



Perry L. McCarty

 Curriculum Vitae available Online

CONTACT INFORMATION

- **Alternate Contact**

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Bio

BIO

Perry L. McCarty, Silas H. Palmer Professor Emeritus, came to Stanford University in 1962 to found a new multidisciplinary education and research program in environmental engineering and science that became a model for others throughout the country. From 1980 to 1985 he was Chairman of Stanford's Department of Civil and Environmental Engineering, and from 1989 to 2002 he served as Director of the Western Region Hazardous Substance Research Center. He received a B.S. Degree in civil engineering from Wayne State University (1953), and M.S. (1957) and Sc.D. (1959) degrees in sanitary engineering from M.I.T.

The focus of McCarty's research, teaching, and writing has been on water, with a primary interest in biological processes for the control of environmental contamination. His early research was on anaerobic treatment processes, biological processes for nitrogen removal and water reuse. Recent interests are on aerobic and anaerobic processes for the treatment of domestic and industrial wastewaters, and the movement, fate, and control of groundwater contaminants.

His numerous awards and accolades for pioneering work on improving water quality worldwide includes memberships in the American Academy of Arts and Sciences and the National Academy of Engineering. McCarty won the Tyler Prize for Environmental Achievement in 1992, the Athalie Richardson Irvine Clarke Prize for Outstanding Achievements in Water Science and Technology in 1997, and the Stockholm Water Prize in 2007. In 2011 the Association of Environmental Engineering and Science Professors Foundation established the Perry L. McCarty AEESP Founder's Award, given annually in recognition of McCarty's significant contributions to environmental engineering education, research, and practice. The Directorship of the Stanford Woods Institute for the Environment, part of the Stanford Doerr School of Sustainability, was named in his honor.

McCarty has written and coauthored over 350 papers, plus the textbooks, Chemistry for Environmental Engineering and Science, and Environmental Biotechnology - Principles and Applications.

ACADEMIC APPOINTMENTS

- Affiliate, Stanford Woods Institute for the Environment

ADMINISTRATIVE APPOINTMENTS

- Professor, World Class University Program, Department of Environmental Engineering, Inha University, Incheon, South Korea, (2008-2013)

- Chair Professor, Department of Environmental Science and Engineering, Tsinghua University, Beijing, China, (2004-2007)
- Lecturer, Stanford Canada and Great Lakes College, (2003-2003)
- Silas H. Palmer Professor of Civil Engineering Emeritus, Stanford University, (1999- present)
- Director, Western Region Hazardous Substance Research Center, Stanford University, (1989-2003)
- Chairman, Department of Civil Engineering, Stanford University, (1980-1985)
- Silas H. Palmer Professor of Civil Engineering, Stanford University, (1975-1999)
- Visiting Professor, University of Cape Town, South Africa, (1971-1971)
- Visiting Lecturer, Summer Institute in Advanced Sanitary Chemistry, Harvard University, (1969-1969)
- Faculty Member, Curso de Postgrado en Ingenieria Hidrologica, Ministerio de Obros Publicos, Venezuela, (1968-1972)
- Honorary Research Associate, Harvard University, (1968-1969)
- Professor of Civil Engineering, Stanford University, (1967-1975)
- Associate Professor of Civil Engineering, Stanford University, (1962-1967)
- Assistant Professor of Sanitary Engineering, Massachusetts Institute of Technology, (1959-1962)
- Instructor of Sanitary Engineering, Massachusetts Institute of Technology, (1958-1959)
- Instructor, Department of Civil Engineering, Wayne State University, (1953-1954)

HONORS AND AWARDS

- Inductee, Engineering & Science Hall of Fame, Dayton, Ohio (2019)
- Stanford Engineering Hero, School of Engineering, Stanford University (2016)
- Gordon Maskew Fair Award, American Academy of Environmental Engineers and Scientists (2014)
- Joan Hodges Queneau Palladium Medal, National Audubon Society (2013)
- Distinguished Member, American Society of Civil Engineers (2012)
- Fellow, Water Environment Federation (2012)
- Honorary Fellow, The Chinese Institute of Environmental Engineering, Taiwan (2011)
- Honorary Professor, Harbin Institute of Technology, China (2011)
- Honorary Professor, National Chiao Tung University, Taiwan (2011)
- Honorary Degree of Doctor of Engineering, Nanyang Technological University, Singapore (2010)
- Honorary Member, American Academy of Environmental Engineers (2009)
- Water Industry Hall of Fame, American Water Works Association (2009)
- Lifetime Achievement Award, Brown and Caldwell (2008)
- Lifetime Achievement Award, Groundwater Resources Association of California (2008)
- Stockholm Water Prize, Stockholm International Water Institute (SIWI) (2007)
- Abel Wolman Distinguished Lecturer, National Academies (2001)
- The Athalie Richardson Irvine Clarke Prize, National Water Research Institute (1997)
- Fellow, American Academy of Arts and Sciences (1996)
- J. James R. Croes Medal, American Society of Civil Engineers (1995)
- Fellow, California Council on Science and Technology (1994)
- Fellow, American Academy of Microbiology (1993)
- Founder's Award, Association of Environmental Engineering Professors (1992)
- Honorary Degree of Doctor of Engineering, Colorado School of Mines (1992)

- Tyler Prize for Environmental Achievement, University of Southern California (1992)
- CH2M HILL Research Award, Association of Environmental Engineering Professors (1990, 1997)
- A. P. Black Research Award, American Water Works Association (1989)
- Honorary Member, Water Environment Federation (1989)
- Outstanding Publication Award, Association of Environmental Engineering Professors (1985, 1988, 1998, 2003)
- Distinguished Professor Lectureship, Association of Environmental Engineering Professors (1984)
- Thomas R. Camp Lecturer Award, Boston Society of Civil Engineers (1983)
- Honorary Member, American Water Works Association (1981)
- Fellow, American Association for the Advancement of Science (1980)
- Engineering-Science Research Award, Association of Environmental Engineering Professors (1979, 1983, 1992)
- Simon W. Freese Environmental Engineering Lecture Award, American Society of Civil Engineers (1979)
- Member, National Academy of Engineering (1977)
- Thomas Camp Award, Water Environment Federation, for Unique Application of Engineering Research (1975)
- Walter L. Huber Research Award, American Society of Civil Engineers, (1964)
- Harrison P. Eddy Award, Water Environment Federation for Noteworthy Research (1962, 1977)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Chair, External Review Committee, Nanyang Environment & Water Research Institute, Nanyang Technological University, Singapore (2016 - 2016)
- Member, Expert Panel on Development of Water Recycling Criteria for Potable Reuse, National Water Research Institute (2014 - 2016)
- Chair, External Review Committee, Academic Program Review, Environment Science and Engineering, Tsinghua University, China (2010 - 2010)
- Member, Environmental Science and Engineering Visiting Committee, Colorado School of Mines (2009 - 2009)
- Member, Peer Review Team, Capital Regional Districts Core Area Wastewater Management Program, Victoria, British Columbia (2009 - 2009)
- Lee Kuan Yew Water Prize Nominating Committee, Singapore Public Utility Board (2008 - 2021)
- Member, Project Evaluation Panel, Ministry of the Environment and Water Resources, Singapore (2006 - 2021)
- Associate-Editor-in-Chief, Frontiers of Environmental Science & Engineering, Tsinghua University, China (2006 - 2017)
- Member, External Advisory Committee, Water: Systems, Science, Society Program, Tufts University (2006 - 2013)
- Member, Committee on Sediments Dredging at Superfund Megasites, National Research Council (2006 - 2007)
- Member, Environmental Science & Engineering Visiting Committee, National University of Singapore (2006 - 2007)
- Member, Research Advisory Board, National Water Research Institute (2005 - 2010)
- Member, The Athalie Richardson Irvine Clarke Prize Executive Committee, National Water Research Institute (2005 - 2007)
- Member, Vietnam Education Foundation Review Panel, The National Academies (2005 - 2005)
- Member, Oversight Committee for Strengthening Science-Based Decision, The National Academies (2002 - 2007)
- Member, Committee on Water Quality Improvement for The Pittsburgh Region, National Research Council (2002 - 2004)
- Member, Civil Engineering Peer Committee, National Academy of Engineering (2001 - 2004)
- Member, Expert Panel on Water Reuse, West Basin Municipal Utility District, Los Angeles (2001 - 2002)
- Member, Tritium Migration Independent Scientific Peer Review Panel, U.S. Department of Energy (2001 - 2002)
- Member, Expert Panel for Review of Groundwater Treatment Technology, Aerojet General Corporation (2000 - 2001)
- Member, Chemical & Environmental Engineering Department Industrial Advisory Committee, University of Arizona (1999 - 2002)
- External Examiner, Department of Chemical and Environmental, National University of Singapore (1999 - 2001)
- Member, Committee on Assessment of Risks from Remediation of PCB-Contaminated Sediments, National Research Council (1999 - 2001)

- Chairman, Blue Ribbon Panel on San Diego Water Repurification Project, City of San Diego (1998 - 1998)
- Member, Panel on Groundwater Contamination, Scientific Committee on Problems of the Environment (1998 - 1995)
- Member, Science Advisory Board, U.S. DOD Strategic Environmental Research and Development Program (1997 - 2010)
- Member, Committee on Intrinsic Bioremediation, National Research Council (1997 - 2000)
- Member, Blasker Award Selection Committee, Blasker Award for Environmental Science and Engineering (1996 - 2001)
- Chairman, Virtual Commission on Environmental Management Science, National Research Council (1996 - 1998)
- Member, Selection Committee, Mitchell International Prize for Sustainable Development, National Academy of Sciences (1996 - 1997)
- Member, Visiting Committee, Dept. of Civil Engineering, Northwestern University (1996 - 1996)
- Member, Visiting Committee, Dept. of Civil Engineering, Cornell University (1996 - 1996)
- Member, National Forum on Science and Technology Goals - No. 1: Environment, National Research Council (1995 - 1995)
- Member, Commission on Geosciences, Environment, Resources, National Research Council (1994 - 1997)
- Associate Editor, Journal of Contaminant Hydrology (1993 - 2006)
- Environmental Technology Advisory Board, ALCOA (1993 - 2005)
- Member, Editorial Board, Biodegradation (1993 - 2000)
- Member, Advisory Board, Marine Bioremediation Program, University of Washington (1993 - 1996)
- Member, Visiting Committee, Dept. of Environmental Engineering and Science, University of North Carolina, Chapel Hill (1992 - 1992)
- Member, Visiting Committee, Environmental Engineering Program, University of Texas, San Antonio (1992 - 1992)
- Chairman, Committee on Remedial Action Priorities for Hazardous Waste, National Research Council (1991 - 1994)
- Chairman, Panel for review of proposals for Centers of Excellence, U. S. Environmental Protection Agency (1991 - 1991)
- Member, Evaluation Committee on Civil Engineering, Member, Evaluation Committee on Civil Engineering (1990 - 1990)
- Member, Board on Radioactive Waste Management, National Research Council (1989 - 1996)
- Member, Research Council, Water Environment Federation Research Foundation (1989 - 1995)
- Member, Civil Engineering Visiting Committee, Massachusetts Institute of Technology (1989 - 1993)
- Member, Advisory Committee for Center for Environmental Health Sciences, Massachusetts Institute of Technology (1989 - 1992)
- Chairman, Program Planning Committee, International Symposium on Processes Governing the Movement and Fate of Contaminants in Groundwater (1989 - 1989)
- Chairman, Panel for review of Hazardous Substance Research Center Proposals, U. S. Environmental Protection Agency (1988 - 1988)
- Member, Panel for review of Superfund Phase II proposals, National Institute of Environmental Health Sciences (1988 - 1988)
- Member, Visiting Committee, Department of Civil Engineering, University of Southern California (1987 - 1987)
- Member, Visiting Committee, Division of Engineering and Applied Science, California Institute of Technology (1986 - 1992)
- Member, Scientific Advisory Panel on Groundwater Recharge, State of California (1986 - 1987)
- Member, Technical Advisory Committee, Clean Sites, Inc (1985 - 1994)
- Member, Commission on Mathematics, Physics, Resources, National Research Council (1985 - 1988)
- Member, Visiting Committee, Dept. of Civil Engineering, Princeton University (1985 - 1988)
- Chairman, Visiting Committee, Dept. of Civil Engineering, University of Minnesota (1985 - 1985)
- Member, Drinking Water Standards Committee, American Water Works Association (1984 - 1996)
- Member, Engineering Education Board, National Academy of Engineering (1984 - 1987)
- Chairman, Panel on Energy, Environment, and Resources, National Research Council (1984 - 1986)
- Member, Committee on Groundwater Protection, National Research Council (1984 - 1986)
- Member, Engineering Research Board, National Research Council (1984 - 1986)

- Member, Task Force on Ground Water Pollution, Office of Technology, U.S. Congress (1983 - 1985)
- Chairman, Scientific Panel to Evaluate Sacramento-San Joaquin Delta Water Quality, California Department of Water Resources (1982 - 1983)
- Guest Lecturer, Chinese Academy of Sciences, Biogas Production, Guangzhou and Chengdu, China (1982 - 1982)
- Member, Advisory Subcommittee for Civil and Environmental Engineering, National Science Foundation (1981 - 1985)
- Trustee, American Water Works Research Foundation (1981 - 1985)
- Trustee, Research Division, American Water Works Association (1981 - 1985)
- Director, International Conference on Ground Water Quality (1981 - 1981)
- Chairman, Scientific Advisory Board, Southern California Coastal Water Research Project (1980 - 1986)
- Member, Scientific Advisory Board, National Center for Ground Water Research (1980 - 1986)
- Member, Visiting Committee, Division of Applied Science, Harvard University (1980 - 1985)
- Member, Wastewater Reclamation Health Effects Advisory Panel, California Department of Health Services (1980 - 1985)
- Chairman, Committee to Review Potomac Estuary Experimental Water Treatment Plant, National Research Council (1979 - 1984)
- Member, Committee to Review the Metropolitan Washington Area Water Supply Study, National Research Council (1979 - 1984)
- Member, Expert Committee on Engineering and Technology, International Joint Commission on the Great Lakes (1979 - 1982)
- Member, Panel on Wastewater Reuse Criteria, National Research Council (1979 - 1982)
- Member, Aquaculture Technical Advisory Committee, California Water Resources Control Board (1979 - 1981)
- Member, Innovative and Alternative Technology Committee, California Water Resources Control Board (1979 - 1981)
- Member, Scientific Advisory Board, Member, Scientific Advisory Board (1979 - 1980)
- Member, Technical Delegation to the People's Republic of China, Stanford University (1978 - 1978)
- Member, Commission on Natural Resources, National Research Council (1977 - 1980)
- Vice Chairman, Environmental Studies Board, National Research Council (1977 - 1980)
- Chairman, Camp Medal Award Committee, Water Pollution Control Federation (1977 - 1979)
- Chairman, Research Committee, Technical and Professional Council, American Water Works Association (1976 - 1981)
- Member, Environmental Studies Board, National Research Council (1976 - 1981)
- Member, Technical and Professional Council, American Water Works Association (1976 - 1981)
- Member, Potomac Estuary Committee, National Research Council (1976 - 1979)
- Chairman, Panel on Treatment Processes, National Research Council (1976 - 1977)
- Member, Engineering Board of Consultants, John Wiley & Sons (1974 - 1980)
- Member, T & P Research Committee, American Water Works Association (1973 - 1976)
- Member, Water Quality Policy Committee, National Research Council (1973 - 1976)
- Chairman, Water Quality Division, American Water Works Association (1972 - 1973)
- Participant, Study on the Effect of Rapid Urbanization on the Environment in Seoul, South Korea, Smithsonian Institution (1972 - 1972)
- Member, Sanitary Engineering Advisory Committee, California Department of Public Health (1971 - 1975)
- Member, Committee on Control of Nitrates, American Water Works Association (1971 - 1974)
- Member, Advisory Board, Environmental Science & Technology (1971 - 1973)
- Member, George Westinghouse Environmental Student Award Committee, American Society of Engineering Education (1971 - 1973)
- Member, Symbiotic Study on Agricultural Wastewaters, U.S. Bureau of Reclamation and California Department of Water Resource (1971 - 1973)
- Vice Chairman then Chairman, Environmental Sciences – Water Conference, Gordon Research Conference (1971 - 1972)
- Member, Workshop on "Water in Man's Life in India", U.S. National Academy of Science – Indian National Science Academy (1971 - 1971)

- Member, Training Grants Division, U.S. Environmental Protection Agency (1970 - 1975)
- Member, Committee on Quality Control in Reservoirs, American Water Works Association (1970 - 1972)
- Member, Committee on Wastewater Reclamation, American Water Works Association (1970 - 1972)
- Member, Board of Directors, Biostimulation and Biototoxicity Study, California Water Resources Control Board (1970 - 1971)
- Vice Chairman, Environmental Engineering Division, American Society of Engineering Education (1968 - 1969)
- Trustee, Water Quality Division, American Water Works Association (1967 - 1974)
- Chairman, National Symposium on Estuarine Pollution, American Society of Civil Engineers (1967 - 1967)
- Chairman, San Francisco Sanitary Engineering Section, American Society of Civil Engineers (1967 - 1967)
- Member, Interagency Agricultural Wastewater Treatment Study, Fed. Water Pollution Control Admin., U.S. Bureau of Reclam., Calif. Depart. of Water Resources (1966 - 1971)
- Chairman, Committee on Gases in Water, Standard Methods (1965 - 1970)
- Chairman, Task Group on Nutrients in Water, American Water Works Association (1965 - 1969)
- Assistant Editor, Sanitary Engineering Division Newsletter, American Society of Civil Engineers (1965 - 1968)
- Member, Sanitary Engineering Committee, American Society of Engineering Education (1965 - 1968)
- Member, Program Planning Committee, Water Pollution Control Federation (1964 - 1970)
- Member, Research Grants Study Section on Environmental Science and Engineering, U.S. Public Health Service (1964 - 1966)

PROFESSIONAL EDUCATION

- Sc.D., Massachusetts Institute of Technology , Sanitary Engineering (1959)
- S.M., Massachusetts Institute of Technology , Sanitary Engineering (1957)
- B.S., Wayne State University , Civil Engineering (1953)

PATENTS

- Bae, J. H., Kim, J. H., McCarty, P. L.. "Singapore Patent 2012064267 Fluidized Membrane Bioreactor", Inha University, Feb 4, 2015
- Spormann, A. M., Muller, J. A., Rosner, B. M., von Abendroth, G., Meshulam-Simon, G., and McCarty, P. L.. "United States Patent 8,647,824 Microbial Reductive Dehalogenation of Vinyl Chloride", Leland Stanford Junior University, Nov 11, 2014
- Bae, J. H., McCarty, P. L., Kim, J. H.. "South Korea Patent 10-1342678 Waste Water Treatment System Combining Two-Stage Anaerobic Reactor and Nitrogen Removal Process", Inha University, Dec 11, 2013
- Bae, J. H., Kim, J. H., McCarty, P. L. "United States Patent 8,404,111 Fluidized Membrane Bioreactor", Inha University, Mar 26, 2013
- Bae, J. H., Kim, J. H., McCarty, P. L.. "South Korea Patent 10-1157332 Fluidized Membrane Bioreactor", Inha University, Jun 6, 2012
- Spormann, A. M., Muller, J. A., Rosner, B. M., von Abendroth, G., Meshulam-Simon, G., McCarty, P. L.. "United States Patent 8,063,192 Microbial Reductive Dehalogenation of Vinyl Chloride", Leland Stanford Junior University, Nov 22, 2011
- McCarty, P. L., Bachmann, A.. "Japan Patent 1971981 Bioconversion Reactor", Leland Stanford Junior University, Sep 27, 1995
- Semprini, L., McCarty, P. L., Kitanidis, P. K., Bae, J.H., "United States Patent 5,302,286 Method and Apparatus for In Situ Groundwater Remediation", Leland Stanford Junior University, Apr 12, 1994
- McCarty, P. L., Alvarez-Cohen, L.. "United States Patent 5,139,682 Zeolite Enhanced Organic Biotransformation", Leland Stanford Junior University, Aug 18, 1992
- McCarty, P. L., Bachmann, A.. "United States Patent 0213691 European Patent Bioconversion Reactor", Leland Stanford Junior University, Jul 22, 1992
- McCarty, P. L. and Bachmann, A.. "United States Patent 5,091,315 Bioconversion Reactor", Leland Stanford Junior University, Feb 25, 1992
- McCarty, P. L., Bachmann, A.. "Canada Patent 1,294,070 Bioconversion Reactor", Leland Stanford Junior University, Jan 7, 1992
- Roberts, P. V., Hopkins, G. D., Semprini, L., and McCarty, P. L.. "United States Patent 5,006,250 Pulsing for Electron Donor and Electron Acceptor for Enhanced Biotransformation of Chemicals", Leland Stanford Junior University, Apr 9, 1991
- Williamson, K. J. and McCarty, P. L.. "United States Patent 4,743,382 Method and Apparatus for Separating Suspended Solids from Liquids", Oregon State University, May 10, 1988

Research & Scholarship

PROJECTS

- Reduction of Greenhouse Gas Production and Energy Consumption in Wastewater Treatment Systems - Inha University, World Class University Program (2008 - 2013)

Publications

PUBLICATIONS

- **Temperate climate energy-positive anaerobic secondary treatment of domestic wastewater at pilot-scale.** *Water research*
Shin, C., Tilmans, S. H., Chen, F., McCarty, P. L., Criddle, C. S.
2021; 204: 117598
- **What is the Best Biological Process for Nitrogen Removal: When and Why?** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
McCarty, P. L.
2018; 52 (7): 3835–41
- **Pilot-scale temperate-climate treatment of domestic wastewater with a staged anaerobic fluidized membrane bioreactor (SAF-MBR)** *BIORESOURCE TECHNOLOGY*
Shin, C., McCarty, P. L., Kim, J., Bae, J.
2014; 159: 95-103
- **Effect of temperature on the treatment of domestic wastewater with a staged anaerobic fluidized membrane bioreactor.** *Water science and technology*
Yoo, R. H., Kim, J. H., McCarty, P. L., Bae, J. H.
2014; 69 (6): 1145-1150
- **Stanford's Environmental Engineering & Science Program: The First Fifty Years**
McCarty, P. L.
School of Engineering. Stanford University.
2013 33
- **Domestic Wastewater Treatment as a Net Energy Producer-Can This be Achieved?** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
McCarty, P. L., Bae, J., Kim, J.
2011; 45 (17): 7100-7106
- **Anaerobic Fluidized Bed Membrane Bioreactor for Wastewater Treatment** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Kim, J., Kim, K., Ye, H., Lee, E., Shin, C., McCarty, P. L., Bae, J.
2011; 45 (2): 576-581
- **A comparative pilot-scale evaluation of gas-sparged and granular activated carbon-fluidized anaerobic membrane bioreactors for domestic wastewater treatment.** *Bioresource technology*
Evans, P. J., Parameswaran, P. n., Lim, K. n., Bae, J. n., Shin, C. n., Ho, J. n., McCarty, P. L.
2019: 120949
- **Efficient anaerobic membrane bioreactor treatment of municipal wastewater for energy and biosolids reduction**
McCarty, P., Kim, J., Shin, C., Bae, J.
AMER CHEMICAL SOC.2017
- **Low energy single-staged anaerobic fluidized bed ceramic membrane bioreactor (AFCMBR) for wastewater treatment.** *Bioresource technology*
Aslam, M., McCarty, P. L., Shin, C., Bae, J., Kim, J.
2017
- **Effects of FeCl₃ addition on the operation of a staged anaerobic fluidized membrane bioreactor (SAF-MBR)** *WATER SCIENCE AND TECHNOLOGY*
Lee, E., McCarty, P. L., Kim, J., Bae, J.
2016; 74 (1): 130-137
- **Integrity of hollow-fiber membranes in a pilot-scale anaerobic fluidized membrane bioreactor (AFMBR) after two-years of operation** *SEPARATION AND PURIFICATION TECHNOLOGY*

- Shin, C., Kim, K., McCarty, P. L., Kim, J., Bae, J.
2016; 162: 101-105
- **Discovery of Organohalide-Respiring Processes and the Bacteria Involved** *Organohalide-Respiring Bacteria*
McCarty, P. L.
Springer.2016: 51–62
 - **Importance of Dissolved Methane Management When Anaerobically Treating Low-Strength Wastewaters** *CURRENT ORGANIC CHEMISTRY*
Shin, C., McCarty, P. L., Bae, J.
2016; 20 (26): 2810-2816
 - **Development and application of a procedure for evaluating the long-term integrity of membranes for the anaerobic fluidized membrane bioreactor (AFMBR).** *Water science and technology*
Shin, C., Kim, K., McCarty, P. L., Kim, J., Bae, J.
2016; 74 (2): 457-465
 - **Interactions between GAC sizes, particle sizes and biofouling in anaerobic fluidized membrane bioreactor**
Kim, J., Aslam, M., Kwon, D., Ahmad, R., Bae, J., McCarty, P.
AMER CHEMICAL SOC.2015
 - **Anaerobic fluidized membrane bioreactor polishing of baffled reactor effluent during treatment of dilute wastewater** *JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY*
Lee, R., McCarty, P. L., Bae, J., Kim, J.
2015; 90 (3): 391-397
 - **Anaerobic Fluidized Bed Membrane Bioreactors for the Treatment of Domestic Wastewater** *Anaerobic biotechnology: Environmental Protection and Resource Recovery*
McCarty, P. L., Kim, J., Shin, C., Lee, P. H., Bae, J.
edited by Fang, H. H., Zhang, T.
World Scientific.2015: 211–242
 - **Superior Removal of Disinfection Byproduct Precursors and Pharmaceuticals from Wastewater in a Staged Anaerobic Fluidized Membrane Bioreactor Compared to Activated Sludge** *ENVIRONMENTAL SCIENCE & TECHNOLOGY LETTERS*
McCurry, D. L., Bear, S. E., Bae, J., Sedlak, D. L., McCarty, P. L., Mitch, W. A.
2014; 1 (11): 459-464
 - **The effect of fluidized media characteristics on membrane fouling and energy consumption in anaerobic fluidized membrane bioreactors** *SEPARATION AND PURIFICATION TECHNOLOGY*
Aslam, M., McCarty, P. L., Bae, J., Kim, J.
2014; 132: 10-15
 - **Anaerobic treatment of low-strength wastewater: A comparison between single and staged anaerobic fluidized bed membrane bioreactors** *BIORESOURCE TECHNOLOGY*
Bae, J., Shin, C., Lee, E., Kim, J., McCarty, P. L.
2014; 165: 75-80
 - **Anaerobic treatment of low-strength wastewater: A comparison between single and staged anaerobic fluidized bed membrane bioreactors.** *Bioresourcetechnology*
Bae, J., Shin, C., Lee, E., Kim, J., McCarty, P. L.
2014; 165: 75-80
 - **Discovery of Organohalide-Respiring Processes and the Bacteria Involved** *Discovery of Organohalide-Respiring Processes and the Bacteria Involved*
McCarty, P. L.
edited by Adrian, L., Löffler, F. E.
Springer.2014: 51–62
 - **The effect of SRT on nitrate formation during autotrophic nitrogen removal of anaerobically treated wastewater** *WATER SCIENCE AND TECHNOLOGY*
Lee, P., Kwak, W., Bae, J., McCarty, P. L.
2013; 68 (8): 1751-1756
 - **Two-stage anaerobic fluidized-bed membrane bioreactor treatment of settled domestic wastewater** *WATER SCIENCE AND TECHNOLOGY*

-
- Bae, J., Yoo, R., Lee, E., McCarty, P. L.
2013; 68 (2): 394-399
- **Efficient single-stage autotrophic nitrogen removal with dilute wastewater through oxygen supply control** *BIORESOURCES TECHNOLOGY*
Kwak, W., McCarty, P. L., Bae, J., Huang, Y., Lee, P.
2012; 123: 400-405
 - **Anaerobic treatment of municipal wastewater with a staged anaerobic fluidized membrane bioreactor (SAF-MBR) system** *BIORESOURCES TECHNOLOGY*
Yoo, R., Kim, J., McCarty, P. L., Bae, J.
2012; 120: 133-139
 - **Lower operational limits to volatile fatty acid degradation with dilute wastewaters in an anaerobic fluidized bed reactor** *BIORESOURCES TECHNOLOGY*
Shin, C., Bae, J., McCarty, P. L.
2012; 109: 13-20
 - **Energy-efficient anaerobic membrane bioreactor for treatment of dilute wastewaters**
McCarty, P. L.
AMER CHEMICAL SOC.2012
 - **Introduction** *Delivery and Mixing in the Subsurface: Processes and Design Principles for In-Situ Remediation*
Kitanidis, P. K., McCarty, P. L.
edited by Kitanidis, P. K., McCarty, P. L.
Springer.2012: 1
 - **CHEMICAL AND BIOLOGICAL PROCESSES: THE NEED FOR MIXING** *DELIVERY AND MIXING IN THE SUBSURFACE: PROCESSES AND DESIGN PRINCIPLES FOR IN SITU REMEDIATION*
McCarty, P. L., Criddle, C. S., Kitanidis, P. K., McCarty, P. L.
2012: 7-52
 - **Chemical and Biological Processes – The Need for Mixing** *Delivery and Mixing in the Subsurface: Processes and Design Principles for In-Situ Remediation*
McCarty, P. L.
edited by Kitanidis, P., McCarty, P. L.
Springer.2012: 2
 - **Delivery and Mixing in the Subsurface: Processes and Design Principles for In Situ Remediation**
edited by Kitanidis, P. K., McCarty, P. L.
Springer.2012
 - **Effects of influent DO/COD ratio on the performance of an anaerobic fluidized bed reactor fed low-strength synthetic wastewater** *BIORESOURCES TECHNOLOGY*
Shin, C., Lee, E., McCarty, P. L., Bae, J.
2011; 102 (21): 9860-9865
 - **Model to Couple Anaerobic Process Kinetics with Biological Growth Equilibrium Thermodynamics** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
McCarty, P. L., Bae, J.
2011; 45 (16): 6838-6844
 - **Biological reduction of chlorinated solvents: Batch-scale geochemical modeling** *ADVANCES IN WATER RESOURCES*
Kouznetsova, I., Mao, X., Robinson, C., Barry, D. A., Gerhard, J. I., McCarty, P. L.
2010; 33 (9): 969-986
 - **Groundwater Contamination by Chlorinated Solvents: History, Remediation Technologies and Strategies** *In Situ Remediation of Chlorinated Solvent Plumes*
McCarty, P. L.
edited by Stroo, H. F., Ward, C. H.
Springer.2010: 1-28
 - **pH control for enhanced reductive bioremediation of chlorinated solvent source zones** *SCIENCE OF THE TOTAL ENVIRONMENT*
Robinson, C., Barry, D. A., McCarty, P. L., Gerhard, J. I., Kouznetsova, I.
2009; 407 (16): 4560-4573

- **Bioaugmentation with butane-utilizing microorganisms to promote in situ cometabolic treatment of 1,1,1-trichloroethane and 1,1-dichloroethene** *JOURNAL OF CONTAMINANT HYDROLOGY*
Semprini, L., Dolan, M. E., Hopkins, G. D., McCarty, P. L.
2009; 103 (3-4): 157-167
- **Comparison between acetate and hydrogen as electron donors and implications for the reductive dehalogenation of PCE and TCE** *JOURNAL OF CONTAMINANT HYDROLOGY*
Lee, I., Bae, J., McCarty, P. L.
2007; 94 (1-2): 76-85
- **Dependence of lumped mass transfer coefficient on scale and reactions kinetics for biologically enhanced NAPL dissolution** *ADVANCES IN WATER RESOURCES*
Chu, M., Kitanidis, P. K., McCarty, P. L.
2007; 30 (6-7): 1618-1629
- **Thermodynamic electron equivalents model for bacterial yield prediction: Modifications and comparative evaluations** *BIOTECHNOLOGY AND BIOENGINEERING*
McCarty, P. L.
2007; 97 (2): 377-388
- **Laboratory, field, and modeling studies of bioaugmentation of butane-utilizing microorganisms for the in situ cometabolic treatment of 1,1-dichloroethene, 1,1-dichloroethane, and 1,1,1-trichloroethane** *ADVANCES IN WATER RESOURCES*
Semprini, L., Dolan, M. E., Mathias, M. A., Hopkins, G. D., McCarty, P. L.
2007; 30 (6-7): 1528-1546
- **Electron Donor and pH Relationships for Biologically Enhanced Dissolution of Chlorinated Solvent DNAPL in Groundwater** *European Journal of Soil Biology*
McCarty, P. L., Chu, M., Kitanidis, P.
2007; 43: 276-282
- **Bioaugmentation of Butane-Utilizing Microorganisms for the In Situ Cometabolic Treatment of 1,1-Dichloroethene, 1,1-Dichloroethane, and 1,1,1-Trichloroethane** *European Journal of Soil Biology*
Semprini, L., Dolan, M. E., mahias, M. A., Hopkins, G. D., McCarty, P. L.
2007; 43: 322-327
- **Field evaluation of in situ source reduction of trichloroethylene in groundwater using bioenhanced in-well vapor stripping** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Goltz, M. N., Gandhi, R. K., Gorelick, S. M., Hopkins, G. D., Smith, L. H., Timmins, B. H., McCarty, P. L.
2005; 39 (22): 8963-8970
- **Medical bioremediation: Prospects for the application of microbial catabolic diversity to aging and several major age-related diseases** *AGEING RESEARCH REVIEWS*
de Grey, A. D., Alvarez, P. J., BRADY, R. O., Cuervo, A. M., Jerome, W. G., McCarty, P. L., Nixon, R. A., Rittmann, B. E., Sparrow, J. R.
2005; 4 (3): 315-338
- **Modeling microbial reactions at the plume fringe subject to transverse mixing in porous media: When can the rates of microbial reaction be assumed to be instantaneous?** *WATER RESOURCES RESEARCH*
Chu, M., Kitanidis, P. K., McCarty, P. L.
2005; 41 (6)
- **Numerical model for biological fluidized-bed reactor treatment of perchlorate-contaminated groundwater** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
McCarty, P. L., Meyer, T. E.
2005; 39 (3): 850-858
- **Simulated and experimental evaluation of factors affecting the rate and extent of reductive dehalogenation of chloroethenes with glucose** *JOURNAL OF CONTAMINANT HYDROLOGY*
Lee, I. S., Bae, J. H., Yang, Y. R., McCarty, P. L.
2004; 74 (1-4): 313-331
- **Comparative evaluation of chloroethene dechlorination to ethene by Dehalococcoides-like microorganisms** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Cupples, A. M., Spormann, A. M., McCarty, P. L.

2004; 38 (18): 4768-4774

- **Molecular identification of the catabolic vinyl chloride reductase from *Dehalococcoides* sp strain VS and its environmental distribution** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Muller, J. A., Rosner, B. M., von Abendroth, G., Meshulam-Simon, G., McCarty, P. L., Spormann, A. M.
2004; 70 (8): 4880-4888
- **Possible factors controlling the effectiveness of bioenhanced dissolution of non-aqueous phase tetrachloroethene** *ADVANCES IN WATER RESOURCES*
Chu, M., Kitanidis, P. K., McCarty, P. L.
2004; 27 (6): 601-615
- **Vinyl chloride and cis-dichloroethene dechlorination kinetics and microorganism growth under substrate limiting conditions** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Cupples, A. M., Spormann, A. M., McCarty, P. L.
2004; 38 (4): 1102-1107
- **Natural Attenuation** *Hebrew Journal of Water and Environment*
McCarty, P. L., Ellis, D. E.
2004; 60: 19-20, 60-64
- **Effects of biomass accumulation on microbially enhanced dissolution of a PCE pool: a numerical simulation** *JOURNAL OF CONTAMINANT HYDROLOGY*
Chu, M., Kitanidis, P. K., McCarty, P. L.
2003; 65 (1-2): 79-100
- **Response to comment on "Comparison between donor substrates for biologically enhanced tetrachloroethene DNAPL dissolution"** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Yang, Y. R., McCarty, P. L.
2003; 37 (11): 2620-2621
- **Growth of a *Dehalococcoides*-like microorganism on vinyl chloride and cis-dichloroethene as electron acceptors as determined by competitive PCR** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Cupples, A. M., Spormann, A. M., McCarty, P. L.
2003; 69 (2): 953-959
- **Chemistry for Environmental Engineering and Science**
Sawyer, C. N., McCarty, P. L., Parkin, G. F.
McGraw-Hill Inc..2003
- **Comparison between donor substrates for biologically enhanced tetrachloroethene DNAPL dissolution** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Yang, Y. R., Mccarty, P. L.
2002; 36 (15): 3400-3404
- **Full-scale demonstration of in situ cometabolic biodegradation of trichloroethylene in groundwater - 2. Comprehensive analysis of field data using reactive transport modeling** *WATER RESOURCES RESEARCH*
Gandhi, R. K., Hopkins, G. D., Goltz, M. N., Gorelick, S. M., McCarty, P. L.
2002; 38 (4)
- **Strategies for in situ bioremediation of chlorinated solvent contaminated groundwater** *3rd International Conference on Groundwater Quality*
Mccarty, P. L.
INT ASSOC HYDROLOGICAL SCIENCES.2002: 319-24
- **Natural attenuation** *Conference of the NATO-Advanced-Study-Institute on Innovative Approaches to the On-Site Assessment and Remediation of Contaminated Sites*
McCarty, P. L., Ellis, D. E.
SPRINGER.2002: 141-181
- **Simulations of two-dimensional modeling of biomass aggregate growth in network models** *WATER RESOURCES RESEARCH*
Dupin, H. J., Kitanidis, P. K., McCarty, P. L.
2001; 37 (12): 2981-2994
- **Pore-scale modeling of biological clogging due to aggregate expansion: A material mechanics approach** *WATER RESOURCES RESEARCH*

-
- Dupin, H. J., Kitanidis, P. K., McCarty, P. L.
2001; 37 (12): 2965-2979
- **Environmental Biotechnology, Principles and Applications**
Rittmann, B. E., McCarty, P. L.
McGraw-Hill Inc..2001
 - **The Development of Anaerobic Treatment and Its Future** *Water Science and Technology*
McCarty, P. L.
2001; 44 (8): 149-156
 - **Biologically enhanced dissolution of tetrachloroethene DNAPL** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Yang, Y. R., McCarty, P. L.
2000; 34 (14): 2979-2984
 - **Impact of colony morphologies and disinfection on biological clogging in porous media** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Dupin, H. J., McCarty, P. L.
2000; 34 (8): 1513-1520
 - **Biomass, Oleate, and Other Possible Substrates for Chloroethene Reductive Dehalogenation** *Bioremediation Journal*
Yang, Y., McCarty, P. L.
2000; 4 (2): 125-133
 - **Bioremediation of Chlorinated Solvents in Groundwater** *Groundwater Contamination and Its Control in China*
McCarty, P. L.
edited by Fu, R., Qian, Y., Shoemaker, C. A.
Tsinghua University Press.2000: 83-94
 - **Novel Biological Removal of Hazardous Chemicals at Trace Levels** *Water Science and Technology*
McCarty, P. L.
2000; 42 (12): 49-60
 - **Mass-transfer limitations for macroscale bioremediation modeling and implications on aquifer clogging** *GROUND WATER*
MacDonald, T. R., Kitanidis, P. K., McCarty, P. L., Roberts, P. V.
1999; 37 (4): 523-531
 - **Effects of shear detachment on biomass growth and in situ bioremediation** *GROUND WATER*
MacDonald, T. R., Kitanidis, P. K., McCarty, P. L., Roberts, P. V.
1999; 37 (4): 555-563
 - **Response to "Comment on 'Competition for hydrogen within a chlorinated solvent dehalogenating anaerobic mixed culture'"** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Yang, Y. R., McCarty, P. L.
1999; 33 (12): 2128-2128
 - **Mesoscale and microscale observations of biological growth in a silicon pore imaging element** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Dupin, H. J., McCarty, P. L.
1999; 33 (8): 1230-1236
 - **Chlorinated ethene half-velocity coefficients (K-s) for reductive dehalogenation** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Haston, Z. C., McCarty, P. L.
1999; 33 (2): 223-226
 - **Chlorinated Organics** *Environmental Availability of Chlorinated Organics, Explosives, and Metals in Soils*
McCarty, P. L.
edited by Anderson, W. C., Loehr, R. C., Smith, B. P.
American Academy of Environmental Engineers.1999: 35-84
 - **Competition for hydrogen within a chlorinated solvent dehalogenating anaerobic mixed culture** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Yang, Y. R., McCarty, P. L.

1998; 32 (22): 3591-3597

- **Spreadsheet method for evaluation of biochemical reaction rate coefficients and their uncertainties by weighted nonlinear least-squares analysis of the integrated monod equation** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Smith, L. H., McCarty, P. L., Kitanidis, P. K.
1998; 64 (6): 2044-2050
- **Design of an in-situ injection/extraction bioremediation system** *1st International Conference on Remediation of Chlorinated and Recalcitrant Compounds*
Kawakami, B. T., Christ, J., Goltz, M. N., McCarty, P. L.
BATTELLE PRESS.1998: 33-38
- **Technology Transfer of an Innovative Remediation Technology from the Laboratory to the Field: A Case Study of In Situ Aerobic Cometabolic Bioremediation** *Environmental Engineering and Polic*
Goltz, M., mandalas, G. C., Hopkins, G. D., McCarty, P. L.
1998; 1: 117-124
- **Full scale evaluation of in situ cometabolic degradation of trichloroethylene in groundwater through toluene injection** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
McCarty, P. L., Goltz, M. N., Hopkins, G. D., Dolan, M. E., Allan, J. P., Kawakami, B. T., Carrothers, T. J.
1998; 32 (1): 88-100
- **In vitro studies on reductive vinyl chloride dehalogenation by an anaerobic mixed culture** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Rosner, B. M., McCarty, P. L., Spormann, A. M.
1997; 63 (11): 4139-4144
- **Development and evaluation of semicontinuous slurry microcosms to simulate in situ biodegradation of trichloroethylene in contaminated aquifers** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
JENALWANNER, U., McCarty, P. L.
1997; 31 (10): 2915-2922
- **Laboratory evaluation of a two-stage treatment system for TCE cometabolism by a methane-oxidizing mixed culture** *BIOTECHNOLOGY AND BIOENGINEERING*
Smith, L. H., McCarty, P. L.
1997; 55 (4): 650-659
- **Effect of chlorinated ethenes on S-min for a methanotrophic mixed culture** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Anderson, J. E., McCarty, P. L.
1997; 31 (8): 2204-2210
- **A novel means to develop strain-specific DNA probes for detecting bacteria in the environment** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
MATHESON, V. G., MunakataMarr, J., Hopkins, G. D., McCarty, P. L., Tiedje, J. M., Forney, L. J.
1997; 63 (7): 2863-2869
- **Breathing with chlorinated solvents.** *Science*
McCarty, P. L.
1997; 276 (5318): 1521-1522
- **Microbial succession during a field evaluation of phenol and toluene as the primary substrates for trichloroethene cometabolism** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Fries, M. R., Hopkins, G. D., McCarty, P. L., Forney, L. J., Tiedje, J. M.
1997; 63 (4): 1515-1522
- **Long-term biodegradation of trichloroethylene influenced by bioaugmentation and dissolved oxygen in aquifer microcosms** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
MunakataMarr, J., MATHESON, V. G., Forney, L. J., Tiedje, J. M., McCarty, P. L.
1997; 31 (3): 786-791
- **Numerical modeling and uncertainties in rate coefficients for methane utilization and TCE cometabolism by a methane-oxidizing mixed culture** *BIOTECHNOLOGY AND BIOENGINEERING*
Smith, L. H., Kitanidis, P. K., McCarty, P. L.
1997; 53 (3): 320-331

- **Transformation yields of chlorinated ethenes by a methanotrophic mixed culture expressing particulate methane monooxygenase** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Anderson, J. E., McCarthy, P. L.
1997; 63 (2): 687-693
- **The environmental engineering and science program at Stanford University** *1996 Environmental Engineering Education Conference on the Relationship to Engineering Practice*
McCarty, P.
AMERICAN ACADEMY ENVIRONMENTAL ENGINEERS.1997: 51-53
- **Aerobic Cometabolism of Chlorinated Aliphatic Hydrocarbons** *Subsurface Restoration*
McCarty, P. L.
edited by Ward, C. H., Cherry, J. A., Scalf, M. R.
Ann Arbor Press, Inc..1997: 373-395
- **Bioaugmentation with Burkholderia cepacia: Trichloroethylene cometabolism vs. colonization** *4th International In Situ and On-Site Bioremediation Symposium*
MunakataMarr, J., MATHESON, V. G., Forney, L. J., Tiedje, J. M., McCarty, P. L.
BATTELLE PRESS.1997: 501-506
- **Effect of three chlorinated ethenes on growth rates for a methanotrophic mixed culture** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Anderson, J. E., McCarthy, P. L.
1996; 30 (12): 3517-3524
- **Enhancement of trichloroethylene degradation in aquifer microcosms bioaugmented with wild type and genetically altered Burkholderia (Pseudomonas) cepacia G4 and PR1** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
MunakataMarr, J., McCarty, P. L., Shields, M. S., Reagin, M., Francesconi, S. C.
1996; 30 (6): 2045-2052
- **Isolation and characterization of a facultatively aerobic bacterium that reductively dehalogenates tetrachloroethene to cis-1,2-dichloroethene** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Sharma, P. K., McCarty, P. L.
1996; 62 (3): 761-765
- **Transferability of biotreatment from site to site** *OECD Workshop Amsterdam 95 on Wider Application and Diffusion of Bioremediation Technologies*
McCarty, P. L.
ORGANIZATION ECONOMIC COOPERATION & DEVELOPMENT.1996: 201-210
- **METHANOTROPHIC CHLOROETHENE TRANSFORMATION CAPACITIES AND 1,1-DICHLOROETHENE TRANSFORMATION PRODUCT TOXICITY** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Dolan, M. E., McCarthy, P. L.
1995; 29 (11): 2741-2747
- **APPARATUS FOR DOWN-WELL OXYGEN-TRANSFER INTO CONTAMINATED AQUIFERS** *JOURNAL OF ENVIRONMENTAL ENGINEERING-ASCE*
Bae, J. H., Semprini, L., McCarty, P. L.
1995; 121 (8): 565-570
- **SMALL COLUMN MICROCOSM FOR ASSESSING METHANE-STIMULATED VINYL-CHLORIDE TRANSFORMATION IN AQUIFER SAMPLES** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Dolan, M. E., McCarty, P. L.
1995; 29 (8): 1892-1897
- **FIELD-EVALUATION OF IN-SITU AEROBIC COMETABOLISM OF TRICHLOROETHYLENE AND 3 DICHLOROETHYLENE ISOMERS USING PHENOL AND TOLUENE AS THE PRIMARY SUBSTRATES** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Hopkins, G. D., McCarty, P. L.
1995; 29 (6): 1628-1637
- **Field Studies: Elicitation of Fate and Transport Processes and Application of Full-Scale Remediation** *Soil and Groundwater Pollution*
Goltz, M. N., Hopkins, G. D., McCarty, P. L.
edited by Zehnder, A. J.

Kluwer Academic Publishers.1995: 110–116

- **MODEL FOR TREATMENT OF TRICHLOROETHYLENE BY METHANOTROPHIC BIOFILMS** *JOURNAL OF ENVIRONMENTAL ENGINEERING-ASCE*
Anderson, J. E., McCarty, P. L.
1994; 120 (2): 379-400
- **FACTORS AFFECTING TRANSFORMATION OF CHLORINATED ALIPHATIC HYDROCARBONS BY METHANOTROPHS** *2nd International Symposium on In Situ and On-Site Bioreclamation*
Dolan, M. E., McCarty, P. L.
LEWIS PUBLISHERS INC.1994: 303–308
- **A Laboratory and Field Evaluation of Enhanced In-Situ Bioremediation of Trichloroethylene, cis- and trans-Dichloroethylene, and Vinyl Chloride by Methanotrophic Bacteria** *Bioremediation Field Experienc*
Semprini, L., Hopkins, G., Grbic-Galic, D., McCarty, P. L., Roberts, P. V.
edited by Flathman, P. E., Ferger, D. E., Exner, J. H.
Lewis Publishers.1994: 383–412
- **Ground-Water Treatment for Chlorinated Solvents** *Handbook of Bioremediation*
McCarty, P. L., Semprini, L.
edited by Norris, R. D.
Lewis Publishers.1994: 87–116
- **Chemistry for Environmental Engineering**
Sawyer, C. N., McCarty, P. L., Parkin, G. F.
McGraw-Hill Inc..1994
- **A FIELD AND MODELING COMPARISON OF INSITU TRANSFORMATION OF TRICHLOROETHYLENE BY METHANE UTILIZERS AND PHENOL UTILIZERS** *2nd International Symposium on In Situ and On-Site Bioreclamation*
Semprini, L., Hopkins, G. D., McCarty, P. L.
LEWIS PUBLISHERS INC.1994: 248–254
- **VARIATION OF CARBON-MONOXIDE PRODUCTION DURING METHANE FERMENTATION OF GLUCOSE** *WATER ENVIRONMENT RESEARCH*
Bae, J. H., McCarty, P. L.
1993; 65 (7): 890-898
- **TRICHLOROETHYLENE CONCENTRATION EFFECTS ON PILOT FIELD-SCALE IN-SITU GROUNDWATER BIOREMEDIATION BY PHENOL-OXIDIZING MICROORGANISMS** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Hopkins, G. D., Munakata, J., Semprini, L., McCarty, P. L.
1993; 27 (12): 2542-2547
- **SORPTION OF TRICHLOROETHYLENE ONTO A ZEOLITE ACCOMPANIED BY METHANOTROPHIC BIOTRANSFORMATION** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Alvarez-Cohen, L., McCarty, P. L., Roberts, P. V.
1993; 27 (10): 2141-2148
- **MICROCOSM AND IN-SITU FIELD STUDIES OF ENHANCED BIOTRANSFORMATION OF TRICHLOROETHYLENE BY PHENOL-UTILIZING MICROORGANISMS** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Hopkins, G. D., Semprini, L., McCarty, P. L.
1993; 59 (7): 2277-2285
- **INFLUENCE OF THE ENDOGENOUS STORAGE LIPID POLY-BETA-HYDROXYBUTYRATE ON THE REDUCING POWER-AVAILABILITY DURING COMETABOLISM OF TRICHLOROETHYLENE AND NAPHTHALENE BY RESTING METHANOTROPHIC MIXED CULTURES** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Henrysson, T., McCarty, P. L.
1993; 59 (5): 1602-1606
- **INHIBITION OF BUTYRATE OXIDATION BY FORMATE DURING METHANOGENESIS** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Bae, J., McCarty, P. L.
1993; 59 (2): 628-630

- **In Situ Bioremediation of Chlorinated Solvents** *Current Opinion in Biotechnology*
McCarty, P. L.
1993; 4 (3): 103-115
- **Biological and Chemical Transformations of Halogenated Aliphatic Compounds in Aquatic and Terrestrial Environments** *Biogeochemistry of Global Change: Radiatively Active Trace Gases*
McCarty, P. L., Reinhard, M.
edited by Oremland, R. S.
Chapman & Hall, Inc..1993: 839–852
- **Engineering and Hydrogeological Problems Associated with In Situ Treatment** *Hydrological Sciences*
McCarty, P. L., Semprini, L.
1993; 38 (4): 261-272
- **INSITU TRANSFORMATION OF CARBON-TETRACHLORIDE AND OTHER HALOGENATED COMPOUNDS RESULTING FROM BIOSTIMULATION UNDER ANOXIC CONDITIONS** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Semprini, L., Hopkins, G. D., McCarty, P. L., Roberts, P. V.
1992; 26 (12): 2454-2461
- **CHARACTERIZATION OF A METHANE-UTILIZING BACTERIUM FROM A BACTERIAL CONSORTIUM THAT RAPIDLY DEGRADES TRICHLOROETHYLENE AND CHLOROFORM** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Alvarez-Cohen, L., McCarty, P. L., BOULYGINA, E., Hanson, R. S., Brusseau, G. A., TSIEN, H. C.
1992; 58 (6): 1886-1893
- **COMPARISON BETWEEN MODEL SIMULATIONS AND FIELD RESULTS FOR INSITU BIORESTORATION OF CHLORINATED ALIPHATICS .2. COMETABOLIC TRANSFORMATIONS** *GROUND WATER*
Semprini, L., McCarty, P. L.
1992; 30 (1): 37-44
- **Pilot Scale Field Studies of In-Situ Bioremediation of Chlorinated Solvents** *Journal of Hazardous Materials*
Semprini, L., Hopkins, G. D., Roberts, P. V., McCarty, P. L.
1992; 32: 145-162
- **Movement and Transformations of Halogenated Aliphatic Compounds in Natural Systems** *Fate of Pesticides and Chemicals in the Environment*
McCarty, P. L., Roberts, P. V., Reinhard, M., Hopkins, G.
edited by Schnoor, J. L.
John Wiley I& Sons, Inc..1992: 191–209
- **A COMETABOLIC BIOTRANSFORMATION MODEL FOR HALOGENATED ALIPHATIC-COMPOUNDS EXHIBITING PRODUCT TOXICITY** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Alvarez-Cohen, L., McCarty, P. L.
1991; 25 (8): 1381-1387
- **2-STAGE DISPERSED-GROWTH TREATMENT OF HALOGENATED ALIPHATIC-COMPOUNDS BY COMETABOLISM** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Alvarez-Cohen, L., McCarty, P. L.
1991; 25 (8): 1387-1393
- **ELECTROLYTIC MODEL SYSTEM FOR REDUCTIVE DEHALOGENATION IN AQUEOUS ENVIRONMENTS** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Criddle, C. S., McCarty, P. L.
1991; 25 (5): 973-978
- **COMPARISON BETWEEN MODEL SIMULATIONS AND FIELD RESULTS FOR INSITU BIORESTORATION OF CHLORINATED ALIPHATICS .1. BIOSTIMULATION OF METHANOTROPHIC BACTERIA** *GROUND WATER*
Semprini, L., McCarty, P. L.
1991; 29 (3): 365-374
- **PRODUCT TOXICITY AND COMETABOLIC COMPETITIVE-INHIBITION MODELING OF CHLOROFORM AND TRICHLOROETHYLENE TRANSFORMATION BY METHANOTROPHIC RESTING CELLS** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Alvarez-Cohen, L., McCarty, P. L.

1991; 57 (4): 1031-1037

- **A FIELD-EVALUATION OF INSITU BIODEGRADATION OF CHLORINATED ETHENES .3. STUDIES OF COMPETITIVE-INHIBITION** *GROUND WATER*
Semprini, L., Hopkins, G. D., Roberts, P. V., GRBICGALIC, D., McCarty, P. L.
1991; 29 (2): 239-250
- **INSITU BIOTRANSFORMATION OF CARBON-TETRACHLORIDE, FREON-113, FREON-11, AND 1,1,1-TCA UNDER ANOXIC CONDITIONS** *INTERNATIONAL SYMP ON IN SITU AND ON-SITE BIORECLAMATION*
Semprini, L., Hopkins, G. D., Roberts, P. V., McCarty, P. L.
BUTTERWORTH-HEINEMANN.1991: 41-58
- **Terrestrial Physical and Chemical Processes for Liquid Waste Treatment** *Waste Management & Research*
McCarty, P. L.
1991; 9: 379-387
- **Engineering Concepts for In Situ Bioremediation** *Journal of Hazardous Materials*
McCarty, P. L.
1991; 28: 1-11
- **Microbial Processes in Porous Media," Transport Processes in Porous Media** *Transport Processes in Porous Media*
Criddle, C. S., Alvarez, L. M., McCarty, P. L.
edited by Bear, J., Corapcioglu, M. Y.
Kluwer Academic Publishers.1991: 639-691
- **Modeling of Anaerobic Digestion Processes (A Discussion of Concepts)** *Water Science and Technology*
McCarty, P. L., Mosey, F. e.
1991; 24 (8): 17-33
- **Microbial Hydrolysis of Lignocellulosic Materials** *Methane from Community Wastes*
Tong, X., McCarty, P. L.
edited by Isaacson, R.
Elsevier Publishers.1991: 61-100
- **EFFECTS OF TOXICITY, AERATION, AND REDUCTANT SUPPLY ON TRICHLOROETHYLENE TRANSFORMATION BY A MIXED METHANOTROPHIC CULTURE** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Alvarez-Cohen, L., McCarty, P. L.
1991; 57 (1): 228-235
- **DEGRADATION OF TOLUENE AND PARA-XYLENE IN ANAEROBIC MICROCOSMS - EVIDENCE FOR SULFATE AS A TERMINAL ELECTRON-ACCEPTOR** *ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY*
Haag, F., Reinhard, M., McCarty, P. L.
1991; 10 (11): 1379-1389
- **BIOTRANSFORMATION OF MONOAROMATIC HYDROCARBONS UNDER ANOXIC CONDITIONS** *INTERNATIONAL SYMP ON IN SITU AND ON-SITE BIORECLAMATION*
Ball, H. A., Reinhard, M., McCarty, P. L.
BUTTERWORTH-HEINEMANN.1991: 458-463
- **INSITU METHANOTROPHIC BIOREMEDIATION FOR CONTAMINATED GROUNDWATER AT ST-JOSEPH, MICHIGAN** *INTERNATIONAL SYMP ON IN SITU AND ON-SITE BIORECLAMATION*
McCarty, P. L., Semprini, L., Dolan, M. E., Harmon, T. C., TIEDEMAN, C., Gorelick, S. M.
BUTTERWORTH-HEINEMANN.1991: 16-40
- **TRANSFORMATION OF CARBON-TETRACHLORIDE BY PSEUDOMONAS SP STRAIN KC UNDER DENITRIFICATION CONDITIONS** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Criddle, C. S., DEWITT, J. T., GRBICGALIC, D., McCarty, P. L.
1990; 56 (11): 3240-3246
- **COLUMN STUDIES ON METHANOTROPHIC DEGRADATION OF TRICHLOROETHENE AND 1,2-DICHLOROETHANE** *GROUND WATER*
LANZARONE, N. A., McCarty, P. L.

1990; 28 (6): 910-919

- **REDUCTIVE DEHALOGENATION OF CARBON-TETRACHLORIDE BY ESCHERICHIA-COLI K-12** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Criddle, C. S., DEWITT, J. T., McCarty, P. L.
1990; 56 (11): 3247-3254
- **A FIELD-EVALUATION OF INSITU BIODEGRADATION OF CHLORINATED ETHENES .2. RESULTS OF BIOSTIMULATION AND BIOTRANSFORMATION EXPERIMENTS** *GROUND WATER*
Semprini, L., Roberts, P. V., Hopkins, G. D., McCarty, P. L.
1990; 28 (5): 715-727
- **METHANE FERMENTATION OF SELECTED LIGNOCELLULOSIC MATERIALS** *BIOMASS*
Tong, X. G., Smith, L. H., McCarty, P. L.
1990; 21 (4): 239-255
- **Scientific Limits to Remediation of Contaminated Soils and Groundwater** *Ground Water and Soil Contamination Remediation: Toward Compatible Science, Policy, and Public Perception*
McCarty, P. L.
National Academy Press.1990: 38-52
- **Volatile Organic Chemicals and Intentional Reuse** *Significance and Treatment of Volatile Organic Compounds in Water Supplies*
McCarty, P. L., Cantor, K. P.
edited by Ram, N. M., Christman, R. F.
Lewis Publishers, Inc..1990: 127-138
- **FACTORS GOVERNING METHANE FLUCTUATIONS FOLLOWING SHOCK LOADING OF DIGESTERS** *RESEARCH JOURNAL OF THE WATER POLLUTION CONTROL FEDERATION*
Smith, D. P., McCarty, P. L.
1990; 62 (1): 58-64
- **REDUCED PRODUCT FORMATION FOLLOWING PERTURBATION OF ETHANOL-FED AND PROPIONATE-FED METHANOGENIC CSTRS** *BIOTECHNOLOGY AND BIOENGINEERING*
Smith, D. P., McCarty, P. L.
1989; 34 (7): 885-895
- **BIOTRANSFORMATION OF HALOGENATED AND NONHALOGENATED OCTYLPHENOL POLYETHOXYLATE RESIDUES UNDER AEROBIC AND ANAEROBIC CONDITIONS** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Ball, H. A., Reinhard, M., McCarty, P. L.
1989; 23 (8): 951-961
- **ENERGETIC AND RATE EFFECTS ON METHANOGENESIS OF ETHANOL AND PROPIONATE IN PERTURBED CSTRS** *BIOTECHNOLOGY AND BIOENGINEERING*
Smith, D. P., McCarty, P. L.
1989; 34 (1): 39-54
- **KINETICS OF BIOTRANSFORMATION OF 1,1,1-TRICHLOROETHANE BY CLOSTRIDIUM SP STRAIN TCAIIB** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Galli, R., McCarty, P. L.
1989; 55 (4): 845-851
- **BIOTRANSFORMATION OF 1,1,1-TRICHLOROETHANE, TRICHLOROMETHANE, AND TETRACHLOROMETHANE BY A CLOSTRIDIUM SP** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Galli, R., McCarty, P. L.
1989; 55 (4): 837-844
- **DEGRADATION OF TRICHLOROETHYLENE BY METHANOTROPHIC BACTERIA IN A LABORATORY COLUMN OF SATURATED AQUIFER MATERIAL** *WATER SCIENCE AND TECHNOLOGY*
MAYER, K. P., GRBICGALIC, D., Semprini, L., McCarty, P. L.
1988; 20 (11-12): 175-178

- **Environmental Biotechnology, Reducing Risks from Environmental Chemicals through Biotechnology**
edited by Omenn, C. S., Colwell, R., Chakrabarty, A. M., Lewis, A. M., McCarty, P. L.
Plenum Press.1988
- **Bioengineering Issues Related to In-Situ Remediation of Contaminated Soils and Groundwater** *Environmental Biotechnology*
McCarty, P. L.
edited by Omenn, G. S.
Plenum Publishing Corp..1988: 143–162
- **THERMOCHEMICAL PRETREATMENT OF LIGNOCELLULOSE TO ENHANCE METHANE FERMENTATION .1. MONOSACCHARIDE AND FURFURALS HYDROTHERMAL DECOMPOSITION AND PRODUCT FORMATION RATES** *BIOTECHNOLOGY AND BIOENGINEERING*
BAUGH, K. D., McCarty, P. L.
1988; 31 (1): 50-61
- **THERMOCHEMICAL PRETREATMENT OF LIGNOCELLULOSE TO ENHANCE METHANE FERMENTATION .2. EVALUATION AND APPLICATION OF PRETREATMENT MODEL** *BIOTECHNOLOGY AND BIOENGINEERING*
BAUGH, K. D., Levy, J. A., McCarty, P. L.
1988; 31 (1): 62-70
- **ABIOTIC AND BIOTIC TRANSFORMATIONS OF 1,1,1-TRICHLOROETHANE UNDER METHANOGENIC CONDITIONS** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Vogel, T. M., McCarty, P. L.
1987; 21 (12): 1208-1213
- **OPERATIONAL EXPERIENCES WITH ACTIVATED CARBON ADSORBERS AT WATER FACTORY 21** *JOURNAL OF ENVIRONMENTAL PATHOLOGY TOXICOLOGY AND ONCOLOGY*
McCarty, P. L., Argo, D., Reinhard, M.
1987; 7 (7-8): 319-338
- **TRANSFORMATIONS OF HALOGENATED ALIPHATIC-COMPOUNDS** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Vogel, T. M., Criddle, C. S., McCarty, P. L.
1987; 21 (8): 722-736
- **ES Critical Reviews: Transformations of halogenated aliphatic compounds.** *Environmental science & technology*
Vogel, T. M., Criddle, C. S., McCarty, P. L.
1987; 21 (8): 722-736
- **Column Methodologies for Determining Sorption and Biotransformation Potential for Chlorinated Aliphatic Compounds in Aquifers** *Journal of Contaminant Hydrology*
Siegrist, H., McCarty, P. L.
1987; 2: 31-50
- **Removal of Organic Substances from Water by Air Stripping** *Control of Organic Substances in Water and Wastewater*
McCarty, P. L.
edited by Berger, B. B.
Noyes Publications.1987: 119–147
- **Rate of Abiotic Formation of 1,1-Dichloroethylene from 1,1,1-Trichloroethane in Groundwater** *Journal of Contaminant Hydrology*
Vogel, T. M., McCarty, P. L.
1987; 1: 299-308
- **ANAEROBIC WASTE-WATER TREATMENT .4.** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
McCarty, P. L., Smith, D. P.
1986; 20 (12): 1200-1206
- **REMOVING TRACE ORGANICS BY REVERSE-OSMOSIS USING CELLULOSE-ACETATE AND POLYAMIDE MEMBRANES** *JOURNAL AMERICAN WATER WORKS ASSOCIATION*
Reinhard, M., Goodman, N. L., McCarty, P. L., ARGO, D. G.
1986; 78 (4): 163-174

- **Reduction of Hexachloroethane to Tetrachloroethylene in Groundwater** *Journal of Contaminant Hydrology*
Criddle, C., Elliott, C., McCarty, P. L., Barker, J. F.
1986; 1 (1/2): 133-142
- **NUMERICAL-SIMULATION OF MIXED-CULTURE BIOFILM - CLOSURE** *JOURNAL OF ENVIRONMENTAL ENGINEERING-ASCE*
Kissel, J. C., McCarty, P. L., Street, R. L.
1985; 111 (4): 549-551
- **Processes Affecting the Movement and Fate of Trace Organics in the Subsurface Environment** *Artificial Recharge of Groundwater*
McCarty, P. L., Rittmann, B. E., Reinhard, M.
edited by Asano, T.
Butterworth Publishers.1985: 627-646
- **Effect of Hydrogen Concentration on Population Distribution and Kinetics in Methanogenesis of Propionate** *Biotechnological Advances in Processing Municipal Wastes for Fuels and Chemicals*
McCarty, P. L., Smith, D.
edited by Antonopoulos, A. A.
Argonne National Laboratory.1985: 53-66
- **Ground Water Quality**
edited by Ward, C. H., Giger, W., McCarty, P. L.
John Wiley & Sons, Inc..1985
- **ETHYLENE DIBROMIDE TRANSFORMATION UNDER METHANOGENIC CONDITIONS** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Bouwer, E. J., McCarty, P. L.
1985; 50 (2): 527-528
- **PERFORMANCE-CHARACTERISTICS OF THE ANAEROBIC BAFFLED REACTOR** *WATER RESEARCH*
Bachmann, A., BEARD, V. L., McCarty, P. L.
1985; 19 (1): 99-106
- **UTILIZATION RATES OF TRACE HALOGENATED ORGANIC-COMPOUNDS IN ACETATE-GROWN BIOFILMS** *BIOTECHNOLOGY AND BIOENGINEERING*
Bouwer, E. J., McCarty, P. L.
1985; 27 (11): 1564-1571
- **BIOTRANSFORMATION OF TETRACHLOROETHYLENE TO TRICHLOROETHYLENE, DICHLOROETHYLENE, VINYL-CHLORIDE, AND CARBON-DIOXIDE UNDER METHANOGENIC CONDITIONS** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Vogel, T. M., McCarty, P. L.
1985; 49 (5): 1080-1083
- **NUMERICAL-SIMULATION OF MIXED-CULTURE BIOFILM** *JOURNAL OF ENVIRONMENTAL ENGINEERING-ASCE*
Kissel, J. C., McCarty, P. L., Street, R. L.
1984; 110 (2): 393-411
- **Microbiological Processes Affecting Chemical Transformations in Groundwater** *Groundwater Pollution Microbiology*
McCarty, P. L., Rittmann, B. E., Bouwer, E. J.
edited by Bitton, G., Gerba, C. P.
John Wiley & Sons, Inc..1984: 89-115
- **Biofilm Transformations of Trace Organic Compounds in Groundwater** *Biofilm Processes in Ground Water Research*
McCarty, P. L.
Ecological Research Committee of NFR, Sweden.1984: 91-111
- **MODELING OF TRACE ORGANICS BIOTRANSFORMATION IN THE SUBSURFACE** *GROUND WATER*
Bouwer, E. J., McCarty, P. L.
1984; 22 (4): 433-440
- **SECONDARY SUBSTRATE UTILIZATION OF METHYLENE-CHLORIDE BY AN ISOLATED STRAIN OF PSEUDOMONAS SP** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*

-
- LAPATPOLASKO, L. T., McCarty, P. L., Zehnder, A. J.
1984; 47 (4): 825-830
- **CHEMICAL INDICATORS AND SURROGATE PARAMETERS IN WATER-TREATMENT** *JOURNAL AMERICAN WATER WORKS ASSOCIATION*
McCarty, P. L., AIETA, E. M.
1984; 76 (10): 98-106
 - **THE EFFECT OF THERMAL PRETREATMENT ON THE ANAEROBIC BIODEGRADABILITY AND TOXICITY OF WASTE ACTIVATED-SLUDGE** *WATER RESEARCH*
Stuckey, D. C., McCarty, P. L.
1984; 18 (11): 1343-1353
 - **ORGANIC CONTAMINANT BEHAVIOR DURING RAPID INFILTRATION OF SECONDARY WASTEWATER AT THE PHOENIX 23RD AVENUE PROJECT** *WATER RESEARCH*
Bouwer, E. J., McCarty, P. L., Bouwer, H., Rice, R. C.
1984; 18 (4): 463-472
 - **TRANSFORMATIONS OF 1-CARBON AND 2-CARBON HALOGENATED ALIPHATIC ORGANIC-COMPOUNDS UNDER METHANOGENIC CONDITIONS** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Bouwer, E. J., McCarty, P. L.
1983; 45 (4): 1286-1294
 - **Autohydrolysis for Increasing Methane Yields from Lignocellulosic Materials** *Fuel Gas Developments*
McCarty, P. L., Baugh, K., Bachmann, A., Owen, W., Everhart, T.
edited by Wise, D. L.
CRC Press, Inc..1983: 49-72
 - **EFFECTS OF 2-BROMOETHANESULFONIC ACID AND 2-CHLOROETHANESULFONIC ACID ON ACETATE UTILIZATION IN A CONTINUOUS-FLOW METHANOGENIC FIXED-FILM COLUMN** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Bouwer, E. J., McCarty, P. L.
1983; 45 (4): 1408-1410
 - **TRANSFORMATIONS OF HALOGENATED ORGANIC-COMPOUNDS UNDER DENITRIFICATION CONDITIONS** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Bouwer, E. J., McCarty, P. L.
1983; 45 (4): 1295-1299
 - **Model of steady-state-biofilm kinetics.** *Biotechnology and bioengineering*
Rittmann, B. E., McCarty, P. L.
1982; 24 (10): 2291-?
 - **ANAEROBIC DEGRADATION OF HALOGENATED 1-CARBON AND 2-CARBON ORGANIC-COMPOUNDS** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Bouwer, E. J., Rittmann, B. E., McCarty, P. L.
1982; 16 (2): 130-130
 - **Correspondence on: Anaerobic Degradation of Halogenated 1- and 2-Carbon Organic Compounds** *Environmental Science and Technology*
Bouwer, E. J., Rittmann, B. E., McCarty, P. L.
1982: 130
 - **REMOVAL OF TRACE CHLORINATED ORGANIC-COMPOUNDS BY ACTIVATED CARBON AND FIXED-FILM BACTERIA** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Bouwer, E. J., McCarty, P. L.
1982; 16 (12): 836-843
 - **HEAT-TREATMENT AND ANAEROBIC-DIGESTION OF REFUSE** *JOURNAL OF THE ENVIRONMENTAL ENGINEERING DIVISION-ASCE*
Gossett, J. M., Stuckey, D. C., Owen, W. F., McCarty, P. L.
1982; 108 (3): 437-454
 - **TRACE ORGANICS IN GROUNDWATER** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
McCarty, P. L., Reinhard, M., Rittmann, B. E.
-

1981; 15 (1): 40-?

- **Water and Its Challenges** *The Stanford Engineer*
McCarty, P. L.
Stanford School of Engineering.1981: 23-31
- **Heat Treatment of Organic Materials for Increasing Anaerobic Biodegradability** *Fuel Gas Production from Biomass*
Young, L. Y., McCarty, P. L.
edited by Wise, D. L.
CRC Press, Inc..1981: 133-176
- **One Hundred Years of Anaerobic Treatment** *Anaerobic Digestion 1981*
McCarty, P. L.
edited by Hughes, H.
Elsevier Biomedical Press, Inc..1981: 3-22
- **TRACE ORGANIC BEHAVIOR IN SOIL COLUMNS DURING RAPID INFILTRATION OF SECONDARY WASTE-WATER** *WATER RESEARCH*
Bouwer, E. J., McCarty, P. L., LANCE, J. C.
1981; 15 (1): 151-159
- **A COMPARISON OF THE CHARACTERISTICS OF SOLUBLE ORGANIC NITROGEN IN UNTREATED AND ACTIVATED-SLUDGE TREATED WASTEWATERS** *WATER RESEARCH*
Parkin, G. F., McCarty, P. L.
1981; 15 (1): 139-149
- **PRODUCTION OF SOLUBLE ORGANIC NITROGEN DURING ACTIVATED-SLUDGE TREATMENT** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
Parkin, G. F., McCarty, P. L.
1981; 53 (1): 99-112
- **SOURCES OF SOLUBLE ORGANIC NITROGEN IN ACTIVATED-SLUDGE EFFLUENTS** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
Parkin, G. F., McCarty, P. L.
1981; 53 (1): 89-98
- **CHARACTERIZATION AND METHANE FERMENTATION OF SOLUBLE PRODUCTS FROM STAGED AUTOHYDROLYSIS OF WOOD** *BIOTECHNOLOGY AND BIOENGINEERING*
BAUGH, K. D., Bachmann, A., Everhart, T., McCarty, P. L.
1981: 113-124
- **SUBSTRATE FLUX INTO BIOFILMS OF ANY THICKNESS** *JOURNAL OF THE ENVIRONMENTAL ENGINEERING DIVISION-ASCE*
Rittmann, B. E., McCarty, P. L.
1981; 107 (4): 831-849
- **ANAEROBIC DEGRADATION OF HALOGENATED 1-CARBON AND 2-CARBON ORGANIC-COMPOUNDS** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Bouwer, E. J., Rittmann, B. E., McCarty, P. L.
1981; 15 (5): 596-599
- **ORGANIC CONTAMINANT BEHAVIOR DURING GROUNDWATER RECHARGE** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
Roberts, P. V., McCarty, P. L., Reinhard, M., Schreiner, J.
1980; 52 (1): 161-172
- **Organic Materials Formed Through Decolorization of Coffee Wastewater with Chlorine and Chlorine Dioxide** *Water Chlorination, Environmental Impact and Health Effects*
Bouwer, E. J., Reinhard, M., Everhart, T.
edited by Jolly, R. L.
Ann Arbor Science Publishers.1980: 315-323
- **Processes Affecting the Movement and Fate of Trace Organics in the Subsurface Environment** *Wastewater Reuse for Groundwater Recharge*
McCarty, P. L., Rittmann, B. E., Reinhard, M.
edited by Asano, T., Roberts, P. V.

California State Water Resources Control Board.1980: 93–117

- **Reliability of Water Factory 21 Wastewater Reuse for Groundwater Recharge**
Argo, D. G., McCarty, P. L., Reinhard, M.
edited by Asano, T., Roberts, P. V.
California State Water Resources Control Board.1980: 55–72
- **ORGANICS IN WATER - AN ENGINEERING CHALLENGE** *JOURNAL OF THE ENVIRONMENTAL ENGINEERING DIVISION-ASCE*
McCarty, P. L.
1980; 106 (1): 1-17
- **ANAEROBIC TOXICITY EVALUATION BY BATCH AND SEMI-CONTINUOUS ASSAYS** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
Stuckey, D. C., Owen, W. F., McCarty, P. L., Parkin, G. F.
1980; 52 (4): 720-729
- **FEASIBILITY OF A PEAT BIOGASIFICATION PROCESS** *RESOURCE RECOVERY AND CONSERVATION*
BUIVID, M. G., Wise, D. L., RADER, A. M., McCarty, P. L., Owen, W. F.
1980; 5 (2): 117-138
- **UTILIZATION OF DICHLOROMETHANE BY SUSPENDED AND FIXED-FILM BACTERIA** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Rittmann, B. E., McCarty, P. L.
1980; 39 (6): 1225-1226
- **TRACE-ORGANICS BIODEGRADATION IN AQUIFER RECHARGE** *GROUND WATER*
Rittmann, B. E., McCarty, P. L., Roberts, P. V.
1980; 18 (3): 236-243
- **DESIGN OF FIXED-FILM PROCESSES WITH STEADY-STATE-BIOFILM MODEL** *PROGRESS IN WATER TECHNOLOGY*
Rittmann, B. E., McCarty, P. L.
1980; 12 (6): 271-281
- **EVALUATION OF STEADY-STATE-BIOFILM KINETICS** *BIOTECHNOLOGY AND BIOENGINEERING*
Rittmann, B. E., McCarty, P. L.
1980; 22 (11): 2359-2373
- **MODEL OF STEADY-STATE-BIOFILM KINETICS** *BIOTECHNOLOGY AND BIOENGINEERING*
Rittmann, B. E., McCarty, P. L.
1980; 22 (11): 2343-2357
- **TRACE ORGANICS REMOVAL BY ADVANCED WASTEWATER-TREATMENT** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
McCarty, P. L., Reinhard, M.
1980; 52 (7): 1907-1922
- **TRACE ORGANICS REMOVAL BY ADVANCED WASTE TREATMENT** *JOURNAL OF THE ENVIRONMENTAL ENGINEERING DIVISION-ASCE*
Reinhard, M., Dolce, C. J., McCarty, P. L., ARGO, D. G.
1979; 105 (4): 675-693
- **Volatile Organic Contaminants Removal by Air Stripping** *Seminar on Controlling Organics in Drinking Water*
McCarty, P. L., Sutherland, K. H., Graydon, J., Reinhard, M.
American Water Works Association.1979
- **Thermochemical Pretreatment of Nitrogenous Materials to Increase Methane Yield** *Biotechnology and Bioengineering Symposium*
Stuckey, D. C., McCarty, P. L.
John Wiley & Sons.1979: 219–233
- **BIOASSAY FOR MONITORING BIOCHEMICAL METHANE POTENTIAL AND ANAEROBIC TOXICITY** *WATER RESEARCH*
Owen, W. F., Stuckey, D. C., Healy, J. B., Young, L. Y., McCarty, P. L.
1979; 13 (6): 485-492
- **REMOVAL OF SOLUBLE SECONDARY-EFFLUENT ORGANICS** *JOURNAL OF THE ENVIRONMENTAL ENGINEERING DIVISION-ASCE*
Randtke, S. J., McCarty, P. L.

1979; 105 (4): 727-743

- **OPERATIONAL EXPERIENCES WITH ACTIVATED CARBON ADSORBERS AT WATER FACTORY 21** *JOURNAL AMERICAN WATER WORKS ASSOCIATION*
McCarty, P. L., Argo, D., Reinhard, M.
1979; 71 (11): 683-689
- **INVESTIGATION OF SOLUBLE ORGANIC NITROGEN-COMPOUNDS IN MUNICIPAL SECONDARY EFFLUENT** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
Keller, J. V., Leckie, J. O., McCarty, P. L.
1978; 50 (11): 2522-2529
- **Effect of Thermal Pretreatment on Digestibility and Dewaterability of Organic Sludges** *Journal Water Pollution Control Federation*
Haug, R. T., Stuckey, D. C., Gossett, J. M., McCarty, P. L.
1978; 50: 73-85
- **Chemistry for Environmental Engineers**
Sawyer, C. N., McCarty, P. L.
McGraw-Hill Book Company.1978
- **DIRECT INJECTION OF RECLAIMED WATER INTO AN AQUIFER** *JOURNAL OF THE ENVIRONMENTAL ENGINEERING DIVISION-ASCE*
Roberts, P. V., McCarty, P. L., ROMAN, W. M.
1978; 104 (5): 933-949
- **VARIABLE-ORDER MODEL OF BACTERIAL-FILM KINETICS** *JOURNAL OF THE ENVIRONMENTAL ENGINEERING DIVISION-ASCE*
Rittmann, B. E., McCarty, P. L.
1978; 104 (5): 889-900
- **ANAEROBIC DIGESTION OF SLUDGE FROM CHEMICAL TREATMENT** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
Gossett, J. M., McCarty, P. L., Wilson, J. C., Evans, D. S.
1978; 50 (3): 533-542
- **VARIATIONS IN NITROGEN AND ORGANICS IN WASTEWATERS** *JOURNAL OF THE ENVIRONMENTAL ENGINEERING DIVISION-ASCE*
Randtke, S. J., McCarty, P. L.
1977; 103 (4): 539-550
- **Fundamental Research Needs in Wastewater Treatment for Biological Processes** *Fundamental Research Needs for Water and Wastewater Treatment Systems*
McCarty, P. L.
edited by Sherrard, J. H.
National Science Foundation.1977: 72-76
- **VERIFICATION STUDIES OF BIOFILM MODEL FOR BACTERIAL SUBSTRATE UTILIZATION** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
Williamson, K., McCarty, P. L.
1976; 48 (2): 281-296
- **Heat Treatment of Refuse for Increasing Anaerobic Biodegradability** *Biochemical Engineering—Energy, Renewable Resources and New Foods*
Gossett, J. M., McCarty, P. L.
American Institute of Chemical Engineers.1976; 158: 64-71
- **Heat Treatment for Increasing Methane Yields from Organic Materials** *Microbial Energy Conversion*
McCarty, P. L., Young, L. Y., Gossett, J. M., Stuckey, D. C., Healy Jr., J. B.
edited by Schlegel, H. G., Barnes, J.
Erich Golze KG.1976: 179-199
- **Kinetics of Biological Decomposition of Methylmercury** *Environmental Biogeochemistry*
Cooley, R. V., McCarty, P. L.
edited by Nriagu, J. O.
Ann Arbor Science.1976: 451-472

- **MODEL OF SUBSTRATE UTILIZATION BY BACTERIAL FILMS** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
Williamson, K., McCarty, P. L.
1976; 48 (1): 9-24
- **MULTI-PROCESS BIOLOGICAL TREATMENT MODEL** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
Christensen, D. R., McCarty, P. L.
1975; 47 (11): 2652-2664
- **Characteristics and Removal of Soluble Organic Nitrogen in Treated Effluents** *Progress in Water Technology*
Parkin, G. F., McCarty, P. L.
1975; 7: 435-445
- **Stoichiometry of Biological Reactions** *Progress in Water Technology*
McCarty, P. L.
1975; 7: 157-172
- **OXIDATION OF CINNABAR BY FE(III) IN ACID MINE WATERS** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
BURKSTALLER, J. E., McCarty, P. L., Parks, G. A.
1975; 9 (7): 676-678
- **RAPID MEASUREMENT OF MONOD HALF-VELOCITY COEFFICIENTS FOR BACTERIAL KINETICS** *BIOTECHNOLOGY AND BIOENGINEERING*
Williamson, K. J., McCarty, P. L.
1975; 17 (6): 915-924
- **FIELD STUDIES OF NITRIFICATION WITH SUBMERGED FILTERS** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
MCHARNESS, D. D., Haug, R. T., McCarty, P. L.
1975; 47 (2): 291-309
- **The Water Studies Program at Stanford University** *Civil Engineering Education*
McCarty, P. L.
1974; 1 (1): 193-199
- **NITRIFICATION WITH SUBMERGED FILTERS** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
Haug, R. T., McCarty, P. L.
1972; 44 (11): 2086-?
- **Energetics of Organic Matter Degradation**, *Microbiology of Polluted Waters*
McCarty, P. L.
edited by Mitchell, R.
John Wiley & Sons.1972: 91-118
- **Energetics and Bacterial Growth** *Organic Compounds in Aquatic Environments*
McCarty, P. L.
edited by Faust, S. D., Hunter, J. V.
Marcel Dekker, Inc..1971: 495-531
- **Nitrogen Removal from Waste Waters by Biological Nitrification and Denitrification** *Microbial Aspects of Pollution*
McCarty, P. L., Haug, R. T.
edited by Sykes, G., Skinner, F. A.
Academic Press.1971
- **Energetics and Kinetics of Anaerobic Treatment** *Anaerobic Biological Treatment Process*
McCarty, P. L.
edited by Pohland, F.
1971: 91-107
- **EFFECTS OF CARBONATE AND MAGNESIUM ON CALCIUM PHOSPHATE PRECIPITATION** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Ferguson, J. F., McCarty, P. L.

-
- 1971; 5 (6): 534-?
- **Energetics and Bacterial Growth** *Organic Compounds in Aquatic Environments*
McCarty, P. L.
Marcel Dekker, Inc. .1971: 495–531
 - **AEROBIC DECOMPOSITION OF ALGAE** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Jewell, W. J., McCarty, P. L.
1971; 5 (10): 1023-?
 - **Biological Processes for Nitrogen Removal—Theory and Application** *University of Illinois Bulletin*
McCarty, P. L.
1970; 68 (2): 136-152
 - **Unified Basis for Biological Treatment Design and Operation** *Journal Sanitary Engineering Division*
Lawrence, A. W., McCarty, P. L.
1970; 96 (SA3): 757-778
 - **The Extent of Nitrogen and Phosphorus Regeneration from Decomposing Algae** *Advances in Water Pollution Research*
Foree, E. G., Jewell, W. J., McCarty, P. L.
edited by Jenkins, S. H.
Pergamon Press.1970: III27/1–15
 - **The Decomposition of Algae in Anaerobic Waters** *Environmental Science and Technology*
Foree, E. G., McCarty, P. L.
1970; 4: 842-849
 - **Chemistry of Nitrogen and Phosphorus in Water** *Journal American Water Works Association*
McCarty, P. L.
1970; 62: 127-140
 - **ANAEROBIC FILTER FOR WASTE TREATMENT** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
Young, J. C., McCarty, P. L.
1969; 41 (5P2): R160-?
 - **Evaluation of Nitrification in Streams, A Discussion** *Journal of Sanitary Engineering Division*
Stratton, F. E., McCarty, P. L.
1969; 95 (SA5): 952-955
 - **Graphical Evaluation of the Kinetic Parameters for Bacterial Growth** *Canadian Journal Microbiology*
Stratton, F. E., McCarty, P. L.
1969; 15: 1201-1205
 - **Kinetics of Methane Fermentation in Anaerobic Treatment** *Journal Water Pollution Control Federation*
Lawrence, A. W., McCarty, P. L.
1969; 41: R1-R17
 - **TREATMENT OF HIGH NITRATE WATERS** *JOURNAL AMERICAN WATER WORKS ASSOCIATION*
STAMANT, P. P., McCarty, P. L.
1969; 61 (12): 659-?
 - **Advances in Water Pollution Research** *Advances in Water Quality Improvement*
McCarty, P. L.
edited by Gloyna, E. F., Eckenfelder, W. W.
University of Texas Press.1968: 336–352Advances in Water Quality Improvement
 - **A Chromatic Model for Predicting Pesticide Migration in Soils,** *Soil Science*
King, P. H., McCarty, P. L.
1968; 106: 248-261

- **Enzymes in Waste Treatment** *Bulletin, California Water Pollution Control Association*
McCarty, P. L.
1967; 3: 35-36
- **ANAEROBIC DEGRADATION OF SELECTED CHLORINATED HYDROCARBON PESTICIDES** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
Hill, D. W., McCarty, P. L.
1967; 39 (8): 1259-?
- **Prediction of Nitrification Effects on the Dissolved Oxygen Balance in Streams** *Environmental Science and Technology*
Stratton, F. E., McCarty, P. L.
1967; 1: 405-410
- **Sources of Nitrogen and Phosphorus in Water Supplies** *Journal American Water Works Association*
McCarty, P. L.
1967; 59: 344-366
- **Chemistry for Sanitary Engineers**
Sawyer, C. N., McCarty, P. L.
McGraw-Hill Book Company.1967
- **Discussion of the Role of Enzymes in Contact Stabilization Process** *Advances in Water Pollution Research*
McCarty, P. L., Speece, R. E.
edited by Siddigi, R. H., Englebrecht, R. S.
Water Pollution Control Federation.1967: 372-376
- **Proceedings of the National Symposium on Estuarine Pollution**
edited by McCarty, P. L., Kennedy, R.
Stanford University.1967
- **Nutrient Associated Problems in Water Quality and Treatment** *Journal American Water Works Association*
McCarty, P. L.
1966; 58
- **The Effects of Sulfides on Anaerobic Treatment** *International Journal of Air and Water Pollution*
Lawrence, A. W., McCarty, P. L.
1966; 10: 207-221
- **SLUDGE CONCENTRATION - NEEDS ACCOMPLISHMENTS AND FUTURE GOALS** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
McCarty, P. L.
1966; 38 (4): 493-?
- **Kinetics of Waste Assimilation in Anaerobic Treatment** *Developments in Industrial Microbiology*
McCarty, P. L.
American Institute of Biological Sciences.1966: 144-155
- **Biochemistry of Methane Fermentation Using C14 Tracers** *JOURNAL OF WATER POLLUTION CONTROL FEDERATION*
Jeris, J. S., McCarty, P. L.
1965; 37: 178-192
- **THERMODYNAMICS OF BIOLOGICAL SYNTHESIS AND GROWTH** *AIR AND WATER POLLUTION*
McCarty, P. L.
1965; 9 (10): 621-639
- **Cation Toxicity and Stimulation in Anaerobic Waste Treatment** *Journal Water Pollution Control Federation*
Kugelman, I. J., McCarty, P. L.
1965; 37: 97-116
- **The Role of Sulfides in Preventing Heavy Metal Toxicity in Anaerobic Digestion** *Journal Water Pollution Control Federation*
Lawrence, A. W., McCarty, P. L.

1965; 37: 392-406

- **Anaerobic Waste Treatment Fundamentals. Part III, Toxic Materials and Their Control** *Public Works*
McCarty, P. L.
1964; 95: 91-94
- **Nutrient Requirements and Biological Solids Accumulation in Anaerobic Digestion** *Advances in Water Pollution Research*
Speece, R. E., McCarty, P. L.
Pergamon Press.1964: 305-322
- **Anaerobic Waste Treatment Fundamentals. Part II, Environmental Requirements and Control** *Public Works*
McCarty, P. L.
1964; 95: 123-126
- **Research and Development for Reuse of Water** *Water; Development, Utilization, Conservation*
McCarty, P. L.
edited by McNickle, R. K.
University of Colorado Press.1964: 55-59
- **Anaerobic Waste Treatment Fundamentals. Part IV, Process Design** *Public Works*
McCarty, P. L.
1964; 95: 95-99
- **The Methane Fermentation** *Principles and Applications in Aquatic Microbiology*
McCarty, P. L.
edited by Heukelekian, H., Dondero, N. C.
John Wiley.1964: 314-343
- **Anaerobic Waste Treatment Fundamentals. Part I, Chemistry and Microbiology** *Public Works*
McCarty, P. L.
1964; 95: 107-112
- **Free Energy as a Parameter in Biological Treatment, A Discussion** *Journal Sanitary Engineering Division*
McCarty, P. L.
1963; 89 (SA6): 65-68
- **Significance of Individual Volatile Acids in Anaerobic Treatment** *JOURNAL OF WATER POLLUTION CONTROL FEDERATION*
McCarty, P. L., Jeris, J. S., Murdoch, W.
1963; 35: 1501-1516
- **VOLATILE ACID DIGESTION AT HIGH LOADING RATES** *INTERNATIONAL JOURNAL OF AIR AND WATER POLLUTION*
McCarty, P. L., Vath, C. A.
1962; 6 (1): 65-73
- **THEORY OF EXTENDED AERATION ACTIVATED SLUDGE** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
McCarty, P. L., BRODERSEN, C. F.
1962; 34 (11): 1095-1103
- **SALT TOXICITY IN ANAEROBIC DIGESTION** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
McCarty, P. L., McKinney, R. E.
1961; 33 (4): 399-415
- **VOLATILE ACID TOXICITY IN ANAEROBIC DIGESTION** *JOURNAL WATER POLLUTION CONTROL FEDERATION*
McCarty, P. L., McKinney, R. E.
1961; 33 (3): 223-232