIA. Small scale biogas plants. Bardoli, India, 1973. p. irr. (0102)

APROVECHAMIENTO DEL gas biológico con fines energéticos. El Diario de Hoy, El Salvador; Jun. 10, 1979:1. (0103)

ARANETA, V. A. Continuous organic waste digest and methane gas generator (in the Philippines). NSDB (National Science Development Board) Technology Journal 4(3):58-61. 1979. (0104)

* ARAUJO, J. E. G.; AGUIRRE, J. A. y BAZAN, R. Perspectivas agroenergéticas de América Latina. Desarrollo Rural en las Américas (Costa Rica) 12(3):181-197. 1980. (0105)

* ARAUJO, N. DE Q. Produção de biomasa fúngica do vinhoto. Informativo INT (Brasil) 10(14):12-19. 1977. (0106)

ARAUJO NETO, J. y KLING, S. H. Redutor siderúrgico ou combustível ou sólido por a partir da cana-de-açúcar. Bra. Bucareiro 95(2):11-19. 1980. (0107)

ARIAS CHAVEZ, J. Digestión anaerobia de desechos orgánicos: prioridad estratégica para el ecodesarrollo. In Reunión Nacional sobre Energía no Convencional, Palmira, Morelos, 1978. México, 1978. p. irr. (0108)

- * ARIAS CHAVEZ, J. Degradación anaerobia de biomasa, la más viable opción actual para uso masivo de la energía solar. *Boletín Energético. Organización Latinoamericana de Energía (Ecuador)* no. 14:50-56. 1980. (0109)
- * _____ . Degradación anaerobia de desechos orgánicos: prioridad estratégica para el ecodesarrollo. *Boletín Energético. Organización Latinoamericana de Energía (Ecuador)* no. 14:40-44. 1980. (0110)
- * _____ . Xochicalli, casa ecológica autosuficiente, un proyecto de vivienda productiva real. *Boletín Energético. Organización Latinoamericana de Energía (Ecuador)* no. 14:45-49. 1980. (0111)
- * _____ . Degradación anaerobia de biomasa prioridad estratégica para el ecodesarrollo. *In Curso Latinoamericano de Biogas, 1º, Guatemala, 1981. Manual de Biogas. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 93-118. (0112)*
- * _____ . Digestor tipo Xochicalli-México. *In Curso Latinoamericano de Biogas, 1º, Guatemala, 1981. Manual de Biogas. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 340-359. (0113)*
- * _____ . Digestor Xochicalli. *In Curso Latinoamericano de Biogas, 1º, Guatemala, 1981. Manual de Biogas. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 334-339. (0114)*
- ARONOWITZ, D. y SCHULZ, H. W. Design of a pollution-free system for the economic utilization of municipal solid waste for the City of New York. Task III: Pipeline transmission versus gas turbine power. s.l., 1974. 26 p. (0115)
- ASHARE, E.; AUGENSTEIN, D. C. y SHARON, A. C. Cost analysis of growing and harvesting biomass. *In Annual Symposium on Fuels from Biomass, 2º, Troy, New York, 1978. Proceedings. New York, Rensselaer Polytechnic Institute, 1978. v.2, p. 873. (0116)*
- ASHARE, E. y WILSON, E. H. Engineering analysis of anaerobic digester concepts. *In Annual Biomass Energy Systems Conference, 2a., Golden, Colorado, 1979. Cambridge, Massachusetts, 1979. pp. 297-301. (0117)*
- _____.; BUIVID, M. G. y WILSON, E. H. Feasibility study for anaerobic digestion of agricultural crop residues, Dynatech report no. 1935. s.l., 1979. 251 p. (0118)
- _____.; WENTWORTH, R. L. y WISE, D. L. Fuel gas production from animal residue. II. An economic analysis. *Resource Recovery and Conservation* 3:359. 1979. (0119)
- _____.; BUIVID, M. G. y WILSON, E. H. Feasibility study for anaerobic digestion of agricultural crop residues. *In Systems simulation and Economics Analysis Conference, San Diego, California, 1980. s.l., 1980. pp. 403-412. (0120)*
- ASHBY, W. R. Jamaica's solar energy programme. *In International Solar Energy Society Meeting, Atlanta, Georgia, 1979. Edited by K. W. Boer and B. H. Glenn. Elmsford, New York, Pergamon Press, 1979. pp. 208-209. (0121)*
- ASHTON, W. T. *et al.* Synthesis of 7,8-didemethyl-8-hydroxy-5-deazariboflavin and confirmation of its identity with the deazaisalloxazine chromophore of Methanobacterium redox coenzyme. *Journal of American Chemical Society* 101:4419-4420. 1979. (0122)
- * ASSOCIAÇÃO DE ASSISTÊNCIA TÉCNICA E EXTENSÃO RURAL DE RONDONIA, BRASIL. Biogás adubo + energia. Rondonia, Brasil, s.f. 5 p. (0123)
- ASTHANA, D. C. y JHA, K. P. Influence of bio-gas slurry on the yield of rice under different water management practices. *Oryza* 14(2):61-66. 1978. (0124)

- ASWELL, J. y FERRY, J. G. A new method of culturing methanogens with organic acids: characteristics of an isolate mass cultured with formate. Abstract of the Annual Meeting American Society of Microbiology no. 145. 1978. (0125)
- ATKINSON, B. y RAHMAN, F. U. Effect of diffusion limitations and floc size distributions on fermentor performance and the interpretation of experimental. *Biotechnology and Bioengineering* 21:221-251. 1979. (0126)
- AUBART, C. Fumier et lisier: une matière première qui s'ignore. *Cultivar* no. 131:60-61. 1980. (0127)
- AUBINEAU, M. Role de la information dans la lutte contre les gaspillages energetiques en agriculture. *Tractés et Machines Agricoles* 59(3): 217-222. 1978. (0128)
- AUERBACH, L. A domestic power unit: methane generator. 4. ed. Madison, Wisconsin, *Alternative Energy Systems*, 1977. 50 p. (0129)
- Publicado también en *Compost Science* 14(6):11. 1973.
- AUGENSTEIN, D. C.; WISE, D. L. y WENTWORTH, R. L. Fuel gas recovery from controlled landfilling of municipal waste. *Resource Recovery and Conservation* 2:103. 1976. (0130)
- _____; WISE, D. L. y COONEY, C. L. Packed bed digestion of solid waste. *Resource Recovery and Conservation* 2:257. 1976/1977. (0131)
- * AVANZA PROYECTO para producir gas metano. *La Nación*, Costa Rica; Ago. 13, 1979:1. (0132)
- AWASTHI, R. K. Biogas (gobar gas) plant in perspective. *Financing Agriculture* 7(3):1-7. 1975. (0133)
- AYO, A. G. The 'dirt' that pays. *Manila, Filipinas, National Science and Technology Week*, 1978. 3 p. (0134)
- Reimpreso de U.P. Newsletter 6(10)
- AZEVEDO, J. y STOUT, P. R. Farm animal manures: an overview of their role in the agricultural environment. Berkeley, California, University of California Agricultural Publications, s.f. 109 p. (California Experiment Station Manual no. 44). (0135)
- BAADER, W., DOHNE, E. y BRENNENDORFER, M. Biogas in Theorie und Praxis. *K.T.B.L. Schrift* no. 229:1-134. 1978. (0136)
- _____. Biogasgewinnung im Landwirtschaftlichen Bereich - Technische Voraussetzungen und Konsequenzen für den Betrieb. *Landtechnik* 33(H.2):61-63. 1978. (0137)
- _____. Technische Voraussetzungen und Konsequenzen für die Biogasgewinnung in landwirtschaftlichen Bereich. *Landtechnik* 33(2):61-63. 1978. (0138)
- _____; DOHNE, E. y BRENNENDORFER, M. Biogas from residues of animal husbandry and agricultural plant production. In Thome-Kozmiensky, K.J., ed. *Recycling Berlin '79*. Berlin, Alemania, Freitas-Verlag für Umwelttechnik, 1979. v.2, pp. 774-778. (0139)
- _____. Biogasgewinnung - Verfahrenstechnische Weiterentwicklung. *Landbauforschung Volkenrode, Sonderh* 49:146-155. 1979. (0140)
- _____. Das FAL-Biogasprojekt. *Grundlagen Landtechnik* Bd. 31(2): 37-41. 1981. (0141)

- BAADER, W. Erste Erfahrungen mit einem vollständig gefüllten, vertikal durchstromten Biogasgenerator. *Grundlagen Landtechnik* Bd. 31(2): 50-55. 1981. (0142)
- BABAYANTS, A. V. y KHANUKAEV, Y. Possibility of using the recirculating flow of the culture fluid to control thermophilic methane fermentation. *Prikl. Broklim. Microbiol.* 8(3): 347-353. 1972. (0143)
- BACK, H. Pilot plant results for partial oxidation of cattle feedlot manure. *Indian Engineering Chemical Process Des. Dev.* 18(2):1-6. 1978. (0144)
- BADGER, D. M.; BOGUE, M. J. y STEWART, D. J. Biogas production from crops and organic wastes. I. Results of batch digestions. *New Zealand Journal of Science* 22(1):11-20. 1979. (0145)
- BAGBY, M. O.; BUCHANAN, R. A. y DUKE, J. A. Botanochemicals and chemurgy in the petroleum drought ahead. *In American Association of Cereal Chemists Meeting, Washington, D.C., 1979. Washington, D.C., Department of Agriculture, 1979. 28 p.* (0146)
- BAHADUR, S. Role of biogas in rural development. *In Research Planning Workshop on Energy for Rural Development, Ahmedabad, 1979. India, 1979. 11 p.* (0147)
- _____. y SINGH, K. K. Janata biogas plant. Lucknow, India, State Planning Institute, U.P., 1980. 42 p. (NP--25010) (0148)
- * BAHADUR KARKI, A. Azolla - an excellent organic fertilizer. *Newsletter Bio Gas* no. 11:3-4. 1980. (0149)
- BAILEY, D. G. F. The bio-gas system: serious energy source of environmental fad? *Natural Resources Forum* 1(1):55-62. 1976. (0150)
- BAILEY, E. C. Construction materials for biomass-energy systems. *In Reliability of Materials for Solar Energy Workshop, Denver, Colorado, 1978. Proceedings. s.l., 1979. pp. 483-492.* (0151)
- BALBA, M. T. y EVANS, W. C. The methanogenic fermentation of aromatic substrates. *Biochemical Society Transactions* 5:302-304. 1977. (0152)
- BALCH, W. E. y WOLFE, R. S. New approach to cultivation of methanogenic bacteria: 2-mercaptoethane sulfonic acid (HS-CoM)-dependent growth of *Methanobacterium ruminantium* in a pressurized atmosphere. *Environment Microbiol.* 32:781-791. 1976. (0153)
- _____. y SCHOBERTH, S. y TANNER, R. S. *Acetobacterium*, a new genus of hydrogen-oxidizing, carbon dioxide-reducing, anaerobic bacteria. *International Journal of Systematic Bacteriology* 27:355-361. 1977. (0154)
- _____. y FOX, G. E. y MAGRUM, L. J. Methanogens: reevaluation of a unique biological group. *Microbiol. Rev.* 43:260-293. 1979. (0155)
- _____. y WOLFE, R. S. Specificity and biological distribution of coenzyme M (2-mercaptoethanesulfonic acid). *Journal of Bacteriology* 137:256-263. 1979. (0156)
- _____. y WOLFE, R. S. Transport of coenzyme M (2-mercaptoethanesulfonic acid) in *Methanobacterium ruminantium*. *Journal of Bacteriology* 137:264-273. 1979. (0157)
- BALDERSTON, W. L. y PAYNE, W. J. Inhibition of methanogenic in salt marsh sediments and wholecell suspensions of methanogenic bacteria by nitrogen oxides. *Applied and Environmental Microbiology* 32(2):264-269. 1976. (0158)

- BALDINI, U. Il metano; ricerca, produzione, utilizzazione. Firenze, Italia, 1952. pp. 31-356. (0159)
- BALTRA M., I. y RETAMAL M., J. Bioenergía a partir de desechos orgánicos. In Convención Unión Panamericana de Asociaciones de Ingenieros, 15a., Santiago, Chile, 1978. Trabajos complementarios. Santiago, Chile, 1978. pp. 317-348. (0160)
- * BAMERINDUS, CURITIBA, BRASIL. Como ter seu próprio biodigestor: energia e adubo orgânico de ótima qualidade. Curitiba, PR., 1981. 4 p. (0161)
- BANERJEE, M. K. y JAYPRAKASH, L. Community factor in community biogas plant. *Urja* 6(1-2):53-55. 1979. (0162)
- BANGAYAN, J. P. Some factors affecting methane generation from rice straw and sugarcane bagasse. Tesis Mag. Sc. in Microbiology. College, Laguna, University of the Philippines, 1977. 57 p. (0163)
- * BANSAL, M. L.; MITTAL, C. P. y SONDHI, H. S. Biogas production during anaerobic digestion of livestock excreta. *Indian Journal of Dairy Science* 30(4):338-340. 1977. (0164)
- * BAQUEDANO MUÑOZ, M.; YOUNG MEDINA, M. A. y MORALES, H. L. Los digestores: energía y fertilizantes para el desarrollo rural. Xalapa, Ver., México, Instituto Nacional de Investigaciones sobre Recursos Bióticos, 1979. 34 p. (0165)
- BARBER, E. M. y McQUITTY, J. B. Chemical control of hydrogen sulfide from anaerobic swine manure. II. Iron compounds. *Canadian Agricultural Engineering* 19:15-19. 1977. (0166)
- BARBER, N. Sodium bicarbonate can settle many wastewater problem upsets. *Pollution Engineering* 1977:57-59. 1977. (0167)
- BARBOSA, I. Biogás uma opção. Coelho, Ceará, Brasil, 1979. 4 p. (EMATERCE. Informativo Técnico-Pecuária no. 12). (0168)
- BARBOUR, J. F. The chemical conversion of solid wastes to useful products. Washington, D.C., Government Printing Office, 1974. 177 p. (Environmental Protection Technology Series no. EPA-660/2-74-090) (0169)
- BARESI, L.; MAH, R. A. y WARD, D. M. Methanogenesis from acetate. *Enrichment Studies Applied and Environmental Microbiology* 36(1): 186-197. 1978. (0170)
- BARGMAN, R. D. y BETZ, J. M. Fuel gas and electricity from municipal sewage. Los Angeles, California, s.f. p. irr. (0171)
- BARKER, H. A. Biological formation of methane in: bacterial fermentations. New York, Wiley, 1956. p. irr. (0172)
- BARKER, J. F.; FRITZ, P. y BROWN, R. M. Carbon-14 measurements in aquifers with methane. In *International Symposium on Isotope Hydrology, Neuherberg, Alemania, 1978. Isotope hydrology 1978. Proceedings. Vienna, Austria, IAEA, 1979. pp. 661-678. (Proceedings Series - International Atomic Energy Agency)* (0173)
- BARKER, N. R. y DALE, C. W. Increasing sludge-digester efficiency. *Chemical Engineering* 1978:147-149. 1978. (0174)
- * BARNES, C. S. y HALBERT, E. J. Alcohol manufacture - waste water treatment. *Journal of the Australian Water and Wastewater Association* 6(4):20-23. 1979. (0175)
- BARNETT, A.; PYLE, L. y SUBRAMANIAN, S. K. Bio-gas technology in the third world: a multidisciplinary review. Ottawa, Canadá, IDRC, 1978. 132 p. (0176)

BAROZZI, L. Dalle deiezioni suini energia a fertilizzanti. *Terra E Vita* 21(16): 58. 1980. (0177)

BARTH, C. L. y HILL, D. T. Energy and nutrient conversation in swine waste management. A.S.A.E. Paper no. 75:1-16. 1975. (0178)

BARTLETT, H. D.; PERSSON, S. y REGAN, R. W. Experiences from operating a full-size anaerobic digester. Saint Joseph, Michigan, 1977. 10 p. (0179)

Presentado en Annual Meeting of the ASAE, Raleigh, Estados Unidos

* _____ y PERSSON, S. P. Bioconversion of animal wastes to methane. In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory*. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 242. (0180)

Investigación en progreso

_____; PERSSON, S. P. y SHIN, H. S. Biogas generation and uses on livestock farms. St. Joseph, Michigan, ASAE, 1979. p. irr. (0181)

* _____ Biogas production from anaerobic digestion of animal manure. In *Smithsonian Science Information Exchange*. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. GY--71560) (0182)

Investigación en progreso

BARTUSKOVA, I. Mathematic model of methane fermentation of sewage sludge. *Vod. Hosped. B.* 24(3):77-79. 1974. (0183)

BASEVICH, V. YA y KOGARKO, S. M. Verification of methane combustion mechanism *Bulletin Acad. Sciences* 28(6):1316-1318. 1979. (0184)

BASU, A. K. y LECLERC, E. Comparative studies on treatment of beet molasses distillery wastes by thermophilic and mesophilic digestion. *Water Research* 9:103-109. 1975. (0185)

BATISTA, L. F. Curso biogás; energização rural. Brasília, Brasil, Secretaria de Tecnologia, 1980. 35 p. (0186)

* _____ Manual tecnico, construção e operação de biodigestores. Brasília, Empresa Brasileira de Assistência Técnica e Extensão Rural, 1980. 54 p. (Série Manuais no. 24) (0187)

_____. Programa biogás; termos técnicos e unidades. Brasília, Brasil, Secretaria de Tecnologia, 1980. p. irr. (0188)

BAUCHOP, T. Inhibition of rumen methanogenesis by methane analogues. *Journal of Bacteriology* 94:171-175. 1967. (0189)

BAUER, K. Kuhmist heizt Fremdenzimmer. *Bayerisches Landwirtschaftliches Wochenblatt* 169(49):14, 16. 1979. (0190)

_____. Dem biogas fehlt noch die Reife. *Bayerisches Landwirtschaftliches Wochenblatt* 170(30):12-13. 1980. (0191)

BAUGH, K. D.; BACHMANN, A. y EVERHART, T. Characterization and methane fermentation of soluble products from staged autohydrolysis of wood. In *Symposium on Biotechnology in Energy Production and Conservation*, 3°, Gatlinburg, Tennessee, 1981. *Proceedings*. Gatlinburg, TN., 1981. p. irr. (0192)

BECK, S. R. Application of SGFM technology to other feedstocks. In *Annual Biomass Energy Systems Conference*, 3a., Golden, Colorado, 1979. Golden, CO, 1979. pp. 339-347. (0193)

_____. *et al.* Pilot plant results for partial oxidation of cattle feedlot manure. *Ind. Eng. Chem., Process Des. Dev.* 18(2):328-332. 1979. (0194)

BECKS, J. V. Enrichment culture and isolation techniques particularly for anaerobic bacteria. *Methods in Enzymology* 22:57-64. 1971. (0195)

- BEHANZIN, S. Une source d'énergie au village: le biogaz. Horoya no. 2310: 8-11. 1978. (0196)
- _____. Une source d'énergie au village: le gaz des marais (biogaz). Horoya no. 2308:43-50. 1978. (0197)
- BELL, C.; BOULTER, S. y DUNLOP, P. Methane: fuel of the future, an assessment. Dorchester, Prism Press, 1973. 85 p. (0198)
- BELLA, I. Fontes alternativas de energia; o futuro vai pedir mais da agricultura. Agricultura a Forca Verde 2(21):6-16. 1979. (0199)
- BELMA, H. R. Anaerobe Vergisting van Mengmest. Landbouwmecanisatie 30(8):685-687. 1970. (0200)
- BELYAEV, S. S. e IVANOV, M. V. Rate of methane formation by bacteria determined by and isotopic labeling technique. Mikrobiologiya 44(1): 166-168. 1975. (0201)
- BEN-BASSAT, A.; LAMED, R. y NG, T. K. Metabolic control for microbial fuel production during thermophilic fermentation of biomass. In Energy from Biomass and Wastes Symposium, 4°, Lake Buena Vista, Florida, 1980. Symposium papers. Chicago, Illinois, Institute of Gas Technology, 1980. pp. 275-294. (0202)
- * BENEMANN, J. R. Energy production by microbial photosynthesis. Nature 268:19-23. 1977. (0203)
- _____. A system analysis of bioconversion with microalgae. In Symposium on Clean Fuels from Biomass and Wastes, Chicago, Illinois, 1977. Proceedings. Chicago, IL, Institute of Gas Technology, 1977. 22 p. (0204)
- _____. Fuels from microalgae. In Annual Biomass Energy Systems Conference, 3°, Golden, Colorado, 1979. s.l., 1979. pp. 53-58. (0205)
- BENES, M.; HYPR, I. y BLOUDKOVA, Z. Incomplete combustion of methane. Sbornik Vysoké Skoly Chemicko-Technologické 14:87-100. 1967. (0206)
- _____. y MYSLIVECEK, J. Incomplete combustion of methane. Technol. Fuel 49(102). 1974. (0207)
- * BENTE JUNIOR, P. F. y CAMELIO, C. A., eds. Bio-energy directory. Washington, D.C., Bio-Energy Council, 1979. 543 p. (0208)
- BENTON, A. R.; JAMES, W. P. y ROUSE, J. W. Evaporation from water hyacinth in Texas reservoirs. Water Resources Bulletin 14(4): 919-930. 1978. (0209)
- BEREMANN, J. R. Hydrogen and methane production through microbial photosynthesis. In Bunet, R., ed. Living systems as energy converters. Amsterdam, Elsevier-North-Holland Biomedical Press, 1977. pp. 285-297. (0210)
- BERG, L. VAN DER. Factors affecting rate of methane: formation from acetic acid by enriched methanogenic cultures. Canadian Journal of Microbiology 22: 1312-1319. s.f. (0211)
- _____. y LENTZ, C. P. Anaerobic digestion of pear waste laboratory equipment design and preliminary results. Canadian Institute of Technology Journal 4(4):159-165. 1971. (0212)
- _____. y LENTZ, C. P. Anaerobic digestion pear waste factors affecting performance. In Annual Purdue Industrial Waste Conference, 27a., Lafayette, Indiana, 1972. Proceedings. Lafayette, IN, 1972. 29 p. (0213)
- _____.; LENTZ, C. P. y ATHEY, R. J. Assessment of methanogenic activity in anaerobic digestion. Apparatus and method. Biotechnology and Bioengineering 16:1459-1469. 1974. (0214)

- BERG, L. VAN DER.; PATEL, G. B. y CLARL, D. S. Factors affecting rate of methane formation from acetic acid by enriched methanogenic cultures. *Canadian Journal of Microbiology* 22(1312-1319). 1976. (0215)
- _____. y LENTZ, C. P. Food processing waste treatment by anaerobic digestion. In *1977 Industrial Waste Conference*, Lafayette, Indiana, 1977. Lafayette, IN, Purdue University, 1977. 22 p. (0216)
- _____. y LENTZ, C. P. Methane production during treatment of food plant wastes by anaerobic digestion. In *Cornell Agricultural Waste Management Conference*, 9a., Ann Arbor, Michigan, 1977. Food, fertilizer and agricultural residues. Edited by R. C. Loehr. Ann Arbor, MI, Ann Arbor Science Publisher, 1977. pp. 381-393. (0217)
- _____. y LENTZ, C. P. Factor affecting sedimentation in the anaerobic contact fermentation using food process waste. s.l., 1978. p. irr. (0218)
- Presentado en Annual Purdue Industrial Waste Conference, 33a., Lafayette, Ind., 1978.
- _____.; LENTZ, C. P. y ARMSTRONG, W. Methane production rates of anaerobic fixed film fermenters as compared to those of anaerobic contact and fully mixed continuous fermenters. In *International Fermentation Symposium*, 6°; *International Symposium on Yeasts*, 5°, London, 1980. Ontario, Canadá, 1980. p. irr. (0219)
- BERGVALL, J. A.; BULLINGTON, D. C. y GEE, L. Wood waste for energy study: inventory assessment and economic analysis (Washington). s.l., 1978. 224 p. (PB--298693) (0220)
- BERKER, H. A. The biochemistry of methane formation studies on methane-producing bacteria. *Archiv Mikrobiologie* 7:404-438. 1936. (0221)
- * BERN, S. Reciclaje de residuos orgánicos energía y fertilizantes orgánicos para áreas rurales en Panamá. Panamá, Grupo de Tecnología Apropriada, 1979. 77 p. (0222)
- * _____. Utilización de la pulpa de café en la producción de gas combustible (Bio-gas). Panamá, Instituto de Recursos Hidráulicos y Electrificación, 1980. 57 p. (0223)
- BERNARD, D. Production de methanol et d'ethanol a partir de residus industriels, urbains et agricoles (dechets agro-alimentaires). *Techniques et Sciences Municipales* no. 8-9:459-466. 1978. (0224)
- * BETZ, J. M. y GARBER, W. F. Fuel gas from digestion of sewage for energy supply of sewage plant. In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory*. 2. ed. Washintong, D. C., Bio-Energy Council, 1979. p. 246. (0225)
- Investigación en progreso
- BEWER, E. Energieselbstversorgung bleibt unrentabel. *Mitteilungen der D.L.G.* 89(21):6-8-610. 1974. (0226)
- BEZERRA, W. M. Uma alternativa energética para o produtor rural. *Agricultura de Hoje (Brasil)* 6(66):34-35. 1980. (0227)
- BHARDE, T. S. Gobar gas to energise village economy. *Khadi Gramodyog* 20(7):335. 1974. (0228)
- BHATIA, R. Economic appraisal of biogas units in India - Framework for social benefit cost analysis. *Economic and Political Weekly* 12(32-33, no. esp.):1503-1518. 1977. (0229)
- BHATTACHARYYA, B. C. Improvements in or relating to gobar gas or biogas plant. s.l., s.f. p. irr. (India Patente no. 142363) (0230)

- BHATTACHARYYA, B. C. Economic design of gobar (or bio-gas) plant for rural communities. *Chemical Age of India* 29(5):301-304. 1978. (0231)
- _____. Design and economy of gobar (bio) gas plant for rural use. *Chemical Age* 30(10):923-960. 1979. (0232)
- _____. A low cost gobar gas plant. *NSS Bulletin* v. 6. 1979. (0233)
- _____. Design of biomass conversion from waste materials available from Haringhata (India) Daory. Kharagpur, India, Indian Institute of Technology, 1980. p. irr. (0234)
- Presentado en Proceedings, problems on biomass conversion technology, Calcutta, India, 1980.
- _____. y SEN, P. Improvement in bio-gas plant operation. Kharagpur, India, Indian Institute of Technology, 1980. p. irr. (0235)
- Presentado en 18. I.S. Convention of Indian Standard Institution, 1980
- BHAVANI, S. Biogas for fuel and fertilizers in rural India a social benefit cost analysis. *Indian Journal of Agricultural Economics* 31(3):219-231. 1976. (0236)
- BHIDE, A. D. Energy from solid wastes. *Journal of the Institution of Public Health Engineers* no. 3-4: 14-18. 1976. (0237)
- Presentado en National Convention on Environmental Engineering, New Delhi, India, 2a., 1976
- BIBLIOGRAFIA: ENERGIA de biomassas e outros resíduos. *Brasil Açucareiro* 95(3):69-71. 1980. (0238)
- BIG RUSH for a biomass bonanza. *Chemical Weekly* 122(14):40-42. 1978. (0239)
- BIOCONVERSION ENERGY CONFERENCE, AMHERST, MASSACHUSETTS, 1973. Proceedings. Amherst, University of Massachusetts, 1973. p. irr. (0240)
- BIOCONVERSION MECHANISMS. In Renzo, D. J. de. Energy from bioconversion of waste materials. Park Ridge, New Jersey, Noyes Data Corporation, 1977. pp. 15-67. (0241)
- BIOCONVERSION OF solid waste and sewage sludge. In Renzo, D. J. de. Energy from bioconversion of waste materials. Park Ridge, New Jersey, Noyes Data Corporation, 1977. pp. 68-104. (0242)
- 0 BIODIGESTOR. Boa Vista, Brasil, 1980. p. irr. (0243)
- 0 BIODIGESTOR da EMBRAPA. *Atualidades do Conselho Nacional de Petróleo (Brasil)* 13(73):31-32. 1981. (0244)
- 0 BIODIGESTOR está funcionando. *O Agricultor (Brasil)* 13(82):10. 1980. (0245)
- * BIOFERTILIZANTES. In Food and Agriculture Organization of the United Nations. China: reciclaje de desechos orgánicos en la agricultura; informe sobre un viaje de estudios FAO/PNUD a la República Popular de China 28 de abril-24 de mayo de 1977. Roma, 1977. pp. 29-40. (*Boletín de Suelos de la FAO* no. 40) (0246)
- BIO-GAS. *Compressed Air* 79(2):14. 1974. (0247)
- NO BIOGAS, a energia para o meio rural. *Atualidades do Conselho Nacional de Petróleo (Brasil)* 12(72):29-30. 1980. (0248)
- BIOGAS, A UFRN pesquisa alternativa. *RN-Econômico (Brasil)* 10(14):40-42. 1980. (0249)

- O BIOGÁS: alternativa energética. *Revista Campo Agropecuario (Brasil)* 2(18): 25. 1980. (0250)
- BIOGAS AND alcohol fuels production; proceedings. Emmaus, Pennsylvania, 1980. 246 p. (0251)
- BIOGAS - ANSWER to fuel and fertilizer needs. *Animal Husbandry and Agricultural Journal* 10(10):36. 1975. (0252)
- A BIOGAS ao alcance do pequeno produtor. *Agricultura, a Força Verde (Brasil)* 2(25):6-8. 1980. (0253)
- BIOGÁS, COMBUSTÍVEL barato produzido na fazenda. São Luis, Brasil, s.f. p. irr. (0254)
- BIOGAS: COME eliminare l'inquinamento producendo energia. Una ipotesi interessante da valutare con realismo. *Zootecnica* 20(18):24-26. 1980. (0255)
- EL BIOGÁS: como fuente alternativa de energía. *Ingeniería Agrícola Informando (El Salvador)* 1(1):4-5. 1979. (0256)
- THE BIOGAS digestion process and digestion mechanism. *In Chengdu Seminar on Biogas Technology and Utilization, Chengdu, China, 1979. Chengdu, Institute of Biology; Chinese Academy of Sciences, 1979. pp. 1-12.* (0257)
- * BIOGÁS: ENERGIA renovable. *Tecnología Apropriada (Costa Rica)* no. 1:1, 4-7. 1980. (0258)
- ¿BIOGAS - 500 came instead of 1207. *Sonnenenergie Waermepumpe* no. 5/6:6. 1979. (En alemán) (0259)
- BIO-GAS; FROM waste to assets. *Food Industry Magazine* 1(1):44-45. 1977. (0260)
- * BIOGAS IN a cheese plant. *Newsletter Bio Gas* no. 11:6-7. 1980. (0261)
- IL BIOGAS in fase operativa (esperienze italiane). *Mondo Agricolo* 31(13):13. 1980. (0262)
- BIOGÁS; LUZ e energia que vem do esterco. *Jornal do Cacaucultor (Brasil)* 8(82): 6-7. 1980. (0263)
- BIO-GAS OF COLORADO, ARVADA, USA. Energy portential through bio-conversion of agricultural wastes. s.l., Colorado Energy Research Institute, 1976. 32 p. (PB-296444) (0264)
- BIO-GAS OF COLORADO, LOVELAND, USA. Set of shop plans for four digestion units. Loveland, Colorado, s.f. p. irr. (0265)
- _____. Methane on the move: a discussion of small anaerobic digesters. Loveland, Colorado, 1977. 95 p. (0266)
- BIOGÁS PARA áreas rurais. *Atualidades do Conselho Nacional do Petróleo (Brasil)* 11(69):16. 1979. (0267)
- BIOGAS PLANTS: performance and prospects in India. *Science Tech. Bulletin* 1(4):25-26, 32. 1975. (0268)
- * BIOGAS REGIONAL CENTRE, GANDHIGRAM, INDIA. Research and development work in biogas technology. *Bio-Gas Newsletter* no. 3:8-11. 1980. (0269)
- BIOLEY, R. Biogas - Schlagwort oder Realitat? *Die Grune* no. 50:23-27. 1977. (0270)
- * BIOGAS TECHNOLOGY. *In Food and Agriculture Organization of the United Nations. China: Azolla propagation and small-scale biogas technology report on an FAO/UNDP study tour to the People's Republic of China* 21 May-11 Jun 1978. Roma, 1978. pp. 21-70. (FAO Soils Bulletin no. 41) (0271)

- * BIO-GAS TECHNOLOGY and utilization. In Food and Agriculture Organization of the United Nations. Food and Agriculture Organization of the United Nations China: recycling of organic wastes in agriculture. Roma, 1978. pp. 47-63. (FAO Soils Bulletin no. 40) (0272)
- BIO-GAS TECHNOLOGY and utilization... fuel...feed...fertilization...for rural areas. Newsletter Biogas 1976:1-17. 1976. (0273)
- BIO-GAS TECHNOLOGY controls pollution in piggery farms. Animal Husbandry and Agricultural Journal 11(1):21. 1976. (0274)
- BIOGÁS: UMA solução para o problema energético nas zonas rurais. Dirigente Rural (Brasil) 19(8):41-42. 1980. (0275)
- "BIO-GAZ - ATOL-tool" Lewen, Editorial Atol, 1978. 54 p. (0276)
- LE BIOGAZ en Chine. Futuribles 2000 no. 24:80-84. 1979. (0277)
- BIOLOGICAL CONVERSION of biomass to methane, beef lot manure studies. s.l., 1978. p. irr. (Report DOE Contract no. EY-76-S-02-2917) (0278)
- * BIOLOGICAL MECHANISM. In Ad Hoc Panel on Methane Generation From Human, Animal and Agricultural Wastes, Washington, D.C., 1977. Methane generation from human, animal, and agricultural wastes; report. Washington, D.C., National Academy of Sciences. Panel on Methane Generation, 1977. pp. 27-35. (US. National Technical Information Service. PB no. 276469) (0279)
- BIOLOGICAL METHANE (fuels waste product utilization). Bulletin Information Cent. Nat. Etud, Exp. Mech. Agric. 196:29-34. 1974. (0280)
- BIOMASS ENERGY systems program summary. s.l., 1980. 220 p. (0281)
- BIOMASS GASIFICATION and liquefaction, distributed energy systems: a review of related technologies. s.l., 1979. 10 p. (0282)
- BIOMASSE ET energie: les projets américains. Progres Technique no. 17: 30-35. 1980. (0283)
- LE BIOMETHANE a la ferme. Methanisation: les dispositifs de fermentation. Cuniculture no. 32:112-114. 1980. (0284)
- BIONDI, L. Possibile utilizzazione del biogas. Informatore Zootecnico 27(8): 47-51. 1980. (0285)
- BIOTECHNOLOGY CONFERENCE ON BIOMASS AND ENERGY, 1a., PALMERSTON NORTH, NEW ZEALAND, 1978. Proceedings. New Zealand, 1978. 125 p. (0286)
- BISWAS, D. K. Biogas plant for environmental improvement. Khadi Gramodyog 23(1):68-72. 1976. (0287)
- * BISWAS, S. C. Fuel gas: Indian Farming 6:124. 1945. (0288)
- BISWAS, T. D. Cowdung gas plant for energy and manure. Fertilizer News 19(9):3-7, 33. 1974. (0289)
- _____. y CHAWLA, O. P. Biogas as an alternative source of energy. In Workshop on Biogas Technology and Utilization, New Delhi, 1975. India, 1975. p. irr. (0290)
- _____. Biogas in India - retrospects and prospects. In National Symposium on Biogas Technology and Usage, New Delhi, 1977. New Delhi, India, 1977. pp. 13-18. (0291)
- _____. Biogas plants: prospects and limitations. Invention Intelligence 12(1-2):71-78. 1977. (0292)
- _____. Removal of carbon dioxide from biogas. In National Symposium on Biogas Technology and Usage, New Delhi, 1977. New Delhi, India, 1977. pp. 37-38. (0293)

- BISWAS, T. D. Utilization of animal excreta and other agricultural wastes for manures and fuel. In Indian Science Congress, 64^o, Bhubaneswar, India, 1977. s.l., 1977. Pte. 3, Sec. X, p. 116. (0294)
- BLACK, H. H. Engineering studies of coffee mill wastes in the Salvador. Cincinnati, USA Taft Sanitary Engineering Center, 1961. 55 p. (0295)
- BLANC, F. C. y MOLOF, A. H. Electrode potential monitoring and electrolytic control in anaerobic digestion. Journal of the Water Pollution Control Federation 45:655-667. 1973. (0296)
- _____. y MOLOF, A. H. Measuring electrode potentials in anaerobic digestion with stainless steel electrodes. Water and Sewage Works 121:64-66. 1974. (0297)
- BLANCHET, M. J. Recovery of methane due from North Caroline Landfill. Oil and Gas Journal 74(46):82-85. 1976. (0298)
- _____. Start-up and operation of the Landfill Treatment Plant at Mountain View. In New Fuels and Advances in Combustion Technologies Symposium, New Orleans, Louisiana, 1979. Chicago, Illinois, Institute of Gas Technology, 1979. pp. 45-52. (0299)
- * BLAYLOCK, B. A. Cobamide-dependent methanol-cyanocobalamin methyltransferase of *Methanosarcina barkeri*. Archives of Biochemistry and Biophysics 124:314-324. 1968. (0300)
- BLOWERS, M. J. Introducing Papua New Guinea to biogas. Lae, Papua New Guinea, Appropriate Technology Development Institute, s.f. p. irr. (0301)
- * BLUM, S. L. Tapping resources in municipal solid waste (MSW). Science 191(4228):669-675. 1976. (0302)
- * BLUNDELL, W. E. Getty says U.S. ruins "garbage" gas business. Wall Street Journal, USA; Feb. 23; 1981:2. (0303)
- BOENING, P. H. y PFEFFER, J. T. Solids recovery from methane fermentation processes. Biotechnology and Bioengineering Symposium 8:235-255. 1978. (0304)
- BOERSMA, L.; BARLOW, E. W. R. y MINER, J. R. The use of waste heat in a system for animal waste conversion with by-product recovery and recycling. Washington, D.C., Oregon State University, Water Resources Research Institute Office of Water Research and Technology, 1975. 41 p. (0305)
- _____. y GASPER, E. y WARKENTIN, B. P. Methods for the recovery of nutrients and energy from swine manure. In Solar 78 Northwest Conference, Portland, Oregon, 1978. Proceedings. s.l.; 1978. pp. 212-221. (0306)
- BOLTON, R. L. y KLEIN, L. Sewage treatment, basic principles and trends. Ann Arbor, Michigan, Ann Arbor Science Publishers, 1971. p. irr. (0307)
- BONCH-OSMOLOVSKAYA, E. A.; VEDENINA, I. Ya. y BALASHOVA, V. V. Influence of inorganic electron acceptors on the bacterial formation of methane from cellulose. Mikrobiologiya 47: 611-616. 1978. (0308)
- BONFIG, R. Biogasanlage mit Waermetauscher. DLZ-Die Landtechnische Zeitschrift 31(5):728-732. 1980. (0309)
- BONHAM, L. C. Solubility of methane in water at elevated temperatures and pressures. American Association of Petroleum Geologist Bulletin 62(12): 2478-2481. 1978. (0310)
- BONI, E. Rabbit wastes as an alternative source of energy. Coniglicoltura 16(2):21-23. 1979. (0311)
- BONINI, V. Le deiezioni di coniglio fonte alternativa di energia (un impianto di produzione di gas metano dalle deiezioni di un allevamento cunicolo, in Francia). Terra e Vita 19(43):77-78. 1978. (0312)

- BONNE, U. y PATANI, A. Combustion controls for new fuels. *In New Fuels and Advances in Combustion Technologies Symposium*, New Orleans, Louisiana, 1979. Chicago, Illinois, Institute of Gas Technology, 1979. pp. 377-419. (0313)
- BONT, J. A. M. DE. Nitrogen-fixing methane-utilizing bacteria. Tesis Dr. in de Landbouwwetenschappen. Wageningen, Landbouwhogeschool, 1976. 63 p. (0314)
- _____.; LEE, K. K. y BOULDIN, D. F. Bacterial oxidation of methane in a rice paddy. *In International Symposium on Environmental Role of Nitrogen-Fixing-Blue-Green Algae and Asymbiotic Bacteria*, Uppsala, Suecia, 1976. Proceedings. Estocolmo, Suecia, NFR, 1978. pp. 91-96. (Ecological Bulletins no. 26) (0315)
- * BOODOO, A.; DELAITRE, C. y PRESTON, T. R. El efecto del tiempo de retención sobre la producción de biogas de estiércol procedente de bovinos alimentados con caña de azúcar (*Saccharum officinarum*). *Producción Animal Tropical* (República Dominicana) 4(1):21-24. 1979. (0316)
- BOONE, D. R. y SMITH, P. H. Hydrogen formation from volatile organic acids by methanogenic enrichments. *Abstr. Annual Meeting American Society of Microbiology* no. Q82. 1978. p. irr. (0317)
- BORCHARDT, J. A. Anaerobic phase separation by dialysis technique. s.l., 1970. pp. 108-125. (0318)
- _____. Anaerobic phase separation by dialysis techniques, in anaerobic biological treatment processes. *Advances in Chemistry* 105:108-125. 1971. (0319)
- * BORE PLACE dairy unit. Kent, England, s.f. 2 p. (0320)
- BORIES, A. y MAUGENET, J. Interet de la fermentation anaerobie appliquee aux eaux residuaires a forte concentration en carbone. *Comptes Rendus des Seances de l'Academie d'Agriculture de France* 65(5):453-460. 1979. (0321)
- _____. y MAUGENET, J. Methanisation et epuration des effluentes d'industries agricoles et alimentaires, exemple des eaux residuaires de distillerie. *Cahier du C.E.N.E.M.A.* 1980:1-9. 1980. (0322)
- Presentado en Colloque International "Agriculture et Energie", París, 1980
- BORNHARDT B., C. Obtención de etanol a partir de paja de cereales por hidrólisis enzimática y fermentación. *Actividades Científicas (Chile)* 5(2):12-15. 1981. (0323)
- BORUFF, C. S. y BUSWELL, A. M. The aerobic stabilization of sewage screenings. *Sewage Works Journal* 4(6). 1932. (0324)
- _____. y BUSWELL, A. M. Power and fuel gas from distillery wastes. *Industrial and Engineering Chemistry* 24:33. 1932. (0325)
- * _____. y BUSWELL, A. M. The anaerobic fermentation of lignin. *Journal of the American Chemical Society* 56(4): 886-888. 1934. (0326)
- BOSCH, F. M.; ROELS, R. y BIENVENU, J. H. La digestion anaerobie dans le traitement des eaux residuaires de brasseries. *Centre Belge d'Etudes et de Documentation des Eaux* no. 295-296:309-311. 1968. (0327)
- BOSHOFF, W. H. The application of methane installations in the tropics. Fort Terhan, Kenya, Tunnel Company, 1963. p. irr. (0328)

- BOSHOFF, W. H. Methane gas production by batch and continuous fermentation methods. *Tropical Science* 5:155-165. 1963. (0329)
- _____. Fuel from organic waste: methane gas production. *Span* 18:29-30. 1975. (0330)
- BOSKEN, J. y JOHNSON, A. L. Final report on research in methane generation. Washington, D.C., Agency for International Development, 1976. p. irr. (0331)
- BOUCH-OSMOLOVSKAYA, E. A. Multiphase character of methane fermentation of cellulose. *Mikrobiologiya* 45(2): 234-240. s.f. (0332)
- BOUE, A. Comment un agriculteur peut-il raisonner globalement ses economies d'energie et l'introduction d'energies nouvelles sur son exploitation. In *Colloque International "Agriculture et Energie"*, Paris, 1980. *Cahiers du C.E.N.E.C.A.* 1980:1-4. 1980. (0333)
- * BOURGUET, J. M.; LANCEL, L. y DUCROS, J. M. Etude de faisabilite d'une installation methanique pour la cooperative d'elevage de la Loire. In *Colloque International "Agriculture et Energie"*, Paris, 1980. *Cahier du CENECA Agriculture et Energie* 1980:1-20. (0334)
- BOURNAS, L. y COILLARD, J. Generalites sur la traitement des dejections animales par voie anaerobie en vue de la production de biogaz: le gaz de fumier et le gaz de lisier. *Bulletin d'Information du CNEEMA* no. 268:49-54. 1980. (0335)
- BOUSFIELD, S.; HOBSON, P. N. y SUMMERS, R. Laboratory and small pilot-plant scale anaerobic digestion of piggery wastes: some aspects of the microbiology of anaerobic piggery waste digestion. s.l., 1972. pp. 65-68. (0336)
- BOUSFIELD, S.; HOBSON, P. N. y SUMMERS, R. Where There's muck there's gas. *Pig Farming* 1973:79-83. 1973. (0337)
- _____.; HOBSON, P. N. y SUMMERS, R. Pilot plant high rate digestion of piggery and silage wastes. *Journal of Applied Bacteriology* 37:11. 1974. (0338)
- _____.; HOBSON, P. N. y SUMMERS, R. A note on anaerobic digestion of cattle and poultry waste. *Agricultural Wastes* 1(2):161-164. 1979. (0339)
- BOYCE, J. R. y FARBER, E. A. Solar energy collection and utilization system. s.l., 1979. 8 p. (EUA Patente no.--4,169,712) (0340)
- BOYLE, W. C. Energy recovery from sanitary landfills, a review. In *Seminar on Microbial Energy Conversion*, Goettingen, Alemania, 1976. *Proceedings*. Edited by H. G. Schlegel y J. Barnea. New York, Academic Press, 1977. pp. 119-138. (0341)
- BRACCO, F. V.; HOMAN, H. S. y SIRIGNANO, W. A. Multiple ignition, normal and catalytic combustion and quenching of fuel/air mixtures. Interim report 1 Jun 77-31 May 79. s.l., 1978. 24 p. (0342)
- BRACE RESEARCH INSTITUTE, INDIA. Planta de bio-gas en pequena escala; manual de tecnologia apropiada. 2. ed. Canada, 1979. p. irr. (0343)
- BRAHAM, J. E. y BRESSANI, R., eds. Coffee pulp. Compensation, technology and utilization. Epping, Essex, Bowker, 1979. 95 p. (0344)
- BRAKEL, J. VAN. The ignis fatuus of biogas; small-scale anaerobic digesters ('Biogas Plants'); a critical review of the pre-1970 literature. Delft, Holland Delft University Press, 1980. 142 p. (0345)

- BRANDBJERG HOEJSKOLE, DINAMARCA. ENERGI-GRUPPEN. Biogas i Danmark. Jelling, Dinamarca, Brandbjerg Hoejskole, 1979. 128 p. (0346)
- BRANDINI, A. Biogás: uma alternativa energética. EMBRAPA Informativo (Brasil) no. 36:7. 1980. (0347)
- BRASIL ELEGE modelo chinés para o campo. Agricultura de Hoje (Brasil) 6(66): 36-37. 1980. (0348)
- BRAUN, M.; SCHOBERTH, S. y GOTTSCHALK, G. Enumeration of bacteria forming acetate from H₂ and CO₂ in anaerobic habitats. Arch. Microbiol. 120:201-204. 1979. (0349)
- BRECKENRIDGE, H. Energía orgánica, I. La Prensa Gráfica, El Salvador; Jul. 19, 1979:7, 58. (0350)
- _____. Energía orgánica, II. La Prensa Gráfica, El Salvador; Jul. 26, 1979:7, 25. (0351)
- BREGA, L. Dal biogas l'energia per la "nuova" agricultura. Agricultura delle Venezie 34(3):89-90. 1980. (0352)
- * BREMEN OVERSEAS RESEARCH AND DEVELOPMENT ASSOCIATION, BREMEN, ALEMANIA. Le bio-gaz en RP de Chine, condensé du rapport final du projet échanges de vues entre le RP de Chine, l'Inde et la République Fédéral d'Allemagne sur le experiences faites avec le bio-gaz. Bremen, Association Bremoise de Recherche et de Development D'Outre Mer, 1981. 65 p. (0353)
- BREMON, C. E.; JURGENSEN, M. F. y PATTON, J. T. Methane production from ozonated pulp mill effluent. Journal of Environmental Quality 9(3): 412-416. 1980. (0354)
- BRO, C. Biogas technology in Denmark. Glostrup, Dinamarca, Samarbejdsgruppen for Teknologisk Udvikling af Biogas, 1981. p. irr. (0355)
- BROCK, T. D. y ZEHNDER, A. J. Inhibition of methanogenesis by methane. Abstr. Annual Meeting of the American Society Microbiol. no. 144. 1978. p. irr. (0356)
- BROUZES, H. La fermentation methanique appliquee a la valorisation energetique des dechets agricoles. In Journées d'Etudes et de Reflexions Valorisation Energetique des Sous-produits Agricoles, París, 1979. Resultats et bilans des actions du comite VEDA (Valorisation Energetique des Dechets Agricoles) París, APRIA, 1979. pp. 117-148. (0357)
- BROVKO, N.; CHEN, K. Y. y WEINBERG, M. S. Optimizing gas production, methane content, and buffer capacity in digester operation. Water and Sewage Works 1977:54-57. 1977. (0358)
- BROWN, J. W.; PFEFFER, J. T. y LIEBMANN, J. C. Biological conversion of organic refuse to methane. s.l., U.S. Department of Commerce. National Technical Information Service, 1976. 181 p. (0359)
- BROWN, N. L. Bibliography of methane. Washington, D.C., National Academy of Sciences. Board of Science and Technology for Internal Development. s.f. p. irr. (0360)
- _____. Methane generation from human, animal and agricultural wastes. Washington, D.C., National Academy of Sciences, 1977. 131 p. (0361)
- _____. Renewable energy resources and rural applications in the developing world AAAS selected symposium. Boulder, Colorado, Westview, 1978. 168 p. (0362)
- BRULE, M. R. y SOFER, S. S. A biogasification system at a dairy. Proceedings of the Oklahoma Academy of Sciences 56:18-23. 1976. (0363)

- BRULE, M. R. y SOFER, S. S. Small-scale biogas processing facilities. In Gas Conditioning Conference, Norman, Oklahoma, 1978. Norman, University of Oklahoma, 1978. pp. B1-B20. (0364)
- BRYANT, M. P.; WOLIN, E. A. y WOLIN, M. J. *Methanobacillus omelianskii*, a symbiotic association of two species of bacteria. Archiv. fur Mikrobiologie 59:20-31. 1967. (0365)
- _____.; TZENG, S. F. y ROBINSON, I. M. Nutrient requirements of methanogenic bacteria. Advances in Chemistry Series no. 105:23-40. 1971. (0366)
- _____. Commentary on the Hungate technique for culture of anaerobic bacteria. American Journal of Clinical Nutrition 25:1324-1328. 1972. (0367)
- _____. Methane-producing bacteria. In Buchanan, R. E. y Gibbons, N. E., eds. Bergey's manual of determinative bacteriology. 8. ed. Baltimore, USA, Williams and Wilkins, 1974. pp. 472-477. (0368)
- _____.; VAREL, V. H. y FROBISH, R. A. Biological potential of thermophilic methanogenesis from cattle wastes. In Seminar on Microbial Energy Conversion, Goettingen, Alemania, 1976. Proceedings. Edited by H. G. Schlegel y J. Barnea. New York, Academic Press, 1977. pp. 347-359. (0369)
- * _____.; CAMPBELL, L. L. y REDDY, C. A. Growth of desulfovibrio in lactate or ethanol media low in sulfate in association with H₂ utilizing methanogenic bacteria. Applied and Environmental Microbiology 33:1162-1169. 1977. (0370)
- _____. Microbiology of anaerobic degradation and methanogenesis with special reference to sewage. In Seminar on Microbial Energy Conversion, Goettingen, Alemania, 1976. Proceedings. Edited by H.G. Schlegel y J. Barnea. New York, Academic Press, 1977. pp. 107-117. (0371)
- * BRYANT, M. P.; McINERNEY, M. J. y BOONE, D. Fatty and aromatic acid catabolizing bacteria in methanogenic ecosystems. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 279. (0372)
- Investigación en progreso
- * _____ . Microbial methane production-theoretical aspects. In Symposium on Alternatives in Animal Waste Utilization, Madison, Wisconsin, 1977. Journal of Animal Science 48:192-201. 1979. (0373)
- * _____ . Microbiology of the thermophilic methanogenesis in cattle waste. In Smithsonian Science Information Exchange, Washington, D.C. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (0374)
- Investigación en progreso
- * _____.; VAREL, V. H. e ISAACSON, H. R. Thermophilic methanogenesis from cattle waste. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 230. (0375)
- Investigación en progreso
Publicado también en: SSIE, Washington, D.C. Energy recovery for biomass. Washington, D.C., 1979. 1 p.
- BRYCE, A. J. Research and development program to assess the technical and economic feasibility of methane production from giant brown kelp. In Synthetic Pipeline Gas Symposium, 9^o, Chicago, Illinois, 1977. Arlington, Virginia, American Gas Association, 1977. pp. 327-344. (0376)
- _____. A research and development program to assess the technical and economic feasibility of methane production from brown kelp. Philadelphia, Pennsylvania, 1978. p. irr. (0377)

- BUBELA, B. Energy from wastes - the role of microorganisms. East Melbourne, Australia. Commonwealth Scientific and Industrial Research Organization. Technical Communication no. 60. 1976. 20 p. (0378)
- _____. Microbiological production of utilizable energy from photosynthetically formed materials. In Symposium on Practical Applications of Photosynthesis, Kensington, Australia, 1977. Highett, Victoria, International Solar Energy Society, 1977. 9 p. (0379)
- * BUCK, H. V.; BUCK, G. M. y BUCK, S. Anaerobic digestion of agricultural wastes. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 240. (0380)
- Investigación en progreso
- BUCKINGHAM, F. Researchers meet and discuss alternative fuels. Power Farming Magazine 90(2):26, 27, 29. 1981. (0381)
- BUDHIMAN, A. A. y APANDI, M. *Tilapia nilotica* cultivation with biogas sludge versus conventional feed. Bandung, Indonesia, Institute of Technology Bandung. Development Technology Center, 1981. p. irr. (0382)
- Traducido al inglés
- BUHR, H. O. y ANDREWS, J. F. The thermophilic anaerobic digestion process. Water Resources 11(2):129-143. 1977. (0383)
- BUILD YOUR own generator: from waste to gas. Animal Husbandry and Agricultural Journal 9(5):6. 1974. (0384)
- BUIVID, M. G.; WISE, D. L. y RADER, A. M. Feasibility of a peat biogasification process. Resource Recovery and Conservation 5:117-138. 1980. (0385)
- BULLOCK, L. D.; HIGGINS, G. M. y SMITH, R. B. Enzymatic enhancement of solid waste bioconversion. In Symposium on Energy from Biomass and Wastes, 4°, Lake Buena Vista, Florida, 1980. Papers. Chicago, Illinois, Institute of Gas Technology, 1980. pp. 319-331. (0386)
- BULMER, A. Community Gobar gas feasibility study Madhubasa village. Butwal, Nepal, Development and Consulting Services, 1979. p. irr. (0387)
- _____. y SCHLORHOLTZ, A. Gobar gas survey. Butwal, Nepal, Development and Consulting Services, 1979. p. irr. (0388)
- BUONAVENTURA, P. Converting waste into methane. New Zealand Journal of Energy 52(5):60-61. 1979. (0389)
- _____. Transformazione dei rifiuti in metano. Inquinamento 21(2):89-91. 1979. (0390)
- BUREN, A. VAN y PYLE, L., eds. A Chinese biogas manual. London, Intermediate Technology Publications, 1979. 160 p. (0391)
- _____. ed. A Chinese biogas manual: popularising technology in the country-side. London, International Institute for Environment and Development, 1979. 135 p. (0392)
- _____. The Chinese development of biogas and its applicability to East Africa. London, International Institute for Environment and Development, 1979. p. irr. (0393)
- _____. Biogas beyond China: first international training program for developing countries. Ambio 9(11):10-15. 1980. (0394)
- BURFORD JUNIOR, J. L. y VARANI, F. T. Energy potential through bioconversion of agricultural wastes. Colorado, USA, Bio-Gas of Colorado, 1976. 196 p. (0395)

* BURFORD JUNIOR, J.; VARANI, F. T. y DON, S. B. Lamar biogas facility. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. Washington, D.C., Bio-Energy Council, 1979. p. 224. (0396)

Investigación en progreso

BURGOS, V. M.; MONCHEZ CAMPOS, Z. y VAQUERANO, Z. D. Aprovechamiento del jacinto de agua. Tesis Ing. Quím. San Salvador, Universidad de El Salvador, Facultad de Ingeniería y Arquitectura, 1979. 155 p. (0397)

BURNS, J. y CLARK, L. J. Liquid methane. London, Institute of Gas Engineers, 1956. p. irr. (Institute of Gas Engineers - Publication no. 484) (0398)

BUROFF, C. S. y BUSWELL, A. M. Fermentation products from cornstalks. Industrial and Engineering Chemistry 22: 931. 1930. (0399)

BUSBY, M. R. A complete disposal-recycle scheme for agricultural solid wastes. Oklahoma, U.S. Environmental Protection Agency, 1977. 51 p. (0400)

_____.; TRAGGITT, G. y NORMAN, R. Complete disposal-recycle scheme for agricultural solid wastes. Final report January 1974-June 1976. s.l., 1977. 62 p. (0401)

BUSWELL, A. M. Production of fuel gas by anaerobic fermentation. Industrial and Engineering Chemistry 22:1168. 1930. (0402)

_____. y BUROFF, C. S. The relation between the chemical composition of organic matter and the quality and quantity of gas produced during sludge digestion. Sewage Works Journal 4(3):454-460. 1932. (0403)

BUSWELL, A. M. Effect of sodium sulfate and chloride on methane fermentation. Industrial and Engineering Chemistry 41:596-597. 1949. (0404)

_____. Use of C14 in mechanism studies of methane fermentation propionic acid. Journal of the American Chemical Society 73:1809-1911. 1951. (0405)

_____. y MUELLER, H. F. Mechanism of methane fermentation. Industrial and Chemical Engineering 44(3):550-552. 1952. (0406)

BUVET, R. Une source d'energie nouvelle: la valorisation des dechets des activites agroalimentaires (biomasse, production de methane). Revue du Palais de la Decouverte 8(77):33-41. 1980. (0407)

CACERES, R. Planta continua de biogás de China. Guatemala, 1977. 17 p. (0408)

_____. , trad. El doble tanque séptico abonera vietnamita. Guatemala, Centro Mesoamericano de Estudios sobre Tecnología Apropriada, 1980. 3 p. (0409)

Traducido de Health in the third world studies from Vietnam

_____. , trad. La letrina abonera aeróbica continua por deslizamiento. Guatemala, Centro Mesoamericano de Estudios sobre Tecnología Apropriada, 1980. 3 p. (0410)

Traducido de Stop the five gallon flush: a survey of alternative waste disposal systems

- CACERES, R. Planta de bio-gas de la China. Guatemala, Centro Mesoamericano de Estudios sobre Tecnología Apropriada, 1980. 10 p. (0411)
- * CACERES ESTRADA, A.; CACERES ESTRADA, R. y VERASTEGUI, J. Construcción de digestor de biogás de 10 m³ tipo chino circular, pequeño y achatado técnica de: vaciado integral. In Curso Latinoamericano de Biogás, 1^o, Guatemala, 1981. Manual de Biogás. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 378-399. (0412)
- * _____; CACERES ESTRADA, R. y VERASTEGUI, J. Digestor semi-continuo tipo chino de ladrillo. In Curso Latinoamericano de Biogás, 1^o, Guatemala, 1981. Manual de Biogás. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 360-377. (0413)
- * CACERES ESTRADA, R. y CHILQUINGA, B. Digestores discontinuos o por lotes digestor tipo OLADE Guatemala. In Curso Latinoamericano de Biogás, 1^o, Guatemala, 1981. Manual de Biogás. a, Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 432-463. (0414)
- CAGLE, D. B. y GROTH, G., eds. Lakeshore Technical Institute solar heated Equine Management Training Center. In Final proceedings of the second solar heating and cooling commercial demonstration program contractors' review; demonstrated project papers and appendices. San Diego, California, 1979. pp. 1079-1086. (0415)
- CALDANA, P. L. Digestão anaeróbica e producao de gás. Agropecuaria Tropical (Brasil) no. 18:34-36. 1980. (0416)
- CALEFFI, A. La descrizione di un esempio di impianto per produzione di biogas. Mantova Agricola e Zootecnica 30(10): 1. 1979. (0417)
- CALIFORNIA ENERGY COMMISSION, SACRAMENTO. Biomass handbook for the biomass conversion demonstration program. Sacramento, California, 1980. 136 p. (0418)
- CALIFORNIA ENERGY COMMISSION, SACRAMENTO. Program negative declarations for the biomass conversion demonstration program. Sacramento, California, 1980. p. irr. (0419)
- _____. Synthetic fuels demonstration projects. Sacramento, California, 1980. 15 p. (0420)
- _____. Methane demonstration plant final report. Sacramento, California, 1981. 106 p. (0421)
- _____. Methane demonstration plant operation manual. Sacramento, California, 1981. 182 p. (0422)
- * CALLE V., H. Combustible methane gas from coffee pulp. Indian Coffee 21(7):208-209. 1957. (0423)
- * _____. El gas metano. Revista Nacional de Agricultura (Colombia) no. 664: 8-13. 1960. (0424)
- * _____. Cómo producir gas combustible con pulpa de café? Colombia. Centro Nacional de Investigaciones de Café. Boletín Técnico no. 3. 1974. 11 p. (0425)
- * CALLIHAN, C. D.; DOMMERT, A. R. y McLAUGHLIN, E. Methane and volatile fatty acids from chemically treated agricultural residues. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. GMA--4847) (0426)
- Investigación en progreso
- * CALVO A., Z. y SOLIS M., M. Bibliografía sobre biogas en Costa Rica. San José, Costa Rica, Secretaría Ejecutiva de Planificación Sectorial Agropecuaria y de Recursos Naturales Renovables, 1981. 5 p. (0427)
- * CALZADA, F. Digestores de desplazamiento horizontal. In Curso Latinoamericano de Biogás, 1^o, Guatemala, 1981. Manual de Biogas. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 302-308. (0428)

- * CAN AGRICULTURE provide enough biomass for fuels? Agricultural Engineers Yearbook 1980:22-38. 1980. (0429)
- * CAN BIOGAS provide energy for India's rural poor? Nature 281(5726):9. 1979. (0430)
- CANALE, R. P. Biological waste treatment. New York, Wiley, 1971. 177 p. (0431)
- CANESSA, E. Introducción, funciones básicas del biodigestor. In Seminario sobre Aplicaciones de Biodigestores para Producir Gas Metano y Fertilizantes, Cartago, Costa Rica, 1980. Cartago, Instituto Tecnológico de Costa Rica, 1980. p. irr. (0432)
- CANNON, J. S. Trash-to-energy conversion: an overview. In IEEE/ASME/ASCE Joint Power Generating Conference, Los Angeles, California, 1977. New York, Institute of Electrical and Electronics Engineers, 1977. pp. 804-808. (0433)
- CANOVA, A. Aproveitamento do lixo para a geração de energia. Energia (Brasil) 2(9):29-37. 1980. (0434)
- CAPENER, H. R. y BRAITHWAITE, L. C. The feasibility of methane production from dairy animal wastes. N.Y. Food Like Science Quarterly 11(1):18-20. 1978. (0435)
- CAPITAIN, M. y ROSSIER, E. Valorisation du fumier des établissements hippiques et possibilités de remplacement des litières paille. París, CEREOPA, 1979. 66 p. (Etudes et Realisations Pedagogiques sur le Cheval) (0436)
- * CAPPENBERG, T. E. Relationships between sulfate-reducing and methane-producing bacteria. Plant and Soil 43(1):125-139. 1975. (0437)
- _____. A study of mixed continuous culture of sulfate-reducing and methane-producing bacteria. Microbial Ecology 2:60-72. 1975. (0438)
- CAPRI, M. G. y MARAIS, G. V. R. pH adjustment in anaerobic digestion. Water Research 9:307-313. 1975. (0439)
- CAR RUNS on biogas. Bulletin of the Institution of Engineers 24(8):42-43. 1974. (0440)
- * CARACTERISTICAS DIGESTOR de biogas. In Román Sassone, C.; Sarita, M. A. y Montas, T. Programa de desarrollo de fuentes no convencionales de energía y su aporte a la generación de energía eléctrica. Santo Domingo, República Dominicana, Corporación Dominicana de Electricidad. Dirección de Energía no Convencional, 1981. p. 17. (0441)
- CARDENAS, A. G. Refuse can be a blessing. BAI Recorder 33(7):35, 37, 39. 1974. (0442)
- CARILLON, R. L'Agriculture et les "carburants". Etudes du C.N.E.E.M.A. no. 391:1-76. 1974. (0443)
- * CARLSSON, J.; NYBERG, G. y WRETHEN, J. Hydrogen peroxide and superoxide radical formation in anaerobic broth media exposed to atmospheric oxygen. Applied and Environmental Microbiology 36(2):223-229. 1978. (0444)
- * CAROLL, G. y MULLEN, T. Methane recovery from sanitary landfill and use in demonstration applications. In Bente Junior, P. F. y Camello, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 264. (0445)
- Investigación en progreso
- CARR, A. D. y O'DONNELL, R. C. The dynamic behaviour of an anaerobic digester. Prog. Wat. Tech. 9:727-738. 1977. (0446)

- * CARRION BALLENA, G. Efecto del bio-abono (efluente líquido) en el desarrollo del cultivo de lechuga (*Lactuca sativa*; variedad blanca de Boston), en el Valle de Cajamarca. Lima, Perú, Instituto de Investigación Tecnológica Industrial y de Normas Técnicas, 1981. p. irr. (0447)
- CARSON, C. C. y HART, C. M. Considerations for biomass energy systems. s.l., 1980. 80 p. (0448)
- CASE FOR the cowdung gas plant. Productivity News 12(7):7. 1974. (0449)
- * CASTILLO GARCIA, M. DEL P.; MERINO MAGARINO, L. y ASCUE CONTRERAS, J. Proyecto No. 3229 evaluación de biogas a nivel de laboratorio. Lima, Perú, Instituto de Investigación Tecnológica Industrial y de Normas Técnicas, 1980. 64 p. (0450)
- CATANIA, P. J. Uses of agricultural wastes: food, fuel, fertilizer (Canadian Plains Proceedings -2). Regina, Saskatchewan, Canadian Plains Research Center, 1974. 371 p. (0451)
- CATARINENSES BUSCAM alternativa na obtenção de energia natural. Correio do Povo (Brasil) 1979:14. 1979. (0452)
- CATTLE MANURE will be bio-gasified to methane. Chemical Engineering 81(23):36. 1974. (0453)
- CAVAGNARO, D. M. Synthetic fuels: methane. s.l., 1980. 2 v. (0454)
- CAYLA, L. Production de CH₄ par digestion anaérobic des pulpes de café. Montpellier, Francia, U.S.T.L., s.f. p. irr. (0455)
- CCH AUSTRALIA LTD., SYDNEY. Energy from wastes, methane power...converting food wastes. Australian and New Zealand Environmental Report no. 1: 22-23. 1978. (0456)
- CECELSKI, E.; DUNKERLEY, J. y RAMSAY, W. Household energy and the poor in the third world. Washington, D.C., Resources for the Future, 1980. 152 p. (0457)
- CENTER FOR MAXIMUM POTENTIAL BUILDING SYSTEMS, AUSTIN, TEXAS. Horizontal drum. Biogas plant. Austin, Texas, s.f. 10 p. (0458)
- CENTRO MESOAMERICANO DE ESTUDIOS SOBRE TECNOLOGIA APROPIADA, GUATEMALA. Digestores: hoy y mañana. Guatemala, CEMAT, 1980. 16 p. (0459)
- Versión en español de Practical building of methane power plants for rural energy independence de L.J. Fry
- CENTRO REGIONAL DE AYUDA TECNICA, MEXICO, D.F. Desechos para utilización del metano (biogas). Manual de saneamiento. México, D.F., 1965. p. irr. (0460)
- CENTRUM VOOR LANDBOUWPUBLIKATIES EN LANDBOUWDOCUMENTATIE, WAGENINGEN. Energiewinning uit mest; conversie tot gas. Wageningen, PUDOC, 1978. 2 p. (Centrum voor Landbouwpublikaties en Landbouwdocumentatie - Literatuurlijst no. 4206) (0461)
- CEPPPOS, R. Pilot plant will turn garbage into gas. Popular Science 211(2):40. 1977. (0462)
- CERO, A. DAL. L'impianto che dal liquami suino produce energia alternativa. Zootecnica 19(12):4-5. 1979. (0463)
- CERULLO, H. Biogás; utilização. s.l., s.f. 13 p. (0464)
- CHACON VALLE, G. E. Digestores del biogas. San José, Universidad de Costa Rica, s.f. 10 p. (0465)
- _____ y PACHECO MORGAN, L. E. Aprovechamiento en la producción de energía. Ingeniería y Ciencia Química (Costa Rica) 2(3):63-65. 1978. (0466)

- CHACON VALLE, G. E. Digestores de biogas. In Simposio sobre Tecnología Apropriada, 1°, Cartago, Costa Rica, 1979. Energía solar: fundamentos y aplicaciones. Cartago, Instituto Tecnológico de Costa Rica, 1979. pp. 273-280. (0467)
- * _____ . Costa Rica: proyecto sobre la producción de biogas a partir de desechos. Boletín Energético - Organización Latinoamericana de Energía (Ecuador) no. 14:23-25. 1980. (0468)
- _____ . Un diseño para digestores de biogas a nivel rural. Ingeniería y Ciencia Química (Costa Rica) 4(2): 68-74. 1980. (0469)
- CHAN, D. B. y PEARSON, E. A. Comprehensive studies of solid wastes management-hydrolysis rate of cellulose in anaerobic fermentation. Berkeley, University of California, 1970. p. irr. (SERL Report no. 70-3) (0470)
- CHAN, E. C. S.; DE VRIES, J. y HARVEY, R. F. Simplified techniques in the preparation and use of prereduced anaerobically sterilized media for the cultivation of anaerobic bacteria. Abstr. Annual Meeting American Society Microbiol. no. C 68. 1978. p. irr. (0471)
- CHAN, G. L. The water-waste-fuel-food cycle. Impact 10(9):301-305, 308-310. 1975. (0472)
- CHANDLER, J. A. y JEWELL, W. J. Predicting methane fermentation biodegradability. Final report. s.l., 1980. 277 p. (0473)
- CHANDRA, P. Plants constructed in Nepal. Butwal, Nepal, Development and Consulting Services, 1979. p. irr. (0474)
- _____ . Plants constructed to Pokhara. Butwal, Nepal, Development and Consulting Services, 1980. p. irr. (0475)
- * CHANGE WASTES into treasures and the harmful into beneficial. Newsletter Bio Gas no. 10:1-2. 1980. (0476)
- CHANTAVORAPAP, S. Solar energy programmes of Thailand. In International Solar Energy Congress, New Delhi, India, 1978. Sun: mankind's future source of energy. Edited by F. de Winter and M. Cox. Elmsford, New York, Pergamon Press, 1978. pp. 79-100. (0477)
- CHANTIRA PHORGAR; PRADAB VITAYATERARAT y SAITHIP SANGKUL. Kan sukka khun kha nai dan kan chai pen pui khong kak thi dai chak kan chai mun sat tham gas. In Annual report of the Agricultural Chemistry Division, Department of Agriculture, 1976/7. Rai-ngan pracham pi 2519, Kong Kaset Chemi, Krom Wicha Kan Kaset. Bangkok, Tailandia, Ministry of Agriculture and Cooperatives, 1979. pp. 265-280. (0478)
- CHARTIER, P.; GONA, G. y ZELTER, Z. Rapport de Mission en INDE (17-27 janvier 1978). París, Ministère de l'Agriculture I.N.R.A. Secrétariat d'Etat aux Universités, 1978. 16 p. (0479)
- _____ . Potentiel énergétiques de la biomasse. Journées d'études "Valorisation des Sous-Produits Agricoles" 1979:3-29. 1979. (0480)
- * CHAUDHRY, I. A. y SALEEMI, A. R. Design and operational parameters of a biogas digester. In National Seminar on Bio-Gas Technology, Lahore, Pakistán, 1980. Proceedings. Islamabad, Appropriate Technology Development Organization, 1980. pp. 19-35. (0481)
- CHAVADEJ, S. Anaerobic filter for biogas production. Reg. J. Energy Heat Mass Transfer 2(1):31-44. 1980. (0482)

- CHAVES, A. El proceso en la producción de gas metano a partir de desechos orgánicos. In Simposio sobre Tecnología Apropiada, 1°, Cartago, Costa Rica, 1979. Energía solar: fundamentos y aplicaciones. Cartago, Instituto Tecnológico de Costa Rica, 1979. pp. 281-283. (0483)
- * CHAWLA, O. P. Note on stimulation of anaerobic fermentation of dung in cowdung gas plant. Indian Journal of Agricultural Science 39(11):1040-1043. 1969. (0484)
- _____. Gobar gas plant: its efficiency and manurial returns. Khadi Gramodyog. 1972. p. irr. (0485)
- _____. Composing organic wastes. Khadi Gramodyog 1973:526-527. 1973. (0486)
- _____. Winter and the cowdung gas plant. Indian Farming 23(8):29-30. 1973. (0487)
- _____. Cowdung gas plants. Yojna Annual no. 26. 1974. (0488)
- _____. Gobar gas plant. In Summer Institute on Waste Management by Recycling, Bombay, India, 1976. s.l., 1976. pp. 28-34. (0489)
- _____. Bioconversion of agricultural wastes - recent trends. In National Symposium on Biogas Technology and Usage, New Delhi, India, 1977. New Delhi, 1977. pp. 42-43. (0490)
- CHEESE WHEY as a substrate for anaerobic digestion. Arvada, Colorado, Bio Gas of Colorado, s.f. p. irr. (0491)
- * CHEESEMAN, P.; TOMS-WOOD, A. y WOLFE, R. S. Isolation and properties of a fluorescent compound, Factor 420, from Methanobacterium strain MoH. Journal of Bacteriology 112: 527-531. 1972. (0492)
- * CHEN, M. y WOLIN, M. J. Influence of CH₄ (methane) production by *Methanobacterium ruminantium* on the fermentation of glucose and lactate by *Selenomonas ruminantium*. Applied and Environmental Microbiology 34(6): 756-759. 1977. (0493)
- CHEN, Y. R. y HASHIMOTO, A. G. Kinetics of methane fermentation. Biotechnology and Bioengineering Symposium 8:269-282. 1978. (0494)
- CHEN GUANG-GIAN y MING, C. The development of Chinese biogas. s.l., 1979. v. 3, p. irr. (0495)
- Presentado en UNITAR Conference on Long-Term Energy Resources
- CHENG-NAN, W. Biochemical mechanisms in the methane fermentation of glutamic and oleic acids. Water Research 10: 9-18. 1976. (0496)
- CHENGDU INSTITUTE OF BIOLOGY, CHINA. ACADEMIA SINICA. El proceso de digestión de biogas y mecanismo de digestión. Chengdie, China, 1979. p. irr. (0497)
- Presentado en Biogas Technology and Utilization Seminar, Chengdie, China, 1979.
- CHHEM-LIETH, S. Expérimentation du "compost-biogaz" en Haute-Volta (Juillet 1978 - Mars 1979). Le Havre, Francia, I.S.T.O.M., 1979. 83 p. (0498)
- CHHONKAR, P. K. Microbiological aspects of biogas production. In National Symposium on Biogas Technology and Usage, New Delhi, India, 1977. New Delhi, 1977. pp. 24-26. (0499)
- CHIAN, E. S. K. y WALE, F. B. DE. Treatment of high strength acidic wastewater with a completely mixed anaerobic filter. Water Research 11:295-304. 1977. (0500)

CHIN, C. Biogas: an inexhaustible energy resource. Pekin Review no. 50:15-18. 1978. (0501)

* CHIN, K. K. y GOH, T. N. Bioconversion of solar energy: methane production through water Hyacinth. In Symposium on Energy from Biomass and Wastes, Washington, D.C., 1978. Symposium Papers, by D. L. Klass and W. W. Waterman. Washington, D.C., Institute of Gas Technology, 1978. pp. 215-228. (0502)

_____. Anaerobic treatment of palm oil sludge. Kentridge, Singapur, 1979. p. irr. (0503)

Presentado en Turkish-German Environmental Engineering Symposium, 3°, Istanbul, Turkey, 1979.

_____. Anaerobic treatment of pig wastes. Kentridge, Singapur, 1979. p. irr. (0504)

Presentado en International Conference, Agriculture Engineering and National Development, Kuala Lumpur, Malaysia, 1979.

_____. Potential energy production from biomass and wastes in rural areas. Kentridge, Singapur, 1979. p. irr. (0505)

Presentado en AEESEA Conference, Western Australian Institute of Technology

_____. An anaerobic-aerobic treatment train for palm oil sludge. Kentridge, Singapur, 1980. p. irr. (0506)

Presentado en Wastewater treatment and utilization II, University of Waterloo, Canadá

_____. Anaerobic treatment kinetics of palm oil sludge. Water Research 15:199-202. 1980. (0507)

CHINA REPORT: economic affairs no. 82. s.l., 1980. 15 p. (0508)

A CHINESE biogas manual. s.l., Intermediate Technology Publication, 1979. 135 p. (0509)

* CHINESE OR Indian? A comparison. Bio-Gas Newsletter no. 3:19-21. 1980. (0510)

* CHIQUILLO ALAS, A. Instalaciones y experimentos realizados en El Salvador para producir biogas. San Salvador, El Salvador, 1980. 17 p. (0511)

* _____. Producción experimental de biogas a partir de jacinto de agua. San Salvador, El Salvador, 1980. 39 p. (0512)

Presentado en Seminario Latinoamericano sobre Bio-Energía, Atlanta, Georgia, 1980.

* CHIRANJIVI, C. Design analysis of small-scale anaerobic digesters in India. In Symposium on Energy from Biomass and Wastes, Washington, D. C., 1978. Symposium papers, by D. L. Klass and W. W. Waterman. Washington, D. C., Institute of Gas Technology, 1978. pp. 449-464. (0513)

CHITTENDEN, A. E.; HEAD, S. W. y BREAG, G. Anaerobic digesters for small-scale vegetable processing plants. London, Tropical Products Institute, 1980. 23 p. (0514)

CHOL'YAN, M. Photosynthetic production of organic material and hydrogen by solar energy. Applied Solar Energy 14(3):71-74. 1978. (0515)

Traducido de Geliotekhnika 14(3): 89-92. 1978.

CHOU, W. L. Acclimation and degradation of petrochemical wastewater components by methane fermentation. Biotechnology and Bioengineering Symposium 8:391-414. 1978. (0516)

CHOU CHIN. Gas metano fuente de energía inagotable. Pekín Informa no. 50. 1978. 4 p. (0517)

- CHOUHURY, K. Food, fuel, fertilizer and cowdung gas plant. *Farm Journal* 16(1):21-26. 1974. (0518)
- CHOW, B. H. Inverted vessel processing method for the production of methane gas. s.l., 1979. 4 p. (USA. Patent 4, 157, 958) (0519)
- CHRISTMANN, A. Manual de biogas. Florianópolis, Brasil, 1980. p. irr. (0520)
Convenio MME/MA/EMBRATER/ACARESC
- CHRISTOPHE, C. Pure water and methane made from polluted water. *Ferres Mod.* 30:27-30. 1975. (0521)
- CHUNG, K. T. Inhibitory effects of H₂ on growth of *Clostridium cellobio-parum*. *Applied and Environmental Microbiology* 31:342-348. 1976. (0522)
- CHUNG, P.; WANG, H. H. y CHEN, S. K. Small methane generator from waste disposal. s.l., s.f. p. irr. (0523)
- _____. Production and use of methane from animal wastes in Taiwan. Winnipeg, Manitoba, Canadá, Biomass Energy Institute, 1973. 18 p. (0524)
Presentado en Proceedings of the International Biomass Energy Conference
- _____. The animal-methane-chlorella (algae) cycle. *Animal Husbandry and Agricultural Journal* 8(12):31-36. 1974. (0525)
- CHYNOWETH, D. P. y MAH, R. A. Bacterial population and end products during anaerobic sludge fermentation of glucose. *Journal of the Water Pollution Control Federation* 49:405-412. 1977. (0526)
- * CHYNOWETH, D. P.; KLASS, D. L. y GHOSH, S. Biomethanation of giant brown kelp *Macrocystis pyrifera*. In *Symposium on Energy from Biomass and Wastes*, Washington, D.C., 1978. Symposium papers.. By D. L. Klass y W. W. Waterman. Washington, D.C., Institute of Technology, 1978. pp. 229-251. (0527)
- _____. Anaerobic digestion of marine biomass. In *Biogas and Alcohol Production Conference*, Chicago, Illinois, 1979. Chicago, IL, Institute of Gas Technology, 1979. 23 p. (0528)
- CID PACHECO, J. A. DEL. Producción de gas metano y abono orgánico a partir de desechos agro-industriales por medio de un proceso continuo. Tesis Ing. Guatemala, Universidad de San Carlos, 1977. 77 p. (0529)
- CIL TO test new sewage unit. *Canada Chemical Processing* 59(10):32, 34. 1975. (0530)
- CILIE, G. C. Review paper: anaerobic digestion. IV. The application of the process in waste purification. *Water Research* 3:623-643. 1969. (0531)
- CIMPEC/OEA metano de las algas gigantes del mar. *El Diario de Hoy, El Salvador*; Abr. 8, 1980:19. (0532)
- CLAUSEN, E. C.; SITTON, O. C. y GADDY, J. L. Anaerobic bioconversion of crop materials to methane. *Process Biochemistry* 12(7):5-7, 30. 1977. (0533)
- _____.; SITTON, O. C. y GADDY, J. L. Bioconversion of crop materials to methane. *Process Biochemistry* 13(5): 15, 17, 30. 1978. (0534)
- _____.; SITTON, O. C. y GADDY, J. L. Methane production from energy crops. *Chemical Engineering Progress* 73(1). 1977. (0535)

CLAUSEN, E. C. Potential and economics of energy production by bioconversion. In Pacific Chemical Engineering Congress, 2°, Denver, Colorado, 1977. Proceedings. New York, American Institute of Chemical Engineers, 1977. v. 1, pp. 183-186. (0536)

_____.; SITTON, O. C. y GADDY, J. L. Biological production of methane from energy crops. Commodity Journal. 1978. (0537)

_____.; SITTON, O. C. y GADDY, J. L. Design and economics of methane production from crop materials. Bioengineering 172(74):110-116. 1978. (0538)

Publicado también en: Encuentro Anual del Instituto Americano de Ingenieros Químicos, 69°, Chicago, 1976.

_____. y GADDY, J. L. Separate-stage fermentation of biomass to methane. Symposium Serv. 74(181): 56-68. 1978. (0539)

_____.; SITTON, O. C. y GADDY, J. L. Biological production of methane from energy crops. In Symposium on Microbial Products and Fermentation Control, Montreal, Canadá, 1977. Biotechnology and Bioengineering 21(7):1209-1219. 1979. (0540)

* THE CLEAN car that runs on pig manure. Chicago Daily News. 2 p. (0541)

* COBB, W. Survey of the technology of anaerobic digestion and its applicability to Maine. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 232. (0542)

Investigación en progreso

COE, W. B. y TURK, M. Processing animal waste by anaerobic fermentation. Connecticut, USA, Animal Waste Management Program, Hamilton Standard, 1972. 17 p. (0543)

* COE, W. B. y LIZDAS, D. J. Dirt feedlot experiments. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 225. (0544)

Investigación en progreso

* _____. Feedlot energy reclamation demonstration. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. DJ--302) (0545)

Investigación en progreso

* _____. y RHODES, R. A. Pilot plant production of methane by digestion of feedlot waste. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. GY--42694-2) (0546)

Investigación en progreso

* COELHO, I. B. y VIEIRA, J. R. Biogás energia com economia. Ceará, Brasil, Empresa de Assistência Técnica e Extensao Rural do Ceará, 1980. 5 p. (0547)

* COHEN, A. S. Program support for biological waste conversion. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 251. (0548)

Investigación en progreso

* COLACICCO, D.; EPSTEIN, E. y WILLSON, G. B. Economics of sludge composting. In FAO/SIDA Workshop on the Use of Organic Materials as Fertilizers in Asia, Bangkok, Thailand, 1976. Organic recycling in Asia. Roma, FAO, 1978. pp. 220-234. (FAO Soils Bulletin no. 36). (0549)

COLBERG, P. J.; BAUGH, K. y EVERHART, T. Heat treatment of organics for increasing anaerobic biodegradability. Stanford, USA., University. Department of Civil Engineering, 1980. p. irr. (Technical Report no. 253) (0550)

- COLIN, F. Adaptation des techniques de la digestion anaérobie des boues résiduelles au cas de la fermentation méthanique des vinasses de distillerie de fruits. I.R.H. 1978:1-41. 1978. (0551)
- COLLIGADO, M. B. Cooking gas from pig dung. BAI Recorder 33(11):10-11. 1974. (0552)
- COLLINS, F. R. y HUGHES, H. A. Methane production from livestock wastes. Blacksburg, Virginia Polytechnic Institute and State University, 1976. 7 p. (Energy Management Series Publication no. 718) (0553)
- * COLLINS, R. H.; LULEY, W. E. y RICE, F. C. Palos Verdes sanitary landfill methane recovery facility. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 261. (0554)
- Investigación en progreso
- COLVIN, J. R.; SOWDEN, L. C. y BERG, L. VAN DEN. The ultrastructure of the major species of an enriched methanogenic culture utilizing acetic acid. Canadian Journal of Microbiology 25:826-832. 1979. (0555)
- * COMÉRCIO DE FERRAGENS IMPERIAL, RIO DE JANEIRO, R.J. Biodigestor gerador de biogás e biofertilizante. Rio de Janeiro, Brasil, s.f. 4 p. (0556)
- * COMÉRCIO E INDÚSTRIA DE FERRO, BARBACENA, MG. Biogás: a energia que atende o homem do campo. Barbacena, MG., Brasil, s.f. 2 p. (0557)
- COMISSÃO NACIONAL DE ENERGIA, BRASÍLIA, D.F. Biomassa, materias-primas. Brasília, D.F., Brasil, 1979. 128 p. (0558)
- COMMISSION INTERNATIONALE DES INDUSTRIES AGRICOLES, PARIS. Bibliographie sur la production du methane par fermentation du fumier et des résidus agricoles en vue de son utilisation a la ferme. París, Francia, 1950. p. irr. (0559)
- COMMISSION INTERNATIONALE DES INDUSTRIES AGRICOLES, PARIS. Documentation bibliographique sur la fabrication du gaz de méthane par fermentation du fumier et des résidus agricoles en vue de son utilisation a la ferme. París, Francia, 1951. 5 p. (0560)
- _____. Documentation bibliographique sur le methane. París, Francia, 1951. p. irr. (0561)
- _____. Bibliographie sur la production du gaz de méthane par fermentation du fumier et des résidus agricoles en vue de son utilisation a la ferme. París, Francia, 1955. p. irr. (0562)
- COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANIZATION, EAST MELBOURNE, AUSTRALIA. Food wastes disappear into thin air. Industrial Research News 124:1-2. 1977. (0563)
- _____. How close is the methane alternative? Ecos 14:14-20. 1977. (0564)
- COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANIZATION, CANBERRA, AUSTRALIA. Methane gas from meat-works waste. Ecos. CSIRO Environmental Research no. 11:27-28. 1977. (0565)
- * COMMONWORK, EDENBRIDGE. The methane digester. Edenbridge, Kent, s.f. 2 p. (0566)
- * COMO CONSTRUIR seu gerador de biogás. Florianópolis, Brasil, 1980. 28 p. (0567)
- COMPANHIA AUXILIAR DE EMPRESAS ELÉTRICAS BRASILEIRAS. O biogás e sua tecnologia. Brasil, 1980. 56 p. (0568)
- * COMPANHIA ESTADUAL DE GÁS DO RIO DE JANEIRO. Sistema piloto para a recuperação e captação de gás em aterro sanitário, 1a. fase de ampliação projeto de pesquisa e de desenvolvimento de tecnologia, relatório final. Rio de Janeiro, Brasil, 1980. p. irr. (0569)

- * COMPANHIA GERAL DE INDÚSTRIAS, BRASIL.
O mais novo combustível esterco;
a força da fermentação natural cap-
tada e encanada. Brasil, 1980.
5 p. (0570)
- COMPARATIVE ANALYSIS of marsh gas pool
gas production and scientific
management. Wei Sheng Wu Hsueh
Pao 1:17-18. 1978. (0571)
- * COMPARISON OF different types of cow-
dung gas plants. In Ad Hoc Panel
on Methane Generation from Human,
Animal and Agricultural Wastes,
Washington, D.C., 1977. Methane
generation from human, animal, and
agricultural wastes: report. Wash-
ington, D.C., National Academy of
Sciences, 1977. pp. 122-123. (US.
National Technical Information
Service. PB no. 276469) (0572)
- * COMPARATIVE COSTS and benefits of gobar
gas plants. In Ad Hoc Panel on Meth-
ane Generation from Human, Animal and
Agricultural Wastes, Washington, D.C.,
1977. Methane generation from human,
animal, and agricultural wastes: re-
port. Washington, D.C., National
Academy of Sciences, 1977. pp. 119-
121. (US. National Technical Informa-
tion Service. PB no. 276469) (0573)
- COMPERE, A. L. y GRIFFITH, W. L. Fermen-
tation of waste materials to produced
industrial intermediates. Oak Ridge,
Tennessee, Oak Ridge National Labora-
tory, 1975. 17 p. (0574)
- * CONSERVANDO ENERGIA en la granja; estiér-
col: valiosa fuente de gas metano.
II. Agricultura de las Américas 28
(11):62-64, 72-73, 76. 1979. (0575)
- CONSTRUA UM biodigestor e obtenha o gás
para cozinhar e iluminar e acionar
motores. Ponteiro (Brasil) 4(60):
8-9. 1980. (0576)
- * CONSTRUCTION MATERIALS for 100 ft³ (3 m³)
per day biogas plant. In Ad Hoc Panel
Methane Generation from Human, Animal
and Agricultural Wastes, Washington,
D.C., 1977. Methane generation from
human, animal, and agricultural wastes:
report. Washington, D.C., National
Academy of Sciences, 1977. pp. 113-
118. (US. National Technical Informa-
tion Service. PB no. 276469) (0577)
- CONVERSE, J. C. Dairy manure degradation
under mesophilic and thermophilic
temperatures. Saint Joseph, Michigan,
American Society of Agricultural
Engineers, s.f. p. irr. (Paper no.
75-4540) (0578)
- _____. Animal waste management with
pollution control. Madison, Univer-
sity of Wisconsin, Agricultural Engi-
neering Fund, 1974. p. irr. (0579)
- _____. y GRAVES, R. F. Facts on meth-
ane production from animal manure.
Madison, University of Wisconsin,
1974. 4 p. (Wisconsin Extension
Fact Sheet no. A 2626) (0580)
- _____.; GRAVES, R. F. y EVANS, G. W.
Anaerobic degradation of dairy manure
under mesophilic and thermophiliic
temperatures. Transactions of the
American Society of Civil Engineering
1977:336-340. 1977. (0581)
- _____.; ZEIJUS, J. G. y GRAVES, R.
Bio-conversion of organic waste
materials to useful products, meth-
ane cell protein and soil conditioner-
anaerobic degradation. Madison, Uni-
versity of Wisconsin, Engineering
Bacteriology, 1977. p. irr. (0582)

- CONVERSE, J. C.; EVANS, G. W. y VERHOEVEN, C. R. Performance of a large size anaerobic digester for poultry manure. New York, American Society of Agricultural Engineers, 1977. 15 p. (0583)
- CONVERTING ORGANIC wastes to oil. Washington, D.C., Bureau of Mines, 1971. p. irr. (0584)
- CONZE, A. T.; GAILLARD-CUSIN, F. y JAMES, H. Interactions of reaction chains in the high-temperature combustion of methane. II. Second-order chain breaking process and the chain-branching reaction. Bulletin Société Chimique de France 6:2367-2373. 1968. (En francés) (0585)
- COOKE, W. B. Fungi in sewage. In Jones, E. B. G., ed. Recent advances in aquatic mycology. New York, John Wiley, 1976. pp. 389-434. (0586)
- _____, THACKSTON, E. L. y MALANEY, G. W. Reducing coliform and salmonella bacteria during anaerobic digestion. Water and Sewage Works 125(1):50-53. 1978. (0587)
- COONEY, C. L. y WISE, D. L. Thermophilic anaerobic digestion of solid waste for fuel gas production. Biotechnology and Bioengineering 17:1119-1136. 1975. (0588)
- COPELAND, R. J. Conversion system overview assessment. In Solar thermal/coal or biomass derived fuels. s.l., 1980. v. 3, p. 33. (0589)
- COPPENET, M. y DUCET, G. Transformations of manure during a test of the production of manure-fermentations gas. Ann. Agrn. 18:33-38. 1948. (0590)
- COPPINGER, E.; BAYLON, D. y SMITH, K. Operation and evaluation of a 50,000 gallon anaerobic digester at the State Honor Farm Dairy, Monroe, Washington. Final report 1977-1978. s.l., 1978. 74 p. (0591)
- _____.; BAYLON, D. y SMITH, K. Report of the design and first year operation of a 50,000 gallon anaerobic digester at the State Honor Farm Dairy, Monroe, Washington. Seattle, Washington, D.C., Ecotope Group, 1978. 88 p. (0592)
- _____. Barnyard biomass. Western Wildlands 5(2):27-29. 1978-1979. (0593)
- * _____; BRAUTIGAM, J. y LAMPCOV, B. Monitor, test and evaluate an operational digester for 200 head of dairy cattle. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 243. (0594)
- Investigación en progreso
- _____.; BRAUTIGAM, J. y LENART, J. Report on the design and operation of a full-scale anaerobic dairy manure digester. Final report. s.l., 1978. 87 p. (0595)
- CORELLA, Z. M. Tratamiento de los desechos de la industrialización del café. Tesis Ing.-Quím. San José, Universidad de Costa Rica, Facultad de Ingeniería, 1978. p. irr. (0596)
- CORNELL AGRICULTURAL WASTE MANAGEMENT CONFERENCE, ITHACA, NEW YORK, 1975. Proceedings. Ann Arbor, Michigan, Ann Arbor Science Publishers, 1975. 540 p. (0597)

- * CORPORACION INDUSTRIAL PARA EL DESARROLLO REGIONAL DEL BIOBIO, CONCEPCION. Digestor prototipo de guano animal que evita polución y produce fertilizante y gas. Concepción, Chile, 1979. 6 p. (0598)
- COTO, J. M. y SANTA ANA, A. Producción microbiana (eficiencia del biodigestor). In Seminario sobre Aplicaciones de Biodigestores para Producir Gas Metano y Fertilizantes, Cartago, 1980. Cartago, Instituto Tecnológico de Costa Rica, 1980. p. irr. (0599)
- * COUNTY LANDFILL'S methane gas serves 2.000 homes. Solid Wastes Management 1978:1. 1978. (0600)
- COUPLET, P. y ALBAGNAC, G. La digestion anaérobic: application aux industries agro-alimentaires. Annuaire de Technologie Agricole 27(2):533-564. 1978. (0601)
- COURTY, P. Biogas. Asunción, Paraguay, Proyecto Desarrollo Regional Integrado, 1979. 32 p. (0602)
- * COWDUNG GAS plant is in the news. Indian Coffee 41(7-8):255-260. 1977. (0603)
- COX, D. J. y HERBERT, S. D. An anaerobic glove box for the isolation and cultivation of methanogenic bacteria. Journal of Applied Bacteriology 45: 411-415. 1978. (0604)
- COYNE, J. K. Pyrolysis of solid wastes for production of gaseous fuels and chemical feedstocks. In Symposium on Clean Fuels from Biomass and Wastes, Orlando, Florida, 1977. Proceedings. Chicago, Illinois, Institute of Gas Technology, 1977. pp. 237-248. (0605)
- * CRAVEIRO, A. M. Produção de biogás. São Paulo, Brasil, 1980. 45 p. (0606)
- Presentado en Simposio Nacional de Fermentação, 4°, Recife, Brasil, 1980.
- _____. Digestão anaeróbica - alguns trabalhos do IPT. In Congresso Brasileiro de Energia, 2°, Rio de Janeiro, 1981. Rio de Janeiro, Brasil, 1981. pp. 379-392. (0607)
- CRESCER O interesse dos produtores rurais pela instalação do biogás. O Zebu no Brasil 9(76):52-53. 1980. (0608)
- CROOK, M. A Chinese biogas manual. London, Intermediate Technology Publication, 1979. 135 p. (0609)
- CROWTHER, R. F. y HARKNESS, N. Anaerobic bacteria. In Curds, C. R. y Hawkes, H. A. Ecological aspects of used-water treatment. London, Academic Press, 1975. v. 1., pp. 65-91. (0610)
- CRUZ IBARRA, E. The energy problem: use of producer gas and agricultural wastes for power generation. NSDB-UP Research Illustrated 3(1):295-300. 1977. (0611)
- * CULTIVOS DE abonos verdes y plantas acuáticas. In Food and Agriculture Organization of the United Nations. China: reciclaje de desechos orgánicos en la agricultura; informe sobre un viaje de estudios FAO/PNUD a la República Popular de China 28 de abril-24 de mayo de 1977. Roma, 1977. pp. 41-46. (FAO. Boletín de Suelos no. 40) (0612)
- * CURSO LATINOAMERICANO DE BIOGAS, 1°, GUATEMALA, 1981. Manual de biogas. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. 2 v. (0613)
- CURTAIN, C. C. Solar fuels from biomass. In Solar Energy Today Conference, Melbourne, 1979. Melbourne, Australia, University. Victorian Solar Energy Research Committee, 1979. pp. 15.1-15.13. (0614)

- DAGUE, R. R.; HOPKINS, R. L. y TONN, R. W. Digestion fundamentals applied to digester recovery: two case studies. s.n.t. (0615)
- _____. Application of digestion theory to digester control. Journal of the Water Pollution Control Federation 1978:2021-2023. Dic. 1978. (0616)
- DAIR, F. R. Methane gas generation from landfills. APWA Reporter 44(3): 20-23. 1977. (0617)
- DAKERS, A. J. The practice of methane production from animal wastes. Hamilton, New Zealand, Ministry of Agriculture and Fisheries, 1977. 47 p. (0618)
- DALAL, H. J. Economics of gobar gas plants. Khadi Gramodyog. 1963. p. irr. (0619)
- DALAL, V. L. Energy strategies for India: a technological perspective. Princenton, NJ, Woodrow Wilson School, 1977. 96 p. (0620)
- * DALE, A. C.; NYE, J. C. y HARRINGTON, R. B. Fiber-wall reactor digestion of dairy cattle manure. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 506. (0621)
- Investigación en progreso
- * DALEY, M. Pig power: waste not, want no. The Bulletin 1973:1-2. 1973. (0622)
- DALRYMPLE, W. y PROCTOR, D. E. Feasibility of dairy manure stabilization by anaerobic digestion. Water and Sewage Works 114(9):361-364. 1967. (0623)
- DALTON, H. Ammonia oxidation by the methane oxidizing bacterium *Methylococcus capsulatus* strain bath. Archives of Microbiology 114(3):273-279. 1977. (0624)
- DAMODAR RAO, T. y CHARLES, B. S. Methane recovery studies on cowdung and distillery spent wash by anaerobic digestion. In National Convention on Environmental Engineering, 2., New Delhi, India, 1976. s.l., 1976. p. irr. (0625)
- DANDEKAR, H. Gobar gas plants how appropriate are they. Economic Pol. Weekly 25(20):887-893. 1980. (0626)
- * DANIELS, L.; FUCHS, G. y THAUER, R. K. Carbon monoxide oxidation by methanogenic bacteria. Journal of Bacteriology 132(1):118-126. 1977. (0627)
- _____. Metabolism of one-carbon compounds by methanogenic bacteria. Madison, University of Wisconsin, 1978. 138 p. (0628)
- * _____ y ZEIKUS, J. G. One-carbon metabolism in methanogenic bacteria: analysis of shortterm fixation products of $^{14}\text{CO}_2$ and $^{14}\text{CH}_3\text{OH}$ incorporated into whole cells. Journal of Bacteriology 136(1):75-84. 1978. (0629)
- _____.; FULTON, G. y SPENCER, R. W. Origin of hydrogen in methane produced by *Methanobacterium thermoautotrophicum*. Journal of Bacteriology 141(2):694-698. 1980. (0630)
- DANO CORPORATION, COPENHAGUE, DINAMARCA. The Dano-method Dano Bio-stabilizer. Copenhagen, 1955. p. irr. (0631)
- DAO, H. B. Production et utilisation du gaz de fumier; methane biologique. C.N.E.E.M.A., B.I. no. 200:45-71. 1974. (0632)
- DAR, R. Gobar gas and its utilization. Allahabad Farmer 36(1). 1962. (0633)
- DARBOIS, A. y LESAGE, P. Energy recovery from straw: supply study of a gasification plant. Paris, Ecole Nationale Supérieure des Mines, 1976. 100 p. (0634)

- DARROW, K. y PAM, K. Appropriate technology source-book: a guide to practical plans and books for villages and small community technology. Stanford, Volunteers in Asia, 1976. 304 p. (0635)
- DAS, B. Effect of fermentation temperature and additives on efficiency of biogas production. In National Symposium on Biogas Technology and Usage, New Delhi, India, 1977. New Delhi, India, 1977. pp. 21-23. (0636)
- DAS, C. R. y GHATNEKAR, S. D. Replacement of cowdung by fermentation of aquatic and terrestrial plants for use as fuel, fertilizer and biogas-plant feed. In Planning Workshop on Energy for Rural Development, Ahmedabad, India, 1979. Ahmedabad, Indian Institute of Management, 1979. 19 p. (0637)
- DAS, R. S. Cowdung gas plant gets popular in Uttar Pradesh. Indian Farming 12(9):8-9. 1962. (0638)
- _____. Gobar gas and potential for its utilization. Allahabad Farmer 36(1):17-21. 1962. (0639)
- _____. Biogas as a replacement fuel to diesel engines. Agricultural Engineering Today 2(2). 1978. (0640)
- DASILVA, E. J. Biogas: fuel for developing countries - an overview. Abstracts of Selected Solar Energy Technology (ASSET) 1(11):10-16. 1979. (0641)
- * _____ . Biogas generation: developments, problems and tasks; an overview. In Conference on the State of the Art of Bioconversion of Organic Residues for Rural Communities, Guatemala, 1978. Papers presented. Tokyo, United Nations University, 1979. pp. 84-98. (Food and Nutrition Bulletin. Supplement (UNU/WHP) no. 2). (0642)
- DASILVA, E. J. Micro-organisms as tools for biomass conversion and energy generation. Impact Science and Society 29(4):361-374. 1979. (0643)
- _____. Biogas: fuel of the future? Ambio 9(1):2-9. 1980. (0644)
- DATT, D. Gobar gas. Yojana 1:58. 1974. (0645)
- DAUGHTON, C. G.; COOK, A. M. y ALEXANDER, M. Biodegradation of phosphonate toxicants yields methane or ethane on cleavage of the C-P bond. FEMS Microbiology Letters 5(2):91-93. 1979. (0646)
- DAVE, J. M. Studies of the design of gobar gas plant for rural areas. 1. In All India Seminar on Gobar Gas Plant, New Delhi, India, 1962. New Delhi, India, Khadi and Village Industries Commission, 1962. Part 1, p. irr. (0647)
- DAVENPORT, A. K. The design of a full-scale experimental fermentation facility. St. Joseph, MI, American Society of Agricultural Engineers, 1978. 9 p. (ASAE Paper no. 78-4567. (0648)
- DAVIES, S. L. y WHITTENBURY, R. Fine structure of methane and other hydrocarbon-utilizing bacteria. Journal of General Microbiology 61:227-232. 1970. (0649)
- D'AVILA, A. J. Biogás; manual de tecnologia. Campo Grande, Brasil, EMPAER, 1980. 60 p. (0650)
- DBP FINANCING plan for methane gas production. Animal Husbandry and Agricultural Journal 9(5):7. 1974. (651)
- * DE ZIEL, D'W. y ABELES, T. P. Full scale chicken manure digester. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 235. (0652)

Investigación en progreso

- DEEVEY JUNIOR, E. S. Bogs. San Francisco, CA, W. H. Freeman and Co., 1958. p. irr. (0653)
- DELMAS, P. Fermentation anaerobie des eaux residuales d'industries agricoles et alimentaires. Application du filtre anaerobie au traitement d'effluents de distilleries vinicoles. Tesis Diplome d'Ingenieur des Techniques Agricoles. Bordeaux, Francia, Ecole Nationale d'Ingenieurs des Travaux Agricoles, 1979. 51 p. (0654)
- DEMEAUX, M. La pulpe de betteraves et son devenir (fabrication, composition, alimentation animale, gaz methane). Sucrierie Francaise 120(33):357-364. 1979. (0655)
- DEMEYER, A. La bioenergetique. s.l., 1978. 77 p. (0656)
- DEMORTIER, G. y HUGE, P. Dispositif experimental pour l'etude de la fermentation methanique au laboratoire. Institut Agronomique et des Stations de Recherches de Gembloux 22(3-4). 1954. (0657)
- DEO, Y. M. y VERMA, J. Cellulose activities of bacteria isolated from cowdung. In Annual Conference of the Association of Microbiologists of India, 16., Virbhadra, Rishikesh, 1975. s.l., 1975. p. irr. (0658)
- DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C. Producing methane gas from animal wastes. Washington, D. C., 1974. p. irr. (0659)
- DEPARTMENT OF HEALTH, EDUCATION AND WELFARE, WASHINGTON, D. C. Refuse collection and disposal; an annotated bibliography. Washington, D. C., 1951. 91 p. (0660)
- * DEPARTMENT OF SCIENCE AND TECHNOLOGY, NEW DELHI, INDIA. Biogas technology and utilisation; a status report. New Delhi, India, 1981. 94 p. (0661)
- DEPARTMENT OF WATER AND POWER, LOS ANGELES, CALIFORNIA. Sheldon-Arleta Landfill Gas Recovery Facility. Los Angeles, CA, Department of Public Works, s.f. p. irr. (0662)
- DESAI, B. G. Energy policy for India. Baroda, India, Jyoti, 1978. 122 p. (0663)
- DESAI, B. P. Combustible gas from cow dung. Poona Agr. Coll. Mag. 42:74-82. 1951. (0664)
- * DESAI, S. V. Combustible gas from cowdung. Indian Farming 6(2):140-143. 1945. (0665)
- * _____ y BISWAS, S. C. Manure and gas production by anaerobic fermentation of organic wastes. Indian Farming 6(2):67-71. 1945. (0666)
- DESECHOS...NUEVA fuente de energia. Semanario Universidad, Costa Rica, Junio 5-11, 1981. p. irr. (0667)
- * DESENVOLVIMENTO DE processos anaerobios para geraçao de metano a partir do vinhoto da mandioca. s.l., s.f. 7 p. (0668)
- DESHPANDE, R. D. Biogas: its potential and economics in India. A status paper. In Bio-Energy World Congress and Exposition, Atlanta, GA, 1981. Proceedings. Atlanta, GA, 1980. pp. 443-446. (0669)
- * DESIGN CRITERIA. In Ad Hoc Panel on Methane Generation from Human, Animal, and Agricultural Wastes, Washington, D.C., 1977. Methane generation from human, animal and agricultural wastes; report. Washington, D.C., National Academy of Sciences. Panel on Methane Generation, 1977. pp. 74-83. (US. National Technical Information Service. PB no. 276469) (0670)
- DESIGNING A high quality system to produce biogas from animal manures. Arvada, CO, s.f. p. irr. (0671)
- DEVNANI, R. S. Recycling of animal wastes as feed and fuel. Agriculture Agro Inds. Journal 7(10):7-10. 1974. (0672)
- DeWALLE, F. B. Energy recovery from land filled solid waste. Biotechnology and Bioengineering Symposium 4:317-328. 1978. (0673)
- * DHITAL, K. Projected integrated farm in Nepal. Newsletter Bio Gas no. 11:4. 1980. (0674)

- DIAZ, L. F.; SAVAGE, G. M. y TREZEK, G. J. Biogasification of municipal solid wastes. In Biennial National Waste Process Conference, 9., Washington, D. C., 1980. National waste process conference. New York, American Society of Mechanical Engineers, 1980. pp. 403-410. (0675)
- DIEKERT, G.; KLEE, B. y THAUER, R. K. Nickel, a component of factor F₄₃₀ from *Methanobacterium thermoautotrophicum*. Arch. Microbiol. 124: 103-106. 1980. (0676)
- DIFFIDENTI, G. A. Importanza in agricoltura del bio-gas energia ricavata dal disinquinamento. Mondo Agricolo 30(5):14-15. 1979. (0677)
- * DIFUSION DE la experiencia adquirida en China sobre el reciclaje orgánico. In Food and Agriculture Organization of the United Nations. China: reciclaje de desechos orgánicos en la agricultura; informe sobre un viaje de estudios FAO/PNUD a la República Popular de China 28 de abril-24 de mayo de 1977. Roma, 1977. pp. 78-88. (Boletín de Suelos de la FAO no. 40) (0678)
- DIGESTER GAS utilization at West-Southwest Sewage Treatment Works. Final technical report. s.l., 1980. 7 p. (0679)
- DISEÑO BASICO de una planta de biogas tipo OLADE - Guatemala. Boletim Energetico (Brasil) no. 14:96-110. 1980. (0680)
- DISSANAYAKE, M. G. Bio-gas production by anaerobic digestion. Tesis Master in Engineering. Bangkok, Tailandia, ASIAN Institute of Technology. Division of Environmental Engineering, 1977. 53 p. (AIT Thesis no. 1093) (0681)
- * DODDEMA, H. J.; HUTTEN, T. J. y DRIFT, C. VAN DER. ATP hydrolysis and synthesis by the membrane-bound ATP synthetase complex of *Methanobacterium thermoautotrophicum*. Journal of Bacteriology 136(1):19-23. 1978. (0682)
- * DODDEMA, H. J. y VOGELS, G. D. Improved identification of methanogenic bacteria by fluorescence microscopy. Applied and Environmental Microbiology 36(5):752-754. 1978. (0683)
- DODDEMA, H. J.; DRIFT, C. VAN DER y VOGELS, G. D. Chemiosmotic coupling in *Methanobacterium thermoautotrophicum* hydrogen-dependent ATP synthesis by subcellular particles. Journal of Bacteriology 140:1081-1089. 1979. (0684)
- DOHNE, E. y BRENNDOEFER, M. Wie aktuell ist heute biogas. Landtechnik 29(7):302-307. 1974. (0685)
- _____. y BRENNDORFER, M. Anwendungsmöglichkeiten von Biogas im Landwirtschaftlichen Betrieb. Landtechnik 33(2):64-67. 1978. (0686)
- _____. Haben Biogasanlagen eine Zukunft? DLZ - Die Landtechnische Zeitschrift 29(7):836-838. 1978. (0687)
- _____. Entwicklungen beim Bau von Biogasanlagen. DLZ - Die Landtechnische Zeitschrift 31(2):242-248. 1980. (0688)
- DONER, D. M.; BAILIE, R. C. y HENRY, J. An assessment of small-scale biomass-to-fuel converters. Los Angeles, CA, 1975. 3 p. (0689)
- Presentado en AICE Annual Meeting, 68., Los Angeles, CA.
- DOUGLAS, L. J. y KIM, A. G. Hydrocarbon gases produced in a simulated swamp environment. s.l., Bureau Mines Rep. Invest., 1972. 17 p. (0690)
- DOUGLAS, R. W. Synthetic natural gas from animal wastes by anaerobic fermentation. In Symposium on Clean Fuels from Biomass, Sewage, Urban Refuse, Agricultural Wastes, Orlando, FL, 1976. Symposium papers. Edited by J. W. White and W. McGrew. Chicago, IL, Institute of Gas Technology, 1976. pp. 183-196. (0691)

DREVON, J. J. y THERY, D. Ecodéveloppement et industrialisation: renouvelabilité et nouveaux usages de la biomasse. C.I.R.E.D. Cahier de l'Ecodéveloppement no. 9. 1977. 126 p. (0692)

_____. Elements pour une étude des apports de matière organique aux sols dans le Bassin Arachidier du Senegal. Bombay, India, C.N.R.A./I.S.R.A., 1978. 52 p. (0693)

D'ROZARI, R. Gobar gas: it's time for a second look. Science Today 9(11): 37-46. 1975. (0694)

DUCELLIER, G. y SAUZE, F. Le méthane biologique - Production d'énergie (fermentation du fumier - fertilisation des sols - fermentation des gadoues urbaines) - Lutte anti-pollution. s.l., s.f. 35 p. (0695)

_____. y SAUZE, F. Le méthane biologique (elements de base pour la production de gaz combustible ou carburant, notamment a partir du fumier de ferme et des gadoues urbaines). France Viticole no. 11:331-336, 341-344. 1975. (0696)

_____. Le méthane biologique. Montpellier, Francia, Transformation des Ordures Ménageres, 1977. 20 p. (0697)

DUCLUZEAU, R. y RAIGAUD, P. Ecologie microbienne du tube digestif. Actualités Scientifiques et Agronomiques no. 2. 1979. p. irr. (0698)

* DUGAN, G. L. y YOUNG, R. Methane production from bioconversion of organic material. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. YHA--123-1) (0699)

Investigación en progreso

DUGAS, D. J. Fuel from organic matter. Santa Monica, CA, Rand Corporation, 1973. 24 p. (0700)

DUNCAN, R. C. An economic garbage collection and recycling service. Compost Science 17(1):12-17. 1976. (0701)

DUNG ALS energiequelle. Agrartechnik International 53(15):12-13. 1974. (0702)

DUNICAN, L. K. An economic method of getting energy from slurry. Farm Food Research 10(3):80-81. 1979. (0703)

DUNN, B. S. Conversion of cattle manure into useful products. Washington, D. C., Government Printing Office, 1975. p. irr. (Environmental Protection Technology Series no. EPA/660/2-76-238) (0704)

DURAND, G. y GOMA, G. Fermentation anaérobie: aspects cinétiques. s.l., 1976. 20 p. (0705)

Presentado en Cours International d'Épuration, I.R.C.H.A., 1976.

- EASTERBROOK, G. Great escape. Waste Age 10(9):26-28, 30, 32, 34, 35. 1979. (0706)
- _____. Methane: halting the great escape. Waste Age 10(10):15-18. 1979. (0707)
- ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC, BANGKOK, THAILAND. Biogas technology and utilization. Bangkok, Thailand, 1975. 146 p. (0708)
- _____. Guidebook on biogas development. New York, United Nations, 1980. 127 p. (Energy Resources Development Series no. 21) (0709)
- ECONOMIC FEASIBILITY of methane production. In Ad Hoc Panel on Methane Generation from Human, Animal and Agricultural Wastes, Washington, D. C., 1977. Methane generation from human, animal and agricultural wastes: report. Washington, D. C., National Academy of Sciences. Panel on Methane Generation, 1977. pp. 16-23. (U. S. National Technical Information Service. PB no. 276469) (0710)
- ECONOMIE D'ENERGIE: une contribution de FIAT-TOTEM. Vignes et Vins no. 285: 62-67. 1979. (0711)
- ECUADOR: INAUGURADA primera planta de biogás. Boletín Energético. Asociación Latinoamericana de Energía (Ecuador) no. 14:111-114. 1980. (0712)
- EDBERG, N. y HOFSTEN, B. V. Cellulose degradation in waste water treatment. Journal of the Water Pollution Control Federation no. 5:1012-1020. 1975. (0713)
- EDELIN, F. La génie chimique appliqué au traitement des eaux résiduaires industrielles: la digestion anaérobie dans l'épuration des eaux. Centre Belge d'Etudes et de Documentation des Eaux no. 391-392:240-243. 1975. (0714)
- EDELIN, F. La réalisation d'Essais de digestion a l'échelle du laboratoire. s.l., 1976. 12 p. (0715)
- Presentado en Cours International d'Épuration, I.R.C.H.A., 1976
- * EDELMAN, W., BESSON, J. M. y ENGELI, H. Gas production of stored manure compared with the production of immediately digested fresh manure. s.l., s.f. 14 p. (0716)
- EDWARDS, T. y McBRIDE, B. C. New method for the isolation and identification of methanogenic bacteria. Applied Microbiol. 29:540-545. 1975. (0717)
- EGERTON, A. C. y PEARCE, M. The significance of liquid methane as a fuel. Journal Inst. Fuel 20:1-11. 1945. (0718)
- * EGGELING, G.; GULDAGER, R. y GULDAGER, H. Instrucciones para la construcción de una planta de biogás. Bremen, German Appropriate Technology Exchange, s.f. 64 p. (0719)
- Publicado también en Francés e Inglés
- EIRICH, L. D.; VOGELS, G. D. y WOLFE, R. S. Proposed structure for coenzyme F₄₂₀ from *Methanobacterium*. Biochemistry 17:4583-4593. 1978. (0720)
- _____.; VOGELS, G. D. y WOLFE, R. S. Distribution of coenzyme F₄₂₀ and properties of its hydrolytic fragments. Journal of Bacteriology 140: 20-27. 1979. (0721)
- EISENBERG, O. M. Methane fermentation of microalgae. In International Symposium on Anaerobic Digestion, 1., Cardiff, England, 1979. Cardiff, England, University College, 1979. 15 p. (0722)

- EL DOMIATY HOSSAN. Design and operation of a dimosis trations unif. for methane generation by owafig. s.l., American Society of Agricultural Engineers, 1975. p. irr. (0723)
- ELIASSEN, R. Solid waste management: a comprehensive assessment of solid waste problems, practices and needs. Washington, D. C., United States Government Printing Office, 1969. p. irr. (0724)
- * ELLSWORTH, D.A., SCHIEFFER, L. y ABELES, T.P. Fertile acre farms digester. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 245. (0725)
- Investigación en progreso
- EMMERVALL, I. Methangas fran den egna godseln. Lautmanner no. 4:53-54. 1977. (0726)
- * EMPRESA BRASILEIRA DE ASSISTÊNCIA TECNICA E EXTENSÃO RURAL, BRASÍLIA, D.F. Produção e utilização de energia, biogás, biodigestor de cúpula fixa, modelo chinês (1). Brasília, s.f. 6 p. (0727)
- * _____ . Produção e utilização de energia, biogás, biodigestor de cúpula fixa, modelo chinês (2). Brasília, s.f. 5 p. (0728)
- * _____ . Produção e utilização de energia, biogás, biodigestor de cúpula fixa, model chinês (3). Brasília, s.f. 4 p. (0729)
- * _____ . Bibliografía sobre biogás. Brasília, 1981. 45 p. (0730)
- EMPRESA BRASILEIRA DE PESQUISA AGROPECUARIA, BRASÍLIA, D.F. Contribuição ao relatório anual da EMBRAPA - 1975; parte de energíã. Brasília, 1979. 30 p. (0731)
- * _____ . Biogas energia do meio rural para o meio rural. Brasília, 1981. 5 p. (0732)
- EMPRESA BRASILEIRA DE PESQUISA AGROPECUARIA, Brasília, D.F. O programa de energia dentro do Sistema EMBRAPA. Brasília, Brasil, s.f. 3 p. (0733)
- EMPRESA BRASILEIRA DE PESQUISA AGROPECUARIA, PETROLINA, BRASIL. CENTRO DE PESQUISA AGROPECUARIA DO TROPICO SEMI ARIDO. Gaseificador de carvão vegetal; manual de instrução. Petrolina, Brasil, 1980. 5 p. (0734)
- * EMPRESA BRASILEIRA DE PESQUISA AGROPECUARIA, SETE LAGOAS, MG. Sistema rural de bioenergíã; microdestilaria, biodigestor, gerador de eletricidade. Sete Lagoas, Brasil, 1980. 15 p. (0735)
- * EMPRESA DE ASSISTÊNCIA TECNICA E EXTENSÃO RURAL DO DISTRITO FEDERAL, BRASÍLIA, DF. Uma fonte alternativa de energia biogás biodigestores biofertilizante um adubo eficiente e barato. Brasília, 1981. 11 p. (0736)
- * EMPRESA DE ASSISTÊNCIA TECNICA E EXTENSÃO RURAL DO ESTADO DE GOIAS, BRASIL. Produza energia e adubo na fazenda construa sua usina de biogás. Goiás, Brasil, 1980. 5 p. (0737)
- * EMPRESA DE ASSISTENCIA TECNICA E EXTENSÃO RURAL DO ESTADO DE PERNAMBUCO, BRASIL. Biogás energia para o agricultor. Pernambuco, Brasil, 1980. 4 p. (0738)
- EMPRESA DE ASSISTÊNCIA TECNICA E EXTENSÃO RURAL DO ESTADO DE SERGIPE, BRASIL. Biogás; uma fonte renovável de energia. Aracaju, Sergipe, Brasil, 1980. 11 p. (0739)
- * EMPRESA DE ASSISTÊNCIA TECNICA E EXTENSÃO RURAL DO ESTADO DO PARAIBA, BRASIL. Biogás energia barata para o agricultor. João Pessoa, Brasil, s.f. 3 p. (0740)
- * EMPRESA DE ASSISTENCIA TECNICA E EXTENSÃO RURAL DO ESTADO DO PARANA, BRASIL. Biogás uso e aplicações. Paraná, Brasil, s.f. 2 p. (0741)

- EMPRESA DE ASSISTÊNCIA TÉCNICA E EXTENSÃO RURAL DO ESTADO DO PARANÁ, BRASIL. Dados gerais sobre biodigestores. Curitiba, Brasil, 1980. p. irr. (0742)
- EMPRESA DE ASSISTÊNCIA TÉCNICA E EXTENSÃO RURAL DO ESTADO DO RIO GRANDE DO NORTE, BRASIL. O biogás ao alcance da extensão rural. Natal, Brasil, 1980. p. irr. (0743)
- _____. Biogás; uma solução de energia para o campo. Natal, Brasil, 1980. p. irr. (0744)
- EMPRESA PARANAENSE DE ASSISTÊNCIA TÉCNICA E EXTENSÃO RURAL, BRASIL. Biogás energia e adubo. Paraná, Brasil, s.f. 4 p. (0745)
- ENCUENTRO DE TECNOLOGIA APROPIADA, 2., POYOS DE LORENA, GUATEMALA, 1980. Memoria. Guatemala, Centro Mesoamericano de Estudios sobre Tecnología Apropriada, CEMAT, 1980. p. irr. (0746)
- ENEBO, L. Formation of reducing sugars in thermophilic cellulose fermentation. Acta Chemica Scandinavica 3:975. 1949. (0747)
- _____. y PEHRSON, S. Thermophilic digestion of domestic sewage sludge and cellulose materials. Acta Polytechnica Scandinavica 281:36. 1960. (0748)
- ENERGIA; BIODIGESTORES opção de gás e fertilizantes. Revista EMATER-RIO (Brasil) 3(11). 1980. (0749)
- ENERGIA DO biogás já é uma realidade. Informativo-FARSUL (Brasil) 4(41):6. 1980. (0750)
- ENERGIA PARA o desenvolvimento rural. Campo (Brasil) 1(11):13-15. 1979. (0751)
- ENERGIA; RECICLAR o passado? Visao (Brasil) 55(6):61-62. 1979. (0752)
- 'LES ENERGIES nouvelles'. Bulletin d'Information de la Mutualite Agricole no. 291:39-45. 1978. (0753)
- ENERGY FROM animal wastes. Minnesota Science 33(3):15. 1977. (0754)
- ENERGY FROM biological processes. s.l., 1980. 206 p. (0755)
- ENERGY FROM biomass via bioconversion processes; distributed energy systems: a review of related technologies. s.l., 1979. 9 p. (0756)
- ENERGY FROM wastes: the biogas concept. Philippine Development 4(16):28-30. 1977. (0757)
- * ENERGY HARVEST, Inc. Fact sheet June 1, 1981. Washington, D. C., 1981. 4 p. (0758)
- * ENERGY POLICY for the U.S. Food System; a subpart of a National Energy Policy. Pacific Grove, CA, 1977. 26 p. (0759)
- Presentado en Asilimor Conference Grounds, Pacific Grove, CA, EUA, 6-11 Feb 1977
- ENERGY POTENTIAL through bio-conversion of agricultural wastes. s.l. 1976. 32 p. (0760)
- ENERGY PRIMER: solar, water, wind and biofuels. Menlo Park, CA, Portola Institute, 1975. 200 p. (0761)
- ENGELHARDT, W. VON. Production of methane in two non-ruminant herbivores. Comparative Biochemistry and Physiology A 60(3):309-311. 1978. (0762)
- E.P.R. (enriched pulverized refuse) fuel system. Solid Wastes 66(12):627-628. 1976. (0763)
- ERDA/WASTE management RefCom project begun in Pompano. Waste Age 8(3). 1977. (0764)
- ERDA's METHANE project methane from coal. Energy Daily. 1977. p. 3 (0765)
- ESTERCO GERA gás metano em Goiás. O Globo, Brasil; Oct. 1979:22. (0766)

- ESTERCO VIRA energia. Espírito Santo. Agora (Brasil) 10(51):5-6. 1980. (0767)
- ETUDE DU fonctionnement d'un moteur diesel au melange fuel-methane (diesel-gaz). Bulletin d'Information du CNEEMA no. 266-267:21-32. 1980. (0768)
- EUSEBIO, J. A. y RABINO, B. I. The energy problem: production of biogas from hog manure. NSDB-UP Research Illustrated 3(1):301-306. 1977. (0769)
- _____. y RABINO, B. I. Recycling system in integrated plant and animal farming. Compost Science 19(2): 24-27. 1978. (0770)
- EVLANOV, S. F. y LAVROV, N. V. Study of the mechanisms of the formation of pyrocarbon from methane. Solid Fuel Chemistry 10(6):70-72. 1976. (0771)
- EXCREMENTOS DE vacas producen energía "biogás". El Diario de Hoy, San Salvador; Abril 8, 1980:17. (0772)
- EXCRETORY LEVELS of antibiotics in manure from cattle, chickens and swine. Arvada, CO, Bio Gas of Colorado, s.f. p. irr. (0773)
- EYLERS, H. Programas de desarrollo y biogás. Desarrollo y Cooperación 1:20-21. 1980. (0774)
- * FABRIS, A. Y GROSSI GALLEGOS, H. Argentina: calefacción solar de un digestor anaeróbico. Boletín Energético. Organización Latinoamericana de Energía (Ecuador) no. 14:5-16. 1980. (0775)
- Presentado en Reunión de Trabajo de Energía Solar, 4., La Plata, Argentina, 1978
- E FACIL construir um digestor. Agricultura and Cooperativismo (Brasil) 5(51):26-27. 1980. (0776)
- * FACULDADE DE CIENCIAS AGRARIAS E VETERINARIAS, JABOTICABAL, BRASIL. Biogás a partir de resíduos agrícolas - tipos de digestores aplicação no meio rural. Jaboticabal, Brasil, s.f. 33 p. (0777)
- FAIR, G. M. y MOORE, E. W. Observations on the digestion of sewage sludge over a wide range of temperature. Sewage Works Journal 9:3. 1937. (0778)
- FAIRBANK, W. C. Fuel from feces. ASAE Paper no. P074-03:1-12. 1974. (0779)
- * _____. Fuel from livestock waste: an economic analysis. Agricultural Engineering 55(9):20-23. 1974. (0780)
- * FAIRBRIDGE, C.; ROSS, R. A. y SPOONER, P. Thermogravimetric study of the pyrolysis of the bark and chemically-modified bark of Jack pine, *Pinus banksiana* Lamb. Wood Science Technology 9(4):259-274. 1975. (0781)
- FALCON, J. Biological transformations of light energy into methane using an anaerobic filter. Tesis Ph.D. Lawrence, K. S., University of Kansas, 1979. 225 p. (0782)
- FARAG, F. A.; BEDAIWI, E. H. y ABAU EL-FADL, M. Production of methane gas from poultry droppings. Agr. Res. Rev. 48(2):98-106. 1970. (0783)
- FARIAS, R. R. DE. Gás combustível e adubo orgânico e baixo custo. Rio de Janeiro, Brasil, 1958. 22 p. (0784)

- FARMERS USE biogas, saves \$ 100 a month. *Animal Husbandry and Agricultural Journal* 12(2):38. 1977. (0785)
- FAYE, A. D. Bio-gaz. Production de méthane par fermentation anaérobie de la biomasse (compostage et production d'énergie). Bombay, India, C.N.R.A. 1978. 41 p. (0786)
- FEACHEM, R.; MCGARRY, M. G. y MARA D., eds. Domestic wastes as an economic resource: biogas and fish culture. In *IDRC water wastes and health in hot climates*. New York, John Wiley, 1977. pp. 347-364. (0787)
- FEASIBILITY STUDY: fuel cell cogeneration in a water pollution control facility. Final report. s.l., 1980. 164 p. (0788)
- FELDMAN, S. L. y BREESE, J. The economic impact of methane generation on dairy farms. *Resource Recovery and Conservation* 3(3):261-273. 1978. (0789)
- FELDMANN, H. F. Pipeline gas from solid wastes. *Chemical Engineering Progress* 67(12):1-18. 1972. (0790)
- _____.; KIANG, K. D. y WEN, C. Y. Cattle manure: a process study. *Mech. Eng.* 95(10):36-41. 1973. (0791)
- _____. Conversion of forest residues to a methane-rich gas. In *Symposium on Energy from Biomass and Wastes*, Washington, D. C., 1978. *Symposium papers*. Washington, D.C., Institute of Gas Technology, 1978. pp. 537-556. (0792)
- _____. y ALDERSTEIN, J. K. Syngas process. *ACS Symposium* 76:359-370. 1978. (0793)
- _____. Investigate gasification methods for conversion of forest residue to methane-rich gas using chemically incorporated calcium oxide catalyst. In *Smithsonian Science Information Exchange*. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. DJ--1005-1) (0794)
- FELIX, A. A. Experimentación con digestores de desechos orgánicos en el IIE. Cuernavaca, Morelos, México, 1978. p. irr. (0795)
- * FELIZARDO, M. I. The utilization of animal and vegetable wastes for the simultaneous production of fertilizer and of fuel gas for heat and power. *Science Review* 5(11-12):18-23. 1964. (0796)
- FERGUSON, I. R.; PHILLIPS, K. D. y WILLIS, A. T. An evaluation of the 'Gas Kit' disposable hydrogen and carbon dioxide generator for the culture of anaerobic bacteria. *Journal of Applied Bacteriology* 41: 433-437. 1976. (0797)
- FERNANDES, R. Lixo urbano: de foco de doenças a obtenção de combustíveis. *Revista Fundação Jones dos Santos Neves (Brasil)* 3(1):38. 1980. (0798)
- FERRAILOLO, G y REVERBERI, A. [Rate of propagation of methane-oxygen flames]. *Quad. Ing. Chim. Ital. (Italia)* 4(2): 25-27. 1968. (En Italiano) (0799)
- FERRANDO, R. Une certaine autarcie energetique de l'agriculture est elle possible? *Recueil de Medecine Veterinaire* 155(12):967-971. 1979. (0800)
- * FERRAZ, J. M. G. y MARRIEL, I. E. Bio-gás, fonte alternativa de energia. Sete Lagoas, Empresa Brasileira de Pesquisa Agropecuaria, 1980. 27 p. (Circular Técnica. Empresa Brasileira de Pesquisa Agropecuaria no. 3). (0801)
- FERRY, J. G.; SMITH, P. H. y WOLFE, R. S. *Methanospirillum* a new genus of methanogenic bacteria, and characterization of *Methanospirillum hugatti* species nova. *International Journal of Systematic Bacteriology* 24(4): 465-469. 1974. (0802)

FERRY, J. G. y WOLFE, R. S. Anaerobic degradation of benzoate to methane by a microbial consortium. Arch. Microbiol. 107:33-40. 1976. (0803)

* _____ y WOLFE, R. S. Nutritional and biochemical characterization of *Methanospirillum hungatii*. Applied and Environmental Microbiology 34(4): 371-376. 1977. (0804)

_____. y PECK, H. D. Relationship between sulfate reduction and methane production in salt march sediments. Abstr. of the Annual Meeting American Society of Microbiology no. N49. 1977. p. irr. (0805)

FERTILIZER FROM waste with energy to spare. Processing 24(11):52. 1978. (0806)

FILGUEIRAS, G. Energização no meio rural brasileiro através do aproveitamento da biomassa. Rio de Janeiro, Brasil, 1979. 22 p. (0807)

_____. Vinhoto como matéria prima para produção de biogás. Sacccharum (Brasil) 2(5):12-15. 1979. (0808)

FINA, L. R.; BRIDGES, R. L. y COBLENTZ, T. H. The anaerobic decomposition of benzoic acid during methane fermentation. III. The fate of carbon four and the identification of propanoic acid. Archives of Microbiology 118(2):169-172. 1978. (0809)

FINANCIADORA DE ESTUDOS E PROJECTOS, BRASIL. Geradores populares de biogás. s.l., s.f. 10 p. (0810)

FINANCING OF gobar gas plants by banks. Reserve Bank of India Bulletin. 1976. p. irr. (0811)

FINK, G. y BERTHELSEN, L. Goedningsgasanlaeg: biologisk gasfremstilling. Copenhagen, Kongelige Veterinaer- og Landbohøjskole, 1978. 65 p. (Meddelelse. Jordbrugstekniks Institute KVL no. 34) (0812)

FINLAY, J. Report on first inspection visit to 95 gobar gas plants constructed in Nepal. Butwal, Nepal, Development and Consulting Services, 1976. p. irr. (0813)

_____. Report on second inspection visit to 95 gobar gas plants constructed in Nepal. Butwal, Nepal, Development and Consulting Services, 1977. p. irr. (0814)

_____. Efficient, reliable cattle dung gas plants: up-to-date development in Nepal. Butwal, Nepal, Development and Consulting Services, 1978. p. irr. (0815)

_____. Operation and maintenance of gobar gas plants. Butwal, Nepal, Development and Consulting Services, 1978. p. irr. (0816)

_____. Night soil (sewerage) gas plant. Butwal, Nepal, Development and Consulting Services, 1980. p. irr. (0817)

* FINNEY, C. D. y EVANS, R. S. Anaerobic digestion. The rate-limiting process and the nature of inhibition. Science 190(4219):1088-1089. 1975. (0818)

* _____ . Fast production of methane and bacterial protein by anaerobic digestion. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. DJ--435-1) (0819)

Investigación en progreso

* _____ . High-rate anaerobic digestion. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. DV-327) (0820)

Investigación en progreso

- FISCHER, J. R.; SIEVERS, D. M. y FULHAGE, C. D. Settling characteristics of swine manure as related to digester loading. In Managing livestock wastes. St. Joseph, MI, American Society of Agricultural Engineers, 1973. pp. 456-462. (0821)
- _____.; SIEVERS, D. M. y FULHAGE, C. D. Anaerobic digestion in swine wastes. Columbia, MO, University of Missouri, 1974. 15 p. (Report no. NP--24369) (0822)
- _____. y IANNOTTI, E. L. Producing methane gas from manure. Confinement. 1976:1-3. 1976. (0823)
- _____.; MEADOR, N. F. y SIEVERS, D. M. Design and operation of a farm-size anaerobic digester. In American Society of Agricultural Engineers Annual Meeting, Raleigh, NC, 1977. St. Joseph, MI, American Society of Agricultural Engineers, 1977. 27 p. (0824)
- _____.; IANNOTTI, E. L. y PORTER, J. B. Producing methane gas from swine manure in a pilot-size digester. St. Joseph, MI, American Society for Agricultural Engineers, 1977. 12 p. (ASAE Paper no. 77-604) (0825)
- Publicado también en: Trans. ASAE 22(2):370-374. 1979.
- _____.; IANNOTTI, E. L. y SIEVERS, D. M. Biological and chemical fluctuations during anaerobic digestion of swine manure. In American Society of Agricultural Engineers Summer Meeting, Logan, UT, 1978. St. Joseph, MI, American Society of Agricultural Engineers, 1978. 14 p. (Paper no. 78-4011) (0826)
- _____. y MARKS, J. J. Methane from hog manure. Crops and Soils Magazine 31(2):10-13. 1978. (0827)
- _____.; IANNOTTI, E. L. y SIEVERS, D. M. Methane production systems for swine manure. Liberal, Kansas, 1978. 33 p. (0828)
- FISCHER, J. R.; CHRISTIANSON, L. y FULHAGE, C. D. Utilizing the energy from a swine anaerobic digester. St. Joseph, MI, American Society of Agricultural Engineers, 1978. 18 p. (ASAE Paper no. 78-902) (0829)
- _____.; MEADOR, N. F. y SIEVERS, D. M. Design and operation of a farm anaerobic digester for swine manure (capable of producing methane gas for heating). Transactions of the ASAE 22(5):1129-1136, 1144. 1979. (0830)
- _____.; SIEVERS, D. M. y FULHAGE, C. D. Design criteria and operational guidelines for a pilot-scale anaerobic digester. Resource Recovery and Conservation 4(1):1-11. 1979. (0831)
- _____.; MEADOR, N. F. y FULHAGE, C. D. Energy self-sufficient swine production system. In ASAE and CSAE Summer Meeting, Winnipeg, Canadá, 1979. Winnipeg, 1979. p. irr. (ASAE Technical Paper no. 26) (0832)
- * _____; IANNOTTI, E. L. y SIEVERS, D. M. Equipment and structures to manage and utilize agricultural wastes and residues for energy. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 236. (0833)
- Investigación en progreso
- _____.; IANNOTTI, E. L. y PORTER, J. H. Producing methane gas from swine manure in a pilot-size digester. Transactions of the ASAE 22(2):370-374. 1979. (0834)
- FISCHETTI, B. Quando -a stalla produce... gasolio (esperimenti produzione bio-gas). Giornale di Agricoltura 90(16): 28-29. 1980. (0835)
- FITZGERAL, P. R. y PRAKASAM, T. B. S. Survival of *Trichinella spiralis* larvae in sewage sludge anaerobic digesters. Journal of Parasitology 64(3):445-447. 1978. (0836)

- * FITZSIMONS, R.; LAURINO, C. N. y VALLEJOS, R. H. Explotación de las plantas acuáticas en los embalses de Paraná medio para la producción de gas y fertilizantes. Santa Fe, Argentina, Imprenta de la Universidad Nacional del Litoral, 1980. 20 p. (0837)
- FLEMING, J. Organic conversion system. s.l., 1975. 8 p. (0838)
- FLOWERS, A. y BRUCE, A. J. Energy from marine biomass. *Sea Technology* 18(10):18-21. 1977. (0839)
- FLYE SAINTE MARIE, C. La foret en cause pour sa ruine? *Agriculture* no. 440: 140-144. 1980. (0840)
- FOGLEMANN, S. F.; FISHER, L. A. y BLACK, A. R. Total energy recovery system for agribusiness. San Francisco, CA, International Engineering Co., 1977. 68 p. (SAN-1327--2) (0841)
- _____.; FISHER, L. A. y BLACK, A. R. Total energy recovery system for agribusiness: Lake County study. San Francisco, CA, International Engineering Co., 1978. 100 p. (SAN--1327-5) (0842)
- FOLLMAN, H. y MAERKL, H. pH-statisches Verfahren zur kontinuierlichen anaeroben Vergaerung von hochbelasteten Abwaessern zu Methan. I. Entwicklung des Konzeptes. *Milchwissenschaft* 34(6):347-350. 1979. (0843)
- _____. y MAERKL, H. pH-statisches Verfahren zur kontinuierlichen anaeroben Vergaerung von hochbelasteten Abwaessern zu Methan. II. Experimentelle Untersuchungen und Verifizierung des Konzeptes am Beispiel der Molke. *Milchwissenschaft* 34(7):393-396. 1979. (0844)
- FONG, W. Methane production from animal wastes by anaerobic decomposition. Tesis. Winnipeg, University of Manitoba. Faculty of Science, s.f. 58 p. (0845)
- * FOOD AND AGRICULTURE ORGANIZATION ON THE UNITED NATIONS. China: reciclaje de desechos orgánicos en la agricultura; informe sobre un viaje de estudios FAO/PNUD a la República Popular de China 28 de abril-24 de mayo de 1977. Roma, 1977. 106 p. (Boletín de Sueños de la FAO no. 40) (0846)
- * _____ China: Azolla propagation and small-scale biogas technology; report on an FAO/UNDP study tour to the People's Republic of China 21 May-11 Jun. 1978. Roma, 1978. 81 p. (FAO Soils Bulletin no. 41) (0847)
- * _____/SIDA WORKSHOP ON THE USE OF ORGANIC MATERIALS AS FERTILIZERS IN ASIA, BANGKOK, 1976. Organic recycling in Asia. Roma, 1978. 417 p. (FAO Soils Bulletin no. 36) (0848)
- FOREE, E. G. y McCARTY, P. L. The decomposition of algae in anaerobic waters. *Environmental Science and Technology* 4:842-849. 1970. (0849)
- Publicado también en *Industrial Waste Conference*, 24., Purdue University, May 1969, pp. 13-36; y en *Technical Report no. 95*. Stanford University. Department of Civil Engineering, 1968.
- FOREST, F. Experimentation des conditions de production de compost enrichi a partir du recyclage des déchets végétaux et animaux. Saria, Alto Volta, Station Agricole de Saria, 1977. 4 p. (0850)
- _____.; LABEYRIC, P. y MORANT, P. Experimentation des moyens de production de compost enrichi en milieu rural. Saria, Alto Volta, Station de Recherche Agronomique de Saria, 1977. 10 p. (0851)
- _____.; LABEYRIC, P. y MORANT, P. Expérimentation des moyens de production de compost enrichi et d'énergie en milieu rural - résultats et perspectives. Saria, Alto Volta, C.I.E.H./I.R.A.T., 1977. 9 p. (0852)

FOREST, F. Production de compost enrichi et récupération d'énergie en milieu rural a partir de l'utilisation des déchets végétaux et animaux. Ouagadougou, Alto Volta, Comité Interafricain d'Etudes Hydrauliques, 1978. 33 p. (0853)

_____. y LE GOUPIL, J. L. Valorisation agronomique des ressources en eau et en sol, à partir de la fermentation et du recyclage des déchets agricoles (bio-gaz): projet: La petite irrigation à la portée des systèmes agricoles vivriers paysans utilisant la fermentation méthanique. s.l., I.R.A.T., 1978. 28 p. (0854)

* FOSTER, W. K. Industrial hydrocarbons project (methane generation). In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 237. (0855)

Investigación en progreso

FOWLER, G. J. y JOSHI, G. W. Studies on the fermentation of cellulose. Journal of the Indian Institute of Science 3:39-42. 1923. (0856)

* FOX, G. E.; MAGRUM, L. J. y BALCH, W. E. Classification of methanogenic bacteria by 16S ribosomal RNA characterization. Proceedings of the National Academy of Sciences 74(10):4537-4541. 1977. (0857)

FOX, R. D. Culture d'algues spirulina et production de bio-gaz. Paris, G.R.E.T., s.f. p. irr. (Fiche no. T.344) (0858)

FRANCA, A. M. M. Uma fonte alternativa de energia biogás, biodigestores, biofertilizante, um adubo eficiente e barato. s.n.t. (0859)

FRANCHET, A. Le gaz de fumier: la fermentation méthanique des deflections (lapins). Cuniculture no. 31:35-36. 1980. (0860)

FRANCHET, A. Recuperation et utilisation des fientes de poules (epandage, biogaz). In Session ITAVI: L'elevage de la Poule Pondeuse (Laying Hen Breeding), Saint-Brieuc Ploufragan, Francia, 1979. Courrier Avicole 36(776):18-22. 1980. (Paginación especial) (0861)

FRANCOIS, J. La jacinthe d'eau fleau aquatique ou hydrophyte d'avenir? Annales de Gembloux 85(2):73-81. 1979. (0862)

FRANZ, M. F. "A waste-handling revolution" in the dairy industry. Compost Science/Land Utilization 20(1):12-13. 1979. (0863)

FREEMAN, C. y PYLE, L. Methane generation by anaerobic fermentation: an annotated bibliography. London, Intermediate Technology Publishers, 1977. 68 p. (0864)

FREER H., G. Apuntes personales sobre biomasa como fuente de energia. San José, Costa Rica, 1980. p. irr. (0865)

FREITAS, S. Problema energético e fontes convencionais. Eletrorural (Brasil) 4(17):20-25. 1979. (0866)

FRENCH, D. Economics of renewable energy systems for developing countries. Washigton, D. C., AID, 1979. 67 p. (0867)

FREY, B. C. Optimum anaerobic digester loading rate for maximum methane gas production from swine manure. Stillwater, Oklahoma State University, 1979. 245 p. (0868)

FROM WASTE to gas. Animal Husbandry and Agricultural Journal 9(5):6. 1974. (0869)

FROM WASTE to gas: build your own generator. Agric. Los Bands 13(3):9-10. 1974. (0870)

- FROSTELL, B. Anaerobic wastewater treatment with emphasis on sludge retention. Tesis Akademisk ayhandling (Tekn,Dr). Stockholm, Suecia, Tekniska Hoegskolan, 1979. 88 p. (0871)
- FRUIT WASTE and all the gas. Industrial Research News 134. 1979. p. irr. (0872)
- FRUIT WASTE into biogas. Australian Science Newsletter 6(7):7. 1979. (0873)
- FRY, L. J. Power and electric light from pig manure. Farm and Country. 1960. p. irr. (0874)
- _____. Methane gas power for this farm is fuelled by 900 pigs. Farmers Weekly 55(18):87. 1961. (0875)
- _____. y MERRILL, R. Methane digesters for fuels gas and fertilizer. Santa Cruz, CA, New Alchemy Inst.-West, 1973. 46 p. (Newsletter no. 3) (0876)
- _____. Methane power plants. Andover, 1974. 96 p. (0877)
- _____. Practical buildings of methane power plants for rural energy independence. Santa Bárbara, CA, 1977. 96 p. (0878)
- FUCHS, G.; STUPPERICH, E. y THAUER, R. K. Acetate assimilation and the synthesis of alanine, aspartate and glutamate in *Methanobacterium thermoautotrophicum*. Arch. Microbiol. 117:61-66. 1978. (0879)
- _____. y STUPPERICH, E. Evidence for an incomplete reductive carboxylic acid cycle in *Methanobacterium thermoautotrophicum*. Arch. Microbiol. 118:121-125. 1978. (0880)
- _____.; STUPPERICH, E. y THAUER, R. K. Function of fumarate reductase in methanogenic bacteria (*Methanobacterium*). Arch. Microbiol. 119:215-218. 1978. (0881)
- FUCHS, G.; THAUER, R. y ZIEGLER, H. Carbon isotope fractionation by *Methanobacterium thermoautotrophicum*. Arch. Microbiol. 120:135-139. 1979. (0882)
- FUEL GAS and farm manure plants. Gosamvardha na 15(2):10-12. 1967. (0883)
- FUEL GAS from agricultural wastes. Makati, Rizal, Philippines, Economic Development Foundation, s.f. 30 p.(0884)
- FULFORD, D. Report on first inspection visit to Chinese biogas. Butwal, Nepal, Development and Consulting Services, s.f. p. irr. (0885)
- _____. Biogas in Nepal; the state of the art. Butwal, Nepal, Development and Consulting Services, 1978. p. irr. (0886)
- _____. Report on third inspection visit to 95 gobar gas. Butwal, Nepal, Development and Consulting Services, 1978. p. irr. (0887)
- _____. y PETERS, N. Survey of present gobar gas work in India. Butwal, Nepal, Development and Consulting Services, 1978. p. irr. (0888)
- * _____. A Nepali version of the Chinese design of bio gas plant. Newsletter Bio Gas no. 10:6-7. 1980. (0889)
- _____. y PETERS, N. Preliminary trials of cement gobar gas plant designs. Butwal, Nepal, Development and Consulting Services, 1980. p. irr. (0890)
- FULHAGE, C. D. y SIEVERS, D. M. Generation of methane gas from biological materials. Missouri, University of Missouri, 1974. 3 p. (0891)
- _____.; SIEVERS, D. M. y FISCHER, J. R. Generating methane gas from manure. Columbia, MO, 1975. 4 p. (0892)

FULHAGE, C. D. Methane from manure: It's not far everyone. *Hoard's Dairyman* 121(4):280A-280C. 1976.

(0893)

_____. Anaerobic lagoon effluent as fertilizer in Missouri. St. Joseph, MI, ASAE, 1978. 13 p. (ASAE Paper no. 78-4560)

(0894)

- * FULLER, D. R. y WILKE, D. A. Integrated energy systems monitoring of Wilton wastewater facilities. In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory*. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 254.

(0895)

Investigación en progreso

- * FULTON, E. L. Methane generation from poultry-house wastes. Stephenville, Texas A & M University. Center for Energy and Mineral Resources, 1979. 10 p.

(0896)

FUQUA, D. Energy production from biomass and wastes: a new prospective and a second change. In *Management Assessment of Energy from Biomass and Wastes Conference*, Orlando, FL, 1979. Chicago, IL, Institute of Gas Technology, 1980. pp. 1-3.

(0897)

- * GABINETE DE PLANEJAMENTO E COORDENAÇÃO GERAL, FLORIANOPOLIS, BRASIL. Como construir seu gerador de biogás. Florianópolis, Brasil, 1980. 28 p.

(0898)

GADDY, J. L.; PARK, E. L. y RAPP, E. A process for disposal of animal waste by anaerobic oxidation (to methane and carbon dioxide). Dallas, 1973. p. irr.

(0899)

Presentado en ACS National Meeting, 165., Dallas, 1973.

GADDY, J. L. y CLAUSEN, E. C. Bioconversion of agricultural residues to methane. Kansas City, 1976. 16 p.

(0900)

Presentado en AICHe National Meeting, 81., Kansas City, USA

_____. Economic and kinetic studies of the production of chemicals and farm energy by fermentation of biomass, s.l., 1979. 8 p.

(0901)

GAISFORD, M. Muck power; the pros and cons of methane production. *Farmer's Weekly* 80(22):6-13. 1974.

(0902)

GAJRAJ, A. M. Biological energy resources for the West Indies. Washington, D. C., s.f. pp. 44-47. (Studies on Scientific and Technological Development no. 28)

(0903)

Presentado en Caribbean Seminar on Science and Technology Policy and Planning, 2., Washington, D. C.

GALWARDI, E. F. Recovery and utilization of energy from the anaerobic treatment of municipal wastewater sludges. Tesis Ph. D. Austin, University of Texas, 1975. 259 p.

(0904)

GANAPINI, W. Alternate energy sources: organic wastes as methane sources / *Acqua Aria* 6:407-413. 1978. (En italiano)

(0905)

_____. Fonti energetiche alternative: i rifiuti organici come fonte di metano. *Genio Rurale* 41(1):41-49. 1978.

(0906)

GANESH, S. Biogas technology - the next phase. *Urja* 1(4):19-23. 1977.

(0907)

- GANNANI, W. I liquami di porcilaia come fonte di energia. *Informatore Agrario* no. 48:24881-24887. 1976. (0908)
- GARBAGE GASIFICATION is tackled by oil team. *Canadian Chemical Processing* 60(3):25. 1976. (0909)
- GARBAGE - TO - methane scheme proposed. *Chemical and Engineering News* 52(7):7. 1974. (0910)
- GARBAGE WILL generate electricity. *Chemical Engineering* 81(5):69. 1974. (0911)
- GARBER, W. F. Plant-scale studies of thermophilic digestion at Los Angeles. *Sewage Industrial Wastes* 26(10):1202-1216. 1954. (0912)
- _____.; O'HARA, G. T. y COLBAUGH, J. E. Thermophilic digestion at the hyperion treatment plant. *Journal of the Water Pollution Control Federation* 47:950-961. 1975. (0913)
- GARG, H. P.; PANDE, P. C. y THANVI, K. P. Designing a suitable biogas plant for India. *Appropriate Technology* 7(1):29-31. s.f. (0914)
- _____. Family size biogas plant. *Invention Intelligence* 12(1):12, 149. 1977. (0915)
- _____. World bibliography on bio-gas technology and its utilization. Jodpur, India, Central Arid Zone Research Institute, 1977. 71 p. (CAZRI Library Publication Series no. 4) (0916)
- GARG, M. K. Pilot project on gobar gas. Lucknow, India, Planning Research and Action Institution, 1962. p. irr. (0917)
- _____. Some developments of appropriate technology for improving physical amenities in rural homes. London, *Appropriate Technology Publications*, 1978. 42 p. (Case Studies Series no. 2) (0918)
- GARRETT, D. E. Conversion of biomass materials into gaseous products: phase I; final technical report. Springfield, VA, Energy Research and Development Administration, 1977. 139 p. (0919)
- GARROTT JUNIOR, W. A. Anaerobic waste treatment facility. s.l., 1977. 10 p. (USA Patente no.--4, 040, 963) (0920)
- GAS ENGINEERS' handbook. New York, Industrial Press, s.f. p. irr. (0921)
- GAS METANO. *El Mundo*, El Salvador; Julio 25, 1979. (0922)
- GAS METANO para reducir costos de las industrias. *La Prensa Libre*, San José, Costa Rica; Agosto 14, 1979. (0923)
- GAS METANO sustituye fuel-oil totalmente. *La Prensa Gráfica*, El Salvador; Marzo 31, 1980:11. (0924)
- GAS NATURAL es buen sustituto de la gasolina. *El Diario de Hoy*, El Salvador; Julio 11, 1979:45-46. (0925)
- GAS POWER: methane. *Impact* 10(9):314. 1975. (0926)
- GASAWAY, W. C. Methane production in rock ptarmigan (*Lagopus mutus*). *Comparative Biochemistry and Physiology*, A 54(2):183-185. 1976. (0927)
- GAUCHOS JÁ estao usando esterco para iluminação. *O Agricultor (Brasil)* 1(1):3. 1980. (0928)
- GAVINELLI, C. Una fonte biologica d' energia: l'uso pratico del metano in China. *Acqua Aria* no. 4:319-320. 1979. (0929)
- GAZ DE lisier: principes de production. *Eleveur de Porcs* no. 112:51-58. 1980. (0930)

- GEERKEN, C. M.; GONZALEZ, R. y FUNES, P. Efecto de la edad de corte sobre la digestibilidad y la producción de metano "in vitro" de la Bermuda Cruzada no. 1 (*Cynodon dactylon*). In Reunión de la Asociación Cubana de Producción Animal, 2., Habana, 1979. Habana, Centro de Información y Documentación Agropecuario, 1979. p. 98 (0931)
- * GENERAL DESIGN considerations. In Ad Hoc Panel on Methane Generation From Human, Animal, and Agricultural Wastes, Washington, D. C., 1977. Methane generation from human, animal, and agricultural wastes. Washington, D. C., National Academy of Sciences, 1977. pp. 61-73. (U.S. National Technical Information Service. PB. no. 266469) (0932)
- GENUNG, R. K.; MILLION, D. L. y HANCHER, C. W. Pilot plant demonstration of an anaerobic fixed-film bioreactor for wastewater treatment. Biotechnology and Bioengineering Symposium 8: 329-344. 1978. (0933)
- * GETTY SYNTHETIC FUELS, SIGNAL HILL, CA. Landfill methane recovery program. Signal Hill, CA, s.f. 1 p. (0934)
- * _____ . Monterey Park landfill methane recovery facility. Signal Hill, CA, s.f. 1 p. (0935)
- * _____ . National environmental industry award. Signal Hill, CA, s.f. 1 p. (0936)
- * _____ . Palos Verdes landfill methane recovery facility. Signal Hill, CA, s.f. 1 p. (0937)
- * _____ . Signal Hill history repeats itself. Signal Hill, CA, s.f. 4 p. (0938)
- * GHAFUOR ANSARI, A. y YASIN, M. Design and development of bio-gas/gober gas plant. In National Seminar on Bio-Gas Technology, Lahore, Pakistan, 1980. Proceedings. Islamabad, Pakistan, Appropriate Technology Development Organization, 1980. pp. 69-77 (0939)
- GHASWALA, S. K. Gobar gas plant; learning a lesson from China. Science for Villages 1(3). 1977. (0940)
- GHATE, P. B. Biogas: a decentralised energy system - a pilot investigation project. Economic and Political Weekly 14(27):1132-1136. 1979. (0941)
- GHOSE, T. K. y BHADRA, A. Maximization of energy recovery in biomethanation process. I. Use of cowdung as substrate in multireactor system. New Delhi, Indian Institute of Technology, s.f. p. irr. (0942)
- _____ . y DAS, D. Maximization of energy recovery in biomethanation process. II. Use of mixed residue in batch system. New Delhi, Indian Institute of Technology, s.f. p. irr. (0943)
- _____ . Biochemical engineering feasibility of biogas production as an appropriate technology. In National Convention on Environmental Engineering, 2., New Delhi, India, 1976. New Delhi, India, 1976. p. irr. (0944)
- * _____ . y MUKHOPADHYAY, S. N. Some basic engineering considerations to maximize bioenergy production. Indian Chemical Engineer 18(4):12-16. 1976. (0945)
- _____ . y TILAK, B. D., eds. Prospects of manufactures of industrial chemicals from cellulosic raw materials. In Symposium on Bio-Conversion of Cellulosic Substances into Energy, Chemicals and Protein, New Delhi, India, 1977. New Delhi, Indian Institute of Technology, 1978. pp. 25-36. (0946)
- _____ . y RAMACHANDRAN, A., eds. Role of bioconversion in India's Science and technology plan. In Symposium on Bio-Conversion of Cellulosic Substances into Energy, Chemicals and Protein, New Delhi, India, 1977. New Delhi, Indian Institute of Technology, 1978. pp. 1-10. (0947)
- * _____ .; SINGH, A. J. y MUKHOPADHYAY, S. N. Increased methane production in biogas. Biotechnology Letters 1: 275-280. 1979. (0948)

- GOLD, D. A.; GOLDBERG, I. y COONEY, C. L. Biological production of chemical feedstocks from synthesis gas. In American Chemical Society Meeting, 180.; Chemical Congress of the North American Continent, 2., Las Vegas, NY, 1980. Las Vegas, NY, American Chemical Society. Division of Pet. Chemical, 1980. pp. 575-582. (0989)
- GOLDEMBERG, J. Biomassa como fonte de energia. *Energia* 1(2):4-23. 1979 (0990)
- _____. Em busca de novas soluções enquanto o petróleo agoniza. *Revista Fundação Jones dos Santos Neves (Brasil)* 3(1):10-14. 1980. (0991)
- _____. Energia de biomassa, o potencial brasileiro. *Dados e Idéias (Brasil)* 5(1):57-60. 1980. (0992)
- GOLDSTEIN, J. Garbage as you like it. Emmaus, PA, Rodale Press, 1970. p. irr. (0993)
- * _____ . Recuperación de recursos sistemas de biogás. *Desarrollo Nacional*. 1979:73-81. 1979. (0994)
- GOLDESTEIN JR., L. Comparação de alternativas de conversão de energia. Rio de Janeiro, Brasil, 1978. 17 p. (0995)
- GOLUEKE, C. G. y OSWALD, W. J. Biological conversion of light - energy to the chemical energy of methane. *Applied Microbiology* 7(4):219-227. 1960. (0996)
- _____. y OSWALD, W. J. Power from solar energy via algae-produced methane. *Solar Energy* 1(3):86-92. 1963 (0997)
- _____. Composting: a study of the process and its principles. Emmaus, PA, Rodale Press, 1973. 110 p. (0998)
- _____. Biological reclamation of solid wastes. Emmaus, PA, Rodale Press, 1977. 249 p. (0999)
- GOLUEKE, C. G. Small farm energy project. *Compost Science Land Utilization* 19(3):15. 1978. (1000)
- GOMES, I. C. Gás de aterros sanitários: o projeto da COMGAS. *Atualidades do Conselho Nacional do Petróleo (Brasil)* 12(71):60-66. 1980. (1001)
- * GOMES, J. R. Esterco pode gerar luz, adubo e ração. *Jornal do Produtor (Brasil)* 2(11):3. 1981. (1002)
- * GOMEZ GOMEZ, J. y VINIEGRA GONZALEZ, G. The use of anaerobically digested cattle slurry as a fertilizer for vegetables. *Tropical Animal Production (México)* 4(1):26-30. 1979. (1003)
- * GONZALEZ, E. DE; HERNANDEZ, C. y MacLEOD, N. A. Efecto de la temperatura y el mezclaje sobre la tasa de producción de biogas procedente de la fermentación de estiércol de ganado alimentado con caña de azúcar. In *Reunión Anual del Centro Dominicano de Investigación Pecuaria con Caña de Azúcar, Santo Domingo, República Dominicana, 1976. Producción Animal Tropical (México)* 2(1):127. 1977. (1004)
- GONZALEZ B., J. D. C. y MUÑOZ V., L. A. Aprovechamiento de desechos para la generación de bio-gas como fuente de energía. Panamá, Universidad de Panamá, Instituto Politécnico, 1978. 143 p. (PB-80-169998) (1005)
- GOODRICH, P. R. Energy production from manure. St. Paul, MN, 1978. 12 p. (Agricultural Engineering Report Series no. NP--24336) (1006)
- * _____ .; GUSTAFSON, R. J. y STARK, S. Utilization of energy from methane generation. In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory*. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 281. (1007)
- Investigación en progreso; Publicado también en: *SSIE. Energy Recovery for Biomass*. Washington, D. C., 1979. 1 p.

- GOPALAKRISHNAN, K. V. y MURTHY, B. S. Energy for internal combustion engines from wastes and biomass. Regional Journal of Energy, Heat, and Mass Transfer 1:265-279. 1979. (1008)
- _____. y MURTHY, B. S. Potentiality of water hyacinth for decentralized power generation in developing countries. Regional Journal of Energy, Heat and Mass Transfer 1:349-357. 1979. (1009)
- GOPALAKRISHNAN, N. K. Bio-energy research in India. Bombay, India, Tata Energy Research Institute Documentation Center, 1980. 14 p. (1010)
- GORDON, E. Les espoirs du biogas. Science et Avenir no. 397:37-42. 1980. (1011)
- GORDON, J. The Amazon (water) hyacinth. Mechanical Engineering 98(6):50-51. 1976. (1012)
- GOSSETT, J. M. y McCARTY, P. L. Heat treatment of refuse for increasing anaerobic biodegradability. American Institute of Chemical Engineers Symposium Series 72(158):64-71. 1976. (1013)
- _____.; HEALY JUNIOR, J. B. y YOUNG, L. Y. Heat treatment of refuse for increasing anaerobic biodegradability. Stanford, Stanford University. Department of Civil Engineering, 1975. p. irr. (Technical Report no. 198) (1014)
- _____.; HEALY JUNIOR, J. B. y STUCKEY, D. C. Heat treatment of refuse for increasing anaerobic biodegradability. Stanford, Stanford University. Department of Civil Engineering, 1976. p. irr. (Technical Report no. 205) (1015)
- GOSSETT, J. M.; HEALY JUNIOR, J. B. y OWEN, W. F. Heat treatment of refuse for increasing anaerobic biodegradability, final progress report. Stanford, Stanford University. Department of Civil Engineering, 1976. p. irr. (Technical Report no. 212) (1016)
- _____. Heat treatment of refuse for increasing anaerobic biodegradability. Stanford, CA, Stanford University, 1977. 222 p. (1017)
- _____.; WILSON, J. C. y EVANS, D. S. Anaerobic digestion of sludge from chemical treatment. Journal of the Water Pollution Control Federation 50:533-542. 1978. (1018)
- GOSWAMI, K. P. y CHOUDHURY, S. Farm waste can yield fuel-gas and manure. Indian Farming 1967:18-19. 1967. (1019)
- _____. Development of a Kachra - gas plant for biogas and manure. In National Symposium on Biogas Technology and Usage, New Delhi, India, 1977. New Delhi, India, 1977. pp. 27-28. (1020)
- GOTAAS, H. B. Composting: sanitary disposal and reclamation of organic wastes. Geneva, Suiza, World Health Organization, 1971. 205 p. (WHO Monograph Series no. 31) (1021)
- * GOTTASCHALL, W. C. The effect of gamma radiation on yields of methane gas from the anaerobic bacterial digestion of sewage sludge. In Symposium on Energy from Biomass and Wastes, Washington, D. C., 1978. Symposium papers, by D. L. Klass, and W. W. Waterman. Washington, D. C., Institute of Gas Technology, 1978. p. 193-214. (1022)
- * GOVERNMENT LIVE stock farm biogas plant in Goa. Bio-Gas Newsletter no. 3:5. 1980. (1023)

- GOVERNO APOIA construção de biodigestores pelo produtor rural. *Jornal Rural (Brasil)* 3(17). 1980. (1024)
- GOWAN, D. Slurry and farm waste disposal. Ipswich, Suffolk, Farming Press, 1972. 244 p. (1025)
- GOWSAMI, K. P. y CHAUDHURI, S. Farm wastes can yield fuel gas and manure. *Indian Farming* 17(1):18-19. 1967. (1026)
- GRAEF, S. P. y ANDREWS, J. F. Stability and control of anaerobic digestion. *Journal of the Water Pollution Control Federation* 146(4):666-683. 1974. (1027)
- GRANADOS V., R. y LIZANO, M. Posibilidades de generación y uso de gas metano en El Salvador. San Salvador, Universidad de El Salvador. Facultad de Ciencias Agronómicas, 1978. 7 p. (1028)
- GRANT, F. y BROMMENSCHENKEL, F. Liquid aerobic composting of cattle wastes and evaluation of by-products. Washington, D. C., Government Printing Office, 1974. 59 p. (Environmental Protection Technology Series no. EPA-660/2-74-034) (1029)
- * GREGOR, H. P. y CARDENAS, R. R. Algal concentration by ultrafiltration. *In* U.S. Department of Energy. Division of Solar Technology. Fuels from biomass program, program summary January 1978. Washington, D. C., 1978. p. 52. (1030)
- Investigación en progreso
- * _____ . Permselective membrane control algal and wood digesters for increased production and chemical recovery. *In* U.S. Department of Energy. Division of Solar Technology. Fuels from biomass program, program summary January 1978. Washington, D. C., 1978. p. 53. (1031)
- Investigación en progreso
- GRETHLEIN, H. E. Anaerobic digestion and membrane separation of domestic wastewater. *Journal of the Water Pollution Control Federation*. 1978: 754-763. 1978. (1032)
- GREWAL, N. S. y SAGAR, B. Possibilities of biogas as an energy supplemented during peak hours. s.l., 1975. p. irr. (1033)
- _____. y SAGAR, B. Efficient layout for a gobar gas (animal dung) plant: waste disposal structures. *Progressive Farming* 12(11):12-13. 1976. (1034)
- _____. y SINGH, M. Maintenance of gobar gas plant. *Progressive Farming* 13(2):30. 1976. (1035)
- GREY, J. The science and technology of nonconventional energy sources for developing countries. New York, 1975. 130 p. (1036)
- GRIFFIN, R. S. Recommendation for the workshop on biogas technology and utilization. *Wild Science News* 12(19):410-411. 1975. (1037)
- GRILLOT, M. Biogaz: l'exemple d'une station d'epuration urbaine. *France Agricole* 36(1801):35. 1980. (1038)
- GROEN, G. y CHRISTENSEN, J. Biogas: alternativ energi? *Ugeskrift for Agronomer, Hortonomer, Forstkandidater og Licentiater* 122(26):543-546. 1977. (1039)
- _____. Biogasanlaeg. *Tidsskrift for Landoekonomi* 167(3):163-167. 1980. (1040)
- * GROUPE DE RECHERCHE ET D'ECHANGES TECHNOLOGIQUES, PARIS. Biogaz éléments de bibliographie. Paris, Ministère de la Cooperation, 1980. 65 p. (1041)
- GROUT, A. R. Methane gas generation from manure. Harrisburg, PA, Department of Agriculture, 1973. p. irr. (1042)

- GRUNDEY, J. K. Anaerobic digestion - where does it fit? s.l., 1979. 9 p. (1043)
- Presentado en Conference Muck Power-Methane Gas from Farm Waste, Stoneleigh, 1979.
- GUERRERO, J., ed. Effect of gamma radiation on yields of methane gas from the anaerobic digestion of sewage sludge. Golden, Colorado School of Mines Publication Department, 1978. 33 p. (Report no. NP--25149) (1044)
- GUHA, B. R.; BANDYOPADHYAY, T. K. y CHOUDHURY, K. Fuel gas and compost manure from water-hyacinth. Khadi Gramodyog 22(11):483-486. 1976. (1045)
- GUJARAT AGRO-INDUSTRIES CORP., JUHAPURA, AHMEDABAD, INDIA. Techno-economic feasibility report on community gobar gas plant. Juhapura, Ahmedabad, s.f. p. irr. (1046)
- GUJARAT RAJYA KHADI GRAMODYOG BOARD, VADEJ, AHMEDABAD, INDIA. /Gobar gas plant Vignan Ane Rachna 7. Ahmedabad, India, s.f. p. irr. (En gujarati) (1047)
- _____. /Gobar gas plant why and when? Ahmedabad, India, s.f. p. irr. (En gujarati) (1048)
- GUNAWAN, C. y HARAHAP, F. Refrigeration by intermitten absorption system; the use of bio gas. Bandung, Indonesia, Institute of Technology, Development Technology Center, 1976. p. irr. (1049)
- GUNSALUS, R. P. y WOLFE, R. S. Stimulation of CO₂ reduction to methane by methyl-coenzyme M in extracts of *Methanobacterium*. Biochem. Biophys. Res. 76:790-795. 1977. (1050)
- _____. y WOLFE, R. S. ATP activation and properties of the methyl coenzyme M reductase system in *Methanobacterium thermoautotrophicum*. Journal of Bacteriology 135(3):851-857. 1978. (1051)
- GUNSALUS, R. P. y WOLFE, R. S. Chromophoric factors F₃₄₂ and F₄₃₀ of *Methanobacterium thermoautotrophicum*. FEMS Microbiol. Lett. 3:191-193. 1978. (1052)
- _____.; ROMESSER, J. A. y WOLFE, R. S. Preparation of coenzyme M analogues and their activity in the methyl coenzyme M reductase system of *Methanobacterium thermoautotrophicum*. Biochemistry 17:2374-2377. 1978. (1053)
- GUPTA, R. K. e IYER, N. V. Use of biogas in diesel engines. Agricultural Engineering Today 1 v. 1977. (1054)
- GUPTA, S. C. y SHUKLA, J. P. Utilization of by-products and wastes from sugar factories by cellulose fermentation. In Congress of the I.S.S.C.T., 13., Taiwan, 1968. Proceedings. Amsterdam, Elsevier, 1969. pp. 1912-1921. (1055)
- _____. Energy through solar aided biogas systems. In International Solar Energy Society Congress, New Delhi, India, 1978. Sun: mankind's future source of energy. Proceedings. New Delhi, India, 1978. pp. 791-796. (1056)
- GUZMAN, M. R. DE y CHIA, H. The uses of pig manure in Taiwan. ASPAC Food and Fertilizer Technology Center. Extension Bulletin no. 104:1-18. 1978. (1057)
- _____.; CHIA, H. y RIGOR, E. M. The uses of pig manure in Taiwan and App. 1: Methane production from pig manure. Taipei, Asian and Pacific Council, Food and Fertilizer Technology Center for Asian and the Pacific Region, 1978. 26 p. (Asian and Pacific Council. Food and Fertilizer Technology Center (ASPAC/FFTC). Extension Bulletin no. 104) (1058)

- GYAN, S. Cooking gas, manure from community letrines for rural areas and slums. In Annual Meeting of the Institution of Engineers, Nagpur, India, 1977. Nagpur, India, Environmental Engineering Division, 1977. p. irr. (1059)
- GYLLING, M.; NIELSEN, A. H. y PARSEBY, M. En økonomisk analyse af alternative energikilders konkurrenceevne i landbrugsbedriften. Copenhagen, Kongelige Veterinær- og Landbohøjskole, 1979. 61 p. (Landbrugsoekonomiske Studier no. 14) (1060)
- HAGA, K. Facilities of methane production from swine manure. Kobe, Japan, 1975. p. irr. (En japonés). (1061)
- Presentado en Annual Meeting of the Japanese Society of Zootechnical Science, 64.
- _____. Utilization of livestock wastes for energy, especially for methane. Animal Husbandry 30(1): 222-226. 1976. (En japonés) (1062)
- _____. Technical practices of production and utilization of biogas from animal wastes. New Techniques no. 14: 3-4. 1976. (1063)
- _____.; TANAKA, H. y NAKAJIMA, K. Methane production and utilization. In Report on research and development of the techniques for animal waste management. s.l., Agriculture, Forestry and Fisheries Council, 1979. pp. 149-152. (En japonés) (1064)
- * _____.; TANAKA, H. y HIGAKI, S. Methane production from animal waste and its prospects in Japan. Agricultural Wastes 1(1):45-55. 1979. (1065)
- HAGA, K. Principles and applications of methane fermentation. Research Journal of Food and Agriculture 2(4): 21-24. 1979. (En japonés) (1066)
- _____. Production and utilization of biogas. In Encyclopedia of animal waste management. Nagoya, Japan, 1979. pp. 100-114. (1067)
- _____. A system of production and utilization of biogas from animal waste. In New energy sources for agricultural facilities. Tokyo, Fiji Techno-System, 1980. p. irr. (1068)
- _____. y TANAKA, H. Fuel gas production from animal wastes by methane fermentation. Microorg. Resources 3:22-27. 1981. (1069)
- _____.; TANAKA, H. y NAKAJIMA, K. Mixing effect on mesophilic methane fermentation of swine wastes. Fukuoka, Japan, 1981. p. irr. (En japonés) (1070)
- Presentado en Meeting of the Japanese Society of Zootechnical Science, 72., Fukuoka, Japan, 1981.
- * HALBERT, E. J. Anaerobic digestion for methane. In Invitation Symposium Food Resources in Australia, 4., Melbourne, 1980. Melbourne, Australian Academy of Technological Sciences, 1980. 15 p. (1071)
- * _____ y BARNES, C. S. Anaerobic digestion of waste from an alcohol distillery. Sydney, Australia, 1980. 7 p. (1072)
- Presentado en Convention of the Institute of Brewing, 16
- HALIBURTON, J. D.; LAPP, H. M. y STEVENS, M. A. The energy balance in a pilot scale anaerobic digester. Guelph, Ontario, 1977. 13 p. (1073)
- Presentado en 1977 Annual Meeting Canadian Society of Agricultural Engineering, Guelph, Ontario, Canadá

- IANNOTTI, E. L.; PORTER, J. H. y FISCHER, J. R. Changes in swine manure during anaerobic digestion. *Dev. Ind. Microbiol.* 20:519-529. 1979. (1211)
- IDENTIFICATION OF organic compounds in industrial effluent discharges. Washington, D. C., Application of Modern Technology to International Development, s.f. p. irr. (1212)
- IDNANI, M. A. y CHAWLA, O. P. Cowdung gas plant is in the news again. *Indian Farming* 9(4):9-11. 1959. (1213)
- _____. y ACHARYA, C. N. Biogas plants, their installation, operation, maintenance and use. New Delhi, 1963. p. irr. (1214)
- _____. Some improvements in the biogas plant. *Indian Farming* 12(11):24-25. 1963. (1215)
- _____. y CHAWLA, O. P. Biogas plant slurry is now easier to dispose of. *Indian Farming* 13(11):6. 1964. (1216)
- _____. An IARI study shows why the biogas plant has not caught on with farmers. *Indian Farming* 14(3):14-25. 1964. (1217)
- _____. y CHAWLA, O. P. Improve the performance of your biogas plant in winter. *Indian Farming* 19(6):37-38. 1969. (1218)
- _____. Utilising the spent slurry from cowdung gas plant. *Indian Farming* 19(1):35. 1969. (1219)
- _____. y VARADARAJAN, S. Preparation of fuel gas and manure by anaerobic fermentation of organic materials. New Delhi, 1974. 60 p. (Indian Council of Agricultural Research. Technical Bulletin no. 46) (1220)
- IFERGAN, C. On peut compter sur le biogaz si les installations sont bien conduites (rentabilite). *Tracteurs et Machines Agricoles* no. 774:3-5. 1980. (1221)
- ILDRICK, S. El subproducto fertilizante de los digestores de metano. In *Simposio sobre Tecnologia Apropiaada, 1^o*, Cartago, Costa Rica, 1979. *Energfa solar: fundamentos y aplicaciones*. Cartago, Ed. Tecnológica de Costa Rica, 1979. pp. 285-288. (1222)
- IMHOFF, K. y FAIR, G. M. Sewage treatment. New York, 1940. p. irr. (1223)
- _____. y FAIR, G. Sewage treatment. 2. ed. New York, Wiley, 1956. p. irr. (1224)
- _____.; MULLER, W. y THISTLETHWAYLE, D. Disposal of sewage and other water-borne wastes. Ann Arbor, MI, Ann Arbor Publishers, 1971. p. irr. (1225)
- IMPERIAL VALLEY Bio-Gas Project operations and methane production from cattle manure. Arvada, CO, Bio Gas of Colorado, s.f. p. irr. (1226)
- * INDEN, P. y RAUTENBACH, R. A technical and economic analysis of systems for microbial methane production from wastes and biomass. In *Symposium on Energy from Biomass and Wastes*, Washington, D. C., 1978. Symposium papers, by D. L. Klass and W. W. Waterman. Washington, D. C., Institute of Gas Technology, 1978. pp. 697-711. (1227)
- INDIAN BIO-GAS resource index documentary resources. s.l., 1980. 43 p. (1228)
- INDIAN COUNCIL OF AGRICULTURAL RESEARCH, NEW DELHI. Economics of cowdung gas plant: a report. New Delhi, 1976. 66 p. (1229)
- INDIAN INSTITUTE OF MANAGEMENT, AHMEDABAD. CENTRE FOR MANAGEMENT IN AGRICULTURE. Bio-gas plants at village level (Problems and prospects in Gujarat). Ahmedabad, India, s.f. p. irr. (1230)

- INDIAN INSTITUTE OF MANAGEMENT, AHMEDABAD. CENTRE FOR MANAGEMENT IN AGRICULTURE. Bio-gas system in India (a socio-economic evaluation). Ahmedabad, India, s.f. p. irr. (1231)
- INDRICK, S. Usos del efluente: fertilizante, alimento para peces y medio para cultivo de algas. In Seminario sobre Aplicaciones de Biodigestores para Producir Gas Metano y Fertilizantes, Cartago, Costa Rica, 1980. Cartago, Instituto Tecnológico de Costa Rica, 1980. p. irr. (1232)
- INDUSTRIAL WASTE treatments. In Renzo, D. J. DE. Energy from bioconversion of waste materials. Park Ridge, NJ, Noyes Data Corporation, 1977. pp. 157-172. (1233)
- INFORMAÇÕES ADICIONAIS sobre metanização. s.l., s.f. 3 p. (1234)
- Presentado en Reunião Interna IICA-Brasil: Energia, Rio de Janeiro, Brasil, 1979.
- INSTITUTO COSTARRICENSE DE ELECTRICIDAD, SAN JOSE, COSTA RICA. OFICINA DE ESTUDIOS ESPECIALES. Fuentes de energía no convencionales. San José, Costa Rica, 1979. p. irr. (1235)
- DEPARTAMENTO DE ESTUDIOS BASICOS. Biomasa; fuente de energía no convencional. San José, Costa Rica, 1981. p. irr. (1236)
- * INSTITUTO DE INVESTIGACIONES ELECTRICAS, MEXICO, D. F. México: digestores de desechos orgánicos. Boletín Energético. Organización Latinoamericana de Energía (Ecuador) no. 14:29-39. 1980. (1237)
- * INSTITUTO DE PESQUISAS DA MARINHA, RIO DE JANEIRO. Geradores populares de biogás. Rio de Janeiro, Brasil, s.f. 9 p. (1238)
- INSTITUTO TECNOLÓGICO DE COSTA RICA, CARTAGO. Como construir un digestor. Cartago, Costa Rica, 1981. 7 p. (Instituto Tecnológico de Costa Rica. Serie Informativa Tecnológica Apropriada no. 1) (1239)
- INTEGRATED PROGRAMME for bio-gas system proposed. Wild Science News 12(19): 403. 1975. (1240)
- INTERIM TECHNICAL status report for the cothane contract. s.l., 1979. 29 p. (1241)
- INTERNATIONAL BIOGAS WORKSHOP, BREMEN, 1979. Report. Bremen, German Agency for Technical Cooperation and Bremen Senate for Economic Affairs and Foreign Trade, 1979. 315 p. (1242)
- INTERNATIONAL CONFERENCE ON ANAEROBIC DIGESTION, 2., TRAVEMUNDE, 1981. International symposium on anaerobic digestion. Oxford, 1981. p. irr. (1243)
- INTERNATIONAL DEVELOPMENT RESEARCH CENTER, OTTAWA, CANADA. Compost, fertilizer, and biogas production from human and farm wastes in the People's Republic of China. Ottawa, 1978. 94 p. (1244)
- INTERNATIONAL FERROCEMENT INFORMATION CENTER, BANGKOK, THAILAND. Ferrocement biogas holder. Bangkok, 1980. 42 p. (Do-it-yourself Series Booklet no. 3) (1245)
- INTERNATIONAL SYMPOSIUM ON LIVESTOCK WASTES, COLUMBUS, OH, 1971. Livestock waste management and pollution abatement. St. Joseph, MI, American Society of Agricultural Engineers, 1971. 360 p. (1246)
- INTERNATIONAL SYMPOSIUM ON LIVESTOCK WASTES, 4., ST. JOSEPH, MI, 1981. Livestock waste: a renewable resource; proceedings. St. Joseph, MI, American Society of Agricultural Engineers, 1981. 450 p. (1247)
- ISHIDA, M.; HAGA, R. y ODAHARA, Y. Anaerobic treatment of liquid organic wastes. Japan Kokai 78(70):550. 1978. (1248)
- ISHII, M. Methane fermentor system. Japan Kokai 77:148, 684. 1977. (1249)

- ISLAM, M. N. Study of the problems and prospects of biogas technology as a mechanisms for rural development study in a pilot area of Bangladesh, final report. Ottawa, International Development Research Center, 1980. p. irr. (1250)
- ISMAN, H. Quelques précisions sur la production et l'utilisation du gaz de fumier procédés de fermentation et équipements de production. Chambres d'Agriculture Suppl. no. 125-126. 1957. 11 p. (1251)
- _____. Recupération et utilisation des gaz combustibles produits au cours de la décomposition dirigée des déchets des exploitations agricoles. In Conférence Mondiale de l'Energie, Geograd. s.l., 1957. 14 p. (Section B2, Rapport 12) (1252)
- _____. A propos d'énergie et plus spécialement de gaz de fumier: une méthode originale qui peut redonner aux agriculteurs une autarcie énergétique. Revue Agriculture no. 371:1-6. 1973. (1253)
- _____. Energie solaire: utilisation de l'énergie solaire dans les pays en développement par l'intermédiaire de la photosynthèse et de la fermentation méthanique. In Congrès International "Sciences et Techniques au Service des Pays en Développement", Paris, 1976. Communication. Paris, 1976. v. 2, pp. 87-104. (1254)
- _____. Gas de fumier. Station Experimentale de Boigneville: nouveaux équipements de production. Comptes Rendus des Seances de l'Académie d'Agriculture de France 65(5): 415-427. 1979. (1255)
- * ISOS - ENGENHARIA, COMERCIO E INDUSTRIA, BRASILIA, BRASIL. Producao e distribuicao integradas de biogas e biofertilizantes pelo "Sistema ISOS". Brasilia, 1981. 6 p. (1256)
- ISTO E biogás. Perfil Rural (Brasil) 1(1). 1980. (1257)
- IT'S TRUE!... Where there's muck there's money. British Farmer and Stock-breeder 6:51-52. 1977 (1258)
- ITALIA. CONSIGLIO NAZIONALE DELLE RICERCHE, ROMA. Analizzatore per la misura continua di idrocarburi totali e del metano nell'atmosfera. Metodi gas-cromatografici per la determinazione degli inquinanti atmosferici. Ricerca Scientifica C.N.R. 44(5):751. 1974. (1259)
- Scientific activity carried out in 1973. Comunicación corta
- JACKSON, D. F. Algae, man and the environment. Syracuse, New York, University Press, s.f. p. irr. (1260)
- JACKSON, D. W. Waste disposal on a wider canvas: first two years. Solid Wastes 66(8):409-425. 1976. (1261)
- JAIN, M. C. Conversion of petrol engine to run on gobar gas. In National Symposium on Biogas Technology and Usage, New Delhi, 1977. New Delhi, 1977. p. 36. (1262)

JAIN, M. C. Lost cost burners for biogas. *Indian Farming* 30(1):20-22. 1980. (1263)

Publicado también en: National Symposium on Biogas Technology and Usage, New Delhi, 1977

* JAMES, S. C. y RHYNE, C. W. Methane production, recovery, and utilization from landfills. In Symposium on Energy from Biomass and Wastes. Washington, D. C., 1978. Symposium papers, by D. L. Klass y W. W. Waterman. Washington, D. C., Institute of Gas Technology, 1978. pp. 317-324. (1264)

* JARVIS, C. E.; SWARTZBAUGH, J. T. y WALTER, D. K. A biogasification mixing study: conversion of municipal solid waste to methane. In Symposium on Energy from Biomass and Wastes, Washington, D. C., 1978. Symposium papers, by D. L. Klass and W. W. Waterman. Washington, D. C., Institute of Gas Technology, 1978. pp. 677-695. (1265)

JASPER, A. W. y PATEL, J. D. Methane digester: a source of bioenergy. s.l., 1977. p. irr. (1266)

Presentado en All India Seminar on Technology for Rural Development

JAYACHANDRAN, S. y KASTURI BAI, R. Influence of different organic wastes on gobar gas production. s.n.t. (1267)

Presentado en Annual Conference of Microbiologists, 19, Paroda, India.

_____. Influence of different organic wastes on the gobar gas production and the manurial values of the spent slurry. *Indian Journal of Microbiology* 19(4):246-247. 1979. (1268)

JAYASHANKAR, S. R. y SASTRI, K. C. Production of energy from farm wastes. In Seminar on Utilization of Farm Wastes for Rural Industrial Growth, Bangalore, India, 1975. s.l., 1965. p. irr. (1269)

JAYET, P. A. La bioconversión: un modo químico de transformación de l' energía solar. Valorización energética des déchets agrícolas et forestiers. *Nuisances et Environment* no. 68:45-47. 1978. (1270)

JEDLICKA, A. L. Comments on the introduction of methane (bio-gas) generation in Mexico with an emphasis on the diffusion of backyard generators for use by peasant farmers. Cedar Falls, University of Northern Iowa, 1974. p. irr. (1271)

* _____ . Gas metano o biogas: fuente barata de energía y fertilizante del guano animal. *Simiente (Chile)* 46(3-4):33-37. 1976. (1272)

JEFFREY, E. A. Aerobic and anaerobic digestion characteristics of livestock wastes. Columbia, University of Missouri, 1963. 115 p. (Engineering Series Bulletin. University of Missouri no. 57) (1273)

JEFFRIES, T. W.; OMSTEAD, D. R. y CARDENAS, R. R. Membrane-controlled digestion: effect of ultrafiltration on anaerobic digestion of glucose. *Biotechnology and Bioengineering Symposium* 8:37-49. 1978. (1274)

JENSEN-HOLM, C. Biogas i dansk landbrug. In *Winning and Saving Energy in Agriculture*, Holte, Dinamarca, 1977. SBI. Landbrugsbyggeri 54:60-66. 1978. (1275)

JERIS, J. S. y McCARTY, P. L. The biochemistry of methane fermentation using ¹⁴C tracers. *Journal of the Water Pollution Control Federation* 37:178-192. 1965. (1276)

JEWELL, W. J. Bioconversion of agricultural wastes for pollution control and energy conservation. Springfield, VA, National Technical Information Service, s.f. p. irr. (1277)

_____. Energy from agricultural waste methane generation. Ithaca, NY, Cornell University, 1974. 13 p. (Extension Bulletin no. 387) (1278)

JEWELL, W. J., ed. 1975 Cornell Agricultural Waste Management, Ann Arbor, MI, 1975. Energy, agriculture and waste management. Proceedings. Ann Arbor, MI, Ann Arbor Science Publishers, 1977. 540 p. (1279)

_____. Bio-gas holds promise as future energy (cow manure). Delaware Country Farm and Home News 63(7):4, 6. 1978. (1280)

_____. Small farm methane generation potential. In Annual Symposium on Fuels from Biomass, 2, Troy, New York, 1978. Proceedings. Troy, NY, Rensselaer Polytechnic Institute, 1978. p. irr. (1281)

_____. Anaerobic fermentation of agricultural residue - potential for improvement and implementation. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 239. (1282)

Investigación en progreso; Publicado también en: SSIE. Energy recovery for biomass. Washington, D. C., 1979. 2. p. y en U.S. Department of Energy Division of Solar Technology. Fuels from biomass program, program summary January 1978. Washington, D. C., 1978. p. 54

_____.; DAVIS, H. R. y GUNKEL, W. W. Bioconversion of agricultural wastes for energy conservation and pollution control. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. GY--65475-1) (1283)

Investigación en progreso

_____.; DELL'ORTO, S. y FANFONI, K. J. Anaerobic fermentation of agricultural residue: potential for improvement and implementation. Final report. Ithaca, New York State College of Agriculture and Life Sciences, 1970. v. 2, 934 p. (DOE/ET/20051--T1; Contract AS02-76ET20051) (1284)

JOHAL, H. S. y SHUKLA, A. N. Adoption of gobar gas plants in rural areas Khadi Gramodyog 26(12):542-547. 1980. (1285)

* JOHNS HOPKINS UNIVERSITY, LAUREL, MARYLAND. APPLIED PHYSICS LABORATORY. Utilization of landfill methane workshop. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. DV-322) (1286)

Investigación en progreso

JOHNSON, J. E. The production of methane by the anaerobic decomposition of garbage and waste. Washington, D. C., United States Bureau of Mines, s.f. p. irr. (1287)

JONES, D. D. Aerobic treatment of livestock wastes. Washington, D.C., U.S. Environmental Protection Agency, s.f. p. irr. (Reports no. SW-16rg) (1288)

_____. y DALE, A. C. Methane generation from livestock waste. Lafayette, IN, Purdue University, 1975. p. irr. (1289)

_____.; DALE, A. C. y NYE, J. C. Fiber wall reactor digestion of dairy cattle manure. New York, American Society of Agricultural Engineers, 1977. 24 p. (1290)

* JONES, J. B. y STADTMAN, T. C. *Methanococcus vannielii*: culture and effects of selenium and tungsten on growth. Journal of Bacteriology 130(3): 1404-1406. 1977. (1291)

* _____.; BOWERS, B. y STADTMAN, T. C. *Methanococcus vannielii*: ultrastructure and sensitivity to detergents and antibiotics. Journal of Bacteriology 130(3):1357-1363. 1977. (1292)

_____. Converting solid wastes and residues to fuel. Chemical Engineering 85(1):87-93. 1978. (1293)

- JONES, J. B. Formate metabolism in *Methanococcus vannielii*. Tesis Ph. D. Washington, D. C., George Washington University, 1978. 198 p. (1294)
- _____. Molybdenum, iron and selenium dependent formate dehydrogenase from *Methanococcus vannielii*. Federation Proceedings 37:1815. 1978. (1295)
- _____.; DILWORTH, G. L. y STADTMAN, T. C. Occurrence of selenocysteine in the selenium-dependent formate dehydrogenase of *Methanococcus vannielii*. Archives of Biochemistry and Biophysics 195:255-260. 1979. (1296)
- _____. y STADTMAN, T. C. Reconstitution of a formate-NADP oxidoreductase from formate dehydrogenase and a 5-deazaflavin-linked NADP reductase isolated from *Methanococcus vannielii*. Journal of Biological Chemistry 255:1049-1053. 1980. (1297)
- JONES, J. L.; BOMBERGER JUNIOR, D. C. y LEWIS, F. M. Municipal sludge disposal economics. Environmental Science Technology 11(10):968-972. 1977. (1298)
- * _____ . Environmental and energy output analysis for the bioconversion of agricultural residues to methane. In Symposium on Energy from Biomass and Wastes, Washington, D. C., 1978. Symposium papers, by D. L. Klass and W. W. Waterman. Washington, D. C., Institute of Gas Technology, 1978. pp. 143-175. (1299)
- * _____ . Gasohol/biomass developments: methane production via bioconversion: a techno-economic evaluation. Chemical Engineering Progress. 1980:58-64. 1980. (1300)
- JONES, P. Gas and fertiliser from farm waste. Poole, Dorset, Hamworthy Engineering. s.f. 5 p. (1301)
- JONES, W. J. y PAYNTER, J. B. Characterization of methanogenic bacterium from saltmarsh sediment (new species) Abstracts of the Annual Meeting American Society of Microbiology no. 1 33. 1976. p. irr. (1302)
- JONGEBREUR, A. A. Methaangasproduktie uit mest. Bedrijfsontwikkeling 11(4):361-364. 1980. (1303)
- JOPPICH, W. German farms too use fuel gas plants. Indian Farming 6(11):35-40. 1957. (1304)
- JORDBRUKSTEKNISKA INSTITUTET, UPPSALA, SUECIA. Metangas ur goedsel Framstaellning och anvandning. Uppsala, JTI, 1976. 146 p. (JTI-Rapport, Suecia no. 18) (STU-Rapport--75-5067) (1305)
- Apéndice: Ljunggren, H. y Petre, F. (Production of methane gas (from manure and other organic wastes), the biological background
- _____. Svenskt metangasprojekt: ett foerslag med tre alternativ. Uppsala, 1977. 29 p. (1306)
- JOSHI, K. G. Cowdung gas plant - farmer's point of view. In Symposium on Radio Isotopes, Fertilizer and Cowdung Gas Plant, New Delhi, 1961. New Delhi, 1961. p. 405. (1307)
- JOSHI, M. V. Dual use of some cowdung: fuel and manure. In Indian Science Congress, 32., India, 1945. s.l., 1945. pt. 2. pp. 219-221. (1308)
- JOSHI, V. K. Cowdung gas plants: a farmer's experience. In Symposium on Radio Isotopes, Fertilizers and Cowdung Gas Plants, New Delhi, 1961. New Delhi, 1961. p. 405. (1309)

- JOYNER, A. E.; WINTER, W. T. y GODBOUT, D. M. Studies on some characteristics of hydrogen production by cell-free extracts in rumen anaerobic bacteria. *Canadian Journal of Microbiology* 23:346-353. 1977. (1310)
- * JUGSIJINDA, A.; GLAEWIGGRAM, S. y TAKAHASHI, J. Usage and production of organic matter in Thailand. In *FAO/SIDA Workshop on the Use of Organic Materials as Fertilizers in Asia*, Bangkok, 1976. Organic recycling in Asia. Roma, FAO, 1978. pp. 239-247. (FAO Soils Bulletin no. 36) (1311)
- JURGENSE, M. F. y PATTON, J. T. Energy and protein production from pulp mill wastes, final report, 15 Jun 1976-14 Jun 1979. s.l., 1979. 60 p. (1312)
- KAFKEWITZ, D.; IANNOTTI, E. L. y WOLIN, E. A. An anaerobic chemostat that permits the collection and measurement of fermentation gases. *Applied Microbiology* 25(4):1-3. 1973. (1313)
- KAHLON, A. S. y SINGH, H. Economic and financial evaluation of bio-gas plants in the Ludhiana district. *Agric. Situ India* 34(5):283-287. 1979. (1314)
- KALIA, A. K. y SINGH, R. B. Introduction of plastics in biogas. *Popular Plastics* 23(4):852-855. 1978. (1315)
- KALKERT, N. y SCHECKER, H. G. [Explosion limits of ammonia in mixtures with methane, ethane, propane, ethylene, propene and air]. *Chem.-Ing.-Tech.* 51(9):895. 1979. (En alemán) (1316)
- KAMATA, S.; KAKIICHI, N. y UCHIDA, K. Studies on livestock excreta disposal by methane fermentation. V. Effects of disinfectants on continuous methane fermentation. *Bulletin of the Nippon Veterinary and Zootechnical College* no. 28:8-11. s.f. (1317)
- KANAI, M. Household methane-producing tank. s.l., 1977. 2 p. (Japan Patent 77-72,704) (1318)
- KANDLER, O. y HIPPE, H. Lack of peptidoglycan in the cell walls of *Methanosarcina barkeri*. *Archives of Microbiology* 113:57-60. 1977. (1319)
- _____. y KONIG, H. Chemical composition of the peptidoglycanfree cell walls of methanogenic bacteria. *Archives of Microbiology* 118:141-152. 1978. (1320)
- _____. Structures of cell walls of methanogenic bacteria. On the evolution of eucaryotes. *Naturwissenschaften* 66(2):95-105. 1979. (1321)
- * KAPPEL, L. C. y PFANDER, W. H. Collection and measurement of gases produced during *in vitro* fermentation. *Journal of Dairy Science* 57(4):485-487. 1974. (1322)
- KARIN, G. A. y SINGH, R. B. Thermodynamic investigation of the combustion of methane. *Journal of the Institute of Fuel* 40(321):447-455. 1967. (1323)
- _____. y MOHINDRA, D. Experimental investigation of the height of gaseous diffusion flames in a concentric stream of air or premixed air and fuel. *American Society of Mechanical Engineering* 75:1-7. 1975. (1324)
- * KARIMULLAH, Dr. Bio-gas technology, its potential and technical parameters, with special reference to municipal waste and certain industrial waste products. In *National Seminar on Bio-Gas Technology*, Lahore, Pakistan, 1980. Proceedings. Islamabad, Appropriate Technology Development Organization, 1980. pp. 42-47. (1325)

- KARKI, A. B. Gobar gas: samaya ko mang ra hank. Lalitpur, Nepal, Ajaya Karki, 1976. 67 p. (1326)
- _____. Gobar gas karikram samsyahu-
prati bibechna. *Krishi (Nepal)* 15
(2):29-32. 1978. (1327)
- _____. Bio-gas programme in Nepal -
a review. *APROSC Newsletter. Agri-
cultural Projects Services Centre
Newsletter* 2(3):3-9. 1979. (1328)
- _____. Nepal ma bio-gas karyakram
ek punarabalokan. *Shakti (Nepal)*
1(1):20-24. 1979. (1329)
- * KARLSSON, J. L.; VOLCANI, B. E. y BARKER,
H. A. The nutritional requirements
of *Clostridium aceticum*. *Journal of
Bacteriology* 56(6):781-782. 1948.
(1330)
- KASHKARI, C. Potential of biogas plants.
*In International Conference on Energy
Use Management, Tucson, AZ, 1977.*
s.l., 1977. v. 1, pp. 975-980.
(1331)
- _____. Gobar gas plants. *Cardamon*
12(9):11-18. 1980. (1332)
- KASTURI BAI, R. Influence of different
organic wastes on the intermediate
products of fermentation, gohar gas
production and manurial value. *In
International Seminar on Management
of Environment, Bombay, India, 1980.*
s.l., 1980. p. irr. (1333)
- KASTURIRANGAN, K. Use of gohar gas
diesel engine fuel. *In National
Conference on I.C. Engines and Com-
bustion, 3., Roorkee, 1976. Roorkee,
1976. pp. 177-188. (1334)*
- KAUPERT, W. ed. Dictionary of waste dis-
posal and public cleansing, Amster-
dam, Elsevier, 1966. 225 p. (1335)
- KEENAN, J. D. Two-stage methane produc-
tion from solid wastes. New York,
American Society of Mechanical Engi-
neers, s.f. p. irr. (1336)
- KEENAN, J. D. y KORMI, I. Methane
fermentation of brewery by-products.
Biotechnology and Bioengineering
19(6):867-878. 1977. (1337)
- KEITH, C. L.; BRIDGES, R. L. y FINA, L.
R. The anaerobic decomposition of
benzoic acid during methane fermenta-
tion. IV. Dearomatization of the
ring and volatile fatty acids formed
on ring rupture. *Archives of
Microbiology* 118(2):173-176. 1978.
(1338)
- KELLER, B. N.; SKIRSTIMONSKII, A. I. y
DEMCHINSKAYA, L. A. /Methane fer-
mentation of the fodder yeast stillage/
Mikrobiologichnyi Zhurnal 39(2):156-
159. 1977. (En Ucraino) (1339)
- * KERSTETTER, J. D., comp. Methane from
anaerobic fermentation of manure;
annotated bibliography. Butte, MT,
National Center for Appropriate Tech-
nology, 1979. 10 p. (1340)
- KESARWAMI, S. J. Work done on bio-gas
in India, a bibliography. s.l.,
National Environment Eng. Res. Insti-
tute, 1978. p. irr. (1341)
- KHADI AND VILLAGE INDUSTRIES COMMISSION,
BOMBAY. Gobar gas: why and how.
Bombay, India, 1972. p. irr. (1342)
- _____. Scheme for the intensive
popularisation of gohar gas. Bombay,
India, 1973. p. irr. (1343)
- _____. Gobar gas on the March.
Bombay, India, 1974. p. irr. (1344)
- _____. Khadi & village industries
commission gohar gas - why and how?
Bombay, India, 1977. p. irr. (1345)
- * _____ . Gobar gas on the March (1962-
1978). Bombay, India, Directorate
of Gobar Gas Scheme, 1979. 15 p.
(1346)
- * _____ . Gobar gas plant: why and how.
Bombay, India, 1979. 19 p. (1347)

- KHADI AND VILLAGE INDUSTRIES COMMISSION, BOMBAY, INDIA. Gobargas: retrospect and prospects. Bombay, India, 1979. 24 p. (1348)
- KHAN, A. W. Anaerobic degradation of cellulose by mixed culture. *Canadian Journal of Microbiology* 23(12):1700-1720. 1977. (1349)
- * _____ y TROTTIER, T. M. Effect of sulfur-containing compounds on anaerobic degradation of cellulose to methane by mixed cultures obtained from sewage sludge. *Applied and Environmental Microbiology* 35(6): 1027-1034. 1978. (1350)
- * KHAN, M. R. Planning of bio-gas technology in third world. In *National Seminar on Bio-Gas Technology*, Lahore, Pakistan, 1980. Proceedings. Islamabad, Pakistan, Appropriate Technology Development Organization, 1980. pp. 55-58. (1351)
- KHANDELWAL, K. C. Influence of pH on gobar gas production. In *Annual Conference of Association of Microbiologists of India*, 15., Bangalore, 1974. India, Bangalore, 1974. p. irr. (1352)
- _____. Implementation of biogas programme at village level - a case study. In *National Symposium on Biogas Technology and Usage*, New Delhi, 1977. New Delhi, 1977. pp. 44-45. (1353)
- _____. Technical feasibility of dome-shaped biogas plant. In *National Symposium on Biogas Technology and Usage*, New Delhi, 1977. New Delhi, 1977. pp. 31-32. (1354)
- _____. Dome shaped biogas plant (waste recycling, methane gas production, equipment). *Compost Science* 19(2):22-23. 1978. (1355)
- _____. Gobar gas plant for you. New Delhi, Ministry of Agriculture and Irrigation, 1978. 10 p. (1356)
- KHANDELWAL, K. C. Some information about biogas technology and development in India: a compilation. New Delhi, Ministry of Agriculture and Irrigation, 1978. 61 p. (1357)
- _____. Community biogas plant. New Delhi, Action for Food Production, 1979. 8 p. (1358)
- _____. Janata model gobar gas plant. New Delhi, Action for Food Production, 1979. 9 p.. (1359)
- KHARDEKAR, V. B. y BHATTACHARYYA, B. C. Production of methane enriched fuel gas from city garbage. Kharagpur, Indian Institute of Technology. Department of Chemical Engineering, 1976. p. irr. (1360)
- * KIM, H. C. y DA, D. L. Utilization of livestock wastes: alternatives treatments and products. *Illinois Research* 19(2):10-11. 1977. (1361)
- KING, P. The practical application of methane gas on a Kenya farm. *East African Farmer and Planter* no. 6: 21-23. 1958. (1362)
- KING, S. y COPPINGER, E., eds. Anaerobic digestion systems for dairy farms: experience and implications for wider use. In *Solar 79 Northwest Conference*, Seattle, WA, 1979. s.l., 1979. pp. 370-373. (1363)
- KIRBY, K. D. Anaerobic digestion as a means of treatment of piggery wastes. Program Report. Commonwealth Scientific and Industrial Research Organization (EB 6). 1978. 14 p. (1364)
- _____. Magnesium precipitation from piggery wastes. Program Report. Commonwealth Scientific and Industrial Research Organization (EB-14). 1979. 6 p. (1365)
- _____. Anaerobic digestion of piggery wastes. In Gardner, J. A. A. and Dunkin, A. C. *Australian pig manual*. s.l., 1980. pp. 181-185. (1366)

KIRBY, K. D. Design and operation of a pilot scale anaerobic digester for the treatment of piggery wastes. In Conference on Agricultural Engineering, Geelong, Victoria, 1980. Victoria, Australia, Institution of Engineers, 1980. 11 p. (1367)

_____. Pilot plant evaluation of piggery waste treatment by anaerobic digestion - progress report. Program Report. Commonwealth Scientific and Industrial Research Organization (ED-2). 1980. 19 p. (1368)

KIRCH, H. /CEA (Combustion Engineering Associates) process Eco-Fuel 117. Neve Tech 2:58-71. 1977. (1369)

KIRSCH, E. J. y SYKES, R. M. Anaerobic digestion in biological waste treatment. Progress Industrial Microbiology 9:155. 1971. (1370)

KISPERT, R. G.; SADEK, S. E. y WISE, D. L. An economic analysis of fuel gas production from solid waste. Resource Recovery and Conservation 1:95. 1975. (1371)

_____.; SADEK, S. E. y ANDERSON, L. C. Fuel gas production from solid wastes. Cambridge, MA, 1975. p. irr. (1372)

_____.; SADEK, S. E. y WISE, D. L. An evaluation of methane production from solid waste. Resource Recovery and Conservation 1:245. 1976. (1373)

KLASS, D. L. y GHOSH, S. Fuel gas from organic wastes. Chemical Technology 1973:689-698. 1973. (1374)

_____. Perpetual methane economy: is it possible. Chemical Technology 4:161-168. 1974. (1375)

_____. Make SNF from waste and biomass. Hydrocarbon Process 1976:76-82. 1976. (1376)

* KLASS, D. L. BIOGAS^R for São Paulo, Brazil. In Bente Junior, P. F. y Camello, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 252. (1377)

Investigación en progreso

* _____. y GHOSH, S. Biological gasification of municipal sludge. In Bente Junior, P. F. y Camello, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 253. (1378)

Investigación en progreso

* _____.; CHYNOWETH, D. P. y CONRAD, J. R. Methane from sea kelp. In Bente Junior, P. F. y Camello, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 266 (1379)

Investigación en progreso

_____.; GHOSH, S. y CHYNOWETH, D. P. Methane production from aquatic biomass by anaerobic digestion of giant brown kelp. Process Biochem. 14(4):1-5. 1979. (1380)

* _____.; GHOSH, S. y HENRY, M. P. Pilot plant for conversion of biomass to SNG. In Bente Junior, P. F. y Camello, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 267. (1381)

Investigación en progreso

_____. Research, development, and commercialization activities on biomass energy in the United States. Chicago, IL, Institute of Gas Technology, 1979. 13 p. (1382)

- KLASS, D. L. Anaerobic digestion for methane production - a status report. In Bio-Energy World Congress and Exposition, Atlanta, GA, 1980. Chicago, IL, Institute of Gas Technology, 1980. 30 p. (1383)
- _____. Energy from biomass and wastes: 1979 update. In Energy from Biomass and Wastes 4. Symposium, Lake Buena Vista, FL, 1980. Symposium papers. Chicago, IL, Institute of Gas Technology, 1980. 44 p. (1384)
- _____. Overview of established and developing conversion technologies. In Management Assessment of Energy from Biomass and Wastes Conference, Orlando, FL, 1979. Chicago, IL, Institute of Gas Technology, 1980. pp. 19-36. (1385)
- KLINSUKONT, C. Evaluation of treatment alternatives for molasses distillery stillage: anaerobic digestion. In TISTR's technical report. Bangkok, Thailand Inst. of Scientific and Technological Research, 1981. p. 76. (1386)
- KLOSS, R. Planung von Biogasanlagen zur Energiebereitstellung am Beispiel eines Schweinemastbetriebes. Grundl. Landtechnik Bd 31(2):64-74. 1981. (1387)
- KLUMB, D. L. y BRENDL, P. R. Solid waste as a supplementary fuel in steam-electric generating plant boilers. Proceedings Inst. Dist. Heat Association 67:93-103. 1977. (1388)
- KNIGHT, M.; WOLFE, R. S. y ELSDEN, S. R. The synthesis of amino by *Methanobacterium omelianskii*. Biochemistry 99:76. 1966. (1389)
- * KNOL, W.; MOST, M. M. VAN DER y WAART, J. DE. Biogas production by anaerobic digestion of fruit and vegetable waste, a preliminary study. Journal of the Science of Food and Agriculture 29(9):822-830. 1978. (1390)
- KNOFF, G. W. y CLARKE, W. N. Districts minimize energy costs with digester gas. Journal of the Water Pollution Control Federation 51(3):636-639. 1979. (1391)
- KNOX, D. A. y FRY, J. L., eds. Practical building of methane power plants for rural energy independence. Santa Bárbara, CA, 1974. 96 p. (1392)
- KOBAYASHI, T. Methane fermentation. Japan Kokai 75:135, 279. s.f. (1393)
- KONACK, A. R. An equation for batch bacterial growth. Biotechnology and Bioengineering 17:271. 1975. (1394)
- KONGELIGE VETERINAER- OG LANDBOHOEJSKOLE, COPENHAGEN, DINAMARCA. Teknologisk udvikling af biogas. Ugeskrift for Agronomer, Hortonomer, Forstkandidater og Licentiater 123(18):420-421. 1978. (1395)
- KONIG, H. y KANDLER, O. The amino acid sequence of the peptide moiety of the Pseudomurein from *Methanobacterium thermoautotrophicum*. Archives of Microbiology 121:271-275. 1979. (1396)
- _____. y KANDLER, O. N-Acetyltalosamin-uronic acid a constituent of the Pseudomurein of the genus *Methanobacterium*. Archives of Microbiology 123:295-299. 1979. (1397)
- KONSTANDT, H. G. Engineering, operation and economics of methane gas production. In Seminar on Microbial Energy Conversion, Goettingen, 1976. Proceedings. Ed. by H. G. Schlegel and J. Barnea. New York, Academic Press, 1977. pp. 379-398. (1398)
- IN DEN KONSTRUKTIONSBUEROS gaert es. Neue Biogasanlagen muessen vor allem billiger werden. Bayerisches Landwirtschaftliches Wochenblatt (Germany) 170(30):13-14. 1980. (1399)

- KOTHANDARAMAN, C. P. Some investigations into the use of gobar gas in I.C. engines. s.l. 1977. v. 1, pp. E2-44-50 (1400)
- Presentado en National Conference on IC Engines and Combustion, 4.
- _____ y KRISHNAMURTHY, S.
Performance of a diesel engine with increasing proportion of gobar gas induction. In National Conference on I.C. Engines and Combustion, 5. Warangal, India, 1978. s.l., 1978. 5 p. (1401)
- KOZLOWSKI, J. Methane - energy source of the future. *Appropriate Technology* 1(1):23-24. 1974. (1402)
- KRAFTANLAGEN, A. G. Wie we work with energy Heidelberg, Germany, Kraftanlagen A.G., 1979. 46 p. (1403)
- KRAMBECK, C.; KRAMBECK, H.-J. y OVERBECK, J. Autonomous growth fluctuations of the methane oxidizing bacterial strain M 102 in batch and continuous culture. *Archives of Microbiology* 115(2):119-126. 1977. (1404)
- KREIS, R. D. Recovery of by-products from animal wastes: a literature review. State-of-the-art report. s.l., 1979. 62 p. (1405)
- KREPIS, I. B. Possibilities and prospects of obtaining energy by methane fermentation (Organic waste products of agriculture, industry and of sewage). *Biology Bulletin Academy of Sciences of the USSR* 6(1):79-87. 1979. (1406)
- Originalmente publicado en *Izvestiia* pp. 103-112.
- KRETIDADPANYA, P. Design parameters for bio-gas production in tropical rural villages. Tesis AIT Master's. Bangkok, Thailand, Asian Institute of Technology, 1978. 91 p. (AIT Thesis no. 1404) (1407)
- KRISHAN, K. Installation of gobar gas plant. *Kurukshetra* 22(15):9-10. 1974. (1408)
- * KRISHNA, G.; RAZDAN, M. N. y RAY, S. N. Effect of nutritional and seasonal variations on heat and methane production in *Bos indicus*. *Indian Journal of Animal Science* 48(5): 366-370. 1978. (1409)
- KROEKER, E. J.; SCHULTE, D. D. y LAPP, H. M. Methane production from animal wastes. II. Process stability. Guelph, Ontario, Canada, 1977. 16 p. (1410)
- Presentado en 1977 Annual Meeting of the Canadian Society of Agricultural Engineering, Guelph, Ontario Canada
- KUGELMAN, I. J. y MCCARTHY, P. L. Cation toxicity and stimulation in anaerobic waste treatment. *Journal of the Water Pollution Control Federation* 37:97-116. 1965. (1411)
- _____ y CHIN, K. K. Toxicity, synergism and antagonism in anaerobic waste treatment processes. In *Anaerobic biological treatment processes. Avances in Chemistry* 105: 55-90. 1971. (1412)
- KUHN, W.; FIEBIG, K. y WALTHER, R. Presence of a cytochrome b₅₅₉ in *Methanosarcina barkeri*. *FEBS Letters* 105:271-274. 1979. (1413)
- KUMAR, D. Biogas technology in India. *Gas Waerme International* 29(5): 271-273. 1980. (1414)
- * KURIHARA, K. The use of industrial and municipal wastes as organic fertilizer. In *FAO/SIDA Workshop on the Use of Organic Materials as Fertilizers in Asia*. Bangkok, 1976. Roma, FAO, 1978. pp. 248-266. (FAO Soils Bulletin no. 36) (1415)
- KUWATSUKA, S. y NAKANO, R. Studies on the formation and degradation of ethylene in flooded soil. I. Measurement of methane, ethylene and carbon dioxide formed from flooded soil in the syringe. *Journal of the Science of Soil and Manure* 49(3): 210-216. 1978. (1416)
- KWON, I. K. y KIM, H. U. Studies on the bio-gas production from several animal feces. *Korean Journal of Animal Science* 20(3):233-242. 1978. (1417)

- * LACAVAL, P.M. Biogás a partir de resíduos agrícolas. s.l., Instituto Brasileiro do Gás, s.f. 17 p. (1418)
- Presentado en Seminário "Energia de Biomassas".
- _____. O biogás é a saída? Granja (Brasil) 36(386):60-66. 1980. (1419)
- LACONI, G. Senza inquinare produzione di biogas dal riciclaggio dei reflui di stalla. Agricoltura Nuova 21(2):34-35. 1979. (1420)
- LAFON, P. L'avenir du gaz de fumier. Tracteurs et Machines Agricoles no. 767 :8-12. 1979. (1421)
- _____. L'avenir du gaz de fumier. Elevage. Edition Bovin, Ovin, Caprin no. 92 :67, 68, 70, 72-74. 1980. (1422)
- _____. Une centrale thermo-electrique d'une puissance de 20 U G B (production de methane a partir de fumier; Suisse, cooperation avec la société FIAT, Totem, prototype de transformateur d'energie, production d'electricite a partir de Biogaz). Elevage. Edition Bovin, Ovin, Caprin no. 86 :70-74. 1979. (1423)
- _____. Le gaz de fumier enfin utilisable. Fermes Modernes no. 76 : 24-29. 1979. (1424)
- LAGRANGE, B. Biométhane 1: Une alternative crédible. Provence, Francia, Edisud/Energies Alternatives, 1979. 204 p. (1425)
- _____. Biométhane 2: Principes, techniques, utilisations. Provence, Francia, Edisud/Energies Alternatives, 1979. 246 p. (1426)
- LAIGRET, J. Methane fermentation by *Bacillus perfringens*; catalytic role of iodine in this fermentation. Comp. Rend. 221:359-361. 1941. (1427)
- * LAITANO, N. Biogás no meio rural. Jaborá, Santa Catarina, Brasil, Hospital Beneficente Santo Antonio, s.f. 25 p. (1428)
- * _____. Biogás o petróleo que não acaba nunca. Florianópolis, Santa Catarina, Brasil, 1981. 47 p. (1429)
- LAKESIDE EQUIPMENT, BARTLETT, ILLINOIS. The Lakeside spiragester. Bartlett, IL., s.f. 24 p. (Bulletin, no. 136) (1430)
- * LANDERS, T.; GADDY, J. y NELSON, D. Monitor, test and evaluate the digestion of phytomass. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 269. (1431)
- Investigación en progreso
- * _____. HOLTkamp, B. y JONES, M. Rural gasification project. In Bente Junior, P.F. y Camelio, C.A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 282. (1432)
- Investigación en progreso
- _____. Productos y beneficios de los biodigestores. In Seminario sobre Aplicaciones de Biodigestores para Producir Gas Metano y Fertilizantes, Cartago, Costa Rica, 1980. Cartago, Costa Rica, Instituto Tecnológico de Costa Rica, 1980. p. irr. (1433)
- * LANDFILL GAS development offers significant supplemental supply. Gas Industries 1980:31-34. 1980. (1434)

- LANE, A. G. Methane from anaerobic digestion of fruit and vegetable processing wastes. *Food Technology in Australia* 31(5):201, 202, 204, 205, 207. 1979. (1435)
- _____. Methane (fuel) from fruit and vegetable wastes. *Food Engineering International* 4(9):28, 31, 32. 1979. (1436)
- _____. Pilot-scale anaerobic digester for fruit and vegetable waste solids. *PACE. Process and Chemical Engineering* 32(6):20, 22, 23. 1979. (1437)
- _____. Production of aromatic acids during anaerobic digestion of citrus peel. *Journal Chem. Tech. Biotechnol.* 30:345-350. 1980. (1438)
- _____, ADAMS, K.H. y HALBERT, E. J. Manual of the ASEAN Seminar-Workshop on Biogas Technology of the ASEAN Working Group on Utilization and Management of Food Waste Materials. Manila, Philippines, 1981. p. irr. (1439)
- LANGLEY, P. Utilisation du gaz méthane en Afrique en fin 1978. *Environment Africain* (no. 21F):1-28. 1978. (1440)
- LAPP, H. M.; SCHULTE, D. y STEVENS, M. A. Biogas production from animal manure. Winnipeg, Manitoba, Canadá, Biomass Energy Institute, s.f. 21 p. (1441)
- _____. y PHILLIPS, E.G. State-of-the-art survey on anaerobic decomposition. s.l., 1972. 61 p. (1442)
- _____, SCHULTE, D.D. y BUCHANAN, L.C. Methane gas production - from animal wastes. Manitoba, University of Manitoba, Dept. of Agricultural Engineering, 1974. 9 p. (1443)
- LAPP, H.M.; SCHULTE, D.D. y SPARLING, A. B. Methane production from animal wastes. I. Fundamentals considerations. Ste Foy, Quebec, Canadian Society of Agricultural Engineering, 1974. 29 p. (1444)
- _____.; SCHULTE, D. D. y SPARLING, A. B. Methane production from animal wastes. II. Fundamentals concepts, economic conditions and final report. *Canadian Agricultural Engineering* 17(2):97-102. 1975. (1445)
- _____. Methane utilization - what can you do with methane if you have it. Winnipeg, University of Manitoba, Dept. of Animal Science, 1975. 8 p. (1446)
- _____.; SCHULTE, D.D. y KROEKER, E. J. Start up pilot scale swine manure digesters for methane production. s.l., 1975. 23 p. (1447)
- Presentado en 3. International Symposium Livestock Wastes
- _____. A study of methane production from animal wastes by anaerobic processes in Scotland, England, Germany, Norway and Denmark. s.l., 1975. 48 p. (1448)
- _____. Study of the technical and economical feasibility of methane gas production for energy purposes. Winnipeg, Canadá, Biomass Energy Institute, 1975. p. irr. (1449)
- _____. Final report on feasibility of using methane gas from animal wastes for energy purposes. Winnipeg, Canadá, Biomass Energy Institute, 1976. p. irr. (1450)

- LAPP, H. M.; SCHULTE, D. D. y SPARLING, A. B. Methane production from animal waste. II. Process stability. Halifax, Canadá, Canadian Society of Agricultural Engineering, 1976. 16 p. (1451)
- _____. Fuel from animal waste. ASAE Paper no. 77-5531 :1-14. 1977. (1452)
- * _____; SCHULTE, D.D. y STEVENS, M. A. Biogas production from animal manure. Winnipeg, Manitoba, Canadá, Biomass Energy Institute, 1978. 20 p. (1453)
- * _____ . Methane production from animal (especialmente cerdos) manure. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 233. (1454)
- Investigación en progreso
- * LARDE, J. G. Determinación de la concentración mínima de estiércol en mezclas con pulpa de café para una óptima producción de gas combustible. Resúmenes de Investigaciones en Café (El Salvador) 3:125-129. 1980. (1455)
- _____. Producción de biogás con pulpa de café en El Salvador. Nueva San Salvador, Instituto Salvadoreño de Investigaciones del Café, 1980. 15 p. (1456)
- * LARSON, L.E.; STRAUGHAN, I. R. y MECHALAS, B. J. Methane production optimization. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 273 (1457)
- Investigación en progreso
- * LARSON, L. E.; DENEEN, D. y STRAUGHAN, I. R. Site selection for commercial waste/biomass to energy facility. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 247. (1458)
- Investigación en progreso
- LATIF, A. Bio-gas production from alligator weeds; semiannual report. Lorman, MS., 1976. 11 p. (1459)
- * _____ . Bio-gas production from alligator weeds. In Smithsonian Science Information Exchange. Energy farms raising of biomass (willow, sycamore, kenaf, algae, and other sources) for energy resources. Washington, D. C., 1979. 1 p. (SSIE no. GH-16428-2) (1460)
- Investigación en progreso
- Publicado también en: SSIE. Energy recovery for biomass. Washington, D.C., 1979. 1 p.
- Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 268.
- LAURA, C. e IDNANI, M. A. Note on the use of anaerobic fermentation of dung, in the cowdung gas plant. Indian Journal of Agricultural Sciences 39(1):1040-1048. 1969. (1461)
- _____. e IDNANI, M. A. Increased production of biogas from cow dung by adding other agricultural waste materials. Journal of the Science of Food and Agriculture 22(4): 164-167. 1971. (1462)
- LAURINAVICHUS, K. S. y BELYAEV, S. S. Radioisotope method for determining microbial methane production rate. Microbiologiya 47:1115-1116. 1978. (1463)

- LAW, J.P. Agricultural utilization of sewage effluent and sludge: annotated bibliography. Washington, D. C., Federation of Water Pollution Control, 1968. p. irr. (1464)
- LAWRENCE, A. J. y QUAYLE, J. R. Alternative carbon assimilation pathways in methane-utilizing bacteria. *Journal of General Microbiology* 63:371-374. 1970. (1465)
- LAWRENCE, A. W. y McCARTY, P. L. The role of sulfides in preventing heavy metal toxicity in anaerobic digestion. *Journal of the Water Pollution Control Federation* 37:392-406. 1965. (1466)
- _____.; McCARTY, P. L. y GUERIN, F. J. The effects of sulfides on anaerobic treatment. *International Journal of Air and Water Pollution* 10:207-221. 1966. (1467)
- Presentado en 19. Purdue Industrial Waste Conference, 1964.
- _____. y McCARTY, P. L. Kinetics of methane fermentation in anaerobic waste treatment. Stanford, USA, Stanford University, Dept. of Civil Engineering, 1968. p. irr. (Technical report, no. 75). (1468)
- _____. y McCARTY, P. L. A kinetic approach to biological wastewater treatment design and operation. Cornell University Water Resources and Marine Sciences Center. Technical Report no. 23. 1969. p. irr. (1469)
- _____. y McCARTY, P. L. Kinetics of methane fermentation in anaerobic treatment. *Journal of the Water Pollution Control Federation* 41(2): 1-17., part. 2. 1969. (1470)
- LAWRENCE, G. F. Gas industry outlook good for 2000. *Oil and Gas Journal* 75(35):71-72. 1977. (1471)
- LAWRIE, J. Methane, its production and uses. London, Chapman and Hall, 1940. p. irr. (1472)
- _____. Natural gas and methane sources. London, Chapman and Hall, 1961. p. irr. (1473)
- LEBANON COUNTY agents produce methane gas from animal waste. *Pennsylvania Econotes* 2(3):8. 1973. (1474)
- LEBAULT, M. La methanisation des pulpes de betterave. *Betteravier Francais* 49(360):6-7. 1979. (1475)
- LECKIE, J. Other homes and garbage. San Francisco, CA., Sierra Club Books, 1975. 302 p. (1476)
- LEE, Y. B. y PARK, C. S. Methane gas production as a fuel with feces of swine, fowl and cattle. *Biol. and Agr. Series* 21. 1970. (1477)
- _____. The studies on the biogas production and its storage. *Science and Tech. Korea* no. R-74-30. 1974. (1478)
- LEESE, T. M. The conversion of ocean farm kelp to methane and other products. *In Symposium on Clean Fuels from Biomass, Sewage, Urban Refuse, Agricultural Wastes*, Orlando, Fl., 1976. Symposium papers, by J. W. White and W. McGrew. Chicago, IL., Institute of Gas Technology, 1976. pp. 253-266. (1479)
- LEGALL, J. y HATCHIKIAN, C. E. La fermentation méthanique de la cellulose. s.l., 1977. 12 p. (1480)

- LEGALL, J. Etat d'avancement des etudes et perspectives pour la production du méthane. I. Biochimie et microbiologie de la méthanogénese. In Journées d'Etudes "Valorisation Énergétiques des Sous-Produits Agricoles, París, 1979. París, Comité V.E.D.A., 1979. pp. 83-96. (1481)
- * LENZ, R.F. O biofertilizante no manejo ecológico do solo. In _____. Bioenergía, metano a partir da biomassa e o biofertilizante no manejo ecológico do solo. Joaçaba, Santa Catarina, Brasil, Lidner, Hidráulica Industrial, 1981. pp. 5-11. (1482)
- * _____. A producao de gás metano a partir do esterco de animais. In _____. Bioenergía, metano a partir da biomassa e o biofertilizante no manejo ecológico do solo. Joaçaba, Santa Catarina, Brasil, Lidner, Hidráulica Industrial, 1981. pp. 1-14. (1483)
- LEON, J. R. DE. Selección y construcción de un sistema de producción de gas metano y abono biológico que se adapta al medio rural guatemalteco. Tesis. Guatemala, Universidad de San Carlos, 1977. p. irr. (1484)
- LEON, O. R. DE. Evaluación de la producción de biogás a partir de desechos derivados del beneficiado de café. Tesis. Guatemala, Universidad de San Carlos, 1980. p. irr. (1485)
- LEON, S. El futuro de la biomasa como recurso energético. In Simposio sobre Tecnología Apropíada, I., Cartago, Costa Rica, 1979. Energía solar: fundamentos y aplicaciones. Cartago, Ed. Tecnológica de Costa Rica, 1979. pp. 289-292. (1486)
- * LEQUERICA, J. L.; FLORS, A. y MADARRO, A. Producción de metano por fermentación anaerobia. II. Cinética del proceso (tratamiento de residuos). Revista de Agroquímica y Tecnología de Alimentos 20(3):327-346. 1980. (1487)
- LeROUX, N.W. y WAKERLEY, D. S. The microbial production of methane from the putrescible fractions of sorted household waste. Conservation and Recycling 2(2):163-179. 1978. (1488)
- _____.; WAKERLEY, D. S. y SIMPSON, M. N. The microbial production of methane from household wastes: fixed-bed anaerobic digestion. Conservation and Recycling 3(2):165-174. 1979. (1489)
- _____.; WAKERLEY, D.S. y MEHTA, K. B. Anaerobic digestion of the putrescible fraction of household waste. In Stafford, D. A. y WHEATLEY, B. T., eds. Anaerobic digestion poster paper. Cardiff, Wales, Scientific Press, 1980. pp. 59-63. (1490)
- LESAGE, E. y ABEIT, P. Gas de fumier. Soissons, Francia, Diffusion Nouvelle du Livre, 1952. 132 p. (1491)
- LESCURE, J. P. y BOURLET, P. Traitement des eaux résiduaires. Sucrierie Francaise no. 14 :99-105. 1978. (1492)
- _____. y BOURLET, P. Traitement des eaux residuaires par fermentation methanique. Sucrierie Francaise no. 14 :107-114. 1978. (1493)
- _____. y BOURLET, P. Traitement des eaux residuaires. Sucrierie Francaise 120(26):99-105. 1979. (1494)
- _____. y BOURLET, P. Traitement des eaux residuaires et fermentation methanique. Sucrierie Francaise 121(37):85-91. 1980. (1495)
- LETTINGA, G. Feasibility of anaerobic digestion for the purification of industrial waste waters. s.l., 1978. 30 p. (1496)
- Presentado en 4. Europaisches Abwasser Symposium.

LETTINGA, G.; GEEST, A. T. VAN DER y HOBMA, S. Anaerobic treatment of methanolic wastes. *Water Research* 13(8): 725-737. 1979.

(1497)

_____.; VELSEN, A. F. M. VAN y ZEEUW, W. DE. Feasibility of the upflow anaerobic sludge blanket (UASB) process. San Francisco, CA., 1979. pp. 35-45.

(1498)

Presentado en: National Conference on Environmental Engineering ASCE, San Francisco, CA., 9-11 Jul 1979.

_____.; VELSEN, A. F. M. VAN y ZEEUW, W. DE. The application of anaerobic digestion to industrial pollution treatment. In Stafford, D. A.; Wheatley, B. T. y Hughes, D. E., eds. *Anaerobic digestion*. London, Applied Science Publishers, 1980. p. irr.

(1499)

* _____. Les techniques de valorisation energetique de la biomasse par voie humide. *Cahier du CENECA Agriculture et Energie* 1980:1-13. 1980.

(1500)

_____.; VELSEN, A. F. M. VAN y HOBMA, S. W. Use of the upflow sludge blanket (USB) reactor concept for biological waste water treatment, especially for anaerobic treatment. *Biotechnology and Bioengineering* 22(4):699-734. 1980.

(1501)

_____.; ZEEUW, W. DE y OUBORG, E. Anaerobic treatment of wastes containing methanol and higher alcohols. *Water Research* 15:171-182. 1981.

(1502)

_____.; VELSEN, A. F. M. VAN y HOBMA, S. W. Feasibility of anaerobic digestion for the direct treatment of, and the energy recovery from urban wastes. *Studies in Environmental Science* 9:97-109. 1981.

(1503)

LEVY, P.F.; SANDERSON, J.E. y ASHARE, E. Liquid fuels production from biomass. Final report, for the period ending June 30, 1980. s.l., 1980. 157 p.

(1504)

_____.; SANDERSON, J.E. y WISE, D.L. Liquid fuels production from biomass. Progress report no. 11, January 1-March 31, 1980. s.l., 1980. 48 p.

(1505)

LEVY, S.S. Production of methane from farm waste. Lagos, Nigeria, Federal Institute of Industrial Research, 1959. p. irr. (Technical Memorandum, no. 4)

(1506)

LEWIS, C.N. Energy relationships of fuel from biomass. *Process Biochemistry* 11(9):29. 1976.

(1507)

_____. Efficiency improvements in bioenergy conversion systems. *Energy Conversion* 19(3):125-131. 1979.

(1508)

LEWIS, G. Fundamentals of methane combustion. London, Institution of Gas Engineers, s.f. p. irr.

(1509)

LIDON, B. y NACRO, M. Production d'énergie et de compost en milieu rural; bilan et perspectives de deux années d'exploitation. *Bulletin de Liaison/ CIEH (Alto Volta)* no. 35-36 :1-27. 1976/1979.

(1510)

_____.; MORANT, P. y NACRO, M. Expérimentation des moyens de production de compost enrichi et d'énergie en milieu rural. Ouagadougou, Alto Volta, Comité Inter-africain d'Études Hydrauliques, 1978. 8 p.

(1511)

_____. y NACRO, M. Expérimentation des moyens de production de compost enrichi et d'énergie en milieu rural: objectifs de recherche. Ouagadougou, Alto Volta, 1978. 7 p.

(1512)

- LIDON, B. y NACRO, M. La fermentation méthanique dans la region soudano-sahélienne: une source d'énergie permanente, une contribution importante a la gestion des ressources naturelles. Ouagadougou, Alto Volta, Comite Interafrique d'Etudes Hydrauliques, 1978. 13 p. (1513)
- _____; SOLA, G. y NACRO, M. La filiere compost-biogaz; une contribution a une politique intégrée de gestion des ressources naturelles dans la zone soudano-sahélienne (acquis d'une année d'expérimentation en Haute-Volta. Ouagadougou, Alto Volta, Comite Interafrique d'Etudes Hydrauliques, 1979. 41 p. (1514)
- Presentado en: Séminaire CIEH/CE-FIGRE sur la Politique de L'Eau pour l'Agriculture et l'Elevage en Zone Aride et Semi-Aride, Niamey, Alto Volta, 1979.
- _____.; SOLA, G. y NACRO, M. Programme biogaz-compost - CIEH Haute-Volta 2eme phase, état d'avancement de la recherche - Février 1980. Ouagadougou, Alto Volta, Comite Interafrique d'Etudes Hydrauliques, 1980. p. irr. (1515)
- LIM, W.C. Biogas production (and sludge as fertilizers) as a part of the agrobiologie of the rural areas in Malaysia. In Workshop Alternative Renewable Sources of Energy for Rural Applications, Serdang, Selangor, Malaysia, 1980. Serdang, Selangor, Universiti Pertanian Malaysia, Fakulti Kejuruteraan Pertanian, 1980. 13 p. (1516)
- LIMA, J. S. Biogás antecedentes e perspectivas. Pecuaría (Brasil) 20(97): 38. 1980. (1517)
- LINDGREN, E. Skattning av energiförluster i metan och urin hos idisslare en litteraturstudie. Uppsala, Suecia, 1980. 51 p. (Sveriges Lantbruksuniversitet, Avdelningen för Husdjurens Näringssociologi. Rapport, no. 47) (1518)
- LINDSLEY, E. F. Methane from waste... how much power can it supply? Popular Science 205(6):58. 1974. (1519)
- _____. Byron McDonald - cowpower helps run his farm. Popular Science 206:106-107. 1975. (1520)
- * LINGAPPA, B. T. y LINGAPPA, Y. A continuous-type methane generator. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 255. (1521)
- Investigación en progreso
- _____. y LINGAPPA, Y. Family-size methane generators. Solar Age 4(3):16-18. 1979. (1522)
- LINSTROM, C. R. The clivusmultrum systems: composting of toilet waste, food waste, and sludge within the household. In Jewells, W. J. y Swam, R. Water pollution control in low density areas prac. of rural environment and shedge sithing the house hold. s.l., s.f. pp. 429-444. (1523)
- * LIPPER, R. I.; KOCH, N. y KOELIKER, J.K. Animal waste management systems for the 1980's. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D. C., 1979. 1 p. (SSIE no. GY--57539-7) (1524)
- Investigación en progreso
- * LIZDAS, D. J. y COE, W. B. Pipeline fuel gas from an environmental cattle feedlot. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 226. (1525)
- Investigación en progreso
- _____.; COE, W. B. y TURK, M. Methane generation from cattle residue at a dirt feedlot. Final report. s.l., 1980. 156 p. (1526)

- LIU KE-XIN y XU JI-QUAN. Studies on the advancement of biogas fermentation. *Biogas* (3. Series) 1978:1-10. 1978. (1527)
- _____. y GUANG-QIAN, C. Studies on the biogas fermentation of Chinese rural areas. s.l., 1979. v.3, p. irr. (1528)
- Presentado en UNITAR Conference on Long-Term Energy Resources.
- _____. y XU JI-QUAN. Interaction of biogas fermentative microbes. *Biogas* (4. Series) 1980:1-5. 1980. (1529)
- LIXO GERA energia. Dirigente Municipal (Brasil) 11(3):14-15. 1980. (1530)
- LIXO, UMA fonte. Anuário Agropecuário (Brasil) 5(49):22. 1979. (1531)
- LJUNGGREN, H. y PETRE, F. Metangasframs-taellningens Mikrobiologi. En Litteraturoeversikt. Uppsala, Suecia, Lantbrukshoegskolan, 1976. 50 p. (Rapport fran Institutionen foer Mikrobiologi, Lantbrukshoegskolan, no. 7) (1532)
- LOCKERETZ, W. Agriculture and energy. New York, Academic Press, 1977. 750 p. (1533)
- * LOCKSTOKE DEVELOPMENTS, WEST SUSSEX. Waste into power systems II and III Bio-gas plant. West Sussex, England, s.f. 2 p. (1534)
- LOEHR, R. C. Agricultural waste management: problems, processes and approaches. New York, Academic Press, 1974. 576 p. (1535)
- LOEHR, R. C. Methane from human, animal and agricultural wastes. In *AAAS Selected Symposium on Renewable Energy Resources and Rural Applications in the Developing World*, Colorado, USA, 1978. Colorado, USA, Westview Press, 1978. pp. 129-150. (1536)
- LOEHRY, C. Pollution implications of animal wastes. Ithaca, New York, Cornell University Press, 1968. p. irr. (1537)
- LOGSDON, G. How Taiwan homestead farmers make methane work for them. *Compost Science* 16(5):30. 1975. (1538)
- LOLL, U. Engineering, operation and economics of biodigestion. In *Seminar on Microbial Energy Conversion*, Goettingen, Alemania, 1976. Proceedings. Ed. by H. G. Schlegel and J. Barnea. New York, Academic Press, 1977. pp. 361-378. (1539)
- LONGYEAR, A. B.; BRINK, W. R. y FISCHER, L. A. Mountain Home Geothermal Project: geothermal energy applications in an integrated livestock meat and feed production facility at Mountain Home, Idaho. San Francisco, CA, Energetics Marketing and Management Associates, 1979. 185 p. (Contract ET-78-C-07-1704) (1540)
- _____, ed. Kelly Hot Spring Geothermal Project: Kelly Hot Spring Agricultural Center preliminary design. Final technical report. San Francisco, CA., 1980. 120 p. (1541)
- LORIMOR, J. C. Methane generation from livestock wastes. Ames, Iowa State University, Cooperative Extension Service, 1974. 4 p. (Miscellaneous Publication, no. 593) (1542)

- (LOS ANGELES) garbage will generate electricity. *Chemical Engineering* 81(5): 69. 1974. (1543)
- LOUIS, J. P. En Ille et Vilaine, un agriculteur a construit sa "Centrale d'Energie". *Agri Sept* no. 587. 1976. (1544)
- _____. Gaz de fumier: le pari de Jacques Cozot. *Agri Sept* no. 678: 16-17. 1978. (1545)
- _____. Gaz de fumier (un exemple d'une installation dans une exploitation). *Agri Sept* no. 628:16-17. 1978. (1546)
- LOW COST methane generation on small farms. In *Annual Biomass Energy Systems Conference, 3.*, Golden, CO., 1979. Golden, CO., 1979. pp. 548-580. (1547)
- LU, C. C. Hydrogenation of municipal waste using methanol as reactant. *Energy Environment* 5:569. 1978. (1548)
- LUIZ, A. C. S. Agupé como fonte de energia. São Paulo, Brasil, s.f. 5 p. (1549)
- Presentado en: Seminario Energia de Biomassas
- LUQUET, F. Economiser et produite son energie, pourquoi pas vous? *Patre* no. 272:21-24. 1980. (1550)
- LYMAN, B.; MacDOUNEL, G. y KRUP, M. Star-up and operation of two new high rate digestion systems. *Journal of the Water Pollution Control Federation* 39(4):518-535. s.f. (1551)
- LYSTER, B. Manure gas can kill. *Dairy Guide of the Country Guide* 90(11). 1971. (1552)
- * MA, Y. Biogas para la comunidad rural en China Popular. *Interciencia (Venezuela)* 6(2):75-76. 1981. (1553)
- * McBEE, R. H. The culture and physiology of a thermophilic cellulose-fermenting bacterium. *Journal of Bacteriology* 56(5):653-663. 1948. (1554)
- McBRIDE, B. C. y WOLK, R. S. Biochemistry of methane formation. *Advances in Chemistry Series* 105:11-22. 1971. 1555
- * _____ y WOLFE, R. S. Inhibition of methanogenesis by DDT. *Nature* 234 (5331):551-552. 1971. (1556)
- McCARTY, P. L. y McKINNEY, R. E. Salt toxicity in anaerobic digestion. *Journal of the Water Pollution Control Federation* 33:399-415. 1961. (1557)
- _____. y MacKINNEY, R. E. Volatile acid toxicity in anaerobic digestion. *Journal of the Water Pollution Control Federation* 33:223-232. 1961. (1558)
- _____. Microbiology of anaerobic digestion. Final report on NIH Research Grant WP-173. Standord, USA., Stanford University. Dept. of Civil Engineering, 1962. p. irr. (Technical Report no. R62-29). (1559)

- McCARTY, P. L. y VATCH, C. A. Volatile acid digestion at high loading rates. *International Journal of Air and Water Pollution* 6:65-73. 1962. (1560)
- _____. y SPEECE, R. E. Nutrient requirements in anaerobic digestion. Final report on PHS Research Grant WP-00483-01. Stanford, USA, Stanford University, Dept. of Civil Engineering, 1963. p. irr. (Technical report, no. 25) (1561)
- _____.; JERIS, J. S. y MURDOCH, W. Significance of individual volatile acids in anaerobic treatment. *Journal of the Water Pollution Control Federation* 35:1501-1516. 1963. (1562)
- Publicado también en: Proceedings of the 17. Industrial Waste Conference, 1962. Purdue Engineering Extension Series, no. 112. 1963. pp. 421-439
- _____. Anaerobic waste treatment fundamentals. I. Chemistry and microbiology. *Public Works* 95:107-112. 1964. (1563)
- _____. Anaerobic waste treatment fundamentals. II. Environmental requirements and control. *Public Works* 95:123-126. 1964. (1564)
- _____. Anaerobic waste treatment fundamentals. III. Toxic materials and their control. *Public Works* 95:91-94. 1964. (1565)
- _____. Anaerobic waste treatment fundamentals. IV. Process design. *Public Works* 95:95-99. 1964. (1566)
- _____. y BROSSEAU, M. H. Effect of high concentrations of individual volatile acids on anaerobic treatment. In *Industrial Waste Conference*, 18., Purdue, USA, 1963. Purdue Engineering Extension Series no. 115 : 283-296. 1964. (1567)
- McCARTY, P. L.; KUGELMAN, I. J. y LAWRENCE, A. W. Ion effects in anaerobic digestion. Final report on PHS research Grant WP-482. Stanford, USA, Stanford University, Dept. of Civil Engineering, 1964. p. irr. (Technical Report, no. 33) (1568)
- _____. The methane fermentation. In Heukelekian, H. and Dondero, N. C., eds. *Principles and applications in aquatic microbiology*. New York, Wiley, 1964. pp. 314-343. (1569)
- _____. Kinetics of waste assimilation in anaerobic treatment. In *American Institute of Biological Sciences. Developments in industrial microbiology*. Washington, D. C., 1966. p. irr. (1570)
- _____. Anaerobic treatment of soluble wastes. In Gloyna, E.F. and Eckenfelder, W. W., eds. *Advances in water quality improvement*. Austin, Texas, University of Texas Press, 1968. pp. 336-352. (1571)
- _____. Energetics and kinetics of anaerobic treatment. In Pohland, F., ed. *Anaerobic biological treatment process*. Washington, D.C., American Chemical Society, 1971. pp. 91-107. (Advances in Chemistry Series, no. 105) (1572)
- _____. Methane fermentation - future promise or relic of the past. In *Bioconversion Energy Research Conference*, Amherst, MA., 1973. Proceedings. Amherst, MA., University of Massachusetts, 1973. p. irr. (1573)
- _____.; YOUNG, L. Y. y GOSSETT, J. M. Heat treatment for increasing methane yields from organic materials. In *Seminar on Microbial Energy Conversion*, Goettingen, Alemania, 1976. Proceedings. Ed. by H. G. Schlegel and J. Barnea, eds. New York, Academic Press, 1977. pp. 179-199. (1574)

- McCARTY, P. L.; YOUNG, W. y OWEN, D. Heat treatment of biomass for increasing biodegradability. In Annual Biomass Energy Systems Conference, 3., Golden, CO., 1979. Proceedings. Golden, CO., Solar Energy Research Institute, 1979. pp. 411-418. (1575)
- * _____ . Heat treatment of organic residuals for increasing anaerobic biodegradability. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 265. (1576)
- Investigación en progreso
Publicado también en: U.S. Dept. of Energy. Fuels from biomass program, program summary January 1978. Washington, D.C., 1978. p. 60.
SSIE. Energy recovery for biomass. Washington, D. C., 1979. 1 p.
- McCONVEILLE, T. y MAIER, W. J. Use of powdered activated carbon to enhance methane production in sludge digestion. Biotechnology and Bioengineering Symposium 8:345-359. 1978. (1577)
- McDONALD, R. C.; WOLVERTON, B. C. y GORDON, J. Bioconversion of water hyacinth into methane gas. NASA Tech. Memo no. x-72725 :1-13. 1974. (1578)
- McFARLANE, P. N. Energy production and waste treatment. In Biotechnology Conference on Biomass and Energy, 1., Palmerston North, New Zealand, 1978. Proceedings. s.l., 1978. pp. 208-217 (1579)
- MacGARRY, M. G. y STAINFORTH, J. Compost, fertilizer and biogas production from human and farm wastes in the People's Republic of China. Ottawa, Canadá, IDRC, 1978. 94 p. (1580)
- McGAUHEY, P. H. American composting concepts. Washington, D. C., Environmental Protection Agency, 1969. p. irr. (Reports - U.S. Environmental Protection Agency, no. SW-2r) (1581)
- * MACIEL, P.; REMEDIOS, E.C. y GOLDSTEIN, R. Imperial Valley Biogas Project. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 219. Investigación en progreso (1582)
- McINERNEY, M. J. y BRYANT, M. P. Complete anaerobic degradation of lactate to CO₂ and CH₄ by mixtures of Methanosarcina and Desulfovibrio. Abstracts of the Annual Meeting of the American Society of Microbiology no. 1 42. 1978. p. irr. (1583)
- _____.; BRYANT, M.P. y PFENNIG, N. Anaerobic bacterium that degrades fatty acids in syntrophic association with metanogens. Archives of Microbiology 122:129-135. 1979. (1584)
- McKELLAR, R. C. y SPROTT, G. D. Solubilization and properties of a particulate hydrogenase from Methanobacterium strain G2R. Journal of Bacteriology 139:231-238. 1979. (1585)
- MACKILLOP, A. Why soft technology? Alternative solutions to the energy crisis. London, Methuen, 1975. p. irr. (1586)
- McKINNEY, R. E. y CONWAY, R. A. Chemical oxygen in biological waste treatment. Sewage and Industrial Wastes 29: 1097-1106. 1957. (1587)
- MACY, J. M.; SNELLEN, T. E. y HUNGATE, R. E. Use of syringe methods for anaerobiosis. American Journal of Clinical Nutrition 25:1318-1323. 1972. (1588)
- MADIGAN, D. C. Treatment of domestic organic refuse in the Adelaide Area. AMDEL Bulletin 18:59-68. 1974. (1589)
- MAFF FARM WASTE UNIT, COLEY PARK, READING, ENGLAND. Anaerobic digestion production of methane gas from livestock wastes. Coley Park, Reading, 1974. 15 p. (1590)

- MAH, R. A.; HUNGATE, R. E. y OHWAKI, K. Acetate, a key intermediate in methanogenesis. *In Seminar on Microbial Energy Conversion*, Goettingen, Alemania, 1976. *Proceedings*. Ed. by H. G. Schlegel and J. Barnea. New York, Academic Press, 1977. pp. 97-106. (1591)
- _____.; WARD, D. M. y BARESI, L. Biogenesis of methane. *Annual Review of Microbiology* 31:309-341. 1977. (1592)
- _____.; SMITH, M.R. y BARESI, L. Isolation and characterization of a gas-vacuolated *Methanosarcina*. *Abstracts of the Annual Meeting of the American Society of Microbiology* no. 132. 1977. p. irr. (1593)
- * _____; SMITH, M.R. y BARESI, L. Studies on an acetate-fermenting strain of *Methanosarcina*. *Applied and Environmental Microbiology* 35:1174-1184. 1978. (1594)
- * MAHAMAHAM KUMBHA mea exhibition. *Bio-Gas Newsletter* no. 3 :5. 1980. (1595)
- MAHDI, S. S. y MISRA, R. V. Energy substitution in rural domestic sector: use of cattle dung as a source of fuel. Bombay, India, Tata Energy Research Institute, 1979. 17 p. (NP-25011) (1596)
- MAHENC, J. /Énergetic chemical and solar energy/ *Entropie* 85:32-42. 1979. (En francés) (1597)
- MAHESWARI, C. D. Fuel crisis: gobar gas is the solution. *Planters' Chronicle* 69(24):500-502. 1974. (1598)
- MAKHIJANI, A. y POOLE, A. Energy and agriculture in the third world. Cambridge, MA., Ballinger, 1975. 168 p. (1599)
- _____. Energy policy for the rural third world. Washington, D. C., International Institute for Environment and Development, 1976. 58 p. (1601)
- MAKI, L. R. Experiments on the microbiology of cellulose decomposition in a municipal sewage plant. *Antonie Van Leeuwenhoek* 20:185-200. 1954. (1602)
- MAKING METHANE from municipal refuse is the goal of a joint project. *Chemical Engineering* 81(5):63-64. 1974. (1603)
- MAKULA, R.A. y SINGER, M. E. Ether-containing lipids of methanogenic bacteria. *Biochemical and Biophysical Research Communications* 82:716-722. 1978. (1604)
- MALIK, T. K. y SRIVASTAVA, U. K. Biogas plants at the village level; problems and prospects in Gujarat. Ahmedabad, India, Centre for Management in Agriculture, 1975. 148 p. (1605)
- MALY, J. y FADRUS, H. Influence of temperature on anaerobic digestion. *Journal of the Water Pollution Control Federation* 43:641-650. 1971. (1606)
- MANGANELLI, R. M. y BROFAZI, F. R. Quantitative determination of volatile acids by paper chromatography for application to servage sludge digestion. *Analytical Chemistry* 29(10):1441-1443. 1957. (1607)
- MANGEL, G.; PROST, C. y VILLERMAUX, J. Etude de la fermentation methanique sous pression (debit, composition). *Industries Alimentaires et Agricoles* 96(1):7-14. 1979. (1608)

- MANGEL, G.; VILLERMAUX, J. y PROST, C.** Methane production under pressure by fermentation of waste materials. *European Journal of Applied Microbiology and Biotechnology* 9(1):79-81. 1980. (1609)
- MANIGLIER, F.** Gaz de fumier et de lisier: l'exemple Suisse. *Agri Sept* no. 740: 18-20. 1979. (1610)
- MANILA WORKSHOP ON BIOGAS TECHNOLOGY AND UTILIZATION, MANILA, FILIPINAS, 1975.** Report. Bangkok, Tailandia, United Nations. Economic and Social Commission for Asia and the Pacific, 1975. p. irr. (1611)
- MANN, G. S.** Evaluation of slurry (biogas plant) for its manurial value. *Journal Research* 9(3):464-468. 1972. (1612)
- MANN, I.** Preparación y aprovechamiento de los subproductos animales. Roma, Italia, FAO, 1964. 272 p. (1613)
- Publicado también en Inglés
- _____. Producción de gas metano para calefacción e iluminación. In _____. Preparación y aprovechamiento de los subproductos animales. Roma, Italia, FAO, 1964. pp. 250-266. (Cuadernos de Fomento Agropecuario, no. 75) (1614)
- MANOCHA, A. y NEELAKANTAN, S.** Anaerobic digestion of plant residues into biogas. In *National Symposium on Biogas Technology and Usage*, New Delhi, India, 1977. New Delhi, India, 1977. pp. 19-20. (1615)
- MANUAL OF instruction for sewage treatment plant operators.** Albany, New York, Department of Health, 1965, p. irr. (1616)
- MANUFACTURE OF methane from wastes.** s.l., 21 Jul 1978. 6 p. (Japón Patente 1976-159,023) (1617)
- MANURE GAS not yet practical.** *Animal Husbandry and Agricultural Journal* 9(5):8. 1974. (1618)
- MARAMBA, F. D.** Fuel and fertilizer for the farmer. *Agricultural and Industrial Life* 38(11):10, 14. 1976. (1619)
- _____.; **OBIAS, E. D. y TAGANAS, C. C.** The small biogas plant - its construction, operation and use. Manila, Philippines, 1977. p. irr. (1620)
- _____. Biogas and waste recycling: the Philippine experience. Taguig, Metro, Manila, National Research Council of the Philippines, 1978. 230 p. (1621)
- MARCHESI, W.** Os estudos do Humus. *Granja (Brasil)* 36(393):42. 1980. (1622)
- MARCHI ZUÑIGA, D. E.** Estudio comparativo de la fermentación anaeróbica en mostos blancos. Tesis Ing. Agr. Santiago, Universidad de Chile, Facultad de Agronomía, 1977. 47 p. (1623)
- MARDON, C.J.** Production of methane from organic wastes in Australia. East Melbourne, Commonwealth Scientific and Industrial Research Organization, Division of Chemical Technology, 1975. 33 p. (1624)
- _____. An assessment of small-scale methane gas production and methane-algae systems in the Asian-Pacific area, report. Melbourne, Australia, Commonwealth Scientific and Industrial Research Organization, Division of Chemical Technology, 1976. p. irr. (1625)

- MARDON, C. J. Methane energy production from meatworks. *In Waste Resources and Waste Management Seminar*, Sydney, Australia, 1976. Sydney, Australia, Commonwealth Scientific and Industrial Research Organization, 1976. 20 p. (1626)
- _____. Potential for methane production from organic wastes. *In National Chemical Engineering Conference*, 3., Mildura, Victoria, Australia, 1975. Treatment, recycling and disposal of wastes. East Melbourne, Australia, Commonwealth Scientific and Industrial Research Organization, 1976. pp. T129-T130. (1627)
- _____. Methane gas from meatworks waste. *Ecos* no. 11 :27-28. 1977. (1628)
- * MAREE, W. S. Methane gas from farm and animal waste. *Farming in South Africa* 41(12):6-9. 1966. (1629)
- MARIN, I. Production of methane gas for heat and light. *In Mann, I. Processing and utilization of animal by-products*. Roma, Italy, FAO, 1962. pp. 226-241. (FAO. Agricultural Development Paper, no. 75) (1630)
- MARLAT, W.W. y TOMSON JUNIOR, C.F. Energy independence through methane. *In Aspern Energy Forum*, 4., Aspen, CO., 1977. Solar architecture. Proceedings. Ann Arbor, MI., Ann Arbor Science Publishers, 1978. v. 4, pp. 255-270. (1631)
- MARSAL, F. Un agriculteur fabrique son gaz. *Agri Sept* no. 311 :17. 1970. (1632)
- MARTILLOTTI, F. y CONTE, L. Sottoprodotti a deiezioni: una nuova fonte di energia. *Informatore Agrario* 33(49): 28737-28740. 1977. (1633)
- MARTIN, G. A. y STEWART, D. J. Energy: biogas. Utilisation of methane produced by anaerobic digesters. *Aglink FPP425*. Wellington, New Zealand, Ministry of Agriculture and Fisheries, 1980. 3 p. (1634)
- MARTIN, J. H. y DALE, G. Energy recovery from manure using plug-flow digesters. s.l., 1978. 9 p. (1635)
- MARTIN-LEAKE, H. Conservation of urban wastes. *Environmental Health* 82(6): 113-116. 1974. (1636)
- * MARTINEZ, A. M. Parámetros básicos para biometanación de desechos orgánicos. *In Curso Latinoamericano de Biogás*, T., Guatemala, 1981. *Manual de biogás*. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 146-162. (1637)
- * MARTINEZ, C. Colombia: montaje de una planta piloto para la producción de gas combustible por fermentación anaeróbica del estiércol de res. *Organización Latinoamericana de Energía*, Ecuador. *Boletín Energético* no. 14: 17-22. 1980. (1638)
- Presentado al: 4. Congreso Nacional de Ingeniería Química
- * MASKEY, S. L. Bio gas Research Center at Shanghai/China. *Newsletter Bio Gas* no. 10 :3-5. 1980. (1639)
- MASLOVA, L. G. y PANTSKHAVA, E. S. Change of the redox potential during methane fermentation of organic matter. *Prikladnaya Mikrobiologiya i Biokhimiya* 1(2): 238-241. 1965. (1640)
- MASSEY, V. Utilization of biogas in running engines for chopping hay. *In National Symposium on Biogas Technology and Usage*, New Delhi, India, 1977. New Delhi, India, 1977. p. 39. (1641)
- MATAMOROS ARCE, M. A. Factibilidad para la producción de biogás. Tesis Ing. Quím. San José, Universidad de Costa Rica, Facultad de Ingeniería, 1981. 78 p. (1642)

- MATAMOROS MICO, C. F. Producción de biogás utilizando desechos de lecherías. Tesis Ing. Quím. San José, Universidad de Costa Rica, Facultad de Ingeniería, 1981. 43 p. (1643)
- MATHES, M. P. J. A. P. Methane gas recovery from sanitary landfill in tropical conditions. Bangkok, Thailand, Asian Institute of Technology, 1978. 107 p. (AIT Thesis, no. 1398) (1644)
- MATHUR, S.S. Solar energy scene in India. HELIOS no. 4 :2-4. 1978. (1645)
- MATTOS, S. Fertilizante e energia a partir do esterço. Agricultura de Hoje (Brasil) 6(66):32-33. 1980. (1646)
- MAULON, K. R. Anaerobic digestion of farm wastes. s.l., s.f. p. irr. (1647)
- MAUNG, M. Composting of municipal wastes-UNIDO's experience. In FAO/SIDA Workshop on the Use of Organic Materials as Fertilizers in Asia, Bangkok, Thailand, 1976. Organic recycling in Asia. Roma, Italy, FAO, 1978. pp. 287-300. (FAO Soils Bulletin, no. 36) (1648)
- MAYER, F.; LURZ, R. y SCHOBERTH, S. Electron microscopic investigation of the hydrogen-oxidizing acetate-forming anaerobic bacterium *Acetobacterium woodii*. Arch. Microbiol. 115:207-213. 1977. (1649)
- MAYUR, R. Bio-energy in India. In Bio-Energy '80 World Congress and Exposition, Atlanta, GA., 1980. Proceedings. Atlanta, GA., USA, 1980. pp. 326-328. (Conf-800482) (1650)
- * MECHALAS, B. J.; STRAUGHAN, I. R. y LARSON, L. Biological generation of methane. In Bente Junior, P. F. y Camello, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 272. (1651)
- Investigación en progreso
- MEDEIROS, J. X. DE y PRAKASAN, K. O biogás como fonte de energía não convencional. João Pessoa, Brasil, Universidade Federal da Paraíba, Centro de Ciências Agrárias, 1979. p. irr. (1652)
- Presentado en: 1. Seminario de Secagem Solar e Armazenagem de Alimentos no Nordeste.
Publicado también en: Boletim da A.B.En.S. 1(2):32-52. 1979.
- _____. Biogás: uma alternativa energética. s.l., 1980. p. irr. (1653)
- _____. Curso de tecnologia de biogás. Brasília. Universidade Federal da Paraíba, Centro de Ciências Agrárias, 1980. p. irr. (1654)
- MEENAGHAN, G. F. Gas production from beef cattle wastes. St. Joseph, MI., American Society of Agricultural Engineers, 1970. 15 p. (1655)
- MEER, R. R. VAN DER; BRAKEL, J. VAN y HEERTJES, P. M. Anaerobic treatment of dilute waste waters. Chemistry and Physics, Chemical and Physical Engineering. Delft Progr. Rep. Series A no. 1 :143-149. 1976. (1656)
- * MEHLICH, A. A note on the effects of methane plant residue on soil fertility and nutrient content of coffee. Kenya Coffee 30(357):495-496. 1965. (1657)

- MEHTA, M. M. Biogas utilization in tractor diesel engines for stationery applications. s.l., 1978. 12 p. (1658)
- _____. Biogas utilisation in agricultural machinery. *Agricultural Engineering Today* 4(2):13-17. 1980. (1659)
- MEHTA, M.R. y BANDYOPADHYAY, S. Treatment of municipal solid wastes for production of biogas. Kharagpur, Indian Institute of Technology, Dept. of Chemical Engineering, 1978. p. irr. (1660)
- MEINCK, F. y MOEHLE, H. Dictionary of water and sewage engineering. Amsterdam, Holland, Elsevier, 1963. 449 p. (1661)
- MEIRA, G. Fontes de energia alternativa; as perspectivas para o futuro. *Revista da Fundação Jones dos Santos Neves (Brasil)* 3(1):15-17. 1980. (1662)
- * MELLO, M. R. Biodurb e compostagem artesanal. Brasilia, Brasil, 1981. 48 p. (1663)
- Presentado en: 1. Simposio Brasileiro de Biogás, Brasilia, Brasil, 1981.
- MEL'NIK, B. D. y MEL'NIKOV, E. B. Technology of inorganic compounds. Jerusalem, Israel Program for Scientific Translations, 1970. 4 p. (1664)
- MELO, L. H. Digestor para metano. *Paraíba Pecuária (Brasil)* 4(9):27-28. 1979. (1665)
- MENAR, A. G. y JENKINS, D. The fate of phosphorus in sewage treatment processes. III. Post-aeration, anaerobic digestion and preliminary clean solution precipitation experiments. Berkeley, CA., University of California, 1970. p. irr. (SERL. Rpt. No. 70-12) (1666)
- * MENCHU, J. F. Producción de biogás a partir de los sub-productos del café. *In Curso Latinoamericano de Biogás, I.*, Guatemala, 1981. Manual de biogás. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 178-188. (1667)
- MENON, T. C. K. Biogas from weeds and plant litter. *In Seminar on Selected Cases of Work in Progress on Adaptive Technology*, Ullor, India, 1977. s.l., 1977. p. irr. (1668)
- MENOSOV, E. Z. y NETRUSOV, A. I. Localization of energy generators in methane oxidizing bacteria. *Mikrobiologiya* 45(4):598-601. 1976. (1669)
- MERCIER, J. R. Inventaire des moyens techniques de collecte, de stockage et de traitement des effluents d'élevage. Toulouse, Francia, ARES, 1981. 2 v. (1670)
- MERLI, C. y SERVERI, P. Analisi tecnico economica di un sistema di trasformazione in energia dei prodotti di scarto di un insediamento caseificio-allevamento. *Scienza e Tecnica Lattiero-Casearia* 30(6):444-463. 1979. (1671)
- MERRILL, R. y GAGE, T. Energy primer: solar, water, wind and biofuels. New York, USA, Dell Publishing, 1978. 256 p. (1672)
- MERTENS, H. y SCHLITT, H. G. /Exhaust behaviour of diesel engines where methane is present in the intake air/ *Glueckauf* 115(11):520-525. 1979. (En alemán) (1673)
- METANO DA lettiera di pollame. Punti da considerare prima di realizzare un impianto. *Selezione Suinavicunicola* 6(18-19):19. 1979. (1674)

- METANO DALLE deiezioni cunicole. Informatore Zootecnico 26(10):35. 1979. (1675)
- METCALFE AND EDDY, INC., NEW YORK, USA. Wastewater engineering. New York, McGraw-Hill, 1973. p. irr. (1676)
- LE METHANE biologique. I. C.N.E.E.M.A. B.I. no. 196 :29-34. 1974. (1677)
- THE METHANE forming bacteria. London, England, MacMillan, 1963. p. irr. (1678)
- METHANE FROM energy crops. In Renzo, D. J. de. Energy from bioconversion of waste materials. Park Ridge, NJ., Noyes Data Corporation, 1977. pp. 173-221. (1679)
- METHANE FROM waste. Australian Science Newsletter 5(3):9-10. 1978. (1680)
- METHANE FROM waste...How much power can it supply. Popular Science 205(6):1-3. 1974. (1681)
- METHANE: FUEL for the future. London, England, s.f. p. irr. (1682)
- METHANE GAS made from fowl wastes. Animal Husbandry and Agricultural Journal 8(5):38. 1973. (1683)
- METHANE GENERATION and recovery from landfills. Ann Arbor, MI., Ann Arbor Science Publishers, 1980. 146 p. (1684)
- METHANE MADE from manure. Chemical Engineering News 52(43):24. 1974. (1685)
- * METHANE PRODUCTION from farm wastes. International Sugar Journal 54(644):208-209. 1952. (1686)
- METHANE PRODUCTION of anaerobic fermentation. London, England, Intermediate Technology Publications, 1975. p. irr. (1687)
- METHANE RECOVERY from chicken manure digestion. Journal of the Water Pollution Control Federation 44(12):2349-2354. 1972. (1688)
- METHANE RECOVERY from sanitary landfills; gas recovery system installations and testing. Interim report. s.l., 1978. 45 p. (1689)
- MEYNELL, P.-J. Methane: planning a digester. New York, Schocken Books, 1976. 150 p. (1690)
- MICOCH, L. Bioplyn a možnosti jeho pouziti v zemedelstvi. Mechanizace Zemedelstvi 27(9):407-409. 1977. (1691)
- * MICROBIAL ENERGY conversion: methane production. Interciencia (Venezuela) 3(3):180-181. 1978. 1692
- MID-AMERICAN BIOMASS ENERGY WORKSHOP, USA, 1979. Conference proceedings including recommendations for: direct combustion, alcohol fuels, anaerobic digestion, and gasification. s.l., 1979. 171 p. (1693)
- * MIDDLETON, A. C. Phosphorus solubilization during anaerobic decomposition of algae. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D. C., 1979. 1 p. (SSIE no. GSE--6610-1) (1694)
- Investigación en progreso
- MIGNOTTE, F. Gaz de fumier a la ferme, la maison rustique, agricole, horticole. Paris, France, 1952. p. irr. (1695)

- MIKHLIN, E. D.; RADINA, V. P. y MARTYNOVA, E. M. Stimulation of fodder beet and carrot growth by-products of thermophilic methane fermentation. *Applied Biochemistry Microbiol.* 14(2):216-222. 1978. (1696)
- MIKKELSEN, J. P.; NISSEN, T. V. y SKOTTE, H. Fremstilling af metangas fra halm. *Tidsskrift for Planteavl* 78(5):652-656. 1974. (1697)
- MILLER, A. El biogas, nuevo uso de una vieja fuente de energía. *Chemical Engineering Progress* 73(5):63-69. 1977. (1698)
- MILLER, D. L. Methane fermentation of animal wastes. In *Conference on Capturing the Sun Through Bioconversion*, Washington, D. C., 1976. *Proceedings*. Washington, D. C., Energy Research and Development Administration, Council on Solar Bio-fuels, 1976. pp. 361-364. (1699)
- * MILLER, I. J. Decision making in the utilisation of the organic fraction of municipal wastes. *New Zealand Journal of Science* 19:339-344. 1976. (1700)
- _____. Economics of recovering energy from wastes. In *New Zealand Energy Conference, 3.*, Wellington, New Zealand, 1977. *Proceedings*. Wellington, New Zealand, 1977. 8 p. (1701)
- _____. Energy from wastes. *New Zealand Energy Journal* 50:31-35. 1977. (1702)
- MILLER, J. V. Methane gas production (anaerobic process), Monroe Dairy Farm, process feasibility study; report. Washington, D. C., 1974. p. irr. (1703)
- * MILLER, M. M. y SEID, S. R. Sheldon-Arleta gas recovery project. In *Bente Junior, P. F. y Camelio, C. A.*, eds. *The bio-energy directory*. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 262 (1704)
- Investigación en progreso
- MILLER, T. L. y WOLIN, M. J. Formation of hydrogen and formate by *Ruminococcus albus*. *Journal of Bacteriology* 116:836-842. 1973. (1705)
- MILLS, P. J. A comparison of an anaerobic digester and an aeration system treating piggery waste from the same source. In *Cornell Agricultural Waste Management Conference, 9.*, Ann Arbor, MI., 1977. *Food, fertilizer and agricultural residues*, ed. by R. C. Loehr. Ann Arbor, MI., Ann Arbor Science Publishers, 1977. pp. 415-422. (1706)
- _____. Engineering experiences with prototype and later digesters. In *Seminar on Anaerobic Digestion of Farm Wastes*, Cardington, 1978. *Proceedings*. Cardington, ADAS, 1978. p. irr. (1707)
- _____. Minimisation of energy-input requirements of an anaerobic digester. *Agricultural Wastes* 1:161-164. 1979. (1708)
- MILNE, C. M. State of the art: methane gas generation from agricultural wastes...energy sources. Montana, State University, 1974. 7 p. (1709)
- MINER, J. R. Bibliography of livestock waste management. Ames, Iowa State University, Dept. of Agricultural Engineering, 1972. 148 p. (1710)

- MINER, J. R. Demonstration of three recirculating swine waste management systems. Washington, D. C., Government Printing Office, 1973. 164 p. (Environmental Protection Technology Series, no. EPA-660/2-74.00P) (1711)
- MINISTERE DE LA COOPERATION GROUPE DE RECHERCHE ET D'ECHANGES TECHNOLOGIQUES, PARIS, FRANCE. Bio-gaz-gaz de fumier, chargement discontinu. París, France, 1977. 4 p. (1712)
- _____. Bio-gaz/gaz de fumier, chargement en continu (grande capacité). París, France, 1977. 4 p. (1713)
- _____. Bio-gaz/gaz de fumier, chargement en continu (pays tempere). París, France, 1977. 4 p. (1714)
- _____. Bio-gaz/gaz de fumier; fermenteur a de placement expérimental. París, France, 1976. 4 p. (1715)
- _____. Bio-gaz/gaz de fumier; fermenteur rotatoire. La maison au méthane. París, France, 1976. 4 p. (1716)
- _____. Bio-gaz/gaz de fumier; petite capacité. París, France, 1977. 4 p. (1717)
- _____. Bio-gaz/gaz de fumier; prícipe et facteur de la methanisation de la matière organique. París, France, 1977. 4 p. (1718)
- MAG DEBE integrarse a producción de metano. La República, San José; Oct. 10, 1979:1-2. (1719)
- MINISTRY OF AGRICULTURE AND IRRIGATION, NEW DELHI, INDIA. DIRECTORATE OF EXTENSION. Install a cowdung gas plant. New Delhi, India, 1976. p. irr. (1720)
- MINISTRY OF AGRICULTURE AND IRRIGATION, NEW DELHI, INDIA. FERTILISER DIVISION. Organic recycling in agriculture. New Delhi, India, 1979. 49 p. (NP-25012) (1721)
- Partes del documento son ilegibles
- * MINK, R. W. y DUGAN, P. R. Tentative identification of methanogenic bacteria by fluorescence microscopy. Applied and Environmental Microbiology 33(3):713-717. 1977. (1722)
- MINNESOTA, USA. AGRICULTURAL EXPERIMENT STATION. Energy from animal wastes. Minnesota Science 33(3):15. 1977. (1723)
- Sólo resumen.
- MINOLA, U. y OLMO, M. Valutazioni di trattabilità dei liquami industriali commisti a liquami urbani con processi biologici. Inquinamento 20(9):61-67. 1978. (1724)
- MIRANOWSKI, J. A.; PIDGEON, E. R. y PETERSON, D. V. Economic feasibility of methane generation and livestock and crop waste recycling for a typical Iowa family farm. In Conference on Agriculture and Energy, St. Louis, MO., 1976. Agriculture and energy. Proceedings, ed. by W. Lockeretz. New York, Academic Press, 1977. pp. 469-477. (1725)
- MISHIHARA, S. Digestion of human fecal matter. Sewage Works Journal 7(5):798-809. 1935. (1726)
- MISIKO, P. A. M.; SINGH, M. S. y MUTUKU NZIOKI. Alternative rural energy sources (in Kenya). In Biogas Conference, Njoro, Kenya, 1978. Njoro, Kenya, Egerton College, 1980. 67 p. (Egerton College Agricultural Bulletin, no. 1 (no. esp.) (1727)

- MISRA, S. P. Economic feasibility of gobar gas plant: a case study. *Khadi Gramodyog* 21(6):286-289. 1975. (1728)
- MISRA, U. P. Biochemical studies on the production of combustible gas and manure from bullock dung and other organic material. s.l., IARI, 1954. p. irr. (1729)
- MITAL, C. K. Gobar gas plants. In Mudsal, A. G., ed. *Nonconventional sources of energy: notes on short-term course*. Bombay, Indian Institute of Technology, 1980. 11 p. (NP--25005) (1730)
- MITCHELL, D. H.; MUDGE, L. K. y ROBERTUS, R. J. Methane and methanol via catalytic gasification of biomass. In *Annual Meeting of the American Institute of Chemical Engineers, 89.*, Portland, OR., 1980. Portland, OR., 1980. 17 p. (1731)
- MITCHELL, J. C. V. A review of current research and development in bio-gas production. *Process Biochem.* 10(8):32-33. 1975. (1732)
- MITRA, T. y BHATTACHARYYA, B. C. Biogas as an alternative source of energy. *Chemical Engineering World* 13(12). 1978. (1733)
- _____. y BHATTACHARYYA, B. C. Design of a biogas plant attached to a dairy farm and its economic evaluation. Kharagpur, Indian Institute of Technology, Dept. of Chemical Engineering, 1978. p. irr. (1734)
- MITSUI, A. Multiple utilization of tropical and subtropical marine photosynthetic organisms. In *International Ocean Development Conference, 3^o*, Tokyo, Japan, 1975. Coral Gable, FL., University of Miami, 1975. 29 p. (1735)
- MITSUI, A. Bio-saline research: the use of photosynthetic marine organisms in food and feed production. In *International Workshop on Bio-Saline Research*, Kiawah Island, SC., 1977. Miami, FL., Plenum Press, 1979. 41 p. (1736)
- * MOE, P. G. The role of microorganisms in waste disposal. In *Smithsonian Science Information Exchange. Energy recovery for biomass*. Washington, D. C., 1979. 2 p. (SSIE no. GY--69572-1) (1737)
- Investigación en progreso
- * MOE, P. W. y TYRRELL, H. F. Methane production in dairy cows. *Journal of Dairy Science* 62(10):1583-1586. 1979. (1738)
- MOHANRAO, G. J. Scientific aspects of cowdung digestion. *Khadi Gramodyog* 20(7):340-347. 1974. (1739)
- MOLDOVAN, E.; TUSZING, K. y GHIDAU, G. Realizarea de economii de energie electrica, combustibil, gaz metan si metan, prin imbunatatirea tehnologiilor de fabricatie. *Productia Vegetala. Mecanizarea Agriculturii* 30(10):28-31. 1978. (1740)
- MOLONGOSKI, J. J. Sedimentation and anaerobic metabolism of particulate organic matter in the sediments of a hypereutrophic lake. Ann Arbor, MI., Michigan State University, 1978. 156 p. (1741)
- MONROCQ, M. Le gaz de fumier (installation de production, France). *Nouvelles de l'Aviculture* 18(283):6-7. 1979. (1742)
- _____. Production de gaz vegetal. *Courrier Avicole* 35(767):19-20. 1979. (1743)

- MOO-YOUNG, M.; CHAHAL, D. S. y VLACH, D. Utilization of cattle manure for *Torula* yeast production from straw hydrolysates. *Animal Feed Science and Technology* 5(3):175-182. 1980. (1744)
- MOORE, L. y BARTH, E. F. Degradation of nitrilotriacetic acid during anaerobic digestion. *Journal of the Water Pollution Control Federation* 48:2406-2409. 1976. (1745)
- MORALES C., A. M. y CHACON V., G. Producción de biogás a partir de desechos agroindustriales. San José, Costa Rica, Oficina del Café, 1981. 21 p. (1746)
- MORAN, E. Cooks with bio-gas. *Popular Science* 1975:95, 109. 1975. (1747)
- MOREIRA, P. de C. Projeto Baronesa. Rio de Janeiro, Brasil, Instituto de Pesquisas da Marinha, 1978. 6 p. (1748)
- Presentado en: 2. Congresso Latino Americano de Energia Solar.
- MORGAN, J. D.; FISCHER, J. R. e IANNOTTI, E. L., eds. Energy from swine manure. *In* Conference on Energy, 5., Rolla, MO., 1978. Rolla, MO., University of Missouri, 1978. pp. 158-169. (1749)
- _____.; KOKOROPOULOS, P. y BENGTON, H. H. Methane production from livestock wastes by anaerobic digestion. *In* Conference on Energy, 5., Rolla, MO., 1978. Rolla, MO., University of Missouri, 1978. pp. 177-182. (1750)
- MORGAN, J. J. Gasification of hydrocarbons. New York, 1953. 180 p. (1751)
- * MORINAGA, Y.; YAMANAKA, S. y OTSUKA, S. Characteristics of a newly isolated methane oxidizing bacterium, *Methylobacterium flagellata* nov. sp. *Agricultural and Biological Chemistry* 40(8): 1539-1545. 1976. (1752)
- MORRIS, G. R.; JEWELL, W. J. y LOEHR, R. C. Anaerobic fermentation of animal wastes: design and operational criteria. *In* Cornell Agricultural Waste Management Conference, 9., Ann Arbor, MI., 1977. Food, fertilizer and agricultural residues. Ed. by R. C. Loehr. Ann Arbor, MI., Ann Arbor Science Publishers, 1977. pp. 395-413. (1753)
- _____.; JEWELL, W. J. y LOEHR, R. C. Anaerobic fermentation of animal wastes: a kinetic design evaluation. *Proceedings - Industrial Wastes Conference, Purdue University* 32d: 689-700. 1978. (1754)
- MORRIS, J. G. The physiology of obligate anaerobiosis. *Advances Microb. Physiol.* 12:169-246. 1975. (1755)
- * MORRISON, J. Full-scale poultry manure digester. *In* Bente Junior, P. F. y Camello, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 229. (1756)
- Investigación en progreso
- * MORRISON, S. M. Animal waste management systems for the 1980's. *In* Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D. C., 1979. 1 p. (SSIE no. GY--57695-8) (1757)
- Investigación en progreso
- * MORSE, J. G. Gamma radiation on yields of methane gas from anaerobic bacterial digestion of sewage sludge. *In* Bente Junior, P. F. y Camello, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 248. (1758)
- Investigación en progreso

- * MORSE, J. G. Methane generation through spent nuclear fuels irradiation of sewage wastes. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. YCO--183-1)
(1759)
- Investigación en progreso
- MOSEY, F. E. y HUGHES, D. A. Toxicity of heavy metal ions to anaerobic digestion. Water Pollution Control 74:18-39. 1975.
(1760)
- _____. Assessment of the maximum concentration of heavy metals in crude sewage which will not inhibit the anaerobic digestion of sludge. Water Pollution Control 75:10-20. 1976.
(1761)
- MOSTIN, M. Les dechets solides d'Abattoir nouvelles filiéres de traitement. Revue Abattoir 25:17-23. 1981.
(1762)
- MOULIK, T. K. y SRIVASTAVA, U. K. Biogas plants at the village level: problems and prospects in Gujarat. New Delhi, Indian Institute of Management, 1975. 149 p. (CMA. Monograph, no. 59)
(1763)
- _____. Promoting biogas technology in the villages - experience in Gujarat. In National Symposium on Biogas Technology and Usage, New Delhi, India, 1977. New Delhi, India, 1977. pp. 52-53.
(1764)
- _____. Biogas system in India: a socio-economic evaluation. Ahmedabad, India, Centre for Management in Agriculture, 1978. 174 p.
(1765)
- * MOUNTFORT, D. O. y ASHER, R. A. Changes in proportions of acetate and carbon dioxides used as methane precursors during the anaerobic digestion of bovine waste. Applied and Environmental Microbiology 35(4):648-654. 1978.
(1766)
- MOWLI, P.; PRATAPA, C. y GNANESWAR, S. V. K. Bio-gas plants for rural India: technology and economics. In International Conference on Rural Development Technology: An Integrated Approach, Bangkok, Thailand, 1977. Proceedings. Bangkok, Thailand, Asian Institute of Technology, 1977. pp. 335-349.
(1767)
- MUDGAL, A. G. y BASU, S. Cellulosic biomass as a source of energy: notes on short-term course. s.l., 1980. 14 p.
(1768)
- _____. y MITAL, C. K., comps. Energy waste materials. In Nonconventional sources of energy: notes on short-term course. s.l., 1980. 16 p. (Paper, no. 22)
(1769)
- _____.; y MITAL, C. K., comps. Gobar gas plants; nonconventional sources of energy: notes on short-term course. s.l., 1980. 11 p.
(1770)
- MUDGE, L. K.; SEALOCK JUNIOR, L. J. y ROBERTUS, R. J. Catalytic gasification of biomass. In Annual Biomass Energy Systems Conference, 3., Golden, CO., 1979. Golden, CO., 1979. pp. 351-357.
(1771)
- MUDRI, S. S. Some observations on the anaerobic digestion of night soil. Environmental Health 9(2):133-136. 1967.
(1772)
- MUELLER, H. F. y LUNSFORD, D. Some characteristics of anaerobic sludge digestion. I. Effect of loading. Sewage and Industrial Wastes 31(6). 1959.
(1773)
- MUKHERJEE, J. K. Gobar gas plant: a study. New Delhi, India, Gandhi Peace Foundation, 1974. p. irr.
(1774)

- MUKHERJEE, S. K. y ARYA, A. Comparative analysis of social cost-benefit studies of biogas plants. In Research Planning Workshop on Energy for Rural Development, Ahmedabad, India, 1979. Ahmedabad, India, 1979. 10 p. (1775)
- MUNDE, A. V. Energy through gobar gas for small farmers. Khadi Gramodyog 23(12):546-548. 1977. (1776)
- MURPHY, V. G. Methane production by anaerobic digestion of biomass. Final report of innovative research program subtask, December 1977-September 1978. s.l., 1978. 29 p. (1777)
- MUTHU, S. y MADHAVI, S. Construction and evaluation of a night soil gas plant. Indian Journal Home Science 11(2):35-38. 1977. (1778)
- MYLES, R. M. y SINGH, J. B. Promotion of biogas plants for small and marginal farmers on individual and community basis. New Delhi, India, Action for Food Production, 1979. 11 p. (1779)
- _____. Biogas technology: review of the approach adopted by AFPRO in the systematic promotion of the Janata biogas plant. New Delhi, India, Action for Food Production, 1980. 14 p. (1780)
- _____. Construction of a 2 cu. m. (70 CFT) demonstration-cum-training model Janata biogas plant in the Union Territory of Delhi. New Delhi, India, Action for Food Production, 1980. 11 p. (1781)
- MYLROIE, R. L. y HUNGATE, R. E. Experiments on the methane bacteria in sludge. Canadian Journal of Microbiology 1:55-64. 1954. (1782)
- * NAAS, I. A. [Methane production from livestock residues]. Ecosistema (Brasil) 4(1):129-138. 1979. (En portugués) (1783)
- NACRO, M. Une "filierre douce", le biogaz - Une chance pour le développement des pays du Sahel? AGECOP-LIAISON no. 44:20-21. 1978. (En portugués) (1784)
- NAGAR, B. R. y TIETJEN, C. Status report on the use of biogas technology for increasing fuel and soils productivity. Journal of Scientific Ind. Res. 37(9):445-448. 1978. (1785)
- NAGUIB, M. A rapid method for the quantitative estimation of dissolved methane and its application in ecological research. Archiv fuer Hydrobiologie 82(1-4):66-73. 1978. (1786)
- NAHAR, S. Go in for a gobar gas plant. Inten. Agric. 14(3):24-25. 1976. (1787)
- NAKANO, R. y KUWATSUKA, S. [Studies on formation and degradation of ethylene in flooded soil. II. Formation of ethylene and methane in the early period of incubation]. Journal of the Science of Soil and Manure 49(6): 501-506. 1978. (En japonés) (1788)

- NGIAN, M. F.; NGIAN, K. F. y LIN, S. F. Biogasification using an of treated pig feces. *Journal. Environmental Engineering Division. American Society of Civil Engineers* 103(6):1131-1133. 1977. (1821)
- _____.; PEARCE, G. R. y NGIAN, K. F. Anaerobic digestion of sodium hydroxide pretreated pig faeces using sheep rumen liquor or anaerobic digester mixed liquor as inoculum. *Agriculture and Environment* 4(2):139-154. 1978. (1822)
- * _____. y PEARCE, G. R. Utilization of piggery waste. II. The chemical composition and *in vitro* organic matter digestibility of fractions of pig faeces separated by sieving and centrifuging. *Agriculture and Environment* 4(3):181-188. 1979. (1823)
- * _____. y PEARCE, G. R. Utilization of piggery waste. III. Effects of sodium hydroxide treatment of pig faeces on chemical composition, microscopic physical characteristics, and *in vitro* and *in vivo* digestibility. *Agriculture and Environment* 4(3):189-205. 1979. (1824)
- NIAN-GUO, L. Fermentation technology for rural digesters in China. Guangzhou, China, Guangzhou Institute of Energy Conservation, Chinese Academy of Sciences, 1980. p. irr. (1825)
- NICHOLS, D.G.; ROLINSKI, E. J. y SERVAIS, R. A. Anaerobic fermentation: a solution to energy and environmental problems. *In National Conference on Energy and the Environment, 5., Cincinatti, OH., 1977. Proceedings. Dayton, OH., American Institute of Chemical Engineers, 1978. p. irr.* (1826)
- 1980 ASAE NATIONAL ENERGY SYMPOSIUM, ST. JOSEPH, MI., 1980. St. Joseph, MI., American Society of Agricultural Engineers, 1980. 3 v. (1827)
- 1972 CORNELL AGRICULTURAL WASTE MANAGEMENT CONFERENCE, WASHINGTON, D. C., 1972. Proceedings. Washington, D. C., College of Agriculture and Life Sciences, 1972. 580 p. (1828)
- NODA, S.; MIURA, M. y YOSHIDA, H. ESR study of hydrogen atoms in methane-air flame. *Bull. Chem. Soc. Japón* 53(4):841-844. 1980. (1829)
- NOGUEIRA, V. H. Turfa; pouco uso para um grande potencial energético. *Revista da Fundação Jones dos Santos Neves (Brasil)* 3(1):28-30. 1980. (1830)
- NOON, R. Upper bound estimates of potential methane production in Kansas: a preliminary estimate of the amount of methane that can be produced in Kansas by the anaerobic digestion of livestock waste. s.l., 1980. 15 p. (1831)
- NORDSTEDT, R.; BOWSEN, J. y BOTTCHER, A. Methane recovery from anaerobic lagoons. St. Joseph, MI., American Society of Agricultural Engineers, 1976. p. irr. (Paper - American Society of Agricultural Engineers, no. 76-4029) (1832)
- * NOREN, O. A Swedish methane gas project - including three sub-projects. *In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D. C., 1979. 1 p. (SSIE no. D0-715)* (1833)
- Investigación en progreso
- NRIAGU, J. O.; GAMES, L. M. y HAYES, J. M., eds. Mechanisms of CO₂ and CH₄ production in natural anaerobic environments. *Environmental biogeochemistry. In International Symposium on Environmental Biogeochemistry, 2., Burlington, Ontario, Canadá, 1975. Ann Arbor, MI., Ann Arbor Science Publishers, 1977. pp. 51-73.* (1834)

- NORMAN, R. A study of a complete disposal-recycle scheme for agricultural solid wastes. Knoxville, TN, University of Tennessee, 1975. p. irr. (1835)
- NORRIS, H. E. Scrubbing sewage gas. *Water Works and Sewerage* 90(2):61. 1943. (1836)
- NORRMAN, J. Methane production by anaerobic biological treatment. Stockholm, Sweden, 1980. 16 p. (IVL (Institutet foer Vatten- och Luftvaardsforskning) B., no. 565). (1837)
- NOVACK, J. T. y RAMESH, M. S. Stimulation in anaerobic degradation. *Water Research* 9:963-967. 1975. (1838)
- NOVENARIO, C. G. Biogas for every home in the barrio. *Countryside Banking* 3(7):10-13. 1977. (1839)
- NYE, D. Production of biogas from swine manure. *Land Brug* 5(4):14-15. 1974. (1840)
- NYNS, J. Perspectives de la production biologique de methane en Belgique. Fermentation et compostage. In *Journées d'Etudes sur la Technologie du Traitement des Dechets*, Bruselas, Belgium, 1977. Programme national R et D dans le domaine de l'economie des dechets et des matieres premieres secondaires. Bruselas, Belgium, Service du Premier Ministre, Programmation de la Politique Scientifique, 1977. pp. 244-258. (1841)
- ODIER, E. y MONTIES, B. Biodégradation de la lignine de blé par *Xanthomonas* 23. *Annal. Microbiol. (Ins. Pasteur)* 129A:361-377. 1978. (1842)
- OFFICE OF THE LEADING GROUP FOR THE PROPAGATION OF SICHUAN, CHINA. Chinese biogas manual: propularising technology in the countryside. Sichuan, China, 1979. 135 p. (1843)
- OHLSSON, T. Redox reactions in soils: sequence of redox reactions in a waterlogged soil. *Nordic Hydrology* 10(2):89-98. 1979. (1844)
- OHTOMO, T.; IIZUKA, H. y TAKEDA, K. Effects of copper sulfate on the morphologic transition of *Methanococcus margaritae*. *European Journal of Applied Microbiology* 4:267-272. 1977. (1845)
- OI, S. y YAMAMOTO, T. [Methane fermentation. II. Purification of natural organic waste and recovery of energy_] *Kagaku To Kogyo* 52(3):89-92. 1978. (En japonés) (1846)
- _____.; YAMANAKA, H. y YAMAMOTO, T. Methane fermentation of bagasse and some factors to improve the fermentation. *Journal of Fermentation Technology* 58(4):367-372. 1980. (1847)
- OLESO, A. P. y WIEBE, R. Thermodynamics of producer gas combustion. *Industrial and Engineering Chemistry* 31: 653-660. 1965. (1848)
- OLIVEIRA, E. S. DE. Metano de fontes renováveis. *Digesto Economico (Brasil)* 26(266):73-78. 1979. (1849)

- OLIVEIRA, H. P. DE. Aproveitamento do bagaço de cana como combustível nas usinas e destilarias. *Brasil Acucarreiro* 95(2):20-23. 1980. (1850)
- * OLIVEIRA, M. A. B. O casca do arroz como fonte alternativa de energia. *Lavoura Arrozeira (Brasil)* 33(322):10. 1980. (1851)
- OLSON, D. B., y GARDINER JUNIOR, W. G. An evaluation of methane combustion mechanisms. *Journal of Physical Chemistry* 81(25):2514-2519. 1977. (1852)
- OLSON, M. L. Development of coalbed methane as an energy source. *Energy Sources* 4(4):353-365. 1979. (1853)
- OLSZEWSKI, M. y DIAZ, L. F. Feasibility of using power plant reject heat for urban food and methane production. *In Intersociety Energy Conversion Engineering Conference*, 11., State Line, NV., 1976. *Proceedings*. New York, American Institute of Chemical Engineers, 1976. pp. 1664-1668. (1854)
- OMELIANSKY, V. L. Methane-fermentation of ethyl-alcohol. *Annales de l'Institut Pasteur* 30:56-60. 1916. (1855)
- * ON-FARM biogas plant breaks even. *Power Farming* 1980. p. irr. (1856)
- ON THE farm methane. Arvada, CO., *Bio-Gas of Colorado*, s.f. p. irr. (1857)
- ONE-DAY SEMINAR METHANE, London, 1975. Methane: proceedings of a one-day seminar. London, Intermediate Technology Development Group, 1975. 51 p. (1858)
- * O'NEIL, D. J. y POULIN, A. D. Alternatives for utilization of sewage gas. *In Bente Junior, P. F. y Camelio, C. A.*, eds. *The bio-energy directory*. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 250. (1859)
- Investigación en progreso
- * _____ y BERY, M. K. Anaerobic digestion of poultry manure. *In Bente Junior, P. F. y Camelio, C. A.*, eds. *The bio-energy directory*. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 228. (1860)
- Investigación en progreso
- ONO, H. *Recovery of energy by methane fermentation/ Sumitomo Jukikai Giho* 26(78):94-97. 1978. (En japonés) (1861)
- ONTIVEROS, F. y CACERES, R., trads. *Letrina abonera de doble cámara aeróbica californiana*. Guatemala, Centro Mesoamericano de Estudios sobre Tecnología Apropiaada, 1980. 5 p. (1862)
- * OPERATION AND maintenance. *In Ad Hoc Panel on Methane Generation from Human, Animal, and Agricultural Wastes*, Washington, D. C., 1977. Methane generation from human, animal, and agricultural wastes: report. Washington, D. C., National Academy of Sciences. Panel on Methane Generation, 1977. pp. 84-94. (U.S. National Technical Information Service. PB no. 276469) (1863)
- OPPENLANDER, J. C. Economic analysis of dairy-manure bio-gas systems. St. Joseph, MI., American Society of Agricultural Engineers, s.f. p. irr. (Paper - American Society of Agricultural Engineers, no. 75-4545) (1864)

- OPPENLANDER, J. C.; CASSELL, E. A. y DOWNER, R. N. Cost effectiveness of bio-gas systems for dairy farms. In Annual UMR-DNR Conference on Energy, 4., Rolla, MO., 1977. Proceedings.. Rolla, MO., University of Mo-Rolla, 1978. pp. 230-239. (1865)
- OREMLAND, R. S. Methane and the biosphere. *Sea Frontiers* 20(3):1-8. 1974. (1866)
- _____. y TAYLOR, B. F. Inhibition of methanogenesis in marine sediments by acetylene and ethylene: validity of the acetylene reduction assay for anaerobic microcosms. *Applied Microbiology* 30:707-709. 1975. (1867)
- ORGANIC WASTES: methane gas plant from organic wastes. In United Nations Industrial Development Organization. Technologies from developing countries. New York, 1978. p. 5. (Development and Transfer of Technology Series, no. 7) (1868)
- ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, PARIS. Energy R and D. París, 1975. 243 p. (1869)
- ORGANIZACION DE DESARROLLO INDUSTRIAL DE LAS NACIONES UNIDAS, NEW YORK. Information sources on bioconversion of agricultural wastes. New York, 1979. 84 p. (UNIDO Guide to Information Sources, no. 33) (1870)
- ORGANIZACION LATINOAMERICANA DE ENERGIA, QUITO, ECUADOR. Estrategias y tecnologías disponibles para implementar programas rurales de biogás en América Latina. 2. ed. Quito, s.f. 65 p. (Documentos OLADE, no. 11) (1871)
- _____. Programa Regional de Biogás OLADE: estrategias y tecnologías disponibles para implementar programas rurales en biogás en América Latina. Quito, s.f. 68 p. (1872)
- * ORGANIZACION LATINOAMERICANA DE ENERGIA, QUITO, ECUADOR. Programa Regional de Biogás 1980. Quito, Organización Latinoamericana de Agroenergía, 1979. 55 p. (1873)
- * _____. Diseño básico de una planta de biogás tipo OLADE-Guatemala. OLADE. Boletín Energético no. 14 96-110. 1980. (1874)
- ORLANDI, F. C'e anche il biogas (energie alternative). *Giornale di Agricoltura* 90(21):51-55. 1980. (1875)
- ORTH, H. W. Bestimmung von Kennzahlen zur Wärmeübertragung bei Flussigmist. *Grundlagen Landtechnik* Bd. 31(2): 47-50. 1981. (1876)
- _____. Verbraucher von Biogas und ihr Einfluss auf die Auslegung einer Biogasanlage. *Grundlagen Landtechnik* Bd. 31(2):60-64. 1981. (1877)
- * OSTROVSKI, C. M.; PETERS, N. y SULLIVAN, J. L. Feasibility study of centralised digesters for the processing of animal waste. In Carver, M. B. y Hamza, M. H. Simulation, modelling and decision in energy systems. Montreal, Canadá, 1978. pp. 167-171. (1878)
- OSWALD, W. J. Water reclamation, algal production and methane fermentation in waste ponds. s.l., s.f. pp. 119-156. (1879)
- OVERVIEW OF research and development activities in biomass. s.l., 1978. 45 p. (1880)
- OWEN, W. F.; STUCKEY, D. C. y HEALY JUNIOR, J. B. Bioassay for monitoring biochemical methane potential and anaerobic toxicity. *Water Research* 13:485-492. 1979. (1881)

- OWEN, W. F. y McCARTY, P. L. Improving digester methane yield by heat treatment. In 1979 National Conference on Environmental Engineering, New York, 1979. Proceedings. New York, American Society of Civil Engineers, 1979. pp. 672-679. (1882)
- OYANOTO, T. y KUNO, H. Municipal waste treatment. s.l., 13 Mar 1978. 6 p. (Japón Patente no. --1978-26, 768) (1883)
- * PACHECO, V. F.; POUSO, I.C. y ALVAREZ, R. Escalamiento de la fermentación anaeróbica de melaza, estiércol y urea (proceso biofermel). In Reunión Internacional sobre la Utilización de la Caña de Azúcar en la Alimentación Animal, 1., Veracruz, México, 1976. Resúmenes de trabajo. México, D. F., Consejo Nacional de Ciencia y Tecnología, 1976. p. 28. (1884)
- Sólo sumario
- * PACHECO MORGAN, L. E. Producción de metano a partir de materia orgánica. Tesis Ing. Quím. San José, Universidad de Costa Rica, Facultad de Ingeniería, 1978. 122 p. (1885)
- PADILLO, B. J. y LUNA, C. A. Methane production from horse manure. Mindanao Institute of Technology Research Journal 6(1):41-45. 1976. (1886)
- * PADMANABHAN, V. Regional Centre for Biogas, Gandhigram, Tamilnadu. Tamilnadu, India, s.f. p. irr. (1887)
- _____. Expert Groupe Meeting on Biogas Development, Bangkok, Thailand, 1978. Bombay, India, Khadi and Village Industries Commission, 1978. 38 p. (1888)
- PAI, K. K. Role of commercial banks in promoting gobar gas plants. Khadi Gramodyog 20(7):353-357. 1974. (1889)
- PALMER, H. B.; LAHAYE, J. y HOU, K. C. Kinetics and mechanism of the thermal decomposition of methane in a flow system. Journal of Physical Chemistry 72(1):348-353. 1968. (1890)
- PANDITRAO, Y. A. Energy crisis and gobar gas. Khadi Gramodyog 23(4):187-189. 1977. (1891)
- PANG, A. Economics of gobar gas. Butwal, Nepal, Development and Consulting Services, 1978. 6 p. (1892)
- * PANIAGUA URDIALES, A. El programa regional de biogas de OLADE. Boletín Energético - OLADE no. 14:3-4. 1980. (1893)
- * _____ . Adaptación de metodologías para el control sanitario de bio-abonos y efluentes con respecto a los microorganismos de transmisión fecal. In Curso Latinoamericano de Biogas, 1^o, Guatemala, 1981. Manual de biogas. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 211-234. (1894)
- PANTSKHAVA, E. S. The mechanisms of methane biosynthesis by methane forming bacteria. Mikrobiol. Obshchest 4:97-109. 1967. (1895)
- _____. Methane fermentation of methanol by *Methanobacillus kuznetsovii* culture. Prikladnaya Biokhimiya i Mikrobiologiya 5(4):416-420. 1969. (1896)

- PANTSKHAVA, E. S. Role of low molecular weight factors from *Methanobacillus kuzneceovii* in an activating effect of visible light on methane formation and reduction of pyridine nucleotides. *Biokhimiya* 42:549-559. 1977. (1897)
- PAPER MANUFACTURING waste materials. Arvada, CO., Bio-Gas of Colorado, s.f. p. irr. (1898)
- PAQUES, ESSEX, ENGLAND. BIOPAQ power technology. Essex, England, s.f. 4 p. (1899)
- _____. PAQUES slurry digestors. Essex, England, s.f. 6 p. (1900)
- _____. There will always be slurry. Essex, England, s.f. 2 p. (1901)
- PARADA, A. Extraen gas metano de desechos de los bovinos. *La Prensa Gráfica*, San Salvador; Junio 25, 1977: 7, 15. (1902)
- _____. Con basuras de la capital pueden producirse 17 mil mts³ diarios de metano. *El Diario de Hoy*, San Salvador; Julio 10, 1979:4. (1903)
- PARAMASIVAM, R. Economic utilisation and disposal of cattle dung in rural communities. *In Symposium on Community Water Supply and Waste Disposal*, Nagpur, India, 1966. Proceedings. Nagpur, India, 1966. v. 2, pp. 62-67. (1904)
- PARCHEN, C. A. P. Biogás; opção energética. Curitiba, Empresa de Assistência Técnica e Extensão Rural do Estado do Paraná, 1979. 7 p. (1905)
- _____. Manual de biogás. Curitiba, Brasil, EMATER, 1979. 26 p. (1906)
- PARCHEN, C. A. P. Biofertilizante; um alerta. Paraná, Brasil, Empresa de Assistência Técnica e Extensão Rural do Estado do Paraná, 1980. 3 p. (1907)
- _____. Dimensões gerais de biodigestores rurais. Curitiba, Brasil, EMATER, 1980. 11 p. (1908)
- PARICK, M. Caso estudio no. 6; planta de biogás en pequeña escala - India. Bordali, Gujarat, India, s.f. 19 p. (1909)
- PARIKH, J. K. Potential of bio-gas plants and how to realize it. *In Seminar on Microbial Energy Conversion*, Goettingen, Alemania, 1976. Proceedings. Ed. by H. G. Schlegel and J. Barnea. New York, Academic Press, 1977. pp. 555-591. (1910)
- _____. Energie par bio-conversion pour los pays en voie de développement. *Revue de l'Energie* 28(293):239-251. 1977. (1911)
- _____. y PARIKH, K. S. Mobilization and impact of biogas technologies. Luxemburgo, Austria, International Institute for Applied Systems Analysis, 1977. 455 p. (1912)
- PARIKH, K. S. Benefit cost analysis of biogas plants in India. Tesis Ph. D. Cambridge, MA., Massachusetts Institute of Technology, 1963. p. irr. (1913)
- PARIKH, M. y KAKALIA, M. Garbage gas plant. *Khadi Gramodyog* 24(6):310-317. 1977. (1914)
- PARIKH, P. P. y JAIN, C. K. Gobar gas as supplementary fuel for diesel engines. *Urja* 1(4):27-29. 1977. (1915)

- PARK, Y. D. Biogas production from human excreta and animal wastes through anaerobic fermentation. In Korea-Japan Symposium on Biological Treatment of Waste Water and Environment Protection, Suweon, Korea, 1979. Suweon, Korea, Korea Society for Applied Microbiology, 1979. pp. 8-9. (1916)
- _____. Biogas research and utilization in Korea. In Korea-China Joint Workshop on Energy Conservation and Alternative Energy, 1., Suweon, Korea, 1979. Suweon, Korea, Korea Institute of Energy Conservation, 1979. pp. 14-15. (1917)
- _____. Biogas research in Korea. In International Biogas Workshop, Alemania, 1979. Report. s.l., 1979. pp. 66-67. (1918)
- _____.; PARK, N. J. y LIM, J. H. A feasibility study of village scale biogas plant during winter season. Research Reports of the Office of Rural Development 21:53-60. 1979. (1919)
- _____.; LIM, J. H. y PARK, N. J. Studies on biogas generation from animal wastes. Research Reports of the Office of Rural Development 21:61-68. 1979. (1920)
- _____. Technical evaluation on operating installed family size biogas plant in Korea. In Report of social and economic evaluation on biogas technology in Korea. Suweon, Korea, Office of Rural Development, 1979. pp. 26-44. (1921)
- PARK, Y. D. Biogas research and development in Korea. In Regional Workshop on Rural Development Technology, Seoul, Korea, 1981. Seoul, Korea, Advanced Institute of Science and Technology, 1981. p. irr. (1922)
- PARKER, R. Methane production from swine waste with a mesophilic solar and thermophilic reactor. St. Joseph, MI., American Society of Agricultural Engineers, s.f. 8 p. (Paper - American Society of Agricultural Engineers, no. 74-3033) (1923)
- * _____. The solar still. Agricultural Engineering 55(9):25-26. 1974. (1924)
- PATANKAR, G. L. Role of gobar gas plants in agro-industries. Khadi Gramodyog 20(7):351-352. 1974. (1925)
- _____. Recent development in gobar gas technology. Bombay, India, Khadi and Village Industries Commissions, 1977. 106 p. (1926)
- _____. Corrosion in gobar gas plant. Khadi Gramodyog 24(11):541-545. 1978. (1927)
- PATEL, A. R. Wealth from wastes-gobar gas obtained through the fermentation of cattle dung anaerobically potential source of energy. Agric. Agro. Indust. Journal 10(10):3-7. 1977. (1928)
- PATEL, G. B. y PATEL, R. B. Biological treatment of poultry manure reduces pollution. Compost Science 12(5):18-20. 1971. (1929)
- _____. y PATEL, H. B. An update on methane farming at Papcock Poultry Farms, Inc., Baroda, India. Poultry Tribune 80(9):12, 14. 1974. (1930)

- PATEL, G. B. ; ROTH, L. A. y BERG, L. VAN DEN. Characterization of a strain of *Methanospirillum hugatti*. Canadian Journal of Microbiology 22:1404-1410. 1976. (1931)
- _____. y ROTH, L. A. Effect of sodium chloride on growth and methane production of methanogens. Canadian Journal of Microbiology 23:893-897. 1977. (1932)
- _____. y ROTH, L. A. Acetic acid and hydrogen metabolism during coculture of an acetic acid producing bacterium with methanogenic bacteria. Canadian Journal of Microbiology 24:1007-1010. 1978. (1933)
- _____.; KHAN, A. W. y ROTH, L. A. Optimum levels of sulfate and iron for the cultivation of pure cultures of methanogens in synthetic media. Journal of Applied Bacteriology 45: 347-356. 1978. (1934)
- PATEL, H. C. y NARASIMHAN, M. V. Small I. C. Engines for gobar gas utilization. Khadi Gramodyog 1966:598-600. 1966. (1935)
- _____. Bio-gas plants and rural development. Coop. News Digest 31(2):26-28. 1980. (1936)
- PATEL, J. J. Digestion of waste organic matter and organic fertilizer and a new economic apparatus for small scale digestion. Poona Agricultural College Magazine 42(3):150-159. 1951. (1937)
- _____. Present position of gas plant research. Warha, India, Jamanalal Bajaj Central Research Inst. for Village Industries, 1959. 5 p. (1938)
- PATEL, J. J. Small cowdung gas plant. Wardha, India, Jamanalal Bajaj Central Research Institute for Village Industries, 1959. 10 p. (1939)
- _____. Gobar gas plant a Dattapur, Jeper Colony. Khadi Gramodyog 8: 674-675. 1962. (1940)
- _____. On constructing a gobar gas plant. Khadi Gramodyog 9. 1963. (1941)
- _____. Case study of cowdung gas plant at Rajendernagar. Khadi Gramodyog 10:818-820. 1964. (1942)
- _____. Gobar gas plant: its various uses and impact on society. Khadi Gramodyog 10(11):738-740. 1964. (1943)
- _____. Installation biogas plant. Bombay, India, Khadi and Village Industries Commission, 1964. p. irr. (1944)
- _____. y PATANKAR, G. L. Burner design for gobar gas. Khadi Gramodyog 12:406-413. 1966. (1945)
- _____. Gobar gas plant fuel and manure from organic wastes. s.l., 1974. pp. 473-485. 1974. (1946)
- Presentado en FAI/FAO National Seminar on Optimising Agric. Prod. under Limited Availability of Fertilizers
- _____. Gobar gas plant, its development, present status and future. In ESCAP Workshop, New Delhi, India, 1975. s.l., 1975. p. irr. (1947)
- _____. Research and development for gobar gas. Commerce 131(3358):30-36. 1975. (1948)

- PATEL, R. N.; HOU, C. T. y FELIX, A. A. Microbial oxidation of methane and methanol: purification and properties of a heme-containing aldehyde dehydrogenase from *Methylobacterium methylotrova*. *Archives of Microbiology* 122(3):241-247. 1979. (1949)
- PATEL, S. M. Performance of biogas plants in Gujarat. *Khadi Gramodyog* 21(11):493-507. 1975. (1950)
- PATELUNAS, G. M. Biological energy recovery using dairy cow waste. *Journal of Environmental Engineering Division* 103:851-861. 1977. (1951)
- PATHAK, B. N. y RAJAGOPAL, G. Studies on the anaerobic digestion on night soil at Ernakulam. *Environmental Health* 4(1):68-73. 1962. (1952)
- _____.; RAJAGOPAL, G. y KULKARNI, D. N. Anaerobic digestion of night soil: seasonal variations in the volatile matter reduction and gas production. *Environmental Health* 4(7):202-207. 1965. (1953)
- _____.; KULKARNI, D. N. y DAVE, J. M. Effect of gas recirculating in a pilot scale cowdung digester. *Environmental Health* 4(7):208-212. 1965. (1954)
- _____. y RAJAGOPAL, G. Effect on volatile acid accumulation in dung digestion. *Environmental Health* 8:194-199. 1972. (1955)
- PAUL, J. N. Natural resource: a substitution for crude oil and fertilizer with focus on gobar gas plant mechanism. *Chem Take-Off*. 4(12):6-7. 1975. (1956)
- PAUL, J. S. Methane - alternative energy source. *Victoria's Resources* 22(1):11-13. 1980. (1957)
- Publicado también en: *National Parks Conservation Magazine* 53(1):10-13. 1980.
- PAUL, T. M. Potentialities of gobar gas under Bombay conditions. *In Dairy Industry Conference*, 8., Trivandrum, India, 1970. s.l., 1970. p. irr. (1958)
- _____. Disposal of gobar gas slurry. *In Seminar on Gobar Gas*, Varanasi, India, 1971. s.l., 1971. p. irr. (1959)
- _____. Gobar gas plant for Bombay suburbs. *Khadi Gramodyog* 12(2):110-113. 1974. (1960)
- _____. Utilisation of dung produced in Bombay suburbs. *Khadi Gramodyog* 12(7):348-350. 1974. (1961)
- _____. Food, fodder, fertilizer and fuels from animal wastes. *In Seminar on Utilization of Farm Wastes for Rural Industries Growth*, Bangalore, India, 1975. Bangalore, India, 1975. p. irr. (1962)
- _____. Socio-economic benefits of integrated waste-management by recycling. *In Summer Institute on Waste Management by Recycling*, Bombay, India, 1976. Bombay, India, 1976. pp. 94-98. (1963)
- PAULLIN, D. M. Methane from farm wastes. *Soil Association* 2(4):10-20. 1974. (1964)
- PAUWA NEPAL ma cheese karkhana ko nimitta nabikaran garna hune shakti shrot puna: prayog ko ek adarsha namuna yojana. *In Solar Energy and Bio-Gas Development*, Bangkok, Thailand, 1978. Kathmandu, Nepal, 1978. 19 p. (1965)

- PAWAR, V. P. Construction of gobar gas plant. *Journal of the Institution of Military Engineers* 28(3):19-20. 1976. (1966)
- PEAT BIOGASIFICATION development program. Quarterly progress report no. 1, October 1-December 31, 1979. s.l., 1979. 28 p. (1967)
- PEAT BIOGASIFICATION development program. Quarterly progress report no. 4, July 1-September 30, 1980. s.l., 1980. 24 p. (1968)
- PEDERSEN, K. B. Production of methane using an anaerobic filter. s.l., 1979. p. irr. (1969)
- PEDERSEN, P. S. Alternativ energi til drift af selvkoerende maskiner og traktorer. *Tidsskrift for Landoekonomi* 167(3):191-198. 1980. (1970)
- PEDRALA, J. El biogás. In *Fundación BHC para el Desarrollo, Santiago, Chile. Energía 1979-1990. Santiago, Chile, 1979. pp. 229-238.* (1971)
- PEET, B. Bags of energy (-biogas production from manures). *Pig Farming* 28(5):37, 39. 1980. (1972)
- PENAGOS, G. Plantas biológicas. Guatemala, Tipografía Nacional, 1967. 48 p. (1973)
- PENAGOS, M. Desarrollo de plantas biológicas en Guatemala 1952-1979. Quito, Ecuador, Organización Latinoamericana de Energía, 1979. p. irr. (1974)
- PENAGOS, M. y LANDERS, T. Diseño y construcción del biodigestor. In *Seminario sobre Aplicaciones de Biodigestores para Producir Gas Metano y Fertilizantes, Cartago, Costa Rica, 1980. Cartago, Instituto Tecnológico de Costa Rica, 1980. p. irr.* (1975)
- _____. *Plantas biológicas. Guatemala, Centro Mesoamericano de Estudios sobre Tecnología Apropriada, 1980. 3 p.* (1976)
- PENNINGA, T. J. Evaluation of applicability of inspection/maintenance tests on a Ford EEC-II prototype. Technical report. s.l., 1979. 39 p. (1977)
- * PERENNIAL ENERGY, INC., DORA, MO. Biogas engine generator sets. Dora, MO., s.f. 2 p. (1978)
- * _____. Corporate experience: Biogas production. Dora, MO., s.f. pp. 1-2. (1979)
- * _____. Electrical energy production and consumption for a 500 cow dairy. Dora, MO., s.f. 1 p. (1980)
- * _____. Methane digester information. Dora, MO., s.f. 5 p. (1981)
- * _____. Biogas generators and manure handling systems; designed, engineered and constructed by America's number one digester. Dora, MO., 1980. 4 p. (1982)
- PERES, C. S. Considerações sobre a microbiologia e a bioquímica de digestão anaeróbica. In *Seminário-Energia de Biomassas, São Paulo, Brasil, 1978. São Paulo, Brasil, Instituto Brasileiro do Gás, 1978. 18 p.* (1983)

- PEREZ DEL VISO, R.; TUR, N. M. y MANTOVANI, V. Estimación de biomasa de hidrófitos en cuencas isleñas del Paraná medio. *Physis* 28(76):209-216. 1968.
(1984)
- * PEREZ GAVILAN, E. J. P.; CARDOSO, M. y VINIEGRA GONZALEZ, G. Limitaciones ecológicas en la fermentación anaeróbica de las mieles de caña mediante microorganismos ruminales. *Revista Cubana de Ciencia Agrícola (Cuba)* 10(1):67-85. 1976.
(1985)
- * PERFORMANCE MEASUREMENT. *In Ad Hoc Panel on Methane Generation from Human, Animal, and Agricultural Wastes*, Washington, D. C., 1977. Methane generation from human, animal and agricultural wastes. Washington, D. C., National Academy of Sciences, Panel of Methane Generation, 1977. pp. 95-98. (U.S. National Technical Information Service. PB., no. 276469)
(1986)
- PERRARD, P. La production de méthane biologique conduite en toute saison, *Agriculture* 19:135-139. 1956.
(1987)
- PERRON, C. H. Refuse conversion to methane. *In Energy from Biomass and Wastes IV Symposium*, Lake Buena Vista, FL., 1980. Symposium papers. Chicago, IL., Institute of Gas Technology, 1980. pp. 509-525.
(1988)
- PERSSON, S.; BARTLETT, H. D. y REGAN, R. W. Experiences from operating full-size anaerobic digester. *In Cornell Agricultural Waste Management Conference, 9.*, Ann Arbor, MI., 1977. Food, fertilizer and agricultural residues, ed. by R. C. Loehr. Ann Arbor, MI., Ann Arbor Science Publishers, 1977. pp. 373-379.
(1989)
- PERSSON, S.; BARTLETT, H. D. y BRANDING, A. E. Methane gas production from farm waste. s.l., 1977. p. irr.
(1990)
- * PERSSON, S. y BARTLETT, H. D. Converting manure into gas potential source of energy. *Science in Agriculture* 26(no. esp. 1):8. 1978.
(1991)
- * _____.; BARTLETT, H. D. y BRANDING, A. E. Methane gas production from farm waste. *In Smithsonian Science Information Exchange*. Energy recovery for biomass. Washington, D. C., 1979. 1 p. (SSIE. no. GY--64043-2)
(1992)
- Investigación en progreso
- PETER, W. Haus Kuechen Heitzt mit Biogas. *Landwirtschaftliches Wochenblatt Westfalen-Lippen*. Ausgabe A. 137(5):26-27. 1980.
(1993)
- PETERSEN, J. H. y FOGH, S. Anaerob forgaering af Kulhydrater til metan of Kuldioxid. Copenhagen, Denmark, Copenhagen Univ., 1980. 185 p.
(1994)
- PFEFFER, J. T. y LIEBMAN, J. C. Energy from refuse by bioconversion, fermentation and residue disposal processes. Amsterdam, Holland, Elsevier Scientific Publishing, s.f. p. irr.
(1995)
- * _____ . State-of-the-art review bioconversion methane fermentation of organic fibers. Urbana, IL., University of Illinois, Dept. of Civil Engineering, s.f. 46 p.
(1996)
- _____ . Increases loadings on digesters with recycle of digested solids. *Journal of the Water Pollution Control Federation* 40:1920-1933. 1968.
(1997)
- _____ . Methane from solid wastes. *Chemical and Engineering News* 51(26): 12. 1973.
(1998)

PFEFFER, J. T. Temperature effects on anaerobic fermentation of domestic refuse (to give methane. A laboratory study). Chicago, IL., 1973. p. irr.

(1999)

Presentado en: 166. ACS National Meeting, Chicago, IL., USA.

_____. Biological conversion of organic refuse to methane; annual progress. s.l., 1974. p. irr. (Report, NSF Grant G1-39191)

(2000)

_____. Reclamation of energy from organic waste. Washington, D. C., Government Printing Office, 1974. 143 p. (Environmental Protection Technology Series, no. EPA-670/2-74-016)

(2001)

_____. Temperature effects on anaerobic fermentation of domestic refuse. Biotechnology and Bioengineering 16(6):771-787. 1974.

(2002)

_____. Biological conversion of organic refuse to methane; annual progress. s.l., 1975. p. irr. (Report, NSF Grant G1-39191)

(2003)

_____. y KHAN, K. A. Microbial production of methane from municipal refuse. Illinois, University of Illinois, Dept. of Civil Engineering, 1975. p. irr.

(2004)

_____. Biological conversion of biomass to methane. San Francisco, CA., 1976. p. irr.

(2005)

Presentado en: ACS National Meeting, 172., San Francisco, CA., 1976.

PFEFFER, J. T. Biological conversion of organic refuse to methane; final report. Urbana, IL., University of Illinois, 1976. 2 v.

(2006)

_____. y KHAN, K. A. Microbial production of methane municipal refuse. Biotechnology and Bioengineering 18(9):1179-1191. 1976.

(2007)

_____. Biological conversion of biomass to methane, the effect of reactor design on kinetics. s.l., 1977. p. irr. (Report, DOE Contract no. EY-76-S-02-2917)

(2008)

_____. Methane from urban wastes - process requirements. In Seminar on Microbial Energy Conversion, Goettingen, Alemania, 1976. Proceedings, ed. by H. G. Schlegel and J. Barnea. New York, Academic Press, 1977. pp. 139-155.

(2009)

* _____ . Biological conversion of biomass to methane. In U.S. Department of Energy, Washington, D. C., Division of Solar Technology. Fuels from biomass program, program summary January 1978. Washington, D. C., 1978. p. 59.

(2010)

Investigación en progreso

_____. Methane from urban solid wastes the RefCOM project. Process Biochemistry 13(6):8-11. 1978.

(2011)

* _____ . y LIEBMAN, J. C. Biological conversion of biomass to methane. In Bente Junior, P. F. y Camello, C.A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 278.

(2012)

Investigación en progreso
Publicado también en: SSIE: Energy recovery for biomass. Washington, D. C., 1979. 1 p.

PFEFFER, J. T. Biological conversion of biomass to methane, corn stover studies. s.l., 1979. p. irr. (Report, DOE Contract No. EY-76-S-02 2917)

(2013)

- * _____ . Biological conversion of organic refuse to methane. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D. C., 1979. 1 p. (SSIE no. DJ-- 303). (2014)

Investigación en progreso

_____. Methane from agriculture residues process conversion efficiencies. In Annual Biomass Energy Systems Conference, 3., Golden, CO., 1979. Golden, CO., 1979. pp. 303-308.

(2015)

- * _____ . Plug flow vs. complete mix reactors for methane fermentation. In Smithsonian Science Information Exchange. Energy recovery for biomass. Washington, D. C., 1979. 1 p. (SSIE no. EF--58)

(2016)

Investigación en progreso

_____. Biological conversion of biomass to methane, final report. s.l., 1980. p. irr. (Report, DOE Contract no. EY-76-S-02-2927)

(2017)

- * PFULG, F. Practical paths to plant power. Ceres. FAO Review on Agriculture and Development 11(5):19-22. 1978.

(2018)

Publicado también en Español y Francés

PHADNIS, B. A. Cow dung gas plant. In Symposium on Radio Isotopes, Fertilizers and Cowdung Gas Plant, New Delhi, India, 1961. New Delhi, India, 1961. pp. 398-399.

(2019)

PHARAOH, D. M. Simple plant for methane gas production. Power Farming Magazine 86(3):10-13, 15. 1977.

(2020)

PHILLIPS, E. G. Livestock waste decomposition and combustible gas production. Tesis. Winnipeg, Canadá, University of Manitoba, 1972. 70 p.

(2021)

- * PICHIT SKULBHRAM; SUTHI ATHIPANYAKOM y SULAYA JARUCHINDA. Kan kam mun sat liang bang chanit duai withi mak chulinsi chanit thi mai tong kan akat lae phonphalit chua phloeng gas thammachat. Journal of the National Research Council of Thailand 11(2):41-72. 1979.

(2022)

PIG MANURE source of gas for stove. Animal Husbandry and Agricultural Journal 8(12):37. 1973.

(2023)

- * PIGG, D. L. Full-scale dairy cow manure digester. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 513.

(2024)

Investigación en progreso

PIMPLIKAR, B. D. Cowdung gas plant. In Symposium on Radio Isotopes, Fertilizers and Cowdung Gas Plant, New Delhi, India, 1961. New Delhi, India, 1961. pp. 395-397.

(2025)

PINE, M. The methane fermentations. Anaerobic Biological Treatment Processes Adv. Chem. Series no. 105. 1971.

(2026)

PIPYN, P.; VERSTRAETE, W. y OMBREGHT, J. P. A pilot-scale anaerobic upflow reactor treating distillery wastewaters. Biotechnology Letters 1: 495-500. 1979.

(2027)

- PIRT, S. J. Aerobic and anaerobic microbial digestion in waste reclamation. *Journal of Applied Chem. Biotechnology* 28:232-236. 1978. (2028)
- * PITT JUNIOR, W. W. y GENUNG, R. K. Anaerobic vertical flow filter - ANFLOW. In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory*. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 258. (2029)
- Investigación en progreso
- PIVA, G. y BEGHIAN, M. The influence of fumaric acid on *in vitro* rumen microbial metabolism. In *World Congress on Animal Feeding*, 3., Madrid, España, 1978. *Annali della Facolta di Agraria - Universita Cattolica del Sacro Cuore*, Milano 19(2):161-166. 1979. (2030)
- PLANTA DO Rio Paraná é geradora do biogás. *Agrofatos; Jornal de Recortes (Brasil)* 1(7):16. 1980. (2031)
- PLANTAS PRODUCTORAS de biogás (metano). *Orientación Porcina (Argentina)* 1978:20-24. 1978. (2032)
- PLASSE, F.; FARDEAU, M.-L. y BELAICH, J. P. Microcalorimetric evaluation of the efficacy of the alkaline: treatment on the fermentation of straw. *Bio-technology Letters* 2(1):11-16. 1980. (2033)
- PLATT, B. Power from a slurry pit. *Animal Husbandry and Agricultural Journal* 9(3):34-35. 1974. (2034)
- _____. Dairy effluent - a source of energy. *New Zealand Journal of Agriculture* 130(4):35. 1975. (2035)
- PO, C. The animal-methane-chlorella cycle; additional uses of manure for fuel and feed production. *Animal Husbandry and Agricultural Journal* 9(12):31-36. 1965. (2036)
- PO, C. Production and use of methane from animal wastes in Taiwan. In *International Biomass Energy Conference*, Winnipeg, Canadá, 1973. Winnipeg, Canadá, 1973. v. 16, pp. 1-16. (2037)
- _____. Gas de metano - sacos de energía. *Agropecuaria Tropical* no. 18: 39-40. 1980. (2038)
- POCH, M. Heat balance in agricultural "biogas" installation and the factors to be taken into account. *Chemische Technik* 7:549-552. 1955. (2039)
- PODEMOS TER energia própria; é o biogás de esterço, palha, lixo. *Agricultura e Cooperativismo (Brasil)* 4(38):6-17. 1979. (2040)
- POELMA, H. R. Methaangas uit Dunne Mest. *Landbouwkundig Tijdschrift* 90(8):206-208. 1978. (2041)
- _____. Perspektieven van Methaangaswinning of een Melkveebedrijf met 200 g. v. e. *Landbouwmecanisatie* 30(6):645-649. 1979. (2042)
- POHLAND, F. D. General review of the literature on anaerobic sewage sludge digestion. Lafayette, IN., Purdue University, Engineering Extension Div., 1962. p. irr. (2043)
- _____. y BLOODGOOD, D. E. Laboratory studies on mesophilic and thermophilic anaerobic sludge digestion. *Journal of the Water Pollution Control Federation* 35(1). 1963. (2044)
- _____. y MASSEY, M. L. Application of process kinetics for phase separation of the anaerobic stabilization process. *Progress in Water Technology* 7(1):173-189. 1975. (2045)

- POHLAND, F. y HUDSON, J. W. Aerobic and anaerobic microbial treatment alternatives for shellfish processing wastewaters in continuous cultures. *Biotechnology and Bioengineering* 18: 1219-1247. 1976. (2046)
- POL, A.; DRIFT, C. VAN DER Y VOGELS, G. D. Comparison of coenzyme F₄₂₀ from *Methanobacterium bryantii* with 7-and 8-hydroxy-10-methyl-5-deazaisalloxazine. *Biochemical and Biophysical Research Communications* 92:255-260. 1980. (2047)
- POLELLI, M. Stima della servitu e dei danni per attraversamento di un metanodotto in una cascina lombarda. *Genio Rurale* 39(9):59-63. 1976. (2048)
- POLPRASERT, C. Biogas production in the Tropics: research and development. Bangkok, Thailand, Environ. Eng. Div., Ministry of Public Health, 1978. p. irr. (2049)
- _____. y THANH, N. C. Biogas systems in Asia. In Seminar on Solid Waste Management, 2., Bangkok, Thailand, 1979. Bangkok, Thailand, Asian Institute of Technology, 1979. 34 p. (2050)
- * _____ . A low-cost biogas digester. *Appropriate Technology* 6(3):22-24. 1979. (2051)
- POMEROY, R. D. Energy recovery in brewery industry. *Journal of Environmental Engineering Division* 103(EE6):1161. 1977. (2052)
- * POSMOWSKI, P. Futuro recurso energético para la India rural: el metano. *Agro (Ecuador)* 21(3):9. 1976. (2053)
- POULTRY MANURE and its disposal. Erith, Kent, Poultry Advisory Board, 1964. p. irr. (2054)
- PRACTICAL BUILDING of methane power plants; for rural energy independence. Santa Bárbara, California, 1974. 96 p. (2055)
- PRADO, L. T. S. Utilização de resíduos urbanos para produção de energia elétrica. São Paulo, Brasil, s.f. p. irr. (2056)
- Presentado en: Seminario de Biomassas, São Paulo, Brasil
- * PRAKASAN, K.; PRAKASAN, G. y MEDEIROS, J. X. DE. Biogás a partir de esterço bovino. Estudio comparativo de plantas pilotos de biodigestores no Brasil. *Agropecuaria Técnica (Brasil)* 1(2):138-148. 1980. (2057)
- _____.; VITALIANO, J. y PRAKASAN, G. Produção de biogás a partir de esterco bovino utilizando palha de milho (*Zea mays* L.) e aguapé (*Eichhornia crassipes*) como aditivos. *Agropecuaria Técnica (Brasil)* 2(1). 1981. (2058)
- _____.; PRAKASAN, G. y MEDEIROS, J. X. DE. Produção de proteína microbiana a partir de efluentes de biodigestores. In Congresso Brasileiro de Energia, 2^o, Rio de Janeiro, Brasil, 1981. Anais. Rio de Janeiro, Brasil, 1981. pp. 393-404. (Paper no. 35) (2059)
- PRASAD, C. R. Studies on the production of biogas and changes in the chemical constituents of organic material during anaerobic fermentation. Tesis Ph.D. New Delhi, India, IARI, 1964. p. irr. (2060)
- _____. Popularising biogas (gobar gas) production. *Khadi Gramodyog* 12(10): 661-663. 1966. (2061)
- _____. Studies on biogas production. I. Methane fermentation of some carbohydrates. *National Academy of Sciences of India* 38A(1-2):179-184. 1968. (2062)
- * _____ .; GULATI, K. C. e IDNANI, M. A. Changes in biochemical constituent of some organic waste materials under anaerobic methane fermentation. *Indian Journal of Agricultural Science* 40(10):921-924. 1970. (2063)
- * _____ .; GULATI, K. C. e IDNANI, M. A. Methane formation of some organic materials admixed with cowdung. *Indian Journal of Agricultural Science* 40(4):360-365. 1970. (2064)

- PRASAD, C. R. Biogas plants: prospects, problems and tasks. *Economic and Political Weekly* 9(32-34). 1974. (2065)
- _____. Inde, le recyclage des déchets du village, une solution a la pénurie d'énergie et d'engrais. *Actuel développement. Economic and Political Weekly* 10:42-45. 1975. (2066)
- _____. y SATHYANARAYAN, S. R. C. Studies in biogas technology. III. Thermal analysis of biogas plants. *Proceedings of the Indian Academy of Sciences C2(3):377-386*. 1979. (2067)
- PRASAD, H. Gobar gas plant: and empirical study. *Khadi Gramodyog* 13. 1967. (2068)
- PRASAD, S. y DIKSHIT, S. V. Production and distribution of cowdung gas. s.l., 1975. p. irr. (2069)
- Presentado en: Seminar on Energy Conservation
- PREGERMAIN, J. Le gaz de fumier. *Le Producteur Agricole Francais* 54(239): 17-19. 1978. (2070)
- _____. Manure gas. *Journal Prod. Agric. Fr.* 54(249):21-23. 1978. (2071)
- PRESTON, T. R. Antecedentes y potencial para la producción de biogas en el trópico (estiércol de ganado bovino en dieta de caña de azúcar). In *Reunión Anual del Centro Dominicano de Investigación Pecuaria con Caña de Azúcar, 2º*, Santo Domingo, República Dominicana, 1976. *Producción Animal Tropical (México)* 2(1):127. 1977. (2072)
- Sólo Sumario
Publicado también en inglés
- PRETORIUS, W. A. The effect of formate on the growth of acetate utilizing methanogenic bacteria. *Water Research* 6:1213-1217. 1972. (2073)
- PRINS, R. A.; NEVEL, C. J. VAN y DEMEYER, D. I. Pure culture studies of inhibitors for methanogenic bacteria. *Antonie van Leeuwenhoek* 38:281-287. 1972. (2074)
- PRINS, R. A. Presence of growth factors for *Methanobacterium ruminantium* in both Gram-positive and Gram-negative bacteria. *Antonie van Leeuwenhoek* 40:585-589. 1974. (2075)
- PROCESS AND apparatus for converting solid wastes to pipeline gas. s.l., 1977. 9 p. (USA. Patente) (2076)
- PROCESS FEASIBILITY study: the anaerobic digestion of dairy cow manure at the state reformatory honor farm. Seattle, Washington, D.C., Ecotope Group, 1975. 119 p. (2077)
- PROCESSES FOR the purification and recovery of methane. Cambridge, Massachusetts, 1972. p. irr. (2078)
- * PRODUCCION DE gas metano para calefacción e iluminación. In Mann, I. *Preparación y aprovechamiento de los sub-productos animales*. Roma, FAO, 1964. pp. 250-267. (2079)
- PRODUCIENDO METANO de los desechos agrícolas. *El Diario de Hoy*, San Salvador; Octubre 23, 1979:38. (2080)
- PRODUCING METHANE gas from animal wastes, heat energy from organic materials. CA-H - U.S. Agricultural Research Service 1974:1-3. 1974. (2081)
- * PRODUCT STORAGE and use. In *Ad Hoc Panel on Methane Generation from Human, Animal and Agricultural Wastes*, Washington, D.C., 1977. Methane generation from human, animal and agricultural wastes. Washington, D.C., National Academy of Sciences. Panel on Methane Generation, 1977. pp. 44-47. (U.S. National Technical Information Service. PB no. 276469) (2082)
- PRODUCTION DE gaz et d'engrais para la digestion anaerobie des dechets organiques. *Lien Horticole* 16(18): 12, 14, 16-18. 1979. (2083)

- LA PRODUCTION de methane a partir de déchets agricoles, rentabilité et competitive incertaines. *Courrier Avicole* 35(749):1, 6. 1979. (2084)
- PRODUCTION OF bio-fertilizer and biogas from agricultural wastes. *Maharashtra Sugar* 5(9):54-58. 1980. (2085)
- Publicado también en: *Khadi Gramodyog* 20(7):358. 1974.
- PRODUZIONE DI energia e di fertilizzanti dal riciclaggio dei rifiuti animali. *Avvenire Agricolo* 88(2):48. 1980. (2086)
- Presentado en: *Convegno Sullo Smaltimento e l'Utilizzazione delle Deiezioni Animali*, Gonzaga, Italia, 1980.
- * PROGRAMA DE pesquisa mostra vantagens do uso de biogás. *UFV Informe (Brasil)* 12(630). 1980. (2087)
- * PROGRAMA REGIONAL de Biogás. *Boletín Energético - OLADE (Ecuador)* no. 14: 115. 1980. (2088)
- PROJETO DIFUSÃO e instalação de biodigestores no meio rural. *Boa Vista, Brasil*, 1980. p. irr. (2089)
- * PUBLIC HEALTH aspects. *In Ad Hoc Panel on Methane Generation from Human, Animal, and Agricultural Wastes*, Washington, D.C., 1977. Methane generation from human, animal and agricultural wastes. Washington, D.C., National Academy of Sciences, Panel on Methane Generation, 1977. pp. 53-58. (U.S. National Technical Information Service. PB no. 276469) (2090)
- PYLE, L. y FRESNEL, P. *Methane*. London, England, Intermediate Technology Publication, 1975. p. irr. (2091)
- _____. Anaerobic digestion: the technical options. *In International Development Research Centre*, Ottawa, Canadá. *Biogas technology in the third world: a multidisciplinary review*. Ottawa, Canadá, 1978. pp. 9-66. (2092)
- O QUE é o biogás. *Boa Vista, Brasil*, 1980. p. irr. (2093)
- QUINDRY, G. E. Biological conversion of organic refuse to methane. *Urbana, University of Illinois*, 1976. 107 p. (2094)
- * QURASHI, M. M. Some social dimensions of biogas development. *In National Seminar on Bio-Gas Technology*, Lahore, Pakistán, 1980. *Proceedings. Islamabad, Pakistán, Appropriate Technology Development Organization*, 1980. pp. 36-41. (2095)
- * QURESHI, S. A. Y HAMID, A. An experimental pilot-plant for the production of gobar gas from buffalo/cow dung. *In National Seminar on Bio-Gas Technology*, Lahore, Pakistán, 1980. *Proceedings. Islamabad, Pakistán, Appropriate Technology Development Organization*, 1980. pp. 7-8. (2096)

- RAIBAUD, P. y CLARA, A. Etat d'avancement des etudes et perspectives pour la production du methane. II. Aspects ecologiques de la production de methane. In Journees d'Etudes et de Reflexions Valorisation Energetiques des Sous-produits Agricoles, Paris, 1979. Resultats et bilans des actions du comite VEDA (Valorisation energetique des dechets agricoles). Paris, France, APRIA, 1979. pp. 97-113. (2097)
- RAIMUNDO, F. A. y PINTO, S. B. H. Aproveitamento do gás de aterro sanitário. São Paulo, Brasil, s.f. p. irr. (2098)
- Presentado en Seminário de Biomassas, São Paulo, Brasil
- RAJABAPAI AH, H. Studies in biogas technology. I. Performance of a conventional biogas plant. Proceedings of the Indian Academy of Sciences 62(3):357-363. 1979. (2099)
- RAJAGOPAL, G. y PATHAK, B. N. Effect of volatile acid accumulation in dung digestion. Environmental Health 8(3):194-199. 1966. (2100)
- RAJAGOPAL, L. S. Biogas plant for rural India. In Summer Institute on Waste Management by Recycling, Bombay, 1979. Bombay, India, 1976. pp. 112-116. (2101)
- RAJAGOPALAN, K. The mechanism of methane formation in rubber factory effluent and its reference to palm oil mill discharge (in Malaysia). In Agro-Industrial Wastes Symposium, Kuala Lumpur, Malaysia, 1975. Proceedings. Kuala Lumpur, Malaysia, Rubber Research Institute of Malaysia, 1976. pp. 33-38. (2102)
- * RAJPAKSE, S. A simple stirrer for a biogas plant. Newsletter Bio Gas no. 11:2. 1981. (2103)
- RAMACHANDRAN, A. Role of bioconversion in India's Science and Technology plan. In Symposium on Bioconversion of Cellulosic Substances into Energy, Chemicals and Protein, New Delhi, 1977. Edited by T. K. Ghose. New Delhi, Indian Institute of Technology, 1978. pp. 1-10. 2104
- RAMAMOHANRAO, J. Laboratory studies on thermophilic digestion of night soil. Tesis Ph.D. Nagpur, India, Nagpur, University, 1971. p. irr. (2105)
- RAMAPRASAD, T. N. C.; SHANTA, S. y MOHABRAO, G. J. Anaerobic digestion of night soil and effective treatment and disposal method - a pilot plant study. Annual Number- Institution of Engineers 1974-1975:14-18. 1974-1975. (2106)
- Presentado en Seminar on Solid Waste Disposal, Hyderabad, India, 1976.
- _____.; SRINIVASAN, M. V. y SHANTA, S. An integrated system of treatment and disposal of night soil with emphasis on by-product utilisation. Bangalore, India, 1975. p. irr. (2107)
- Presentado en Seminar on Utilisation of Farm Wastes for Rural Industrial Growth, Bangalore, India, 1975.
- _____. Role of biogas plants in pollution control. In UGC Sponsored Seminar on Environmental Pollution Control Problem of Gujarat, 2°, Ahmedabad, 1977. Ahmedabad, India, 1977. p. irr. (2108)
- RAMOS DE FARIAS, R. Balanced concentrates of organic wastes enriched with selected microorganisms cultures for obtaining fuel gas based on methane. s.l., 1978. 6 p. (Brasil. Patent 77-01,551) (2109)
- * RAMULU, N. S. y BHARGAVA, B. N. Water hyacinths. Bio-Gas Newsletter no. 3:15-18. 1980. (2110)
- RAMYER, M. M. Methane production from a mixture of human and animal manure. Bangkok, Thailand, Asian Institute of Technology, 1980. p. irr. (AIT Thesis no. EV-80-2) (2111)
- RANKEN, W. A. y KEMME, J. E. Heat pipe methanator. U.S. Pat 3:971. 1976. (2112)

- RAO, C. E. S. Treatment of distillery wastes for production of fuel gas. In Seminar on Water and Industrial Waste Treatment, Bombay, India, 1976. Bombay, India, 1976. p. irr. (2113)
- RAO, E. G. K. Generation of power from biogas. In Symposium on Radio Isotopes, Fertilizers, and Cowdung Gas Plants, New Delhi, 1961. New Delhi, India, 1961. pp. 381-390. (2114)
- RAO, K. S. Role of cowdung gas plant in agricultural development. In Symposium on Radio Isotopes, Fertilizers and Cowdung Gas Plants, New Delhi, 1961. New Delhi, India, 1961. pp. 373-380. 1961. (2115)
- RAO, N. N. Gobar gas and other fuels: a comparative study. Kurukshetra 25(7):4-7. 1977. (2116)
- _____. Gobar gas and other fuels: a comparative study. II. Kurukshetra 25(8):8-10. 1977. (2117)
- RAO, R. V. Some of the factors for reduction of the cost of the biogas plant. In Seminar on Utilization of Farm Wastes for Rural Industrial Growth, Bangalore, 1975. Bangalore, India, 1975. p. irr. (2118)
- RASCH, R. Methane production from wastes. International Chemical Engineering and Process Industries 18(3):402-407. 1978. (2119)
- RATASUK, S. Pre-feasibility study of the biogas technology application in rural areas of Thailand. In Thailand Institute of Scientific and Technological Research, Bangkok. TISTR's technical report. Bangkok, Thailand, 1979. p. 101. (Centre File no. 3-P-77-0076-04-01) (2120)
- RAU, B. [Effects of fluctuations in the gas quality on high-capacity gas engines in stationary units]. Gas-Wasserfach, Gas-Erdgas 121(4):160-164. 1980. (En alemán) (2121)
- * RAW MATERIALS and their preparation. In Ad Hoc Panel on Methane Generation from Human, Animal and Agricultural Wastes, Washington, D.C., 1977. Methane generation from human, animal and agricultural waste; report. Washington, D.C., National Academy of Sciences, Panel on Methane Generation, 1977. pp. 36-43. (2122)
- RAWADEE DEEMAK. Kan phalit lae kan chai gas chiwaphap. Kasikorn 52(4):246-264. 1979. (2123)
- RAWAT, B. S. Economics aspects of cattle-yard waste recycling. In Summer Institute on Waste Management by Recycling, Bombay, India, 1976. Bombay, India, 1976. pp. 37-46. (2124)
- RAYNAL, J. Production de méthane par fermentation anaérobie de déchets organiques. Narbonne, France, I.N.R.A., 1980. 38 p. (2125)
- * READING INDUSTRIAL ENGINES LIMITED, STADIUM WAY, ENGLAND. Specification for digester gas powered generator set with heat recovery system. Reading, England, s.f. 3 p. (2126)
- * _____ . Specification for SI range of gas fuelled generating sets with heat recovery. Reading, England, s.f. 2 p. (2127)
- * RECOMMENDATIONS GROUP 1 - rural wastes and biogas. In FAO/SIDA Workshop on the Use of Organic Materials as Fertilizers in Asia, Bangkok, 1976. Organic recycling in Asia. Roma, FAO, 1978. pp. 5-6. (FAO Soils Bulletin no. 36) (2128)
- REDDY, A. K. N. Studies in biogas technology. IV. A novel biogas plant incorporating a solar water-heater and solar still. Proceedings of the Indian Academy of Sciences C2(3):387-393. 1979. (2129)
- * REED, T. y LERNER, R. M. Methanol: a versatile fuel for immediate use. Science 182(4119):1299-1304. 1973. (2130)
- _____. Survey of pyroconversion process for biomass. In Pacific Chemical Engineering Congress, 2^o, Denver, Colorado, 1977. Proceedings. New York, American Institute of Chemical Engineers, 1977. v. 2, pp. 765-768. (2131)

- REED, T. comp. Survey of biomass gasification. s.l., 1979. 2 v. (2132)
- REESEN, L. y STRUBE, R. Complete utilization of whey for alcohol and methane production. *Process Biochemistry* 13(11):21-22, 24. 1978. (2133)
- REHUEMANN, E. Production and uses of methane gas from waste vegetation. *Fuel Abstracts* 3(5):70. 1948. (2134)
- REILLY, P. M. Methane production from farm wastes. *Technology Ireland* 7(9):28-29. 1975. (2135)
- REIS, E. A. Artes e manhas de um biodigestor. *A Granja (Brasil)* 36(391):12. 1980. (2136)
- RELE, S. J. International cooperation in bio-gas technology. *Yojana* 21(2):27. 1977. (2137)
- REMEDIOS, E. C. New fuel: old source. In *New Fuels and Advances in Combustion Technologies Symposium*, New Orleans, Louisiana, 1979. Chicago, Illinois, Institute of Gas Technology, 1979. pp. 53-67. (2138)
- * REMOVAL OF CO₂ from biogas. *Bio-Gas Newsletter* no. 3:19. 1980. (2139)
- RENZO, D. J. DE. Bioconversion mechanism. In _____. *Energy from bioconversion of waste materials*. Park Ridge, New Jersey, Noyes Data Co., 1977. pp. 15-67. (2140)
- _____. Bioconversion of solid waste and sewage sludge. In _____. *Energy from bioconversion of waste materials*. Park Ridge, New Jersey, Noyes Data Co., 1977. pp. 68-104. (2141)
- _____. *Energy from bioconversion of waste materials*. Park Ridge, New Jersey, Noyes Data Co., 1977. 223 p. (2142)
- RENZO, D. J. DE. Industrial waste treatment. In _____. *Energy from bioconversion of waste materials*. Park Ridge, New Jersey, Noyes Data Co., 1977. pp. 157-172. (2143)
- _____. Methane from energy crops. In _____. *Energy from bioconversion of waste materials*. Park Ridge, New Jersey, Noyes Data Co., 1977. pp. 173-221. (2144)
- _____. Sources of waste materials for bioconversion. In _____. *Energy from bioconversion of waste materials*. Park Ridge, New Jersey, Noyes Data Co., 1977. pp. 2-14. (2145)
- _____. Urban Trash methanation-poce. In _____. *Energy from bioconversion of waste materials*. Park Ridge, New Jersey, Noyes Data Co., 1977. pp. 105-137. (2146)
- REPORT OF the advisory Committee on Agriculturally Derived Fuels to the Texas Energy and Natural Resources Advisory Council. s.l., 1979. 110 p. (2147)
- * REPUBLICA DOMINICANA. COMISION NACIONAL DE POLITICA ENERGETICA. Programa nacional de construcción de digestores planta de biogás tipo chino; técnicas de construcción. Santo Domingo, Organización Latinoamericana de Energía, 1981. 17 p. (2148)
- * _____. Programa nacional de construcción de digestores planta de biogás tipo OLADE-Guatemala; técnicas de construcción. Santo Domingo, Organización Latinoamericana de Energía, 1981. 23 p. (2149)
- * _____. Programa nacional de construcción de digestores planta de biogás tipo Xochicalli-México; técnicas de construcción. Santo Domingo, Organización Latinoamericana de Energía, 1981. 21 p. (2150)

- REPUBLICA DOMINICANA. COMISION NACIONAL DE POLITICA ENERGETICA. Cuantificación de desechos agrícolas y sus perspectivas de aprovechamiento como fuente alterna energía en República Dominicana. Santo Domingo, 1980. 22 p. (2151)
- * REPUBLICA DOMINICANA. DIVISION DE ENERGIA NO CONVENCIONAL. Programa para la generación de biogas en las zonas rurales de República Dominicana. Santo Domingo, 1981. 30 p. (2152)
- RESEARCH ON biogas (methane) in developing countries. *Compost Science* 19(2):24-27. 1978. (2153)
- RESEARCH PLANNING WORKSHOP ON ENERGY FOR RURAL DEVELOPMENT, AHMEDABAD, INDIA, 1979. Research planning workshop on energy for rural development. Ahmedabad, Indian Institute of Management, 1979. 258 p. (2154)
- RESERVE BANK OF INDIA. Report of the inter institutional group of financing gobar gas plants by banks. Bombay, India, 1976. 152 p. (2155)
- * RESIDUE: COMPOSITION, storage and use. In Ad Hoc Panel on Methane Generation from Human, Animal and Agricultural Wastes, Washington, D.C., 1977. Methane generation from human, animal, and agricultural wastes: report. Washington, D.C., National Academy of Sciences. Panel on Methane Generation, 1977. pp. 48-52. (US. National Technical Information Service. PB no. 276469) (2156)
- † REUTILIZACION DE materiales orgánicos. In Food and Agriculture Organization of the United Nations. China reciclaje de desechos orgánicos en la agricultura; informe sobre un viaje de estudios FAO/PNUD a la República Popular de China 28 de abril-24 de mayo de 1977. Roma, 1977. pp. 1-28. (FAO. Boletín de Suelos no. 40). (2157)
- REYES, N. O. A lifetime supply of cooking gas. *Philippine Farmers' Journal* 19(6):18-19, 47. 1977. (2158)
- REYNOLDS, G. F. The generation of methane from waste materials. *Appropriate Technology* 2(2):11-13. 1975. (2159)
- RHEE, G. Y y FUHS, G. W. Wastewater denitrification with one-carbon compounds as energy source (replacing methanol by methane). *Journal of the Water Pollution Control Federation* 50(9):2111-2119. 1978. (2160)
- RIBAUD, Mr. y GUERIN, Mr. La production en continu de gaz de fumier. *Courrier Avicole* 35(767):24-25. 1979. (2161)
- RICCI, L. J. Garbage routes to methane. *Chemical Engineering* 81(11):58-60. 1974. (2162)
- _____. Scavenging of wastes promises a gas bonus. *Chemical Engineering* 82(24):128, 130, 132. 1975. (2163)
- RICE, F. C. Second generation technology for the production of pipeline quality gas from sanitary landfills. In SPE/DOE Symposium on Unconventional Gas Recovery, Pittsburgh, Pennsylvania, 1980. New York, American Institute of Mining, Metallurgical, and Petroleum Engineers, 1980. pp. 225-227. (2164)
- Publicado también en: *Energy from Biomass and Wastes*, 4, Lake Buena Vista, Florida, 1980. pp. 267-274.
- RIGOR, E. M. Methane production from pig manure. *BAI Recorder* 33(6):14-19. 1974. (2165)
- Publicado también en: *Better Poultry and Livestock*, 15(5):21-25, 1974; *ASPAC Food and Fertilizer Technology Center. Extension Bulletin* no. 104: 19-26. 1978.
- _____.; BELTRAN, E. D. y PERALBA, F. F. How to construct a methane generator. *Impact of Science on Society* 10(9): 312-313. 1975. (2166)

- RISCHBIETER, K. y ALMADA, A. F. Digestores de biogas tipo hindú. In Curso Latinoamericano de Biogas, 1^o, Guatemala, 1981. Manual de biogas. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 400-431. (2167)
- _____. y QUINTERO, R. Utilización de biogas en motores y equipo de combustión. In Curso Latinoamericano de Biogas, 1^o, Guatemala, 1981. Manual de biogas. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 273-301. (2168)
- RIVIERE, J. W. M. Les microbes travaillent pour nous. La gigantesque production des infiniment petits. Courrier de l'UNESCO 31:29-31. 1978. (2169)
- RIZK, S. G. y FARAG, F. A. Production of methane gas from organic wastes under anaerobic conditions. I. Important factors influencing formation of combustible gases. Agricultural Research Review 46(2):53-66. 1968. (2170)
- ROBBINS, J. E. Ammonia production from animal waste. In Smithsonian Science Information Exchange, Washington, D.C. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (2171)
- Investigación en progreso
- _____.; ARMOLD, M. T. y LACHER, S. L. Methane production from cattle waste and delignified straw. Applied and Environmental Microbiology 38(1):175-177. 1979. (2172)
- ROCKEY, J. W. Farmstead sewage and refuse disposal. Washington, D.C., Department of Agriculture, s.f. p. irr. (USDA. Agricultural Information Bulletin no. 274) (2173)
- ROBERTSON, A. M. y WOLFE, R. S. Adenosine triphosphate pools in Methanobacterium. Journal of Bacteriology 102(1):43-51. 1970. (2174)
- ROBERTSON, A. M.; BURNETT, G. y BOUSFIELD, S. Bioengineering aspects of anaerobic digestion of piggery waste. s.l., 1975. pp. 544-548. (2175)
- Presentado en International Symposium on Livestock Wastes, 3^o, 1975.
- * ROCHE, M. La energía en América Latina: del biogas al átomo. Interciencia (Venezuela) 6(2):72. 1981. (2176)
- Texto en español, inglés y portugués
- ROCKWELL, H. Compost heap. New York, Doubleday, 1975. p. irr. (2177)
- RODALE, J. I. Complete book of composting. Emmaus, Pennsylvania, Rodale Press, s.f. p. irr. (2178)
- RODRIGUES, J. P. Podemos ter energia própria: é o biogás em Alagoas. Extensão Rural em Alagoas (Brasil) 12(2):3-5. 1980. (2179)
- ROERBECH, N. Husdyrgoedningens anvendelse som energikilde. Tidsskrift for Landoekonomi 167(3):159-162. (2180)
- ROGERS, P. L. Biological sources of energy. Australian Natural History. Australian Museum 19(11):372-375. 1979. (2181)
- * ROLFE, R. D.; HENTGES, D. J. y CAMPBELL, B. J. Factors related to the oxygen tolerance of anaerobic bacteria. Applied and Environmental Microbiology 36(2):306-313. 1978. (2182)
- ROLZ, C. Particular problems of solid waste reclamation in developing countries. Journal of Applied Chemical Biotechnology 28(4):321-339. 1978. (2183)
- ROMESSER, J. A. y WOLFE, R. S. Activities of C₁ and C₂ derivatives of HS-CoM in Methanobacterium. Abstracts of the Annual Meeting of the American Society of Microbiology 77:12. 1977. (2184)

- ROMESSER, J. A.; WOLFE, R. S. y MAYER, F. *Methanogenium*, a new genus of marine methanogenic bacteria, and characterization of *Methanogenium cariaci* sp. nov. and *Methanogenium marisnigri* sp. nov. *Archives of Microbiology* 121:147-153. 1979. (2185)
- * RONNOW, P. Methane fermentation of industrial waste. In *Smithsonian Science Information Exchange*, Washington, D.C. Energy recovery from biomass. Washington, D.C. 1979. 1 p. (SSIE no. D0--713) (2186)
- Investigación en progreso
- ROSATO, Y. B. Efeitos de etil-metano-sulfonato e acriflavina na instabilidade mitotica em *Aspergillus nidulans*. *Relatório Científico-Escola Superior de Agricultura "Luiz de Queiroz" (Brasil)* no. 7:174-177. 1973. (2187)
- * ROSE, W. T.; LOUDON, T. L. y STOUT, B. A. Anaerobic digestion of livestock wastes into methane gas. East Lansing, Michigan State University. Agricultural Engineering Department, 1979. 18 p. (Information Series no. 403) (2188)
- ROSEGGERS, S. Energetische Fragen bei der biologischen Gaserzeugung in der Landwirtschaft. *Agrartechnik* 5(10). 1955. (2189)
- ROSENBER, G. Methane production from farm wastes as a source of tractor fuel. *Agriculture* 58(10):487-494. 1976. (2190)
- ROSSI, A. Nuove prospettive per il riciclo delle deiezioni. *Rivista di Suinicoltura* 20(5):89-91. 1979. (2191)
- ROUSTAN, J. L. Fermentation methanique des dejections animales et production de biogaz. *Bulletin d'Information du CNEEMA* no. 269:51-58. 1980. (2192)
- ROUSTAN, M. y ROQUES, H. Les aerateurs mecaniques de surface: principe et methode de calcul. *Tribune du CEBEDEAU* 32(426):193-199. 1979. (2193)
- _____.; TAUZIN, C. y ROQUES, H. Les techniques de traitement des effluents utilisant l'adsorption a un interface gaz-liquide: moussage et bullage. *Tribune du CEBEDEAU* 32(426):203-209. 1979. (2194)
- RU-CHEN, C.; CONG, H. y ZHI-PING, X. A biogas power station in Foshan -- energy from night soil. Guangzhou, China, Institute of Energy Conversion, 1978. p. irr. (2195)
- _____. y ZHI-PING, X. Digesters for developing countries -- water pressure digesters. Guangzhou, China, Institute of Energy Conversion, 1979. p. irr. (2196)
- Versión en inglés por Li Nian-guo
- _____. Design, construction and operation of chinese rural digesters. Guangzhou, China, Institute of Energy Conversion, 1980. p. irr. (2197)
- Versión en inglés de Li Nian-guo
- _____. The development of biogas utilization in China. Guangzhou, China, Institute of Energy Conversion, 1980. p. irr. (2198)
- Versión inglesa de Li Nian-guo
- _____. The development of biomethanation (biogas) in China. Guangzhou, China, Institute of Energy Conversion, 1980. p. irr. (2199)
- _____. y NIAN-GUO, LI. Xinbu system. Guangzhou, China, Institute of Energy Conversion, 1980. p. irr. (2200)
- _____. Building rural digesters. Guangzhou, China, Institute of Energy Conversion, 1981. p. irr. (2201)
- Versión en inglés de Nian-guo, Li

RU-CHEN, C. The development of biogas utilization in China. Guangzhou, China, Institute of Energy Conversion, 1981. p. irr. (2202)

Versión en inglés de Li Nian-guo

_____. Methane production from wild plants in China. Guangzhou, China, Institute of Energy Conversion, 1981. p. irr. (2203)

Versión en inglés de Li Nian-guo

RUBILAR G., J. I. Estudio de factibilidad técnico económico y anteproyecto de una planta de producción de metano a partir de las basuras del área metropolitana de Santiago. Tesis Ing. Civil Quím. Santiago, Universidad de Chile, Facultad de Ciencias Físicas y Matemáticas, 1980. 166 p. (2204)

RUDD, J. y HAMILTON, R. R. Factors controlling rates of methane oxidation and the distribution of the methane oxidizers in a small lake. Manitoba, Canadá, University of Manitoba, 1975. 30 p. (2205)

_____. y TAYLOR, C. D. Methane cycling in aquatic environments. *Advances in Aquatic Microbiology* 2:77-150. 1980. (2206)

RUEPRICH, W. Die biogasproduktion steht erst am Anfang. *DLG-Mitteilungen* 95(4):218-221. 1980. (2207)

* RUTAN, A. Homestead biomass conversion. In *Smithsonian Science Information Exchange*, Washington, D.C. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. YMN--334) (2208)
Investigación en progreso

RYMSA, K. H. [Refuse pyrolysis according to the DESTRUGAS process]. *Neue Tech.* 2:87-111. 1977. (2209)

* SAFETY. In Ad Hoc Panel on Methane Generation from Human, Animal, and Agricultural Wastes, Washington, D.C., 1977. Methane generation from human, animal, and agricultural wastes: report. Washington, D.C., National Academy of Sciences. Panel on Methane Generation, 1977. pp. 99-101. (US. National Technical Information Service. PB no. 276469) (2210)

SAGAR, B. y GREWAL, N. S. Gobar gas- an alternate source of energy. In *Symposium on Rural Development*, Chandigarh, India, 1974. s.l., 1974. p. irr. (2211)

SAGAR, G. Towards better sanitation vis-a-vis rural development. *Journal of the Institution of Engineers of India* 59(1):7-14. 1978. (2212)

SAHADDUCK, G. y MOORE, J. A. The anaerobic digestion of livestock wastes to produce methane. Minnesota, USA., Minnesota University, 1975. 103 p. (2213)

SAINT-ELLIER, A. Des suisses se chauffent et s'éclaircent au gaz de lisier. *La France Agricole* no. 1776:21-24. 1979. (2214)

SAMARBEJDSGRUPPEN FOR TEKNOLOGISK UDVI-
DLING AF BIOGAS, GLOSTRUP. Konstruktion for Biogasanlaeg. Glostrup, Denmark, 1979. p. irr. (2215)

_____. Biogas i Danmark. Glostrup, Denmark, 1980. p. irr. (2216)

_____. Biogas i Danmark. Glostrup, Denmark, 1981. p. irr. (2217)

- SAMARBEJDSGRUPPEN FOR TEKNOLOGISK UDVIKLING AF BIOGAS, GLOSTRUP. Kommende udgivelser. Glostrup, Denmark, 1981. p. irr. (2218)
- SAMIADI, H. y WIKANTADI, B. Produksi gas-bio dari kotoran sapi peranakan Friesian Holsten (PFH). Buletin Fakultas Peternakan Universitas Gadjah Mada 3(2):54-57. 1979. (2219)
- SAMIS, J. M.; MECKERT JUNIOR, G. W. y GRAY, J. Full-scale feedlot manure conversion system. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 241. (2220)
- Investigación en progreso
- SAMPSON, S. Methane (atomic rooster's here). Cornwall, Ecological Centre, s.f. 72 p. (2221)
- SAMS, T. Bortskaffelse af staldgoed ning gennem kompostering of produktion af biogas. Ugeskrift for Agronomer Hortonomer, Forstkandidater og Licentiat 123(33):791-797. 1978. (2222)
- SAN MARTIN, R. L. Current status and future directions of DOE's Biomass Energy Systems Program. In Energy from Biomass and Wastes Symposium, 4°, Lake Buena Vista, FL, 1980. Symposium Papers. Chicago, Illinois, Institute of Gas Technology, 1980. pp. 795-808. (2223)
- SANDBECK, K. A. y WARD, D. M. Fate of immediate methane precursors in low sulfate hot spring algal-bacterial mats. Applied and Environmental Microbiology 41:775-782. 1981. (2224)
- SANDERSON, J. E. y WISE, D. L. Liquid fuels production from biomass; progress report no. 6, 1 October 31 December 1978. s. l., 1978. 59 p. (2225)
- SANDERSON, J. E.; GARCIA-MARTINEZ, D. V. y GEORGE, G. S. Liquid fuels production from biomass. Progress report No. 7, January 1-March 31, 1979. s.l., 1979. 86 p. (2226)
- _____.; GARCIA-MARTINEZ, D. V. y GEORGE, G. S. Liquid fuels production from biomass. Progress report no. 8, April 1-June 30, 1979. s.l., 1979. 118 p. (2227)
- _____.; WISE, D. L. y LEVY, P. F. Liquid fuels production from biomass. Progress report no. 9, July 1-September 30, 1979. s.l., 1979. 33 p. (2228)
- _____.; LEVY, P. F. y WISE, D. L. Liquid fuels production from biomass. Progress report no. 10, October 1-December 31, 1979. s.l., 1980. 67 p. (2229)
- SANGHI, A. K. y DAY, D. A cost-benefit analysis of biogas production in rural India: some policy issues. In Conference on Agriculture and Energy, St. Louis, Missouri, 1976. Proceedings. Edited by W. Lockeretz. New York, Academic Press, 1977. pp. 607-724. (2230)
- SANITARY LANDFILL: alternative to the open dump. Environmental Science and Technology 6(5):408-410. 1972. (2231)
- SANRA, R. Studies on the utilization of waste materials for production on biogas and manure. Tesis Mag. Sc. New Delhi, India, IARI-Post Graduate School, 1965. p. irr. (2232)
- * SANTANA, A. y POUND, B. La producción de biogas a partir del estiércol bovino: los efectos de la concentración de sólidos totales en el estiércol y la dieta animal. Producción Animal Tropical (República Dominicana) 5(2):140-146. 1980. (2233)

- SANTERRE, M. T.; DUGAN, G. L. y TAKAHASHI, P. K. Preliminary laboratory experimentation on the potential of mass-scale cultivation of a high-protein blue-green alga, *Spirulina geitleri*, utilizing cattle feedlot manure. Honolulu, Hawaii Natural Energy Institute, 1978. 23 p. (Technical Report no. 8) (2234)
- SANTIAGO, A. DA C. y CRESTANA, M. DE S. M. Biodigestores contínuos. Casa da Agricultura (Brasil) 2(2):16-17. (2235)
- SATCUNANATHAN, S. Identification and assessment of conventional and non-conventional energy resources of Haití. Washington, D.C., OEA, 1977. p. irr. (2236)
- Presentado en Caribbean Seminar of Science and Technology Policy and Planning, 3°.
- SATHIANATHAN, M. A. Biogas, achievements and challenges. New Delhi, India, Sagar Printers and Publishers, 1975. 192 p. (2237)
- _____. Discussion paper on research planning for biogas technology. In Research Planning Workshop on Energy for Rural Development, Ahmedabad, 1979. Ahmedabad, India, 1979. 5 p. (2238)
- _____. Research project on biogas. Wardha, India, Centre of Science for Villages, 1979. 11 p. (2239)
- SATRIANA, M. J. Large scale composting Park Ridge, New Jersey, Noyes Data Co., 1974. 269 p. (2240)
- SAUBOLLE, B. R. y BACHMANN, A. Minitotechnology. Kathmandu, Nepal, Sahayogi Press, 1978. 76 p. (2241)
- _____. y BACHMANN, A. Fuel gas from cowdung. 2. ed. Kathmandu, Nepal, Sahayogi Press, 1980. 74 p. (2242)
- SAUER, F. D. Methane production by cell free particulate fraction of rumen bacteria. Biochemical and Biophysical Research Communications 79(1):124-132. 1977. (2243)
- _____.; ERFLE, J. D. y MAHADEVAN, S. Methane synthesis without the aid of adenosine triphosphate by cell membranes isolated from *Methanobacterium ruminantium*. Biochemical Journal 178:165-172. 1979. (2244)
- SAUZE, F. Une possibilité intéressante de bioconversion de l'Energie solaire: la méthanisation des algues. Cahier des Ingénieurs Agronomes no. 314:19-20, 29-32. 1977. (2245)
- * SAXENA, K. K.; SHUKLA, V. P. y BHATNAGAR, L. Utilization of digested slurry from biogas plant as a source of protein in the maintenance ration for sheep. Note. Indian Journal of Animal Science 50(10):896-898. 1980. (2246)
- SCAMMELL, G. W. Traitement anaérobie des eaux usées industrielles. Industries Agricoles et Alimentaires 1976:169-174. 1976. (2247)
- SCHAEFER, R. Das neue kraftwerk heisst "Kuhstall". Bayerisches Landwirtschaftliches Wochenblatt 169(49):13-14. 1979. (2248)
- SCHARER, J. M. y MOO-YOUNG, M. Methane generation by anaerobic digestion of cellulose-containing wastes. In Ghose, T. K; Fiechter, A. and Blakebrough, N. Advances in biochemical engineering. Berlin, Alemania, Springer, 1979. pp. 85-101. (2249)
- SCHEIFINGER, C. C.; LINEHAN, B. y WOLIN, M. J. Molecular hydrogen production by *Selenomonas ruminantium* in the absence and presence of methanogenic bacteria. Applied Microbiol. 29:480-483. 1975. (2250)

SCHELLENBACH, S.; TURNACLIFF, W. y VARANI, F. Methane on the move, a discussion of small anaerobic digesters. s.l., Colorado Energy Research Institute, 1977. 101 p. (USA. PB-296542) (2251)

* _____.; VEATCH, M. y CUSTER, M. Anaerobic digestion with hydrogen addition for carbon dioxide removal and methane production. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 223. (2252)

Investigación en progreso

_____. Imperial Valley Bio-Gas Project operations and methane production from cattle manure October 1978 to November 1979. In Symposium on Energy from Biomass and Wastes, 4°, Lake Buena Vista, Florida, 1980. Symposium Papers. Chicago, Illinois, Institute of Gas Technology, 1980. pp. 473-495. (2253)

SCHERFIG, J. y PEARSON, E. A. Bioenergetics of acetate and acetate precursors in methane fermentation. Berkeley, University of California, 1968. p. irr. (2254)

SCHLEGEL, H. G. y BARNEA, J., eds. Seminar on Microbial Energy Conversion, Goettingen, Alemania, 1976. Proceedings of seminar on microbial energy conversion. New York, Academic Press, 1977. 642 p. (2255)

SCHLESINGER, B.; GERMAN, M. I. y HAY, N. E. Methane-powered vehicles: short-and-long term potential and the rationale for immediate action. Am. Gas Assoc. Mon. 62(4):22-24. 1980. (2256)

* SCHMIDELL NETTO, W. Utilização dos resíduos para produção de gás por digestão anaeróbica. s.l., Instituto Brasileiro do Gas, s.f. 21 p. (2257)

Presentado en Seminario Energia de Biomassas

SCHMIDELL NETTO, W. COMGAS vai produzir metano por digestão anaeróbica do lixo. Química e Derivados (Brasil) 1976:27-31. 1976. (2258)

_____. Produção de energia do lixo. Revista Brasileira de Engenharia Química (Brasil) 2(4):6-10. 1978. (2259)

_____. Utilização de resíduos para produção de gás por digestão anaeróbica. In Seminario-Energia de Biomassas, São Paulo, 1978. São Paulo, Instituto Brasileiro do Gás, 1978. 18 p. (2260)

SCHNEIDER, T. R. y KENAN, J. D. Solid wastes, a solar energy and the production of methane gas, an approach to a problem in energy. Philadelphia, Pennsylvania, National Center for Energy Management and Power, 1973. 13 p. (2261)

SCHOBERT, S. Acetic acid from H₂ and CO₂. Formation of acetate by cell extracts of *Acetobacterium woodii*. Arch. Microbiol. 114:143-148. 1977. (2262)

SCHOELL, M. Hydrogen and carbon isotopic composition of methane from natural gases of various origins. Geochim. Cosmochim. Acta 44(5):649-661. 1980. (2263)

SCHONHEIT, P.; MOLL, J. y THAUER, R. K. Nickel, cobalt and molybdenum requirement for growth of *Methanobacterium thermoautotrophicum*. Arch. Microbiol. 123:105-107. 1979. (2264)

SCHRAUZER, G. N.; GRATE, J. H. y KATZ, R. N. Coenzyme M and methylcobalamin in methane biosynthesis results of model studies. Bioinorganic Chemistry 8:1-10. 1978. (2265)

SCHUCHARDT, F. Untersuchungen zum Garverhalten von tierischen Exkrementen und Pflanzen. Grundlagen Landtechnik Bd. 31(2):42-47. 1981. (2266)

- SCHULTE, D. D.; KROEKER, E. J. y SPARLING, A. B. Methane production of agricultural residues. Winnipeg, Canadá, 1976. 11 p. (2267)
- _____. Travel report on a study of methane production from animal wastes by anaerobic processes in the mid*west U.S.A. Winnipeg, Manitoba, Canadá, 1977. 25 p. (2268)
- SCHULZE, K. L. y NAGA RAJU, B. Methane fermentation of organic acids. *Sewage and Industrial Wastes* 30:164-184. 1958. (2269)
- * SCHVARTZ PERES, C. Considerações gerais sobre a microbiologia e a bioquímica da digestão anaeróbica. s.l., s.f. 18 p. (2270)
- SCHWAB, C. Energy from vegetation: legal issues in biomass energy conversion. *Sol. Law Rep.* 1(4):784-810. 1979. (2271)
- SCIENTIFIC LIBRARY AND DOCUMENTATION DIV., MANILA. Biogas, a brief bibliography of materials available in the Scientific Library and Documentation Division, NSDB. Manila, Philippines, National Sciences Development Board, 1978. 3 p. (2272)
- SCOTT, W. E. Australia prepares for petrol crisis. *Energy International* 16(11):51-54. 1979. (2273)
- SECRETARIA DE AGRICULTURA, GOIAS, BRASIL. Digestores para produção de gás metano e fertilizantes. Goiânia, Brasil, 1979. p. irr. (2274)
- SECRETARIA DE INDÚSTRIA, COMÉRCIO E TURISMO, MATO GROSSO, BRASIL. Biogás, construa voce mesmo. Cuiabá, Brasil, s.f. 16 p. (2275)
- SECRETARIA DOS TRANSPORTES, ENERGIA E COMUNICAÇÕES. COORDENADORIA DE ENERGIA, PERNAMBUCO, BRASIL. Pequena usina de biogás; Índia. Recife, Brasil, 1979. p. irr. (2276)
- Traducido del Capítulo 6 de "A hand book on appropriate technology"
- SECRETARIA DOS TRANSPORTES, ENERGIA E COMUNICAÇÕES. PROGRAMA BIOGAS, PERNAMBUCO, BRASIL. Manual de instruções para a usuário do bio-gás. Recife, Brasil, 1980. p. irr. (2277)
- * SEIXAS, J.; FOLLE, S. y MARCHETTI, D. Construção e funcionamento de biodigestores. Brasília, Empresa Brasileira de Pesquisa Agropecuária, 1981. 60 p. (Circular Técnica no. 4) (2278)
- SELZER, H.; BERGMANN, G. y HOHMANN, H. H. Solar energy in Brazil. In *International Solar Forum, 3°, Hamburg, Alemanha, 1980. Solarenergie in Svedlaendern; Tagungsbericht. Muenchen, Alemanha, R.F., DGS-Sonnenenergie Verl., 1980. pp. 354-361. (2279)*
- SEMINAR ON ALTERNATIVE ENERGY RESOURCES AND THEIR POTENTIAL IN RURAL DEVELOPMENT, SRI LANKA, 1976. London, Commonwealth Science Council, 1977. 121 p. (2280)
- SEMINAR ON METHANE PRODUCTION, HELSINKI, 1979. Helsinki, Academy of Finland, Research Council of the Natural Sciences, 1979. 67 p. (2281)
- Publicado en series: Suomen Akatemian Julkaisuja 1/1979.
- SEMINAR ON RESIDUE UTILIZATION MANAGEMENT OF AGRICULTURAL AND AGRO-INDUSTRIAL RESIDUES, ROMA, 1977. Roma, United Nations Environment Programme and Food and Agriculture Organization, 1977. 2 v. (2282)
- SEN, A. Production of combustible gas from cane mollasses. *Science and Culture* 11:562-564. 1954. (2283)
- _____. Effect of different phosphate on the manurial value of anaerobically fermented cowdung in the production of combustible gas. *Proceedings of the National Academy of Sciences of India* 25A:360-368. 1956. (2284)
- SENFERT, C. Biogas plants. *German Appropriate Technology Exchange* 1(6):10. 1978. (2285)

- SENGUPTA, S.; FAROOQ, S. y GERRISH, H. P. Characterization and environmental studies of Pompano Beach anaerobic digestion facility. Semi-annual report. s.l., 1980. 190 p. (2286)
- _____.; GERRISH, H. P. y WONG, K. F. Characterization and environmental studies of Pompano Beach anaerobic digestion facility. Annual report. s.l., 1980. 247 p. (2287)
- SENN, S. L. Dairy waste management. Washington, D.C., Government Printing Office, 1973. 167 p. (Environmental Protection Technology Series no. EPA-530/SW-58d) (2288)
- SEQUI, P. L'energia viene dalla stalla. *Giornale di Agricoltura* 89(39):52-53. 1979. (2289)
- SERRA, C. P. Uma análise do modelo energético brasileiro. *Energia-Fontes Alternativas (Brasil)* 2(7):27-30. 1980. (2290)
- NO SERTÃO da Paraíba gás do esterco de vaca já faz motor de fusca funcionar. *Interior (Brasil)* 6(32):4-13. 1980. (2291)
- SETHNA, H. N. Development of energy sources. *Khadi Gramodyog* 20:331-334. 1974. (2292)
- SEUFERT, C. Biogas plants. s.l., GATE, 1978. 10 p. (2293)
- SHADDUCK, G. y MOORE, J. A. The anaerobic digestion of livestock wastes to produce methane: 1940 - June, 1975; a bibliography with abstracts. St. Paul, University of Minnesota, 1975. 103 p. (2294)
- * SHAH, A. U. y ANSARI, Z. A. Laboratory and pilot plant evaluation of digestion of animal agricultural wastes for optimization of methane production. In *National Seminar on Bio-Gas Technology*, Lahore, Pakistán, 1980. Proceedings. Islamabad, Pakistán, Appropriate Technology Development Organization, 1980. pp. 59-63. (2295)
- * SHAH, F. H. Energy from organic wastes. In *National Seminar on Bio-Gas Technology*, Lahore, Pakistán, 1980. Proceedings. Islamabad, Pakistán, Appropriate Technology Development Organization, 1980. pp. 9-18. (2296)
- SHAH, I. H. Design and construction of biogas plant: site selection, digester and gas holder. Escap, Bangkok, Thailand, 1978. 17 p. (2297)
- Presentado en Proc. Expert Group Meet. on Biogas Dev. 20-26 Junio, Bangkok NR/EGMBD/3.
- _____. Economic aspects, over-hall management and recommended subjects for research. Escap, Bangkok, Thailand, 1978. 23 p. (2298)
- Presentado en Proc. Expert Group Meet. on Biogas Dev., 20-26 Junio, Bangkok NR/EGMBD/4.
- * _____. Bio-gas as a fuel for diesel engine. In *National Seminar on Bio-Gas Technology*, Lahore, Pakistán, 1980. Proceedings. Islamabad, Pakistán, Appropriate Technology Development Organization, 1980. pp. 48-54. (2299)
- SHANTA, S. y MOHANRAO, G. J. Anaerobic digestion of night soil and cow dung mixtures in reducing amonia toxicity. Proceedings and Abstracts, Society of Biological Chemists 23:46-47. 1974. (2300)
- SHAPIRO, S. y WOLFE, R. S. Methyl-coenzyme M, an intermediate in methanogenic dissimilation of Cq compounds by *Methanosarcina barkeri*. *Journal of Bacteriology* 141(2):728-734. 1980. (2301)
- SHARMA, U. P. Energy from wastes. In *Summer Institute on Waste Management by Recycling*, Bombay, 1976. Bombay, India, 1976. pp. 176-182. (2302)
- _____. y PAUL, T. M. Studies on biogas sources. *Current Science* 45(10):376-377. 1976. (2303)

- SHARPSTEN, M. y WILLIAMS, D. W. Performance of a solar - heated anaerobic digester in a cold climate. In Tecnología apropiada para países subdesarrollados. San Salvador, El Salvador, UCA Editores, 1979. pp. 358-377. (2304)
- SHATTOCK, G. F. Method and apparatus for treating microbiologically decomposable pulp or thick sludge. s.l., 1978. 25 p. (Alemania. Patent 2,800,666) (2305)
- SHAW, B. G. A practical and bacteriological study of the anaerobic digestion of piggery waste. Tesis Ph.D. Aberdeen, 1971. p. irr. (2306)
- SHEA, T. G.; PRETORIUS, W. A. y COLE, R. D. Kinetics of hydrogen assimilation in methane fermentation. Berkeley, University of California, 1968. p. irr. (SERL Rpt. no. 68-7) (2307)
- SHEEHAN, G. J. y GREENFIELD, P. F. Utilization, treatment and disposal of distillery wastewater. Water Research 14:257-277. 1980. (2308)
- SHELAT, R. N. y KARIA, G. L. Bio-gas technology for rural development: a case study. In International Conference on Rural Development Technology: An Integrated Approach, Bangkok, 1977. Proceedings. Bangkok, Thailand, Asian Institute of Technology, 1977. pp. 313-333. (2309)
- _____. y KARIA, G. L. Utilisation of biogas in South Gujarat: a case study. In National Seminar on Technology for Agricultural Development, Chandigarh, India, 1977. s.l., Institution of Engineers, 1977. p. irr. (2310)
- SHENDE, P. Y. Development and extension work with cowdung gas plant. In Symposium on Radioisotopes, Fertilizers and Cowdung Gas Plant, New Delhi, 1961. New Delhi, India, 1961. pp. 370-372. (2311)
- SHEWELL-COOPER, W. E. Compost gardening. London, Sphere Books, 1977. 160 p. (2312)
- SHIAN, S. T.; CHANG, M. C. y YE, Y. T. The construction of simple biogas digesters in the province of Szechwan, China. South West Buildings Design Institute State Capital Const. Commission 1(4):247-285. 1979. (2313)
- SHIBATA, T.; EKINAKA, N. y MATSUMURA, Y. Formulas for calculating maximum combustion rate of gas mixtures. Nenryo Kyokai-shi 47(490):107-115. 1968. (2314)
- * SHIH, J. C. H. Thermophilic methane production from poultry waste. In Smithsonian Science Information Exchange, Washington, D.C. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE GY-74356) (2315)
- Investigación en progreso
- _____. The biological potential for methane production from poultry waste. Poultry Science 59:1571. 1980. (2316)
- _____. y HUANG, J. J. H. A laboratory study of methane production from broiler-chicken litter. Biotechnology and Bioengineering Symposium no. 10: 317-323. 1981. (2317)
- SHILL, V. Intermediate energy technology in China. Bulletin of the Atomic Scientists 1977:25-30. 1977. (2318)
- SHOW JUNIOR, I. T.; PIPER, L. E. y LUPTON, S. E. Comparative assessment of marine biomass materials. Final report. s.l., 1979. 122 p. (2319)
- SHUKLA, J. P. Biogas plant. Kanpur, India, National Sugar Institute, 1965. p. irr. (2320)
- SHULER, M. L. The utilization and recycle of agricultural wastes and residues. Boca Raton, Florida, CRC Press, 1980. 304 p. (2321)

- SHUSTER, W. W. Symposium on fuels from biomass, 2°, Troy, NY, 1978. Proceedings. Troy, New York, Rensselaer Polytechnic Institute, 1978. 2 v. (2322)
- SICHUAN INSTITUTE OF BIOLOGY. BIOGAS RESEARCH GROUP. Biogas fermentation. Microbiology Bulletin 2(3):7-9. 1975. (2323)
- _____. Comparative experiments of bacteria species. Sciences and Technology of Sichuan Biology 5: 6-8. 1976. (2324)
- _____. Studies on enriching culture and utilization of biogas fermentative bacteria. Microbiology Bulletin 3(1):7-9. 1976. (2325)
- _____. How to make the biogas digester producing gas fast, and in good fermentation. Microbiology Bulletin 4(1):4. 1977. (2326)
- _____. How to solve the contradiction between the farmhouse gas utilization and collective production fertilizer application. Biogas (2. Serie) 1977:42-45. 1977. (2327)
- _____. Primary studies on the biochemical changing of rural biogas fermentation. Biogas (2. Serie) 1977:51-58. 1977. (2328)
- _____. Studies on the compounding C/N ratio of biogas fermentative raw materials. Biogas (2. Serie) 1977:58-60. 1977. (2329)
- _____. A comparative analysis between the good and sick digesters and how to utilize it in biogas production. Microbiology Bulletin 5(1):17-18. 1978. (2330)
- SIEMON, J. R. y VAUGHAM, G. M. Microbial conversion as a future energy option. In Symposium on Microbial Energy Conversion, Australia, 1978. Papers. s.l., 1978. pp. 15-19. (2331)
- SIEVERS, D. M. Engineering and economic aspects of farm digesters. Saint Joseph, Michigan, American Society of Agricultural Engineers, s.f. p. irr. (Paper no. 75-4541) (2332)
- _____. y ALDRICH, R. Animal waste management systems. Bozeman, MO, University of Montana. Agricultural Engineering Fund, 1975. p. irr. (2333)
- _____. Carbon/nitrogen ratio and anaerobic digestion of swine waste. Transactions of the ASAE 21(3):537-541, 549. 1978. (2334)
- * _____ . Construct, operate, and study a farm-size methane gas generation plant. In Smithsonian Science Information Exchange, Washington, D.C. Energy recovery for biomass. Washington, D.C., 1979. 1 p. (SSIE no. YMO--158) (2335)
- Investigación en progreso
- SIKKA, P. Biogas technology utilisation in India; efficient use of organic waste materials. Science and Culture 44(1):24-26. 1978. (2336)
- SILENZI, A. Si puo produrre metano in Azienda. Terra Sole no. 437:39-42. 1979. (2337)
- SILVA, A. M. DA. Manual do biodigestor; modelo balao impermeável totalmente fechado com uma entrada e uma saída. Rio de Janeiro, Brasil, Instituto do Pesquisas da Marinha, s.f. p. irr. (2338)
- * _____ . Manual dos biodigestores Marinha II e Marinha III. s.l., Instituto de Pesquisas da Marinha, s.f. 46 p. (2339)
- * _____ . Microposto de piscicultura acoplado a biodigestor. Brasilia, Instituto de Pesquisas da Marinha. Programa de Desenvolvimento de Comunidades Rurais, 1981. 113 p. (2340)

- SILVA, D. DA. Biogás transformando lixo em tesouros a solução chinesa. Porto Alegre, Brasil, FECOTRIGO, s.f. 40 p. (2341)
- SILVA, E. DA.; BURGERS, A. y OLEMO, R. Les déchets, facteur de santé et de richesse et stimulant économique pour les pays de développement. Impact of Science on Society 26:345-355. 1976. (2342)
- SILVA, N. A. DA. Roteiro para implantar biodigestores em propriedade rural. Brasília, Brasil, 1979. p. irr. (2343)
- _____. Significado de algumas palavras em inglês sobre biogás; apontamentos. s.l., 1979. p. irr. (2344)
- _____. Biodigestor: nada se perde tudo se transforma. Revista Brasileira de Extensão Rural 1(2):24-25. 1980. (2345)
- _____. Brasil elege modelo chinês para o campo. Agricultura de Hoje (Brasil) 6(66):36-37. 1980. (2346)
- _____. Manual de biodigestor; modelo chinês. Brasília, Brasil, EMBRATER, 1980. 23 p. (Manuais no. 26) (2347)
- * _____ . Manual técnico; construção e operação de biodigestor modelo chinês. Brasília, EMBRATER, 1981. p. irr. (2348)
- SILVA, R. F. DA. Biodigestores. Niterói, Brasil, Empresa de Assistência Técnica e Extensão Rural do Estado do Rio Grande do Norte, 1980. 22 p. (2349)
- * SILVA, V. V. DA y AZEVEDO, J. N. DE. Produção e consumo de biogás a nível de fazenda. Teresina, Pl., Brasil, 1981. 21 p. (Circular Técnica EMBRAPA no. 1) (2350)
- * SILVEIRA, R. A experiência da Companhia Estadual de Gás do Rio de Janeiro no aproveitamento do gás produzido a partir de rejeitos urbanos. Rio de Janeiro, Brasil, Companhia Estadual de Gás do Rio de Janeiro, 1978. 17 p. (2351)
- Presentado en Congresso Brasileiro de Energia, 1º, Rio de Janeiro, 1978.
- SILVESTON, P. L. y RICCI, L. J. More on gas from garbage. Chemical Engineering 81(17):218. 1974. (2352)
- _____. Methane production from manure in small scale units. In Symposium on Energy from Biological Conversion (Practice) 79 National A.I.Ch.E. Meeting, Houston, TX, 1979. Houston Texas, 1979. p. irr. (2353)
- * SIMPLEX AEROTERMICAS, ZARAGOZA. Aprovechamiento energético de la biomasa por medio del SIMPLEXDIGEST. Zaragoza, España, s.f. 25 p. (2354)
- SIMPLICIANO, A. F. Putting fowl manure to good use. Better Poultry and Livestock 15(5):28-31. 1974. (2355)
- * SIMPOSIO BRASILEIRO de biogás, 1º, a esperança de um futuro melhor. Jornal do Produtor (Brasil) 2(11):1. 1981. (2356)
- SIMPOSIO CENTROAMERICANO SOBRE APLICACIONES DE ENERGIA BIOMASICA, 2º, CARTAGO, 1980. Diseño y construcción de biodigestores. Cartago, Instituto Tecnológico de Costa Rica, 1981. 182 p. (2357)
- SIMPOSIO SOBRE TECNOLOGIA APROPIADA, 1º, CARTAGO, 1979. Energía solar: fundamentos y aplicaciones. Cartago, Instituto Tecnológico de Costa Rica, 1979. 313 p. (2358)

- SIMPSON, M. H. Demonstration of anaerobic digesters in developing countries. II. Journal of Environmental Sciences 22(3):16-19. 1979. (2359)
- _____. Effectiveness of onsite bio-gas digesters and sanitizing of fecal waste in developing countries. I. Journal of Environmental Sciences 22(2):29-32. 1979. (2360)
- _____. y MORALES, E. C. Demonstration of anaerobic biogas digester in developing countries. V. The Philippines. Journal of Environmental Science 23(2):2-24. 1980. (2361)
- SINECHAL, X. J.; INSTALLE, M. J. y NYNS, E. J. Differentiation between acetate and higher volatile acids in the modeling of the anaerobic biomethanation process. Biotechnology Letters 1:309-314. 1979. (2362)
- SINGH, A. J. y MIGLANI, S. S. Some socio-economic implications of gobar gas plants. Indian Journal of Home Science 11(2):42-49. 1977. (2363)
- SINGH, A. K. y PUNDIR, B. P. Dual-fuel operation of a diesel engine with sewage gas. Agricultural Engineering Today 2(2). 1978. (2364)
- SINGH, G. y GOEDE, J. H. DE. International Conference on Rural Development Technology: An Integrated Approach, Bangkok, 1977. Rural development technology: an integrated approach. Proceedings. Bangkok, Thailand, Asian Institute of Technology, 1977. 847 p. (2365)
- SINGH, K. K. Janata biogas plants: technological administrative feasibility report. s.l., 1978. p. irr. (2366)
- SINGH, K. W. Extension aspects of cowdung gas plant. In National Symposium on Biogas Technology and Usage, New Delhi, 1977. New Delhi, India, 1977. pp. 48-51. (2367)
- SINGH, P. N. Biogas: solution to the rural energy problems. URJA Energy Journal 6(9):218-220. 1979. (2368)
- SINGH, R. B. Generating methane from organic wastes. Benson, Vt., India, James Whitehurst, s.f. p. irr. (2369)
- _____. Some experiments with bio gas. Ajitmal, Etawah, India, Gobar Gas Research Station, s.f. 32 p. (2370)
- _____. Bio-gas plant: generating methane from organic wastes. Ajitmal, Etawah, India, Gobar Gas Research Station, 1971. 93 p. (2371)
- _____. Some experiments with biogas. Ajitmal, Etawah, India, Gobar Gas Research, Station, 1971. p. irr. (2372)
- _____. Building a bio-gas plant. Compost Science 13(2):12-14. 1972. (2373)
- _____. Bio gas plant; design with specifications. Ajitmal, Etawah, India, Rashtra Bhasha Press, 1973. 49 p. (2374)
- _____. Technical report on bio-gas plant. Etawah, India, Gobar Gas Research Station, 1975. 32 p. (2375)
- _____. y GUPTA, B. K. Practical aspects of gobar gas productions. In Symposium on Perspective in Industrial Microbiology, Bombay, 1977. Bombay, India, 1977. p. irr. (2376)
- _____. y SINGH, K. K. Janata biogas plants: preliminary report on design and cost. Lucknow, India, Planning Research and Action Div., 1978. p. irr. (2377)
- _____. Assimilation for acetate and production of methane by cattle waste slurry. Current Science 49(10):399-400. 1980. (2378)

- SINGHANIA, R. A. y SAUERBECK, D. [Influence of zinc on aerobic and anaerobic decomposition of organic matter]. *Zeitschrift fuer Pflanzenernaehrung und Bodenkunde* 143(4): 385-390. 1980. (2379)
- SIRERITZ, F. y PIRT, S. J. Methane production from glucose by a mixed culture of bacteria in the chemostat: the role of citrobacter. *Journal of General Microbiology* 101:57-64. 1977. (2380)
- SIROHI, A. S. Economics of gobar gas plant. In *National Symposium on Biogas Technology and Usage*, New Delhi, 1977. New Delhi, India, 1977. pp. 54-58. (2381)
- SITTON, O. C. y GADDY, J. L. Solar energy collection by bioconversion (producing methane from various crop materials). In *InterSociety Energy Conversion Engineering Conference*, 11a, State Line, Nevada, 1976. Proceedings. New York, American Institute of Chemical Engineers, 1976. pp. 91-97. (2382)
- _____. y GADDY, J. L. Converting crops into methane. *Chemical Engineering Progress* 73:71-72. 1977. (2383)
- SKARP, S. U. Jordbruksteknisk energiforskning. II. Kungl. Skogs- och Lantbruksakademiens Tidskrift 118(6): 293-300. 1979. (2384)
- SKRYABIN, G. K.; GOLOVLEVA, L. A. y GOLOVLEV, E. L. Anaerobic oxidation of p-xylene by microorganisms. *Dokl. Akad. Nauk USSR* 236:1239-1242. 1977. (2385)
- _____. y ETOSHIN, V. K. Investigations of the microbiological synthesis of protein in the USSR. *Mikrobiologiya* 46:811-820. 1977. (2386)
- SLANE, T. C. An economic analysis of methane generation, internal costs and external benefits. Amherst, University of Massachusetts, 1975. 30 p. (2387)
- * SLANE, T. C.; CHRISTENSEN, R. L. y WILLIS, C. E. Economic analysis of methane generation. In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory*. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 507. (2388)
- Investigación en progreso
- SLUTSKY, S.; TAMAGNO, J. y FRUCHTMAN, I. Analysis of hydrocarbon air combustion flames. s.l., 1966. 52 p. (2389)
- SLYTER, L. L. Monensin and dichloroacetamide influences on methane and volatile fatty acid production by rumen bacteria *in vitro*. *Applied and Environmental Microbiology* 37(2): 283-288. 1979. (2390)
- SMALL FARM energy project. *Compost Science* 19(3). 1978. (2391)
- SMART, J. Anaerobic sludge digestion process. In *Technology Transfer Seminar: Sludge Handling and Disposal*, Ottawa, 1977. Preprints. Ottawa, Environment Canada, 1977. pp. 1-22. (2392)
- SMIL, V. Energy solution in China. *Environment* 19(7):27-31. 1977. (2393)
- _____. Intermediate energy technology in China. *Bulletin of the Atomic Scientist* 1977:25-31. 1977. (2394)
- _____. Biogas production in China. *Development Digest* 16(3):25-28. 1979. (2395)
- SMITH, F. A. Methane gas from waste materials: the economics considered. *Span* 21(3):123-125. 1978. (2396)
- SMITH, K.D. Methane system: principles and practice. In *Portual Institute, Menlo Park. Energy primer: solar, water, wind and biofuels*. Menlo Park, California, 1978. 7 p. (2397)

- * SMITH, K. D. Monitor, test, and evaluate and operational digester for 350 cattle units. In U.S. Department of Energy. Division of Solar Technology, Washington, D.C. Fuels from biomass program, program summary January 1978. Washington, D.C., 1978. p. 56. (2398)
- * _____ . Operation of an anaerobic digester at the Washington State dairy farm. In Symposium on Energy from Biomass and Wastes, Washington, D.C., 1978. Symposium papers. By D. L. Klass y W. W. Waterman. Washington, D.C. Institute of Gas Technology, 1978. pp. 403-429. (2399)
- SMITH, L. D. S. The pathogenic anaerobic bacteria. 2. ed. Springfield, USA, Charles C. Thomas, 1975. p. irr. (2400)
- * SMITH, M. R. y MAH, R. A. Growth and methanogenesis by Methanosarcina strain 227 on acetate and methanol. Applied and Environmental Microbiology 36(6):870-879. 1978. (2401)
- _____ . y MAH, R. A. Acetate as sole carbon and energy source for growth of Methanosarcina strain. Applied and Environmental Microbiology 39(5): 993-999. 1980. (2402)
- SMITH, P. H. y MAH, R. A. Kinetics of acetate metabolism during sludge metabolism. Applied Microbiology 14:368-371. 1966. (2403)
- SMITH, R. E.; REED, M. J. y KIKER, J. T. Two-phase anaerobic digestion of swine waste. Transactions of the ASAE 20(6):1123-1128. 1977. (2404)
- SMITH, R. J. The anaerobic digestion of livestock wastes and the prospects for methane production. Ames, Iowa, 1973. p. irr. (2405)
- Presentado en Midwest Livestock Waste Management Conference, Ames, Iowa
- SMITH, R. J.; FEHR, R. L. y MIRANOWSKI, J. A. The role of an anaerobic digester on a typical central Iowa farm. In Cornell Agricultural Waste Management Conference, 9a., Ann Arbor, Michigan, 1977. Food, fertilizer and agricultural residues. Edited by R. C. Loehr. Ann Arbor, Michigan, Ann Arbor Science Publishers, 1977. pp. 341-371. (2406)
- * _____ .; HEIN, M. E. y GREINER, T. H. Experimental methane production from animal excreta in pilot-scale and farm-size units. In Symposium on Alternatives in Animal Waste Utilization, Madison, USA, 1977. Journal of Animal Science 48(1):202-217. 1979. (2407)
- SMYSER, S. Methane from manure at the Organic Demonstration Farm. Organic Gardening and Farming 21(10):30-32, 34. 1974. (2408)
- SNELLING, D. P. Resurrecting the dead anaerobic digester. Water and Sewage Works 126(8):66-67. 1979. (2409)
- SOARES, M. y JARDIM, A. Aproveitamento de resíduos orgânicos para produção e utilização de biogás e fertilizantes. Goiana, Brasil, Secretária de Agricultura, 1980. 22 p. (2410)
- * SOCIAL BENEFITS of biogas plant. Bio-Gas Newsletter no. 3:24. 1980. (2411)
- SOLAR APPLICATIONS appropriate to the village. In Workshop on Solar Energy for the Villages of Tanzania, Dar es Salaam, 1977. Dar es Salaam, Tanzania National Scientific Research Council, 1978. pp. 26-46. (2412)
- SOLID WASTE landfill will be tapped as a generator of gas for fuel use. Chemical Engineering 80(27):17. 1973. (2413)
- SOLOMON, J. The social redemption of pure garbage. s.l., 1972. p. irr. (2414)

- SOMETHING TO think about methane. East African Farmer and Planter 2(5):18-22. 1958. (2415)
- SONDERENERGIEPROGRAM DES BUNDESMINISTERIUMS FÜR WIRTSCHAFTLICHE ZUSAMMENARBEIT, ESCHBORN. Statusbericht biomasse II - Direkte und Reduzierte Verbrennung - Anlagen für Pyrolyse Holzgas Holzkohle PN. 78.2247.1-01-100. Eschborn, Alemania, GATE, 1980. 78 p. (2416)
- SORIGONA, STAFFANSTORP. El proceso ANAMET (MR) para la depuración de aguas residuales procedentes de industrias alimentarias y de fermentación. Staffaanstorp, Sweden, AB Sorigona, 1980. 7 p. (2417)
- Publicado también en inglés
- SORNTHAP TUMWASORN; CHAROONPUN JANESARTRA y POLPOJ SRICHURARNGOOL. Small methane generator from buffalo manure. In Kasetsart University. Cooperative Buffalo Production Research Project. Annual report 1978. Bangkok, Thailand, 1979. pp. 127-137. (2418)
- SOURCES of waste materials for bioconversion. In Renzo, D. J. DE. Energy from bioconversion of waste materials. Park Ridge, New Jersey, Noyes Data Corporation, 1977. pp. 2-14. (2419)
- SOURIE, I. L'utilisation énergétique des pailles et fumiers: aspects agronomiques, énergétiques et économiques. In Journées d'Etudes "Valorisation des Sous-Produits Agricoles", París, 1979. París, France, 1979. pp. 41-79. (2420)
- SPEAR, M. Chemicals from renewable raw materials. Chemical Engineering 345:419-421. 1979. (2421)
- SPEECE, R. E. y ENGELBRECHT, R.S. Controlling factors in methane fermentation. s.l., University Park, 1964. p. irr. (2422)
- SPEECE, R. E. y McCARTY, P. L. Nutrient requirements and biological solids accumulation in anaerobic digestion. Advances in Water Pollution Research 2:305-322. 1964. (2423)
- _____. y KEM, J. A. Effect of short-term temperature variations on methane production. Journal of the Water Pollution Control Federation 42(11):1990-1997. 1970. (2424)
- SPENCER, R. R. y COATES, J. A. Method for increasing methane production in anaerobic digestion systems. In Solar 78 Northwest Conference, Portland, Oregon, 1978. Proceedings. s.l., 1978. p. 222. (2425)
- * _____ . Enhancement of methane production in the anaerobic digestion of municipal sewage sludge. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 259. (2426)
- Investigación en progreso
- SPEYER, P. Le biogaz a la ferme aux Etats Unis. Toulouse, France, ARES, 1981. 150 p. (2427)
- * SPOELSTRA, S. F. Simple phenols and indoles in anaerobically stored piggery wastes. Journal of the Science of Food and Agriculture 28(5):415-423. 1977. (2428)
- SPROUSE, J. Methane. Berkeley, California, Stone-Marow Press, s.f. p. irr. (2429)
- SRINIVASAN, H. R. History of development of gobar gas plant. Khadi Gramodyog 20(3):176-181. 1973. (2430)
- _____. Gobar gas plants promises and problems (manure disposal). Indian Farming 23(11):29, 31, 33. 1974. (2431)
- _____. Design, construction and maintenance of gobargas plants. In Summer Institute on Waste Management by Recycling, Bombay, 1976. Bombay, India, 1976. pp. 209-213. (2432)

- SRINIVASAN, H. R. Design of gobargas plant. Bombay, India, 1976. 4 p. (2433)
- _____. Bio-gas (gobar gas) and manure from the waste of farm animals. In FAO/UNEP Seminar on Residue Utilization - Management of Agricultural and Agro-Industrial Wastes, Roma, 1977. Roma, FAO, 1977. 15 p. (2434)
- _____. Gobar gas scheme. In National Symposium on Biogas Technology and Usage, New Delhi, 1977. New Delhi, India, 1977. pp. 46-47. (2435)
- _____. Report on bio-gas development potential in Republic of Uganda. Bombay, India, Directorate of Gobar Gas Scheme, 1978. 59 p. (2436)
- SRINIVASAN, T. G. y GHOSH, U. Social benefit-cost appraisal of community gobar-gas plant. Energy Management 1(4):243-248. 1977. (2437)
- SRINIVASTAVA, S. N. y RICHHARIA, R. H. Utility of cowdung gas plants. Bihar Acad. Agr. Sci. Proc. 6/7: 104-107. 1957/1958. (2438)
- SRINIVASTAVA, U. K. y MOULIK, T. K. Energy consumption in rural households and biogas plants: tasks ahead. Vikalpa 2(1). 1977. (2439)
- _____. Economic aspects of biogas plants. In Research Planning Workshop on Energy for Rural Development Ahmedabad, 1979. Ahmedabad, India, 1979. 16 p. (2440)
- STADELMANN, M. Natural gas from seaweed farms: a new source of energy. Gas Waerme International 29(5):273-275. 1980. (En alemán) (2441)
- STADLBAUER, E. A. Biogas energy made of waste. Bild der Wissenschaft 14(10):86-102, 217, 218, 219. 1977. (En alemán) (2442)
- STADTMAN, T. C. Methane fermentation. Annual Review of Microbiology 21: 121-142. 1967. (2443)
- STAFFORD, D. A. Methane production from waste. Effluent and Water Treatment Journal 14(2):73-75, 77-79. 1974. (2444)
- _____.; WHEATLEY, B. I. y HUGHES, D. E., eds. International Symposium on Anaerobic Digestion, 1°, Cardiff, Wales, 1979. Anaerobic digestion, proceedings. London, Applied Science Publishers, 1979. 4 p. (Sumario) (2445)
- _____.; WHEATLEY, B. I. y HUGHES, D. E., eds. Anaerobic digestion. Cardiff, Wales, University College, 1980. 528 p. (2446)
- _____. Methane production from waste organic matter. Boca Raton, Florida, CRC Press, 1980. 304 p. (2447)
- * STANFORD, G. 2-phase biogas generator. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 283. (2448)
- Investigación en progreso
- * STEARNS, R. P.; PRINCIPAL, P. E. y WRIGHT, T. D. Recovery and utilization of methane gas from a sanitary landfill city of industry, California. In Symposium on Energy from Biomass and Wastes, Washington, D.C., 1978. Symposium papers. By D.L. Klass y W. W. Waterman. Washington, D.C., Institute of Gas Technology, 1978. pp. 325-343. (2449)
- * _____.; WRIGHT, T. D. y FLOWERS, T. Industry hills methane gas recovery system. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 260. (2450)
- Investigación en progreso
- * _____.; WRIGHT, T. D. y FLOWERS, T. Watson energy systems - methane gas recovery system. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 263. (2451)
- Investigación en progreso

- STEINBERG, M. Synthetic carbonaceous fuels and feedstocks. s.l., 1980. 8 p. (USA. Patent no. --4, 197, 421) (2452)
- STENSTORM, M. K. y ANDREWS, J. F. Cost interactions in activated sludge systems. *Journal of Environmental Engineering Division* 106(4):787-796. 1980. (2453)
- STEPPIA, M. O mozliwosciach uzytkowania biogazu. *Mechanizacja Rolnictwa* no. 16/520:11-14, 19. 1979. (2454)
- STEVENS, M. A. y SCHULTE, D. D. Low temperature anaerobic digestion of swine manure. Guelph, Ontario, Canada, 1977. 20 p. (2455)
- Presentado en 1977 Annual Meeting Canadian Society of Agricultural Engineering, Guelph, Ontario, Canada
- STEWART, J. H. Manure digestion units, their potential and use in village level community development in Indonesia. In *International Conference on Rural Development Technology: An Integrated Approach*, Bangkok, 1977. Proceedings. Bangkok, Thailand, Asian Institute of Technology, 1977. pp. 351-362. (2456)
- _____. y RICHMOND, B. Biogas for Javanese villages: a simple unit. *Appropriate Technology* 7(2):15-17. 1980. (2457)
- STEWART, D. J. Fuel from animal waste and grass - a review of the possibilities. *Invermay Technical Report* no. 3: 1-12. 1975. (2458)
- _____. Control of lakeweed by harvesting for fuel and fertiliser. In *Symposium on Lakeweed - Friend or Foe*, Hamilton, 1977. Proceedings. Hamilton, New Zealand, 1977. 8 p. (2459)
- _____. Economics of biogas production from specifically grown plant materials. *Invermay Technical Report* no. 5: 1-21. 1977. (2460)
- STEWART, D. J. Economics of production of biogas from specifically-grown plant material. In *New Zealand Energy Conference, 3a.*, Wellington, 1977. Proceedings. Wellington, New Zealand, 1977. 13 p. (2461)
- _____. Methane production from crops and organic wastes. In *Biotechnology Conference on Biomass and Energy, 1a.*, Palmerston North, 1978. Proceedings. Palmerston North, New Zealand, Massey University, 1978. p. irr. (2462)
- _____. Using organic fertilizers in agriculture. *Soil and Health* 37(6): 4-8. 1978. (2463)
- _____. Methane: likely successor to petrol. *New Zealand Journal of Agriculture* 139(6):21-23. 1979. (2464)
- _____. Fertilizer Seminar, Napier, 1980. Adjusting to energy prices and shortages. Napier, New Zealand, 1980. p. irr. (2465)
- _____. Biogas - a transport fuel of the future. In *Future Fuels Seminar*, Hamilton, New Zealand, 1980. Hamilton, University of Waikato, 1980. p. irr. (2466)
- _____. Energy: biogas. In *New Zealand Irrigation Association Conference*, Oamaru, New Zealand, 1980. Oamaru, New Zealand, Irrigation Association, 1980. p. irr. (2467)
- _____. Energy: biogas. Production from crops at the Invermay Energy Farm Aglink FPP 375. Wellington, New Zealand, Ministry of Agriculture and Fisheries. Media Services, 1980. 3 p. (2468)
- _____. y McLEOD, R. Producing fuels on the farm. *New Zealand Journal of Agriculture* 141(2):9-24. 1980. (2469)
- _____. Biomass - a source of gas beyond Maui. In *Gas Industry Conference*, Blenheim, 1981. Blenheim, New Zealand, 1981. p. irr. (2470)

- STEWART, D. J. Production of methane from energy crops and use as a vehicle fuel. In 1981 International Gas Research Conference, Los Angeles, CA, 1981. Los Angeles, California, 1981. p. irr. (2471)
- _____. Utilisation of organic wastes to produce natural gas. In 'Resources 81' Conference of the New Zealand Institute of Food Science and Technology, Dunedin, 1981. Dunedin, New Zealand, Institute of Food and Technology, 1981. p. irr. (2472)
- STIRLING, D. I. y DALTON, H. Effect of metal-binding agents and other compounds on methane oxidation by two strains of *Methylococcus capsulatus*. Archives of Microbiology 114(1):71-76. 1977. (2473)
- _____. y DALTON, H. Properties of the methane mono-oxygenase from extracts of *Methylosinus trichosporium* OB3b and evidence for its similarity to the enzyme from *Methylococcus capsulatus* (Bath). European Journal of Biochemistry 96(1):205-212. 1979. (2474)
- STIRRER OR no stirrer? Newsletter Bio Gas Nepal no. 7:3-4. 1979. (2475)
- STODTMAN, T. C. Methane fermentation. Annual Review of Microbiology 21: 121-142. 1967. (2476)
- STONE, R. W.; PARKER, D. S. y COTTERAL, J. A. Denitrification of wastewater effluents with methane. Journal of the Water Pollution Control Federation 48(7):1840-1846. 1976. (2477)
- STONER, C. H. Producing your own power; how to make nature's energy sources work for you. Emmaus, Pennsylvania, Rodale Press, 1974. 322 p. (2478)
- _____. , ed. Producing your own power. Emmaus, Pennsylvania, Rodale Press, 1975. 283 p. (2479)
- STOUT, B. A. y LOUDON, B. A. Energy from organic residues. s.l., 1977. 42 p. (2480)
- Presentado en U.N.E.P./F.A.O. Seminar on Residue Utilization Management of Agricultural and Agro-Industrial Wasters, 1977.
- STRAUGHAN, I. R. y LARSON, L. E. Assessment of possibilities for early application of biomass - derived fuels by utility companies. In Management Assessment of Energy from Biomass and Wastes Conferences, Orlando, Florida, 1979. Chicago, Illinois, Institute of Gas Technology, 1980. pp. 49-61. (2481)
- STRAYER, R. F. y TIEDJE, J. M. In situ methane production in a small, hypereutrophic, hardwater lake: loss of methane from sediments by vertical diffusion and ebullition. Limnology and Oceanography 23(6):1201-1206. 1978. (2482)
- * _____ y TIEDJE, J. M. Kinetic parameters of the conversion of methane precursors to methane in a hypereutrophic lake sediment. Applied and Environmental Microbiology 36(2):330-340. 1978. (2483)
- STUCKEY, D. C. y McCARTY, P. L. Thermochemical pretreatment of nitrogenous materials to increase methane yield. Biotechnology and Bioengineering Symposium 8:219-233. 1978. (2484)
- _____. ; COLBERG, P. J. y BAUGH, K. D. Heat treatment of organics for increasing anaerobic biodegradability. Quarterly progress report, July 1, 1979-September 30, 1979. s.l., 1979. 18 p. (2485)
- _____. ; OWEN, W. F. y McCARTY, P. L. Anaerobic toxicity evaluation by batch and semi-continuous assays. Journal of the Water Pollution Control Federation 52:720-729. 1980. (2486)

- SUBRAMANIAN, P. V. R. Anaerobic digestion - a unit operation for waste treatment and biogas production. In Annual Conference of the Association of Microbiologists of India, 18a., India, 1977. s.l. s.f. p. irr. (2487)
- SUBRAMANIAN, S. K. y GANESH, S. Biogas technology performance and prospects in India. New Delhi, National Committee on Science and Technology, 1974. p. irr. (2488)
- _____. Biogas in Asia. New Delhi, Management Development Institute, 1976. 97 p. (2489)
- _____. Biogas systems in Asia. New Delhi, India, Management Development Institute. 1977. 146 p. (2490)
- Resumen de este trabajo incluido en: IDRC, Ottawa (Canadá). Biogas technology in the third world: a multidisciplinary review. 1978. pp. 97-122.
- _____.; RAJABAPAI AH, P. y REDDY, A. K. N. Studies in biogas technology. II. Optimisation of plant dimensions. Proceedings of the Indian Academy of Sciences C2(3):365-375. 1979. (2491)
- SUBRAMANIAN, T. V. Design of a gober gas plant. Chemical Age of India 28(10):805-807. 1977. (2492)
- _____. Gobar gas applicances. Khadi Gramodyog 26(12):532-535. 1980. (2493)
- SUDEC, FORTALEZA, BRASIL. Produção de gás metano através de fermentação anaeróbica do esterco de gado. Fortaleza, 1977. 97 p. (Faca voce mesmo no. 1) (2494)
- * SUI FONG, J. C. LI. Potential uses of cane tops and leaves for food and energy production. Mauritius, s.f. 7 p. (2495)
- SUIDAN, M. T.; CROSS, W. H. y KHAN, K. Treatment of phenolic wastewater with anaerobic-activated carbon filters. Technical completion report, September 1977-September 1979. s.l., 1979. 234 p. (2496)
- SUMICAD JUNIOR, R. O. Bio-gas technology: recycling organic waste into food, feed, fuel and fertilizer. Small Industry Journal 9(4):16-19. 1976. (2497)
- SUMMERS, R. y BOUSFIELD, S. Practical aspects of anaerobic digestion. Process Biochemistry 11(5):3-6. 1976. (2498)
- _____. y BOUSFIELD, S. Experimental experiences on digestion. In Seminar on Anaerobic Digestion of Farm Wastes, Cardington, 1978. Proceedings. Cardington, ADAS, 1978. p. irr. (2499)
- _____. The microbial breakdown of straw in the rumen and the breakdown of straw and manure for methane production. s.l., 1978. pp. 84-87. (2500)
- Presentado en Report on Straw Utilisation Conference, 1978.
- _____. y BOUSFIELD, S. A detailed study of piggery waste digestion. Agricultural Wastes 2:61-78. 1980. (2501)
- SUPHWAT, P. Methane production by anaerobic digestion of nightsoil, water hyacinth and rice straw. Tesis Master. Bangkok, Thailand, 1979. 41 p. (AIT Thesis no. EV-79-26. (2502)
- SUPPLEMENTING THE energy and plant nutrient requirements through organic recycling. In National Symposium on Recycling of Residues of Agriculture and Industry, Ludhiana, 1980. Papers. By S. S. Mahdi y R. V. Misra. Ludhiana, India, Tata Energy Research Institute, 1980. 9 p. (2503)
- SURRIDGE, D.; JONES, J. C. y STAFFORD, D. A. Influence of industrial wastes and retention time on methane production from sewage sludge digesters. Effluent Water Treatment Journal 15(6):288, 290, 291. 1975. (2504)
- SUSENO, D. Beberapa metoda pengendalian tumbuhan air pengganggu. Warta Pertanian 7(44):18-24. 1977. (2505)

- SUYS, I.; AUQUIER, C. y BINOT, R. Perspectives nouvelles du recyclage d'effluents et de residus organiques en methane par fermentation microbienne anaerobie. I. Definition scientifique de la methanogenese. Perspectives industrielles qui en decoulent. Technique de l'Eau et de l'Assainissement no. 387:9-15. 1979. (2506)
- _____.; AUQUIER, C. y BINOT, R. Perspectives nouvelles du recyclage d'effluents et de residus organiques en methane par fermentation microbienne anaerobie. II. Evaluation de la production potentielle de methane biologique en Belgique. Technique de l'Eau et de l'Assainissement no. 388:37-42. 1979. (2507)
- _____.; AUQUIER, C. y BINOT, R. Perspectives nouvelles du recyclage d'effluents et de residus organiques en methane par fermentation microbienne anaerobie. III. Estimation du cout de production du methane biologique. Technique de l'Eau et de l'Assainissement no. 389:29-33. 1979. (2508)
- SWAMINATHAN, K. R. What is new in TNAU bio-gas plant. Kisan Wld. 5(5):11-14. 1978. (2509)
- * SWARTZBAUGH, J. T. y SMITH, R. B. Enzymatic enhancement of bioconversion of MSW. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 257. (2510)
- Investigación en progreso
- _____. y SMITH, R. B. Evaluation of mixing systems for biogasification of municipal solid wastes. s.l., 1979. 80 p. (2511)
- SWEETEN, J. M. Energy information: methane production from livestock waste (New sources of energy). Leaflet L. Texas Agricultural Experiment Station no. 1679:1-4. 1978. (2512)
- _____. Methane production from livestock waste. Texas Agricultural Progress 24(3):19-22. 1978. (2513)
- SWITZGABLE, H. Methane gas by processing waste materials. s.l., 1977. 7 p. (USA. Patent 4,053-395) (2514)
- SYKES, R. M. Full scale field demonstration of unheated anaerobic contact stabilization. Quarterly project status report, April-June 1980. s.l., 1980. 11 p. (2515)
- * SYMONS, G. E. y BUSWELL, A. M. Methane fermentation of carbohydrates. Journal of the American Chemical Society 55(5):2028-2036. 1933. (2516)
- SYMPOSIUM ON ANAEROBIC BIOLOGICAL TREATMENT PROCESSES, HOUSTON, TEXAS, 1970. Papers. Washington, D.C., American Chemical Society, 1970. 196 p. (Advanced Chemical Series no. 105) (2517)
- SYMPOSIUM ON CLEAN FUELS FROM BIOMASS AND WASTES, 2°, ORLANDO, FLORIDA, 1977. Proceedings. Chicago, Illinois, Institute of Gas Technology, 1977. 521 p. (2518)
- SYMPOSIUM ON ENERGY FROM BIOMASS AND WASTES. WASHINGTON, D.C., 1978. Papers presented. Edited by J. W. White y W. McGrew. Chicago, Illinois, Institute of Gas Technology, 1978. 868 p. (2519)
- SYMPOSIUM ON PROCESSING AGRICULTURAL AND MUNICIPAL WASTES, NEW YORK, 1972. Proceedings. Edited by G. E. Inglett. Westport, Connecticut, AVI Publishing, 1973. 221 p. (2520)
- * SYSTEM DESCRIPTION. In Ad Hoc Panel on Methane Generation from Human, Animal and Agricultural Wastes, Washington, D.C., 1977. Methane generation from human, animal, and agricultural wastes: report. Washington, D.C., National Academy of Sciences, 1977. pp. 9-15. (US. National Technical Information Service. PB no. 276469) (2521)
- * SZEGO, G. C.; FRASER, M. D. y HENRY, J.-F. Design, operation, and economics of the energy plantation as an alternate source of fuels. Warrenton, Virginia, InterTechnology/Solar Corporation, 1978. 15 p. (2522)
- Presentado en International Solar Forum, 2°; Annual Meeting of COMPLES, 17°, Hamburgo, Alemania

- TADASHI KIYOOKA. Study of methane bacteria. *Domestic Science* 17:299-366. 1966. (2523)
- * TADESSE, K. y EASTWOOD, M. A. Metabolism of dietary fibre components in man assessed by breath hydrogen and methane. *British Journal of Nutrition* 40(2):393-396. 1978. (2524)
- TAI MEI TIEN. Usar y popularizar el metano en el campo de nuestro país; China reconstruye. s.l., 1977. p. irr. (2525)
- TAIGANIDES, E. P.; BAUMANN, R. y HAZEN, T. Sludge digestion of farm animal wastes. *Compost Science* 3:26-28. 1963. (2526)
- _____, ed. *Animal wastes*. London, Applied Science Publishers, 1977. 429 p. (2527)
- _____. Bioengineering properties of feedlot wastes. In _____, ed. *Animal wastes*. London, Applied Science, 1977. pp. 131-153. (2528)
- * _____ . Principles and techniques of animal waste management and utilization. In FAO/SIDA Workshop on the Use of Organic Materials as Fertilizers in Asia, Bangkok, Thailand, 1976. *Organic recycling in Asia*. Roma, FAO, 1978. pp. 341-362. 1978. (FAO Soils Bulletin no. 36) (2529)
- * _____ . Biogás recuperación de energía de los excrementos animales. I. *Zootecnia* no. 35:2-12. 1980. (Revista Mundial de Zootecnia) (2530)
- TAIT, S. J. Anaerobic rotating biological contactor for carbonaceous waste-waters. In *Annual Conference of the Water Pollution Control Federation*, 52., Houston, TX, 1979. *Journal of the Water Pollution Control Federation* 52(8):2257-2269. 1980. (2531)
- TAKEDA, K.; MOTOMATSU, S. y HACHIYA, Y. Characterization and culture conditions for a methane-oxidizing bacterium. *Journal of Fermentation Technology* 52(11):793-798. 1974. (2532)
- _____.; TEZUKA, C. y FUKUOKA, S. Role of copper ions in methane oxidation by *Methanomonas margaritae*. *Journal of Fermentation Technology* 54(8):557-562. 1976. (2533)
- TALUKDER, N. M. y KARIM, A. A study of the production of combustible gas from organic wastes. *Bangladesh Journal of Agricultural Sciences* 3(2):105-111. 1976. (2534)
- TANAKA, M.; YAMAGUCHI, N. y ONO, H. Methane fermentation of distillery waste of alcoholic fermentation XXVII organic acids in digestive fluid. *Hakko Kyokaishi* 21(9):366-371. 1963. (2535)
- TANAKA, H.; YONAGA, M. y NAKAJIMA, K. *[Volatiles in swine feces before and after methane fermentation]* Kobe, Japan. 1975. p irr. (En japonés) (2536)
- Presentado en Annual Meeting of the Japanese Society of Zootechnical Science, 64.
- TAPPING GARBAGE for pipeline gas. *Chemical Week* 117:(2):29. 1975. (2537)
- * TARVIN, D. y BUSWELL, A. M. The methane fermentation of organic acids and carbohydrates. *Journal of the American Chemical Society* 56(8):1751-1755. 1934. (2538)
- * TATA ENERGY RESEARCH INSTITUTE, BOMBAY, INDIA. DOCUMENTATION CENTRE. *Indian bio-gas resource index; documentary resources*. Bombay, India, 1980. 38 p. (2539)
- _____. *Biogas programmes directory, 1980*. Bombay, 1980. 223 p. (2540)

- TATOM, J. W. Utilization of agricultural, forestry and animal waste for the production of clean fuels. Atlanta, Georgia Institute of Technology, 1975. p. irr. (Georgia Institute of Technology, Engineering Experiment Station. Reports no. PB-259) (2541)
- * TAY OROXOM, M. Gas metano y frío... un desafío. Boletín Energético. Organización Latinoamericana de Energía (Ecuador) no. 14:26-28. 1980. (2542)
- * _____ . Sistemas de purificación de biogás y su uso en equipos rústicos y cocinas de alta eficiencia. In Curso Latinoamericano de Biogás, 1., Guatemala, 1981. Manual de biogás. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 247-272. (2543)
- TAYLOR, G. T.; KELLY, D. P. y PIRT, S. J. Intermediate metabolism in methanogenic bacteria (Methanobacterium). Microbial Production and Utilization of Gases. s.f. pp. 173-180. (2544)
- _____ . Formation of methane by bacteria. Process Biochem. 10(8):29-31, 33. 1975. (2545)
- _____ . La formazione di metano dalle deiezioni suine. In Convegno Internazionale Utilizzazione e Valorizzazione dei Liquami di Porcilaia. Reggio Emilia, Italy, 1976. Giornale degli Allevatori 26(6):52-54. 1976. (2546)
- _____ . /Methane formation in swine waste/ Allevatori 26(6):52-55. 1976. (En italiano) (2547)
- _____ . Methane formation from pig faeces. In International Meeting on Utilization and Exploitation of the Farrowing pen Liquid Manures, Reggio Emilia, 1976. Reggio Emilia, Italia, Camera di Commercio, Industria, Artigianato e Agricoltura, 1977. pp. 119-124. (2548)
- * A TECHNOLOGY flow from China to Nepal. Newsletter Bio Gas no. 11:1. 1980. (2549)
- * TECNOLOGIA Y utilización del biogás. In Food and Agriculture Organization of the United Nations. China: reciclaje de desechos orgánicos en la agricultura; informe sobre un viaje de estudios FAO/PNUD a la República Popular de China 28 de abril-24 de mayo de 1977. Roma, 1977. pp. 47-63. (Boletín de Suelos de la FAO no. 40) (2550)
- TEJNARAYAN, S. D. y MOORTHY, R. Case study of cowdung gas plant. Khadi Gramodyog 10:815-817. 1964. (2551)
- TEKNOLOGISK INSTITUTE, COPENHAGEN. Konstruktion af biogassanlæg. Copenhagen, Denmark, 1979. 256 p. (2552)
- TEKNOLOGISK INSTITUTE, KEMITEKNIK. Biogas i Danmark. Kemiteknik, Denmark, 1981. p. irr. (2553)
- TEKNOLOGISK UDVIKLING af biogas. Samarbejdsgruppen for Teknologisk Udvikling af Biogas 123(18):420-421. 1978. (2554)
- TELES, J. D. M. Instalações e operação de gerador de gás metano. O Estado de São Paulo (Brasil) 24(1236):4. 1979. (2555)
- E TEMPO de biogás. Interior (Brasil) 6(32):4-13. 1980. (2556)
- TERNEY, O.; PEDERSEN, E. M. y FREDERIKSEN, C. Vedvardne energikilder, fortegnelse: Vejviser over vedvardne energi og beskrivelse af anlæg, II. Copenhagen, Denmark, OVE, 1980. 148 p. (2557)
- THAUER, R. K.; JUNGERMANN, K. y DECKER, K. Energy conservation in chemotrophic anaerobic bacteria. Bacteriological Review 41:100-180. 1977. (2558)

- THAUER, R. K. y FUCHS, G. /Methanogenic bacteria. Unusual cell components and metabolisms in a bacteria group of phylogenetic speciality/ Naturwissenschaften 66(2):88-93. 1979. (En alemán) (2559)
- THERY, D. INDE: le recyclage des déchets du village, une solution a la penurie d'énergie et d'engrais. Actuel Développement no. 4:42-46. 1975. (2560)
- THIEL, P. G. Interrelations between biological and chemical characteristics in anaerobic digestion. Water Research 2:293-408. 1968. (2561)
- _____. Effect of methane analogs on methanogenesis in anaerobic digestion. Water Research 3(3):215-223. 1969. (2562)
- THIER, E. Erdoelersatz aus anaeroben Fermentationsprozessen? Zuckerindustrie 104(12):1134-1137. 1979. (2563)
- * THOMAS, A. M. A ray of hope. Bio-Gas Newsletter no. 3:1-2. 1980. (2564)
- THONGKAIMOOK, A. Economic study of various biogas methods in the tropics. Tesis Master. Bangkok, Thailand, Asian Institute of Technology, 1980. p. irr. (AIT Thesis no. EV-80-15) (2565)
- THOUROUDE, D. L'agriculture source d'energie de demain avec la valorisation de la biomasse. Bulletin d'Information du CNEEMA no. 265:33-36. 1980. (2566)
- _____. La fermentation en continu de la matiere organique: une realisation experimentale irlandaise (lisier de porc, production de gaz, biogaz). Bulletin d'Information du CNEEMA no. 264:12-25. 1980. (2567)
- THYSELIUS, L. Framstaellning och anvandning av metangas. In Winning and Saving Energy in Agriculture, Holte, 1977. SBI. Landbrugsbyggeri 54:56-59. 1978. (2568)
- THYSELIUS, L., ed. Methane gas from manure and other farm waste Products. Papers presented. In Seminar at Methane Gas from Manure and other Farm Waste Products, Metangas, Sweden, 1977. Uppsala, Jordbrukstekniska Inst. 1978. 90 p. (JTI-Rapport (Sweden) no. 24) (2569)
- TIETJEN, C. From biodung to biogas - historical review of European experience. In Jewell, W. J. Energy, agriculture and waste management. Ann Arbor, MI, Ann Arbor Science Publications, 1975. pp. 247-259. (2570)
- TIMBERS, G. E. y DOWNINGS, C. G. E. Agricultural biomass wastes utilization routes. Canadian Agricultural Engineering 19(2):84-87. 1977. (2571)
- TJERNSHAUGEN, O. Naturgjoedsel og vegetabilsk avfall for framstilling av biogass. Stensiltrykk - Norges Landbrujshoegskole. Institutt for Bygningsteknikk no. 151:1-29. 1978. (2572)
- TOERIEN, D. E.; SIEBERT, M. L. y HATTINGH, W. H. J. The bacterial nature of the acid-forming phase of anaerobic digestion. Water Research 1:497-507. 1967. (2573)
- _____. y HATTINGH, W. H. J. Anaerobic digestion. I. The microbiology of anaerobic digestion. Water Research 3(6):385-416. 1969. (2574)
- TOMBETTI, F. /Recovery of industrial refuses. Hypothesis of electrical and calorific energy production at low costs: the TOTEM in the tanning industry/ Cuoio, Pelli, Mater, Concianti 54(3):408-418. 1978. (En italiano) (2575)
- TOMPKINS, A. N. Energy from marine biomass. Final report. s.l., 1979. 245 p. (2576)

- TOWER DESIGN improves methane gas production. *Architectscope* 11(3):13. 1978. (2577)
- TRAN, V. V. Methane gas production from animal wastes (as a renewable source of energy) for rural applications. In *Workshop Alternative Renewable Sources of Energy for Rural Applications*, Serdang, Selangor, Malaysia, 1980. Serdang, Selangor, Universiti Pertanian Malaysia. Fakulti Kejuruteraan Pertanian, 1980. 23 p. (2578)
- * TRATAMENTO DA vinhaça com produção de energia - sistema de fluxo ascendente (up-flow). s.l., s.f. 9 p. (2579)
- TREINAMENTO DE tecnologia de biogás; coletanea de trabalhos. Salvador, Brasil, 1980. p. irr. (2580)
- * TREVELYAN, W. E. The methane fermentation (in connection with small-scale generators as producers of renewable fuel): a discussion paper. *Tropical Science* 17(4):193-209. 1975. (2581)
- TRIVEDI, R. C. y MOHANRAO, G. J. A pilot plant study on night soil digestion. Nagpur, India, 1966. v. 2, pp. 117-124. (2582)
- Presentado en Symposium on Community Water Supply and Waste Disposal, Nagpur, India, 1966.
- _____. Anaerobic digestion of night soil. Tesis Ph.D. Nagpur, India, Nagpur University, 1976. p. irr. (2583)
- TROIANO, R. A.; WISE, D. L. y AUGENSTEIN, D. C. Fuel gas production by anaerobic digestion of kelp. *Resource Recovery and Conservation* 2:171. 1976. (2584)
- TROUGHTON, H. H. y COUSINS, W. J. Prospects for energy farming. *New Zealand Energy Journal* 190(5):49. 1976. (2585)
- TSATSARONIS, G. Effect of pressure in methane-air flames. *Ger. Chem. Eng.* 2(2):86-94. 1979. (2586)
- TSCHIRSCHKE, H. Die Erzeugung von Biogas im landwirtschaftlichen Betrieb. *Archiv fur Landtechnik* 3(3). 1962. (2587)
- TURFA: POUÇO uso para um grande potencial energético. *Revista Fundação Jones dos Santos Neves (Brasil)* 3(1):28. 1980. (2588)
- TURK, M. Production of power fuel by anaerobic digestion of feedlot waste. Locks, CT, United Aircraft Corp., 1974. p. irr. (2589)
- * TURNACLIFF, W. y DON, S. B. Assess feasibility of converting waste to methane gas. In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory*. 2. ed. Washington, D.C., Bio-Energy Council, 1979. p. 284. (2590)
- Investigación en progreso
- _____.; CUSTER, M. y VEATCH, M. A. Design and evaluation of a methane gas system for a hog farm. In *Annual Biomass Energy Systems Conference*, 3a., Golden, CO, 1979. Golden, CO., 1979. pp. 401-410. (2591)
- * _____ y CUSTER, M. Methane gas system for a hog farm. In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory*. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 222. (2592)
- Investigación en progreso
- TURNIPSEED, G. B. Minimized sludge handling and energy requirements for AWT. *Journal of the Water Pollution Control Federation* 52(2):364-371. 1980. (2593)

- * TYNER, W. E. y BOTTUM, J. C. Agricultural energy production: economic and policy issues. West Lafayette, IN, 1979. 24 p. (Purdue University. Agricultural Experiment Station. Station Bulletin no. 240) (2594)
- _____. Comparison of the potential for producing energy from agriculture in Brazil, India and the United States. *Energy Management* 4(2):147-151. 1980. (2595)
- * TZENG, S. F.; BRYANT, M. P. y WOLFE, R. S. Factor 420-dependent pyridine nucleotide-linked formate metabolism of *Methanobacterium ruminantium*. *Journal of Bacteriology* 121(1): 192-196. 1975. (2596)
- * _____; WOLFE, R. S. y BRYANT, M. P. Factor 420-dependent pyridine nucleotide-linked hydrogenase system of *Methanobacterium ruminantium*. *Journal of Bacteriology* 121(1): 184-191. 1975. (2597)
- UCHIDA, K. y KAMATA, S. $\sqrt{\text{Studies on the coagulation and filter dehydration test of sludge with polyelectrolytes. I. Test of methane fermentation digested sludge}}$ *Bulletin of the Nippon Veterinary and Zootechnical College* no. 26:34-49. 1977. (En japonés) (2598)
- UEKI, A.; MIYAGAWA, E. y MINATO, H. Enumeration and isolation of anaerobic bacteria in sewage digester fluids. *Journal of General and Applied Microbiology* 24:317-332. 1978. (2599)
- UMARA, A. y MORALES, A. I. Desechos agro-industriales y beneficios ambientales del uso de biodigestores. In *Seminario sobre Aplicaciones de Biodigestores para Producir Gas Metano y Fertilizantes*, Cartago, Costa Rica, 1980. Cartago, Instituto Tecnológico de Costa Rica, 1980. p. irr. (2600)
- UNITED NATIONS, BANGKOK, THAILAND. Guide-book on biogas development. New York, 1980. p. irr. (Energy Resources Development Series no. 21) (2601)
- UNITED NATIONS, BANGKOK, THAILAND. ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC. Biogas technology and its economic impact. Bangkok, 1975. p. irr. (2602)
- Presentado en Workshop on Biogas Technology and Utilization, Manila, Philippines, 1975
- _____. Biomass culture with digester effluent. Bangkok, 1975. p. irr.. (2603)
- Presentado en Workshop on Biogas Technology and Utilization, Manila, Philippines, 1975.
- _____. Socio-economic aspects of various biogas systems. Bangkok, 1975. p. irr. (2604)
- Presentado en Workshop on Biogas Technology Utilization, Manila, Philippines, 1975.
- _____. Biogas as a fuel for power production on agricultural farms. Bangkok, 1978. p. irr. (2605)
- Presentado en Expert Group Meeting on Biogas Development, Bangkok, Thailand
- _____. Design and construction of biogas plant: site selection, digester and gas holder. Bangkok, 1978. p. irr. (2606)
- Presentado en Expert Group Meeting on Biogas Development, Bangkok, Thailand

UNITED NATIONS, BANGKOK, THAILAND.
ECONOMIC AND SOCIAL COMMISSION FOR
ASIA AND THE PACIFIC. Economic as-
pects, over-hall management and
recommended subjects for research.
Bangkok, 1978. p. irr. (2607)

Presentado en Expert Group Meeting
on Biogas Development, Bangkok,
Thailand, 1978.

_____. Introduction of solar energy
in biogas systems. Bangkok, 1978.
p. irr. (2608)

Presentado en Expert Group Meeting
on Biogas Development, Bangkok,
Thailand, 1978.

_____. Operation and maintenance of
biogas plant. Bangkok, 1978.
p. irr. (2609)

Presentado en Expert Group Meeting
on Biogas Development, Bangkok,
Thailand, 1978.

_____. Use of products of biogas
plant. Bangkok, 1978. p. irr.
(2610)

Presentado en Expert Group Meeting
on Biogas Development, Bangkok,
Thailand

UNITED NATIONS CENTRE FOR NATURAL RE-
SOURCES, ENERGY AND TRANSPORT, NEW
YORK. Non-conventional and non-
polluting sources of energy: biolog-
ical energy. In U.N. Advisory
Committee on the Application of
Science and Technology to Development,
21 Session, Geneva, Italy, 1975.
New York, 1975. 15 p. (2611)

* UNITED NATIONS INDUSTRIAL DEVELOPMENT
ORGANIZATION, NEW YORK. Information
sources on bioconversion of agricul-
tural wastes. New York, 1979. 84 p.
(UNIDO Guides to Information Sources
no. 33) (2612)

U.S. AGRICULTURAL RESEARCH SERVICE.
Producing methane gas from animal
wastes. Washington, D. C., 1974.
3 p. (CA-H - U.S. Agricultural Re-
search Service no. 10) (2613)

UNIVERSIDADE ESTADUAL PAULISTA, JABOTICA-
BAL, BRASIL. FACULDADE DE CIENCIAS
AGRARIAS E VETERINARIAS. Projeto
biogás. Jaboticabal, Brasil, s.f.
31 p. (2614)

* UNIVERSITY OF CALIFORNIA, DAVIS. DEPART-
MENT OF AGRICULTURAL ENGINEERING.
Mobile demonstration plant for
methane production 1980-81. Davis,
CA, s.f. 2 p. (2615)

UNIVERSITY OF CALIFORNIA, BERKELEY.
SANITARY ENGINEERING LABORATORY.
Bibliography on the disposal of
organic wastes by composting. Berke-
ley, CA, 1950. p. irr. (Technical
Bulletin no. 2) (2616)

UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.
Technology for the conversion of
solar energy to fuel gas; annual
report. Philadelphia, 1974. p. irr.
(2617)

UNIVERSITY OF SUSSEX, BRIGHTON. The
social and economic assessment of
biogas technology, a background pa-
per. Brighton, s.f. p. irr. (2618)

UNIVERSITY OF WISCONSIN, MADISON. COOP-
ERATIVE EXTENSION SERVICE. 50 cow
bio-gas production unit. Madison,
WI, 1974. 2. p. (2619)

URBAN TRASH methanation - pocer. In
Renzo, D. J. DE. Energy from bio-
conversion of waste materials. Lon-
don, Noyes Data Corporation, 1977.
pp. 105-137 (2620)

* URQUART, R. Donde hay estiércol, hay
gas. Tierra (México) 29(8):409-410.
1974. (2621)

UTILIZAÇÃO DE resíduos para produção de
energia. Electrurural (Brasil)
1979:8-9. 1979. (2622)

UZIEL, M. Solar energy fixation and
conversion with algal bacterial
systems. Tesis Ph.D. Berkeley, CA,
University of California, 1978.
234 p. (2623)

- VACHAV, S. Energy solution in China. *Environment* 19(7):27-31. 1977. (2624)
- VALE, B. y VALE, R. Autonomous house; design and planning for self-sufficiency. London, Thames and Hudson, 1975. 224 p. (2625)
- VALLES, S.; FLORS, A. y LEQUERICA, J. L. Producción de metano por fermentación anaerobia. I. Descripción del proceso (digestión metánica de residuos agrícolas, agroindustriales y urbanos). *Revista de Agroquímica y Tecnología de Alimentos (España)* 20(2): 189-208. 1980. (2626)
- VALORISER LA biomasse. In Bonte, L. M., ed. *Agriculture et energie*. Paris, CENECA, 1980. pp. 29-65. (2627)
- VAN, V. Adaptations of methanogenic sludge to high ammonia-nitrogen concentrations. *Water Research* 13:995-999. 1979. (2628)
- VANN, L. Cogeneration with poultry facility wastes. In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory*. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 220. (2629)
- Investigación en progreso
- VARANI, F. T. Algae culture for cattle feed and water purification. In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory*. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 275. (2630)
- Investigación en progreso
- _____ y BURFORD JUNIOR, J. L. Conversion of feedlot wastes into pipeline gas. s.l., 1979. 24 p. (2631)
- VAREL, V. H. Thermophilic methane production from cattle wastes. Urbana, IL, University of Illinois, 1974. 5 p. (2632)
- * VAREL, V. H.; ISAACSON, H. R. y FROBISH, R. A. Methane production from cattle wastes. *Illinois Research* 18(4):10-11. 1976. (2633)
- * _____; ISAACSON, H. R. y BRYANT, M. P. Thermophilic methane production from cattle waste. *Applied and Environmental Microbiology* 33(2): 298-307. 1977. (2634)
- VARGAS PEREIRA, M. E. Rendimiento de un digestor de biogás en la zona montañosa de Costa Rica. Tesis Ing. Química. San José, Universidad de Costa Rica. Facultad de Ingeniería, 1981. 74 p. (2635)
- VASEEN, D. A. New method of dual media fermentation can produce quality methane. *Water and Wastes Engineering* 14(5):42, 43, 46. 1977. (2636)
- * VASEEN, V. A. Horizontal rotating-drum digester. In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory*. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 276. (2637)
- Investigación en progreso
- VEAL, F. J. Methane from sorted domestic refuse: an economic assessment. Stevenage, Herts, Warren Spring Lab., 1977. p. irr. (Report LR 260) (2638)
- _____. Methane from sorted domestic refuse: a re-appraisal. Stevenage, Herts, Warren Spring Lab., 1979. p. irr. (2639)
- V.E.D.A., PARIS. Valorisation énergétique des sous-produits agricole. In *Journées d'Etude et de Réflexions*, Paris, 1979. Paris, France, 1979. p. irr. (2640)
- VELEZ, D. Energiaforras a nagy allattartó telepeken. *Mezőgazdasági Technika* 19(11):2-3. 1979. (2641)

- * VELSEN, A. F. M. VAN. Anaerobic digestion of piggery waste. I. The influence of detention time and manure concentration. *Netherlands Journal of Agricultural Science* 25(3):151-169. 1977. (2642)
- _____. Toepassing methaangisting in de landbouw. *De Ingenieur* 90(40): 760-762. 1978. (2643)
- _____. Adaptation of methanogenic sludge to high ammonia-nitrogen concentrations. *Water Research* 13:995-999. 1979. (2644)
- * _____ . Anaerobic digestion of piggery waste. II. Start-up procedure. *Netherlands Journal of Agricultural Science* 27(2):142-152. 1979. (2645)
- * _____ .; LETTINGA, G. y OTTELANDER, D. DEN. Anaerobic digestion of piggery waste. III. Influence of temperature. *Netherlands Journal of Agricultural Science* 27(4):255-267. 1979. (2646)
- _____. Anaerobic digestion of wet piggery manure. In Hawkins, J. C. *Engineering problems with effluents from livestock*. s.l., EUR, 1979. pp. 476-491. (2647)
- _____. y LETTINGA, G. Effect of the feed composition on digester performance. In Stafford, D. A.; Wheatley, B. I. y Hughes, D. E., eds. *Anaerobic digestion*. London, 1980. p. irr. (2648)
- _____. Anaerobic digestion of piggery waste. Tesis. Wageningen, Agricultural University, 1981. p. irr. (2649)
- _____. y LETTINGA, G. Digestion of animal manure. *Studies in Environmental Science* 9:55-64. 1981. (2650)
- VENKATARAMAN, G. S. y KAUSHIM, B. D. Stimulation of gas production from cowdung by algal supplementation. *Current Science* 44(22):807-808. 1975. (2651)
- VENKITACHALAM, T. H. Biogas production on farms. In *Workshop on Energy and Agriculture*, Bunbury, Western Australia, 1979. Energy and agriculture. The impact of changes in energy costs on the rural sector of the Australian economy, proceedings of a workshop, ed. by K. M. W. Howes and R. A. Rummery. Bunbury, 1980. pp. 143-160. (2652)
- * VERASTEGUI LAZO, J. y MATEO BRUNO, M. Producción de biogás a partir de desechos orgánicos. I. Planta piloto a escala familiar. San Borja, Perú, Instituto de Investigación Tecnológica Industrial y de Normas Técnicas, 1979. 222 p. (2653)
- _____. y MATEO BRUNO, M. El biogás como alternativa energética para zonas rurales. *Boletín Energético (Brasil)* no. 14:57-94. 1980. (2654)
- * _____ . Perú: el biogás como alternativa energética para zonas rurales. *Boletín Energético - Organización Latinoamericana de Energía (Ecuador)* no. 14:57-94. 1980. (2655)
- * _____ . Biodegradación metanogénica de sustratos orgánicos. In *Curso Latinoamericano de Biogás, 1.*, Guatemala, 1981. *Manual de biogás*. Guatemala, Organización Latinoamericana de Energía, 1981. pp. 119-145. (2656)
- * _____ . Criterios para la evaluación de recursos y determinación del potencial de producción de biogás. In *Curso Latinoamericano de Biogás, 1°*, 1981. *Manual de Biogás*. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 163-177. (2657)
- * _____ . Estudio, adaptación y prueba de equipos rústicos para el uso del biogás. In *Curso Latinoamericano de Biogás, Guatemala, 1981. Manual de biogás*. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1978. pp. 235-246. (2658)

- VERHOFF, F. H.; TENNEY, M. W. y ECHELBERGER, W. F. Mixing in anaerobic digestion. *Biotechnology and Bioengineering* 16:757-770. 1974. (2659)
- VERMA, O. S. Gobar gas-cum-compost making cost benefit analysis. *Economic Times* no. 5-8. 1976. p. irr. (2660)
- _____. Gobar gas plants: rate of return. *Economic Times* 7(12). 1976. (2661)
- VERSTRAETE, W. Le traitement des residus bio-industriels: bilan de dix ans d'experience. In *Journée d'Etude sur les Perspectives de Recyclage des Residus de l'Agriculture et des Industries Agricoles*, Louvain-la-Neuve, Belgium, 1978. Programme national R et D dans le domaine des dechets et des matieres premieres secondaires. Bruxelles, Belgium, Prog. Pol. Sc., s.f. pp. 33-57. (2662)
- _____. Het verwerken van bio-industriële afvalstoffen: balans na tien jaar onderzoek. *Landbouwtijdschrift* 32(1):93-103. 1979. (2663)
- Le traitement des dejections de l'elevage industriel. Bilan de dix années de recherches, in: *Revue de l'Agriculture* 32(1). (Edición francesa)
- VEZIROGLU, T. N. y WILLIAMS, A., eds. Methane digesters in remote rural areas. In *Alternative Energy Sources Symposium*, Miami Beach, FL, 1977. Washington, D. C., Hemisphere Publishing, 1978. v. 3, pp. 1273-1283. (2664)
- VIALARON, A. *Solar chemistry*. *Entropie* 85:21-24. 1979. (En francés) (2665)
- VIARD, D. y DESHAYES, M. Recuperation des dechets en Chine (installations de biogaz, amendement et engrais en agriculture). *Techniques et Sciences Municipales* no. 80:235-239. 1980. (2666)
- * VIDES OLIVA, M. H. y SANDOVAL BARTON, C. E. Bio-gas en El Salvador, especialistas, sus proyectos y grado de avance. San Salvador, Centro Nacional de Productividad. Servicio de Información y Transferencia de Tecnología, 1980. p. irr. (2667)
- VIITASALO, I. Metanforskning inom lantbruket i Finland. SBI. Landbrugsbyggeri 54:67-69. 1978. (2668)
- VIMUKTANANDA, S. Fuel gas from cowdung. In *Symposium on Radioisotopes, Fertilizers and Cowdung Gas Plants*, New Delhi, 1961. New Delhi, India, 1961. pp. 402-403. (2669)
- VINIEGRA GONZALEZ, G. Uso de la digestión anaerobia en la ganadería local. México, D. F., 1978. 13 p. (2670)
- * _____ . Potencial del uso del estiércol en la alimentación de bovinos. In *Curso Latinoamericano de Biogás*, T., Guatemala, 1981. Manual de biogás. Guatemala, Organización Latinoamericana de Energía, CEMAT, 1981. pp. 189-210. (2671)
- VISHNOI, S. L. y BOSE, S. P. Effect of educational exposures on the acceptance of cowdung gas plant by farmers. *Indian Journal of Agronomy* 5:284-291. 1961. (2672)
- VOLUNTEERS IN TECHNICAL ASSISTANCE. Three cubic-meter bio-gas plant: a construction manual. s. l., 1979. 27 p. (2673)

- WAART, J. DE; MOST, M. M. VAN DER y KNOL, W. Methaangasproduktie uit organisch afval. Voedingsmiddelen-technologie 9(35):20-22. 1976. (2674)
- WADLEIGH, C. H. Wastes in relation to agriculture and forestry. Washington, D. C., s.f. p. irr. (Miscellaneous Publication (USDA) no. 1065) (2675)
- WADZINSKI, A. M. Studies on methane oxidizing bacteria. Miami, 1973. 118 p. (2676)
- WAGAI, B. y HAGA, K. /Processing and utilization of methane gas generated from animal waste/ Agriculture and Horticulture. Nogyo Oyobi Engei 54(1): 225-231. 1979. (En japonés) (2677)
- WAGENER, K. e INDEN, P. Mariculture of land; production of biofuel from marine biomass. In Seminário sobre Energia de Biomassas no Nordeste, 1., Fortaleza, Brasil, 1978. Fortaleza, ELETROBRAS, 1978. pp. 80-86. (2678)
- WAGNER, E. G. y LANOIX, J. N. Excreta disposal for rural areas and small communities. Geneva, World Health Organization, 1968. 187 p. (WHO monograph Series no. 39) (2679)
- WALLACE-ATKINS Oil Corp. has developed a new processing sequence (which) turns garbage into oil, (gas, and charcoal). Chem. Week 114(3):29. 1974. (2680)
- WALLACE, C. J. y STOKES, B. O. Assessment of Nif-derepressed microorganisms for commercial nitrogen fixation. Biotechnology and Bioengineering Symposium 8:153-174. 1978. (2681)
- WALTER, D. K. y BROOKS, C. Refuse conversion to methane (RefCOM): a proof-of-concept anaerobic digestion facility. In Joint Power Generation Conference, Charlotte, NC, 1979. Charlotte, NC, 1979. 8 p. (2682)
- WALTER, D. K. Methane production from municipal wastes in a 100-ton-per-day plant. In Symposium on Energy from Biomass and Wastes, 4., Lake Buena Vista, FL, 1980. Symposium papers. Chicago, IL, Institute of Gas Technology, 1980. pp. 497-507. (2683)
- _____. y RINES, C. Refuse conversion to methane (refCOM): a proof-of-concept anaerobic digestion facility. In National Waste Processing Conference, 9. Biennial Resource Recovery Today and Tomorrow, 1980. Washington, D. C. 1980. Proceedings. New York, American Society of Mechanical Engineers, 1980. pp. 85-92. (2684)
- WALTERS, C. S. The gas farm. Mechanical Engineering 97(9):44-45. 1975. (2685)
- * _____; PFEFFER, J. T. y CHOW, P. From residue left from the fermentation of organic waste for methane. Forest Products Journal 27(9):12-20. 1977. (2686)
- * _____; PFEFFER, J. T. y CHOW, P. Production of panelboard from residue left from the fermentation of organic waste. Forest Products Journal 27(9):12-20. 1977. (2687)
- * WARD, D. M. Methanogenesis associated with algal-bacterial mats in the natural thermal gradient (71-30 C) of a hot spring effluent. Applied and Environmental Microbiology 35(6):1019-1026. 1978. (2688)
- * _____; MAH, R. A. y KAPLAN, I. R. Methanogenesis from acetate: a non-methanogenic bacterium from an anaerobic acetate enrichment. Applied and Environmental Microbiology 35(6):1185-1192. 1978. (2689)
- * _____. Ecology of methane-producing bacteria. In Smithsonian Science information Exchange. Energy recovery for biomass. Washington, D. C., 1979. 1 p. (SSIE no. DQ-577) (2690)

- WARD, D. M. y OLSON, G. J. Terminal processes in the anaerobic degradation of an algal-bacterial mat in a high sulfate hot spring. *Applied and Environmental Microbiology* 40: 67-74. 1980. (2691)
- * WARE, P.; WILLIAMS, J. y VARDY, P. RefCOM (Refuse conversion to methane). In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory*. 2. ed. Washington, D. C., Bio-Energy Council, 1979. p. 259. (2692)
- Investigación en progreso
- WARE, S. Fuel and energy production by bio-conversion of waste materials. State of the art. Silver Spring, MD, Ebon Research Systems, 1976. p. irr. (2693)
- WARPEHA, P. R. A study of the feasibility of a biogas system at Oliguti Training Centre. Lae, Papua Nueva Guinea, Appropriate Technology Development Institute, s.f. p. irr. (2694)
- WARRINER, C. B. y KENNEDY, C. Cooperativa de Gas Metano Las Chinamas, San Salvador, Cuerpo de Paz, 1979. 3 p. (2695)
- * WASAY, A.; JAMIL MEHAR, M. y BUTT, I. A. Bio-gas technology - potential and socio-cultural aspects. In *National Seminar on Bio-Gas Technology*, Lahore, Pakistán, 1980. Proceedings. Islamabad, Appropriate Technology Development Organization, 1980. pp. 64-68. (2696)
- WASTE NOT, want not. *Environments* 2(1):14-15. 1978. (2697)
- * WATER HYACINTH as an input for biogas plant. *Bio-gas Newsletter* no. 3: 12. 1980. (2698)
- WATER POLLUTION RESEARCH LABORATORY, HERTFORDSHIRE. Anaerobic treatment processes and methane production. Hertfordshire, England, 1974. p. irr. (Notes: Water Pollution no. 64) (2699)
- WATERMAN, W. W. Clean fuels from biomass and waste symposium. Chicago, IL, Institute of Gas Technology, 1977. 528 p. (2700)
- WATSON, J. Recycling animal wastes - the Bailieboro experience. *Technol. Ireland* 10(3):34-37. 1978. (2701)
- WEBER, S. L.; SEALOCK JUNIOR, L. J. y MUDGE, L. K. Gasification of biomass in the presence of multiple catalytics for the direct production of specific products. In *Energy from Biomass and Wastes Symposium*, 4., Lake Buena Vista, FL, 1980. Symposium papers. Chicago, IL, Institute of Gas Technology, 1980. pp. 351-368. (2702)
- WEHOFF, F. H. Mixing in anaerobic digestion. *Biotechnology and Bioengineering* 16:757. 1974. (2703)
- WEHTJE, F. Methane-containing gas production from organic material by anaerobic fermentation. s.l. 1977. 12 p. (Sweden Patent--395-441) (2704)
- * WEIMER, P. J. y ZEIKUS, J. G. Fermentation of cellulose and cellobiose by *Clostridium thermocellum* in the absence and presence of *Methanobacterium thermoautotrophicum*. *Applied and Environmental Microbiology* 33(2):289-298. 1977. (2705)
- _____. y ZEIKUS, J. G. Acetate metabolism in *Methanosarcina barkeri*. *Archives of Microbiology* 119:175-182. 1978. (2706)
- _____. y ZEIKUS, J. G. One carbon metabolism in methanogenic bacteria: cellular characterization and growth of *Methanosarcina barkeri*. *Archives of Microbiology* 119:49-57. 1978. (2707)
- _____. y ZEIKUS, J. G. Acetate assimilation pathway of *Methanosarcina barkeri*. *Journal of Bacteriology* 137:332-339. 1979. (2708)

- WEINER, B. A. y RHODES, R. A. Fermentation of feedlot waste filtrate by fungi and streptomycetes. *Applied Microbiology* 28(5):845-850. 1974. (2709)
- WELLER, J. B. y WILLETTS, S. L. Farm wastes management. London, Crosby Lockwood Staples, 1977. 250 p. (2710)
- WELLINGER, A. y WUHRMANN, K. Influence of sulfide compounds on the metabolism of *Methanobacterium* strain AZ. *Archives of Microbiology* 115:13-17. 1977. (2711)
- _____. Installations de gaz de fumier en Suisse. *Documentation Technique Agricole* no. 158. 1979. p. irr. (2712)
- WELSH, F. W.; SCHULTE, D. D. y KROEKER, E. J. The effect of anaerobic digestion upon swine manure odours. s.l., 1976. 176 p. (2713)
- Presentado en 1976 en Canadian Society of Agricultural Engineering
- WENG, C. N. y JERIS, J. S. Biochemical mechanisms in the methane: fermentation of glutamic acid and oleic acids. *Water Research* 10:9-18. 1976. (2714)
- WENTWORTH, R. L. Methane production by digestion of waste. In *National Meeting, American Institute of Chemical Engineers*, 80., Boston. MA. 1975. Boston, MA, Amer. Inst. of Chem. Engineers, 1975. p. irr. (2715)
- * _____ . Fuel gas production from animal residue. I. Technical érs-perspective. *Resource Recovery and Conservation* 3:343-358. 1979. (2716)
- * WERNER, E. Biogas: a decentralized and economically feasible alternate energy source. San Juan, Puerto Rico, Center for Energy and Environment Research, 1978. 8 p. (2717)
- Presentado en Consulta del Caribe sobre Energía y Agricultura, Puerto Plata (Rep. Dominicana) 1978.
- * WERNER, E. Biogas: a decentralized and economically feasible alternate energy source. In *Consulta del Caribe sobre Energía y Agricultura*, Santiago, República Dominicana, 1980. Ed. por N. A. Quezada y C. Reyna T. Santiago, República Dominicana, Instituto Superior de Agricultura. Universidad Católica Madre y Maestra, 1980. pp. 270-281. (2718)
- WEYRAUCH, W. y SUWARNARAT, K. Entwicklungsmöglichkeiten anaerober Festbettreaktoren für Hochkonzentrierte Abwasser. *WLB Wasser, Luft and Betrieb* 22(1/2):18-19. 1978. (2719)
- WHETSTONE, G. A. Study of current and proposed practices in animal waste managment. Washington, D. C., Government Printing Office, 1974. 573 p. (Environmental Protection Technology Series no. EPA-430/9-74-003) (2720)
- WHITMAN, W. B. y WOLFE, R. S. Presence of nickel in factor F₄₃₀ from *Methanobacterium bryantii*. *Biochemical Biophysical Research Communications* 92:1196-1201. 1980. (2721)
- WIBOWO, K. Biogas from city waste. Bandung, Indonesia, Institute of Technology. Development Technology Center, 1980. p. irr. (2722)
- _____. Biogas from cassava waste. Bandung, Indonesia, Institute of Technology. Development Technology Center, 1981. p. irr. (2723)
- WIE AKTUELL ist Biogas? *Agrartechnik International* 53(10):1-37. 1974. (2724)
- WILDERER, P.; HARTMANN, L. y HAEFFELING, H. Kinetics of methane production during anaerobic alkaline sludge digestion. *Gas-Wasserfach, Wasser-Abwasser* 113(5):226-229. 1972. (2725)

- WILEY, J. S. Composting of organic wastes: an annotated bibliography. Springfield, VA, National Technical Information Service, 1958-1960. 3 v. (2726)
- WILKEY, M. L. y ZIMMERMAN, R. E. Methane recovery from urban refuse. In World Energy Engineering Conference, 2., Atlanta, GA, 1979. Atlanta, GA, 1979. 8 p. (2727)
- _____. US Department of Energy's methane from landfills program. In Biogas and Alcohol Production Conference, Chicago, IL, 1979. Chicago, IL, 1979. 10 p. (2728)
- WILLIAMS, D. C. Utilization of biogas for farm energy production. ASAE Paper no. 76-1071. 1975. 22 p. (2729)
- WILLIAMS, D. K. Methane gas plant on kitale farm. East African Farmer and Planter. 1959:13, 15, 30, 31, 33. 1979. (2730)
- WILLIAMS, D. W. Utilization of biogas for farm production energy (beef and dairy farms). Transactions of the ASAE 19(6):1034-1040. 1976. (2731)
- WILLIAMS, P. y SHUMAN, D. Pilot-scale cattle waste digester. In Bente Junior, P. F. y Camelio, C. A., eds. The bio-energy directory. 2. ed. Washington, D. C., Bio-energy Council, 1979. p. 512. (2732)
- Investigación en progreso
- WILLIAMS, R. L., ed. The energy conservation papers. Cambridge, MA, Ballinger Publishing, 1975. p. irr. (2733)
- WILLIAMS, R. O.; GOSS, J. R. y HORSFIELD, B. C. Steam raising with low-BTU gas generators and potential for other applications. In Annual UMR-DNR Conference on Energy. University of Mo-Rolla, 1977. Proceedings. s.l., University of Mo-Rolla, 1977. pp. 221-229. (2734)
- WILLIS, C. E. y CHRISTENSEN, R. L. Measurement of external learning benefits from methane generation on commercial poultry farms. In Conference on Agriculture and Energy, St. Louis, MO, 1976. Proceedings, ed. by W. Lockeretz. New York, Academic Press, 1977. pp. 455-468. (2735)
- WILSON, F. B. A system of composting farm and village waste. East African Agricultural Journal 14:2. 1948. (2736)
- * WINFREY, M. R.; NELSON, D. R. y KLEVICIKIS, S. C. Association of hydrogen metabolism with methanogenesis in Lake Mendota sediments. Applied and Environmental Microbiology 33(2): 312-318. 1977. (2737)
- * _____ y ZEIKUS, J. G. Effect of sulfate on carbon and electron flow during microbial methanogenesis in freshwater sediments. Applied and Environmental Microbiology 33(2): 275-281. 1977. (2738)
- _____ y ZEIKUS, J. G. Methanogenesis and anaerobic metabolism of acetate in meromictic Wisconsin Lake. Abstracts of the Annual Meeting of the American Society of Microbiology no. 148. 1978. p. irr. (2739)
- _____ y ZEIKUS, J. G. Anaerobic metabolism of immediate methane precursors in Lake Mendota. Applied and Environmental Microbiology, 1979:244-253 1979. (2740)
- _____ y WARD, D. M. Effect of the Amoco Cadiz oil spill on predominant anaerobic microbial processes in intertidal sediments. In International Symposium on Amoco Cadiz: Fates and Effects of the Oil Spill, Paris, 1981. Proceedings. Paris, Centre National pour l'Exploration des Oceans, 1981. pp. 257-262. (2741)

WINTER, J. U. y WOLFE, R. S. Complete degradation of carbohydrate to carbon dioxide and methane by syntrophic culture of *Acetabacterium woodii* and *Methanosarcina barkerii*. *Archives of Microbiology* 121:97-102. 1979. (2742)

_____. y WOLFE, R. S. Methane formation from fructose by syntrophic associations of *Acetobacterium woodii* and different strains of methanogens. *Archives of Microbiology* 124:73-79. 1980. (2743)

WISE, D. L.; SADEK, S. E. y KISPERS, R. G. Fuel gas production from solid waste. Seminar paper. s.l., 1974. 25 p. (2744)

_____. Fuel gas production from solid waste. *Biotechnology and Bioengineering Symposium no. 5*:285-301. 1975. (2745)

_____.; WENTWORTH, R. L. y KISPERS, R. G. Fuel gas production from selected biomass via anaerobic fermentation. In Mitsui, A., ed. *Biological solar energy conversion*. New York, Academic Press, 1977. pp. 411-426. (2746)

_____.; COONEY, C. L. y AUGENSTEIN, D. C. Biomethanation: anaerobic fermentation of CO₂, H₂; and CO to methane. *Biotechnology and Bioengineering* 20:1153. 1978. (2747)

* _____ y WENTWORTH, R. L. Engineering evaluation of programs to recover fuel from gas waste. In U.S. Department of Energy. Division of Solar Technology. Fuels from biomass program, program summary January 1978. Washington, D. C., 1978. p. 55. (2748)

Informe de progreso

_____. y WENTWORTH, R. L. Fuel gas production from animal and agricultural residues and biomass. s.l., 1978. 214 p. (2749)

WISE, D. L.; WENTWORTH, R. L. y AUGENSTEIN, D. C. Multi-stage digestion of municipal solid waste to fuel gas. *Resource Recovery and Conservation* 3(1):41-59. 1978. (2750)

_____.; WENTWORTH, R. L. y ASHARE, E. Status of methane production from biomass and agricultural residues. In American Chemical Society. *American Chemical Society Meeting. s.l., 1978.* (2751)

* _____ y WENTWORTH, R. S. Engineering evaluation of programs to recover fuel gas from waste. In Bente Junior, P. F. y Camelio, C. A., eds. *The bio-energy directory. 2. ed.* Washington, D. C., Bio-Energy Council, 1979. p. 234. (2752)

Investigación en progreso

_____.; ASHARE, E. y WENTWORTH, R. L. Fuel gas production from animal and agricultural residues and biomass. Quarterly coordination meeting, December 11-12, 1978, Denver, Colorado. Second quarterly progress report. s.l., 1979. 97 p. (2753)

_____.; ASHARE, E. y WENTWORTH, R. L. Fuel gas production from animal and agricultural residues and biomass. Third quarterly progress report. In Quarterly Coordination Meeting, Tampa, FL, 1979. s.l., 1979. 176 p. (2754)

_____.; AUGENSTEIN, D. C. y RYHER, J. H. Methane fermentation of aquatic biomass. *Resource Recovery and Conservation* 4(3):217-237. 1979. (2755)

_____.; WENTWORTH, R. L. y ASHARE, E. Methane production from biomass and agricultural residues (anaerobic, cattle manure, straw, and selected crops). In *Symposium on Economics of Fermentation Process*, Miami, FL, 1978. Product R and D 18(2):150-156. 1979. (2756)

_____. Fuel gas production from biomass. Roca Raton, FL, CRC Press, 1981. 2 v. (2757)

- WOLF, R. Methane's big test. *Organic Gardening Farming* 22(12):136, 138-139. 1975. (2758)
- _____. Methane generation on a farm. *Compost Science* 16(5):28-29. 1975. (2759)
- WOLFE, R. S. Microbial formation of methane. In Rose, A. H. y Wilkinson, J. E., eds. *Advances in microbial physiology*. New York, Academic Press, 1971. v. 6, p. 107. (2760)
- _____. Methanogens: a surprising microbial group. The sixth A. J. Kluyver memorial lecture. *Antonie van Leeuwenhoek* 45:353-364. 1979. (2761)
- * _____ . Methyl transfer reactions and the biochemistry of methanogenesis. In *Smithsonian Science Information Exchange*. Energy recovery for biomass. Washington, D. C., 1979. 1 p. (SSIE no. BS--611-2) (2762)
- Investigación en progreso
- _____. Microbial biochemistry of methane, a study in contrasts. I. Methanogenesis. *International Review of Biochemistry* 21:267-300. 1979. (2763)
- * WOLIN, E. A.; WOLIN, M. J. y WOLFE, R. S. Formation of methane by bacterial extracts. *Journal of Biological Chemistry* 238(8):2882-2886. 1963. (2764)
- * _____ .; WOLFE, R. S. y WOLIN, M. J. Viologen dye inhibition of methane formation by *Methanobacillus omelianskii*. *Journal of Bacteriology* 87(5):993-998. 1964. (2765)
- WOLVERTON, B. C.; McDONALD, R. C. y GORDON, J. Bio-conversion of water hyacinths into methane gas. St. Louis, MO, National Space Technology Laboratories, 1975. p. irr. (2766)
- * WOLVERTON, B. C. y McDONALD, R. C. Don't waste waterweeds. *New Scientist* 71(1013):318-320. 1976. (2767)
- _____. y McDONALD, R. The water hyacinth (*Eichhornia crassipes*): from prolific pest to potential provider. *Ambio* 8(1):2-9. 1979. (2768)
- WONG, J. S. Study of mixtures of methane and CO₂ as fuels in a single cylinder engine. s.l., National Research Council, 1976. 27 p. (2769)
- WORKSHOP ON AQUATIC WEED MANAGEMENT AND UTILIZATION, WASHINGTON, D. C., 1973. Some prospects for aquatic weed management in Guyana. Washington, D. C., National Academy of Sciences, 1973. p. irr. (2770)
- WORKSHOP ON BIOGAS AND OTHER RURAL ENERGY RESOURCES, SUVA, FIJI, 1977. Report. New York, United Nations, 1977. p. irr. (2771)
- WORKSHOP ON BIOGAS TECHNOLOGY AND UTILIZATION, BANGKOK, THAILAND, 1975. Report. Bangkok, Committee on Industry, Housing and Technology, 1975. 75 p. (2772)
- WORLD HEALTH ORGANIZATION, GENEVA. WHO methane plant. Genève, Switzerland, s.f. p. irr. (2773)
- WORLD HEALTH ORGANIZATION, GENEVA. INTERNATIONAL REFERENCE CENTRE FOR WASTE DISPOSAL. Solid wastes thesaurus. Geneva, 1973. 63 p. (2774)
- * WRIGHT, I. J.; CLARK, F. L. y LARSON, L. An integrated utility approach to anaerobic digestion of refuse for electrical power production. In *Symposium on Energy from Biomass and Wastes*, Washington, D. C., 1978. Symposium papers energy from biomass and wastes, by D. L. Klass and W. W. Waterman. Washington, D. C., Institute of Gas Technology, 1978. pp. 605-643. (2775)

- WU, W. Biogas utilization in China. In Bio-Energy World Congress and Exposition, Atlanta, GA, 1980. Proceedings. Atlanta, GA, 1980. pp. 434-435. (2776)
- _____. y KAWA, W. Hydrogenation of organic solid wastes. s.l., 1980. 46 p. (2777)
- WUJCIK, W. J. y JEWELL, W. J. Dry anaerobic fermentation. In Symposium on Biotechnology in Energy Production and Conservation, 2., Gatlinburg, TN, 1979. New York, Cornell University, 1979. 42 p. (2778)
- WURCH, H. H. Die Erzeugung und Verwertung von Biogas. DLZ - Die Landtechnische Zeitschrift 31(4):550-552, 554-555. 1980. (2779)
- _____. Zur Betriebstechnischen Einordnung von Biogasanlagen. Grundlagen Landtechnik Bd. 31(2): 55-60. 1981. (2780)
- YADURAJU, N. T. y MANI, V. S. Water hyacinth has its uses. Science Today 13:51-54. 1979. (2781)
- YAMANOUCHI, I. y KUNO, H. Citrus peel waste treatment. s.l., 1977. 6 p. (Japón Patent 77-90, 651) (2782)
- YAMAUCHI, T. y SATO, S. Methane fermentation apparatus for organic wastes. s.l., 1977. 6 p. (Japón Patent 1977-98, 704) (2783)
- _____. y KUNO, H. Orange peel methane fermentation. s.l., 1977. 5 p. (Japón Patent-134, 606) (2784)
- _____.; SATO, A. y MATSUMOTO, K. Production of methane from organic wastes. s.l., 1978. 6 p. (Japón Patent 78-124,510) (2785)
- YAMEOGO, T. R. y GONA, G. Etude de l' evolution des parametres cinétiques et biologiques au cours des réactions de bioconversion des déchets cellulosiques et Biogaz. Toulouse, France. I.N.S.A., 1979. 30 p. (2786)
- YANG, J. PARKIN, G. F. y SPEECE, R. E. Recovery of anaerobic digestion after exposure to toxicants. Final report. s.l., 1979. 170 p. (2787)
- * YANG, P. Y. Design parameters and equations for anaerobic bioconversion of organic wastes. In Smithsonian Science Information Exchange: Energy recovery for biomass. Washington, D. C., 1979. 1 p. (SSIE no. GY--72561) (2788)
- YANEZ, F. Digestión anaeróbica de lodos. Lima, Perú, Centro Panamericano de Ingeniería Sanitaria y Ciencias del Ambiente, 1977. 64 p. (2789)
- YET ANOTHER manure-to-methane project is under way. Chemical and Engineering News 58(28):16. 1974. (2790)
- YNDGAARD, E.; ERSBOELL, N. E. N. y ANDERSEN, B. N., eds. Symposium om Danmarks energiproblemer, Holte. Denmark, 1979. Copenhagen, Denmark, Samfundsvideenskabeligt Forlag, 1980. 336 p. (2791)
- YOKOYAMA, M. Production of methane gas from chicken excrement. s.l., 1974. 3 p. (Japón Patent 74-62,502) (2792)
- YOSHIDA, M. y HOSHII, H. Nutritive value of residue of methane fermentation from excreta of domestic animals and poultry. Japanese Poultry Science 51(1):31-33. 1978. (2793)
- YOUNG, J. C. y McCARTY, P. L. The anaerobic filter for waste treatment. Stanford University. Department of Civil Engineering, 1968. p. irr. (Technical Report no. 87) (2794)
- Publicado también en Proceedings of the 22 Industrial Waste Conference, 1967. pp. 559-574 y en Journal of the Water Pollution Control Federation, 1969. v. 41, pp. R160-R173

ZAGRORUCHENKO, V. A. Thermophysical properties of gaseous and liquid methane. Chichester, Sussex, Wiley, 1970. 252 p. (2795)

ZEEUW, W. DE y LETTINGA, G. Acclimation of digested sewage sludge during start-up of an upflow anaerobic sludge blanket (UASB) reactor. Lafayette, IN, 1980. p. irr. (2796)

Presentado en Purdue Industrial Waste Conference, 35., Lafayette, IN, 1980

ZEHNDER, A. J. y BROCK, T. D. Methane formation and methane oxidation by methanogenic bacteria. *Journal of Bacteriology* 137:420-432. 1979. (2797)

_____ y BROCK, T. D. Anaerobic methane oxidation: occurrence and ecology. *Applied and Environmental Microbiology* 39:194-204. 1980. (2798)

_____.; HUSER, B. A. y BROCK, T. D. Characterization of an acetate-decarboxylating, non-hydrogen-oxidizing methane bacterium. *Archives of Microbiology* 124(1):1-11. 1980. (2799)

ZEIKUS, J. G. The biology of methanogenic bacteria. *Bacteriological Reviews* 41:514-541. 1977. (2800)

* _____. Anaerobic conversion of organic wastes into methane by thermophilic bacterial associations. *In Smithsonian Science Information Exchange. Energy recovery for biomass.* Washington, D. C., 1979. 1 p. (SSIE no. GY--63206-2) (2801)

Investigación en progreso

* ZEIKUS, J. G. Microbial ecology of methane formation. *In Smithsonian Science Information Exchange. Energy recovery for biomass.* Washington, D. C. 1979. 1 p. (SSIE no. BS--647-1) (2802)

Investigación en progreso

* _____. Microbial ecology of methanogenesis. *In Smithsonian Science Information Exchange. Energy recovery for biomass.* Washington, D. C. 1979. 1 p. (SSIE no. DQ-578) (2803)

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ZELTER, S. Z. Bioconversion energetique des dechets agricoles en methane (Biogas) par fermentation anaerobie. *In Seminaire ADEPRINA L'Energie Solaire en Agriculture, Paris, France, 1979.* Paris, Institut National Agronomique, 1979. pp. 214-265. (2804)

* ZIEROTH, E. Statusbericht Biomasse I - Biogas - PN 78.2247.1 - 01.100. Eschborn, German Appropriate Technology Exchange, 1980. 101 p. (2805)

ZIJKUS, J. G. The biology of methanogenic bacteria. Madison, WI, University of Wisconsin, s.f. p. irr. (2806)

ZIMMERMAN, R. E. y WILKEY, M. L. Methane from landfills. *In Annual Conference of Applied Research and Practice on Municipal and Industrial Waste.* Madison, WI, 1979. Madison, WI, 1979. 13 p. (2807)

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 National Council of Applied Economics Research, New Delhi, India 1798
 National Research Council, Washington, D.C. 1799
 National Center for Appropriate Technology Butte, MT 1800
 National Committee on Science and Technology, New Delhi, India 1801
 National Environmental Engineering Research Institute, Nagpur, India 1802

- National Seminar on Bio-Gas Technology,
Lahore, Pakistán 1803
- National Sugar Institute, Kanpur, India
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- National Symposium on Animal Waste Manage-
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- OLADE - Organización Latinoamericana de
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- Olembo, R. 2342
- Oleso, A. P. 1848
- Oliveira, E. S. de 1849
- Oliveira, H. P. de 1850
- Oliveira, M. A. B. 1851
- Olmo, M. 1724
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- Olson, G. J. 2691
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- One-Day Seminar Methane, Londres 1858
- O'Neil, D. J. 1859, 1860
- Ono, H. 1861, 2535
- Ontiveros, F. 1862
- Oppenlander, J. C. 1864, 1865
- Oremland, R. S. 1866, 1867
- Organisation for Economic Cooperation and
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- Organización de Desarrollo Industrial de
las Naciones Unidas, Nueva York, EE.UU
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- Organización Latinoamericana de Energía,
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- Orlandi, F. 1875
- Orth, H. W. 1876, 1877
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- Pang, A. 1892
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- Paques, Essex, England 1899-1901
- Parada, A. 1902, 1903
- Paramasivam, R. 1904
- Parchen, C. A. P. 1905-1908
- Parick, M. 1909
- Parikh, J. K. 1910-1912
- Parikh, K. S. 1912, 1913

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 1978-1982
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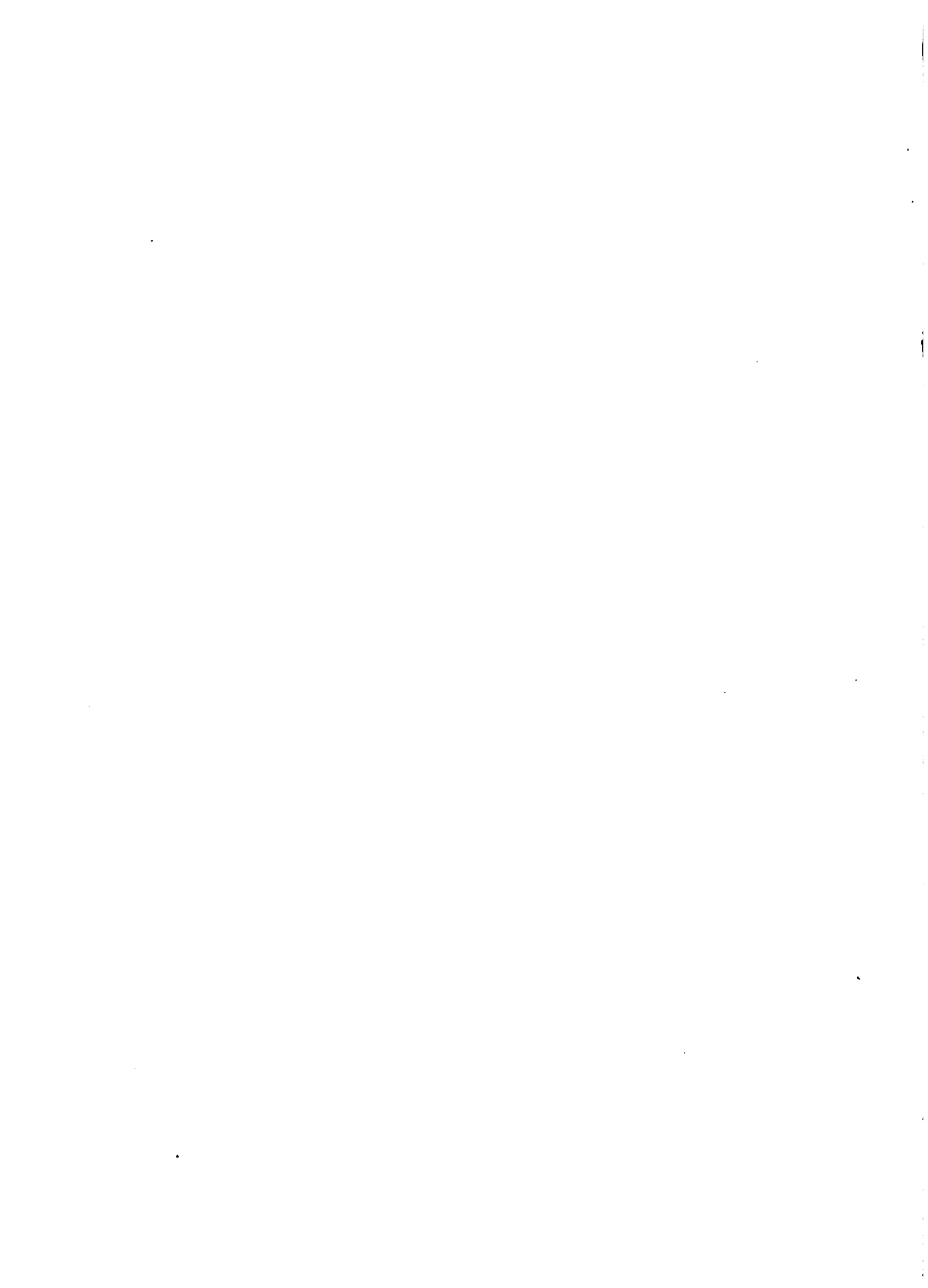
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SERIE: DOCUMENTACION E INFORMACION AGRICOLA

1. Colección de referencia de la Biblioteca Conmemorativa Orton. 2 ed. 1967.
2. Publicaciones periódicas de la Biblioteca Conmemorativa Orton. 1964.
3. Tesis de la Escuela para Graduados 1947-1968; resúmenes. 2 ed. rev. y ampl. 1969.
4. Redacción de referencias bibliográficas; normas oficiales del IICA. 2 ed. 1972.
5. Directorio de bibliotecas agrícolas en América Latina. 1964.
6. Catálogo de publicaciones periódicas de la Biblioteca Conmemorativa Orton. 2 ed. rev. y ampl. 1970.
7. Estado actual de bibliotecas agrícolas en América del Sur; resultados de una encuesta personal. 1966.
8. Administración de bibliotecas agrícolas. 1966.
9. Guía de publicaciones periódicas agrícolas de América Latina. 1966.
10. Bibliografía de bibliografías agrícolas de América Latina. 2 ed. rev. y ampl. 1969.
11. I Mesa Redonda sobre el Programa Interamericano de Desarrollo de Bibliotecas Agrícolas, Lima. 1968.
12. Contribuciones del IICA a la literatura de las ciencias agrícolas. 2 ed. rev. 1977.
13. Directorio de siglas en ciencias agrícolas. 2 ed. 1971.
14. Guía básica para bibliotecas agrícolas (ed. en portugués y español). 1969.
15. II Mesa Redonda sobre el Programa Interamericano de Desarrollo de Bibliotecas Agrícolas, Bogotá. 1969.
16. Recursos de bibliotecas agrícolas en América Latina. 1969.
17. 2000 libros en ciencias agrícolas en castellano. 1969.
18. III Mesa Redonda sobre el Programa Interamericano de Desarrollo de Bibliotecas Agrícolas, Río de Janeiro. 1969.
19. Publicaciones periódicas y seriadas de América Latina. 1971.
20. Índice Latinoamericano de tesis agrícolas. 1972.
21. Trópico Americano: situación de los servicios bibliotecarios y documentación agrícola. 1972.
22. 3000 libros agrícolas en español. 1973.
23. Bibliografía sobre frijol de costa (*Vigna sinensis*). 1973.
24. Sistema Interamericano de Información para las Ciencias Agrícolas-AGRINTER: bases para su establecimiento. 1973.
25. Bibliografía sobre especies de la fauna silvestre y pesca fluvial y lacustre de América tropical. 1973.
26. Bibliografía sobre plantas de interés económico de la región amazónica. 2 ed. rev. y ampl. 1978.
27. Bibliografía sobre sistemas de agricultura tropical. 1974.
28. Bibliografías agrícolas de América Central: PANAMA. Suplemento. 1974.
29. Bibliografía sobre catastro rural en América Latina. 1974.
30. Índice Latinoamericano de Tesis Agrícolas. Suplemento no. 1, 1968-1972. 1974.
31. Bibliografía peruana de pastos y forrajes. 1974.
32. Bibliografías agrícolas de América Central: EL SALVADOR. 1974.
33. Ecología del trópico americano. 1974.
34. Bibliografías agrícolas de América Central: HONDURAS. 1974.

35. Bibliografía selectiva sobre reforma agraria en América Latina 1964-1972. 1974.
36. Manual para Descripción Bibliográfica. Trad. y adapt. del Manual de AGRIS. 2 ed. 1979.
37. Categorías de Materias. Trad. de las Categorías de AGRIS. 2 ed. 1979.
38. Índice de mapas de América Latina y el Caribe existentes en el IICA-CIDIA. 1975.
39. Bibliografías agrícolas de América Central: GUATEMALA. 1975.
40. Bibliografía selectiva sobre derecho y reforma agraria en América Latina, 1972-1974. 1975.
41. La mujer en el medio rural; bibliografía. 1975.
42. Bibliografía colombiana de pastos y forrajes. 1975.
43. Bibliografía sobre silvicultura y ecología forestal tropical. 1975.
44. Silvicultura de bosques tropicales; bibliografía. 1975.
45. Bibliografía internacional sobre la quínoa y cañahua. 1976.
46. Bibliografía sobre camélidos sudamericanos. 1976.
47. Bibliografía sobre bovinos criollos de Latinoamérica. 1976.
48. Manual de organización, planificación y operación de los Comités Nacionales de Coordinación (PIADIC). 1976.
49. AGRINTER: origen y evolución; bibliografía anotada. 1976.
50. Bibliografía universitaria de la Investigación agrícola en el Perú. 1976.
51. Directrices para la selección de documentos en los Sistemas AGRINTER y AGRIS. Rev. 1976.
52. Lista de publicaciones periódicas y seriadas. 1976.
53. Bibliografía sobre formas asociativas de producción en el agro. 1977.
54. Camote, maní y soya en América Latina 1970-1975; una bibliografía parcialmente anotada. 1977.
55. Bibliografía sobre aspectos sociales de la producción agropecuaria. 1977.
56. Bibliografía selectiva sobre recursos naturales de Colombia. 1977.
57. Bibliografía colombiana sobre desarrollo rural. 1977.
58. Bibliografía selectiva sobre comercialización agrícola. 1977.
59. Bibliografía sobre reforma agraria en América Latina 1974-1976. 1977.
60. Royas del cafeto (*Hemileia* spp.): bibliografía. Suplemento a la 3a. ed. 1980.
61. Banco de datos de bibliografías agrícolas de América Latina y el Caribe: Índice acumulativo. 1977.
62. Normas de enriquecimiento de títulos. 2 ed. 1980.
63. Vocabulario agrícola en español. 1978.
64. Bibliografía forestal del Perú. 1978.
65. La acción del IICA en el campo de las bibliotecas, documentación e información agrícolas: una síntesis. 1978.
66. Bibliografía sobre ciencias de la información (aportes del IICA). 1978.
67. Bibliografía sobre peste porcina africana. 1978.
68. Centro Interamericano de Documentación, Información y Comunicación Agrícola - CIDIA. 1978.
69. Bibliografía forestal de América tropical. 1979.
70. Bibliografía selectiva sobre desarrollo rural en Venezuela. 1979.
71. Moniliasis: bibliografía. 1979.

72. Bibliografía sobre sensores remotos. 1979.
73. ISIS: Manual para usuarios. 1979.
74. Bibliografía básica sobre desarrollo rural latinoamericano. 1979.
75. Bibliografía sobre desarrollo rural en Ecuador. 1979.
76. Manual para la preparación de perfiles de área para la formulación de alternativas de producción. 1979.
77. Sistema de Información para la Investigación Agropecuaria - SINIA. 1979.
78. Participación de la mujer en el desarrollo rural. 1980.
79. Biomasa y otras fuentes no convencionales de energía; bibliografía. 1980.
80. Bibliografía sobre colonización en América Latina. 1980.
81. Análisis sobre el desarrollo del Sistema Interamericano de Información Agrícola-AGRINTER. 1980.
82. Rural women: a Caribbean bibliography with special reference to Jamaica. 1980.
83. Bibliografía Agrícola de Costa Rica. 2 ed. rev. y act. 1980.
84. Documentos producidos por el Fondo Simón Bolívar. 1980.
85. Catálogo colectivo de publicaciones periódicas existentes en bibliotecas agrícolas del Uruguay. 1980.
86. Bibliography of literature relating research and development in the agricultural sector of Jamaica 1959-1979. 1980.
87. Cáncer de los cítricos (*Xanthomonas citri*); bibliografía parcialmente anotada. 1980.
88. *Rhadinaphelenchus cocophilus*. Anillo rojo del cocotero; una bibliografía parcialmente anotada. 1980.
89. Sigatoka del banano. Bibliografía parcialmente anotada. 1980.
90. Mosca del Mediterráneo, *Ceratitis capitata*. Bibliografía parcialmente anotada. 1980.
91. Mulher no Brasil; resumo bibliográfico. 1980.
92. Bibliografía sobre desarrollo rural en Bolivia. 1980.
93. Bibliografía agrícola del Uruguay, 1979-1980. 1981.
94. Páginas de Contenido en Medicina Veterinaria. 1981.
95. Curso Corto sobre Manejo de Datos de Investigación usando SAS. Trad. del inglés. 1981.
96. Catálogo colectivo de las publicaciones periódicas de las Bibliotecas del CIDIA.
97. Directorio de recursos humanos del Uruguay, en producción animal. 1981.
98. Una guía del usuario a la versión 3 del Programa Analítico de Recursos Geográficos. 1981.
99. Manual de organización de la información en archivos magnéticos (banco de datos). Encuesta rural Nicaragua, 1980. 1981. 65 p.
100. Tristeza de los cítricos; bibliografía parcialmente anotada. 1981.
101. Manual de organización de la información en archivos magnéticos (banco de datos). Encuesta rural Pacífico Sur, Costa Rica. 1981.
102. Aves depredadoras; bibliografía parcialmente anotada. 1981.
103. Roya y carbón de la caña de azúcar; bibliografía parcialmente anotada. 1981.
104. Bibliografía sobre Desarrollo Rural del Perú. 1981.
105. Directory of Directors of Animal Health. 1981.
106. Una guía del usuario para la versión 2.0 del Programa creador del Archivo Maestro Geográfico. 1981.
107. Descripción de los instrumentos constitutivos del sistema de grado de indicadores sociales de nivel de vida y progreso social en las familias rurales de Centro América y Panamá. 1981.



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