Professor Emeritus

Rutgers University, Department of Environmental Science 14 College Farm Road New Brunswick, New Jersey 08903-8551 strom@envsci.rutgers.edu

Specialty: Microbial Ecology of the Biological Treatment of Wastes

Education

- B.S. in Physical Sciences, MIT, 1971. Individualized interdisciplinary program in environmental science with emphasis on chemistry, biology, and mathematics.
- M.S. in Environmental Science, Rutgers Univ., 1975. Thesis: Autotrophic Nitrifying Bacteria in Waste Water Effluents and their Resistance to Chlorination.
- Ph.D. in Environmental Science, Rutgers Univ., 1978. Thesis: The Thermophilic Bacterial Populations of Refuse Composting as Affected by Temperature.

Academic Positions

Rutgers University, Department of Environmental Sciences

2021- : Professor Emeritus

2000-2021: Professor

2008-2012: Undergraduate Program Director

- 1998-2002, 2003-2004: Graduate Program Director
- 1986-2000: Associate Professor
- 1980-1986: Assistant Professor
- Michigan State University, Center for Microbial Ecology
 - 1989-1990: Visiting Adjunct Scholar (sabbatical leave)
- University of California at Berkeley, Sanitary Engineering Research Laboratory
 - 1979-1980: Assistant Research Microbiologist
 - 1977-1979: Assistant Specialist
- Middlesex County College, Department of Chemistry, 1974-1975: Adjunct Faculty

Awards and Honors

- Harrison Prescott Eddy Medal, 1985. Awarded by the Water Pollution Control Federation for research on activated sludge bulking (with A. Lau & D. Jenkins)
- National Recycling Congress Award for Best Regional Recycling Facility, 1985. Presented to the Joyce Kilmer Regional Leaf Composting Facility, Middlesex County, NJ. (Helped initiate project, and served as technical adviser.)
- Outstanding Student Poster Abstract, 1994 Annual Meeting. Awarded to K.C. Oh by Society for Industrial Microbiology (co-authors: G. Zylstra & P.F. Strom).
- Team Award for Excellence in Research, 1996. Cook College/NJ Agricultural Experiment Station, for NJ NASA Specialized Center of Research & Training.
- New Jersey Select Society of Sanitary Sludge Shovelers, Inducted 1997. NJ Water Environment Association (NJWEA).
- Operator Educator Award. 2001. NJWEA.

Excellence in Teaching Award. 2002. Cook College, Rutgers University.

- Dennis M. Fenton Distinguished Graduate Alumni Award. 2009. George H. Cook Community Alumni Association.
- Life Membership. 2017. Association of Environmental Engineering and Science Professors.
- Life Membership. 2018. Water Environment Federation.
- 40 Year Membership. 2018. American Society for Microbiology.
- Wastewater Hall of Fame. 2018. NJWEA.
- WEF Fellow. 2018. Water Environment Federation.

Patents Koopman P

Koopman, B., A.O. Lau, P.F. Strom, & D. Jenkins. 1983. Liquid Level Control by Subsurface Drawoff. U.S. Patent #4,370,418. Lajoie, C.A. & P.F. Strom. 1999. Field Application Vectors. U.S. Patent #5,871,955. Referee and Reviewer Water Environment Research (1980 -) Water Research (1984 -Environmental Science & Technology (1997 -) A.S.C.E. Journal of Environmental Engineering (1989 -) Applied and Environmental Microbiology (1976, 1988 - 1994, 2009 -) Biotechnology & Bioengineering (1997 -) Environmental Engineering Science (1997 -) Soil Science (1997 -Compost Science & Utilization (1999-) Chemosphere (2000-) Waste Management (2016-) Journal of Environmental Management (2008-) Environmental Engineering and Management Journal Chemical Engineering Journal (2016) Environmental Science and Pollution Research (2015) PLOS One (2014) Journal of Residuals Science and Technology (2009) The Philippine Agricultural Scientist (2007) Bioresource Technology (2007) Life Support & Biosphere Science: International Journal of Earth/Space (1996 - 2006) Microbial Ecology (2004) Critical Reviews in Environmental Science & Technology (2004) FEMS Microbial Ecology (2000) Archives of Environmental Contamination & Toxicology (2001) Toxic & Hazardous Substance Control, Jour. of Environ. Science & Health (1994) International Conference on Environmental Systems (ICES; 1999) Journal of Industrial Microbiology (1991 - 1996) Journal of Microbiological Methods (1993) BioScience (1996 - 1997) American Journal of Alternative Agriculture (1995) Journal of Water Resources Planning and Management (1986) International Water Association (2016) Water Environment Federation, Technical Practice Committee, Manual of Practice: Biological and Chemical Systems for Nutrient Removal (2007 - 2008) Oxford Press (2012 - 2013) Prentice Hall (2006) Pearson/Benjamin Cummings (2004) WCB/McGraw-Hill (1999) National Science Foundation, Review Panel, Environmental Engineering Water/Wastewater or Biological Treatment Unsolicited Proposals (May and November 2008, May 2010, May 2013) Water Environment Research Foundation (2002 -) The College Board, Member, Environmental Science Advanced Placement:

Redesign Commission (2006 - 2007)

Review Advisory Panel (2008) Curriculum Development & Assessment Committee (2008 - 2011) Water Environment Federation Manual of Practice No. 34, Nutrient Removal (2008 - 2010) University of California, Berkeley: California State Water Resources Control Board (2007, 2015) NASA (2000 - 2005) NASA Lunar Science Institute, Review Panel (2008) Maryland Industrial Partnerships (2015-2016) Environmental Systems Commercial Space Technology Center, U. Florida (2001) University of Connecticut (2013) University of Vermont (2010) Louisiana Board of Regents (2000 - 2001) National Research Council (1993 - 1997) U.S. Department of Agriculture (1993 -U.S. Environmental Protection Agency (1988 -) U.S. Department of Defense, (1994) Office of Technology Assessment, U.S. Congress (1988 - 1989) Universities Council on Water Resources, U.S. Geological Survey (1985 - 1988) Maine Water Resources Institute Program USGS Grants (2009) Center for Environmental Management, Tufts University (1991 - 1995) Michigan Sea Grant College Program (1996) Illinois EPA (1997) Illinois Hazardous Waste Research and Information Center (1995) New York State Center for Hazardous Waste Management (1988 - 1990) International Assoc. on Water Pollution Research & Control Biennial Conf. (1987) Australian Research Grants Committee (1987) Proc. 5th Water Chlorination Conference (1984) Petroleum Research Fund, American Chemical Society (1983 - 1984) University of New South Wales, Australia (External Examiner, Ph.D. Thesis, 1981 - 1983) National Science Foundation (1981) Memberships in Professional and Environmental Organizations Water Environment Federation (1975 - ; life member, 2018) American Society for Microbiology (1974 - ; life member, 2018) New Jersey and other State and Local Water Environment Associations (1978 -) Association of Environmental Engineering & Science Professors (1981 - ; life member, 2017) Theobald Smith Society (NJ ASM Chapter; 1983 -) International Water Association (1986 - 2010) and more than 10 environmental organizations.

<u>Courses Taught at Rutgers</u> (* = taught until retirement in 2021)

- 16-375:530 Hazardous Waste Management (developed as new course, 1981)*
- 16-375:531 Biological Waste Treatment (developed as new course, 1981; taught until 2015)
- 11-375:430 Hazardous Wastes (developed as new course, 1982)*
- 11-375:201 Biological Princ. of Environ. Science (developed as new course, 1998, co-taught)*
- 11-375:101 Introduction to Environmental Science (completely revised course, 2004, co-taught with C. Phelps every semester; typical registration 300/semester)*
- 16-375:514 Fundamental Concepts of Environmental Sciences ((developed as new course, team taught, 1996-2002)
- 11-375:209 Elements of Environmental Pollution (1 4 lectures, 1991-1996)
- 16-375:518 Principles of Environmental Science (team taught, 1990-1995)
- 14-150:271 Packaging in the Modern World (2 lectures, 1991-1992)
- 11-015:101 Perspectives on Agriculture and the Environment (1997 1999)

Grants and Contracts

- Bacteria Associated with the Biological Treatment of Wastewater. P.F. Strom. Rutgers Research Council. July 1, 1981 May 1, 1982. \$2,000.
- The Role of Local Health Officials in Hazardous Material Incidents in the Community. J.H.Berkowitz, F.B. Flower, & P.F. Strom. U.S. EPA. Sept. 1, 1981 Dec. 1, 1982. \$17,845.
- Computer-Assisted Quantification of Activated Sludge Floc Structure. P.F. Strom. Rutgers Research Council. July 1, 1982 May 1, 1983. \$900.
- Microbiology of Rotating Biological Contactors for Wastewater Treatment. P.F. Strom. Rutgers Research Council. July 1, 1983 - May 1, 1984. \$1,600.
- Passaic River Water Quality Study. C. Uchrin & P.F. Strom. N.J. Dept. of Environmental Protection (DEP). July 1, 1983 June 30, 1984. \$31,400.
- Further Passaic River Water Quality Model Studies. P.F. Strom & C. Uchrin. N.J. DEP. Sept. 1, 1983 Aug. 31, 1984. \$30,000.
- Regional Composting of Leaves in Essex County: Montclair Research and Pilot Project. P.F. Strom & M.S. Finstein. N.J. Dept. of Energy, and Montclair Organizations for Recycling. Nov. 1, 1983 - June 20, 1985. \$32,532.
- Leaf Composting Manual for New Jersey Municipalities. P.F. Strom & M.S. Finstein. N.J. Dept. of Energy. July 1 - Dec. 31, 1985. \$2,500.
- Evaluation of Bioaugmentation Products for Activated Sludge Treatment of Toxic and Hazardous Wastewater. P.F. Strom. NSF Industry/Univ. Coop. Center for Research in Hazardous and Toxic Substances. July 1, 1985 Jan. 31, 1987. \$39,972.
- Unrestricted Gift to Support the Research of Dr. Peter F. Strom. Sybron Chemicals, Inc. 1986. \$97,500.
- Nutrients and Toxics Analysis of the Passaic-Pompton River System. P.F. Strom & A. McIntosh. N.J. DEP. Sept. 1, 1986 Mar. 1, 1988. \$78,000.
- Development of Leaf Composting Technical Education Program for New Jersey. J.J. Kupcho, F.B. Flower, P.F. Strom, & M.S. Finstein. N.J. DEP. Feb. 1, 1987 July 31, 1988. \$36,000.
- Effectiveness of Biological Treatment for PAH Contaminated Soil. P.F. Strom & C. Lajoie. Hazardous Substance Management Research Center (HSMRC). July 1, 1988 June 30, 1989. \$47,522.
- Yard Waste Composting. P.F. Strom & R. Fenske. N.J. DEP, Office of Recycling. June 1, 1988 Apr. 8, 1991. \$125,398.
- Optimization of Biological Soil Remediation. M.S. Finstein & P.F. Strom. U.S. EPA Hazardous Substance Research Center. Jan. 15, 1989 - Jan. 14, 1990. \$55,000.

- Development of a Novel Recombinant DNA Strategy for Successful Treatment of Hazardous Waste Sites. P.F. Strom & C.A. Lajoie. Innovative Partnership Grant, N.J. Comm. on Science and Technology, & Envirogen, Inc. Apr. 1990 - Mar. 1991. \$82,223.
- Unrestricted Gift to Support the Composting Research of Dr. Peter F. Strom. Perlite Institute, Inc. 1991. \$6,000.
- Enhanced Biotreatment by Magnetic Field Technology. P.F. Strom. Innovative Partnership Grant, HSMRC. July 1, 1991 -June 30, 1992. \$40,000.
- Field Application Vectors for Biodegradation of Hazardous Wastes. C.A. Lajoie, G. Zylstra, & P.F. Strom. N.J. DEP, Office of Science & Research. July 1, 1991 June 30, 1992. \$55,000.
- Low Nitrogen Bulking of Activated Sludge. P.F. Strom & V.A. Ksenofontov. National Research Council, Cooperation in Applied Science & Technology Program. Nov. 1, 1992 - July 31, 1993. \$11,100.
- Technical Review of Morris County Solid Waste Composting Facility Proposals. P.F. Strom. HDR Engineering/Morris County Municipal Utilities Authority. November 1993 - December 1994. \$26,400.
- Evaluation of the Activated Sludge Treatability and Toxicity of Fresh and Used Monoethanol Amine (MEA). R.M. Cowan & P.F. Strom. HSMRC. July 1, 1995 June 30, 1996. \$52,000.
- NJ NASA Specialized Center of Research and Training for Bioregenerative Life Support, Waste Processing Team. Project 1: Biotreatment of Volatile Air Contaminants. R.M. Cowan, T. G. Hartman, & P.F. Strom. NASA. January 1, 1996 - Dec. 31, 2001. \$932,000.
- Waste Minimization/Pollution Prevention in the Mid-Atlantic Food System. U. Krogmann & P.F. Strom. Mid-Atlantic Consortium & W.K. Kellogg Foundation Planning Grant. March 1, 1997 - January 1, 1998. \$8494.
- Presence and Significance of Nitrifying Bacteria in Water Distribution System Biofilms. P. Prommasith & P.F. Strom. NJ Water Resources Research Institute Grants-in-Aid for Graduate Student Research. April 1, 1997 March 31, 1999. \$6000.
- Characterization of Materials "Mined" from the Burlington County Landfill. U. Krogmann & P.F. Strom. NJ DEP. January 1, 2000 December 31, 2000. \$100,898.
- Simultaneous Nitrification/Denitrification and Biological Phosphorus Removal in Orbal[™] Oxidation Ditch. H. Littleton, R.M. Cowan, & P.F. Strom. U.S. Filter/Envirex. January 19, 1999 January 18, 2002. \$90,000.
- Characterizing Mechanisms of Simultaneous Biological Nutrient Removal during Wastewater Treatment.P.F. Strom, H. Littleton, R.M. Cowan, & G.T. Daigger. Water Environment Research Foundation.January 1, 2001 December 31, 2002. \$200,000.
- Treating Ammonia in Biofiltration Systems. J.A. Hogan & P.F. Strom. NJ-EcoComplex Life Support Center/NASA. August 1, 2002 July 31, 2003. \$135,617.
- Using Compost for Resource Recovery in Closed System Agriculture and Habitation. J.A. Hogan & P.F. Strom. NJ-EcoComplex Life Support Center/NASA. August 1, 2002 July 31, 2003. \$17,753.
- Biofiltration for Trace Contaminant Control in Advanced Life Support Systems . P.F. Strom. NJ-EcoComplex Life Support Center/NASA. November 1, 2004 – May 1, 2005. \$11,969.
- EcoComplex TMDL Review Panel. L. Axe, K. Jahan, W. Goldfarb, R.I. Hires, J.R. Reinfelder, P.F. Strom, C.G. Uchrin, & D. Vaccari. NJ DEP. August 1, 2000 July 30, 2007. \$1,800,000.
- Development, Implementation, and Evaluation of a Water Quality Trading Program for the Non-Tidal Passaic River Watershed. C.C. Obropta, PI, with Project Partners C. Uchrin, P.F. Strom, W. Goldfarb, G. Poe, R. Boisvert, J. Potent, Passaic River Basin Alliance, New Jersey Department of Environmental Protection, New Jersey Association of Environmental Authorities, & New Jersey League of Municipalities. January 1, 2005 – August 31, 2007. USEPA. \$899,990.

- Expanding Markets for and Preventing Stormwater Pollution from Mixed Glass Cullet in New Jersey. U. Krogmann & P.F. Strom. Rutgers EcoComplex, Monmouth County Department of Solid Waste, Recycle America, Blue Mountain Recycling, and Silica Solutions. July 1, 2005 June 30, 2006. \$65,160.
- Female Hormones in Surface Water of Central/Northern New Jersey: Impacts of Combined Sewer Overflows versus Treated Wastewater Discharge. W. Huang (PI) and P.F. Strom (Co-PI). Water Resources Research Institute. July 2006 – June 2007. \$30,000.
- Expanding Markets for and Preventing Stormwater Pollution from Mixed Glass Cullet in New Jersey, Part 2. U. Krogmann & P.F. Strom. Rutgers EcoComplex and several companies. March 2007 - February 2008. \$47,006.
- Self-Sufficient Urban Buildings. U. Krogmann (PI), C.A. Andrews (Co-PI), J. Amara, R. Burchell, P. Brunner, W. Huang, G. Kiss, G. Mainelis, D. Mendonça, M. Raman, P.F. Strom, & R. Wener. National Science Foundation. September 1, 2007 August 31, 2012. \$1,813,112.
- Optimizing Treatment Processes that Kill *Phragmites australis* Biomass and Pathogens in Reed Bed Sludge Residues. B. Ravit (PI) and P.F. Strom. Western Monmouth Utilities Authority. January 23, 2008 - February 28, 2009. \$66,825.
- Fate and Behavior of Alkylphenol Ethoxylates in Land-Applied Alkaline-Stabilized Biosolids. A. Adewunmi, D. Gimenez (PI), and P.F. Strom. NJ Agricultural Experiment Station. January 25, 2008-June 30, 2009. \$25,000.
- An Investigation of Quantity and Quality of Runoff from Stockpiles of Recycled Materials. U. Krogmann (PI), P.F. Strom, D. Gimenez, and R. Miskewitz. NJ DEP. September 1, 2009 August 31, 2013. \$581,483.
- Visible Emissions and other Air Pollution Training for County Environmental Health Agents. P.F. Strom (PI), S. Szulecki, and R. Lauck. NJ DEP. July 1, 2015 June 30, 2016. \$39,000.
- Community Noise Training to County Environmental Health Agents. P.F. Strom (PI), E. Zwerling, and R. Lauck. NJ DEP. July 1, 2015 June 30, 2016. \$37,000.
- Visible Emissions and other Air Pollution Training for County Environmental Health Agents. P.F. Strom (PI), S. Szulecki, and R. Lauck. NJ DEP. July 1, 2016 June 30, 2017. \$40,225.
- Community Noise Training to County Environmental Health Agents. P.F. Strom (PI), E. Zwerling, and R. Lauck. NJ DEP. July 1, 2016 June 30, 2017. \$41,211.
- Treatment of Wood Mulch Runoff/Leachate. P.F. Strom (PI), R. Miskewitz, U. Krogmann (PI), and D.
- Gimenez. NJDEP. September 1 2016 August 31, 2018 (extended to September 31, 2019). \$299, 097. Visible Emissions and other Air Pollution Training for County Environmental Health Agents. P.F. Strom (PI), S. Szulecki, and R. Lauck. NJ DEP. July 1, 2017 June 30, 2018. \$41,684.
- Community Noise Training to County Environmental Health Agents. P.F. Strom (PI), E. Zwerling, and R. Lauck. NJ DEP. July 1, 2017 June 30, 2018. 42,261.
- Visible Emissions and other Air Pollution Training for County Environmental Health Agents. P.F. Strom (PI), S. Szulecki, and R. Lauck. NJ DEP. July 1, 2018 June 30, 2019. \$41,261.
- Community Noise Training to County Environmental Health Agents. P.F. Strom (PI), E. Zwerling, and R. Lauck. NJ DEP. July 1, 2018 June 30, 2019. 43,061.
- Visible Emissions and other Air Pollution Training for County Environmental Health Agents. P.F. Strom (PI), S. Szulecki, and R. Lauck. NJ DEP. July 1, 2019 June 30, 2020. 41,261.
- Community Noise Training to County Environmental Health Agents. P.F. Strom (PI), E. Zwerling, and R. Lauck. NJ DEP. July 1, 2019 June 30, 2020. 43,062.
- Visible Emissions and other Air Pollution Training for County Environmental Health Agents. P.F. Strom (PI), S. Szulecki, and R. Lauck. NJ DEP. July 1, 2020 June 30, 2021. \$41,261.
- Community Noise Training to County Environmental Health Agents. P.F. Strom (PI), E. Zwerling, and R. Lauck. NJ DEP. July 1, 2020 June 30, 2021. 43,152.

Outside Advisory Groups, Boards, Committees, and Expert Testimony Member, NJ Department of Environmental Protection Science Advisory Board, Water Quality & Quantity Standing Committee (2016-) Chair, Food Waste Composting Work Group, 2019-2020) Member, NJ Site Remediation Professional Licensing Board (2015-) Chair, Public Outreach Committee (2017-2023) Member and Chair, NJ Water Environment Assoc. Scholarship Awards Committee (1990-) Member, NJ Water Environment Assoc. Student Program Committee (1990-2023) Chair, (1990-2016) Member, NJ Water Environment Assoc. Program Committee (1990-) Member, Water Environment Research Foundation, Project Subcommittees (4, 2002-2016) Member, NJ Dept. of Environmental Protection (DEP) TMDL Review Panel (2000-2013) Member, Delaware River Basin Commission Workgroup for BOD-ultimate (2012-2017) Member, Utility Capacity Technical Advisory Committee, NJ Highlands Council (2005-2006) Member, NJ DEP Bureau of Nonpoint Pollution Control, Advisory Committee for Class B Recycling Facilities (2005-2007) Member, Advisory Board, Composting Frontiers (1992-1994) Member, Technical Standards and Research Committee, NJ Dept. of Environmental Protection & Energy, Division of Science & Research (1991-1994) Member, Waste Management Advisory Group, NJ DEP, Div. of Waste Management (1983-1986) Member, Water Pollution Control Federation Technical Practice Committee, Fixed Film Process Operation and Maintenance Task Force (1985-1986) Member & Liaison, Biological Treatment of Hazardous Waste Panel, University Advisory Group to NJ Dept. of Environmental Protection (1984-1985) Member & Lecturer, Education Committee of the North Jersey Section, NJ Water Pollution Control Association (1981-1983) Member, Highland Park, NJ, Board of Education (1991-1994) Member & Acting Chair (1983-1984), Highland Park, NJ, Environmental Commission (1981-1989) Member, Highland Park, NJ, Planning Board (1984-1985) Member, Highland Park, NJ, Recreation Advisory Committee (1996-2006) Coach/Assistant Coach, Highland Park, NJ, Youth Recreation Programs in Soccer, Baseball, and Basketball (1986-1998) Treasurer, Pine Grove Cooperative Nursery School (1982-1983) Expert Witness, Ocean Discharge of Primary Effluent by the City of Asbury Park, NJ (Monmouth County Grand Jury, 1985) Expert Witness, Recycling of Hazardous Materials, Old Bridge Chemicals, Inc. vs. NJ Dept. of Environmental Protection (Administrative Law Hearing, 1985) Expert Witness, Odor Violations, NJ DEP vs. Kilmer Composting Site, (Administrative Law Hearing, 1987) Expert Witness, Violation of the Clean Water Act, CORCO et al. vs. Pfizer Pigments, Inc. and Easton Area Joint SA (Civil Suit, U.S. District Court, Eastern PA, 1987-1991) Expert Witness, Industrial Septic System Failure, Sea Breeze Fruits and Flavors, Inc. vs Princeton Aqua Science (Civil Suit, 1987-1988) Expert Witness, Hazardous Waste Identification and Storage, State of New Jersey vs William E. Covey (Criminal Case, 1987-1989)

Expert Witness, Odor Violations NJ DEP vs. Middlebush Composting, Inc. (Administrative Law Hearing, 1991)

- Expert Witness, Sludge Hauling Overcharges, Lower Township MUA vs. MacKay Disposal Company *et al.* (Civil Suit, Cape May County Court, 1991-1992)
- Expert Witness, Leaf and Wood Mulching Operations at Cornell Dairy, Halper vs. Halper (Civil Suit, Middlesex County Superior Court, 1998)

Invited Seminars - International and Out of State

Understanding Microbiology to Improve Wastewater Treatment. Environmental Science & Engineering College, South China University of Technology, Guangzhou, P.R. China, 2011.

Understanding Microbiology to Improve Wastewater Treatment. College of Environmental Science & Engineering, Zhongkai University of Agriculture & Engineering, Guangzhou, P.R. China, 2011.

- Microbiology in Biological Waste Treatment Systems. School of Environmental Science & Engineering, Tongji University, Shanghai, P.R. China, 2007.
- Microbiology in Biological Waste Treatment Systems, Parts 1 & 2. Environmental Science & Engineering College, South China University of Technology, Guangzhou, P.R. China, 2007.
- Introduction to Water Pollution Control. Environmental Science & Engineering College, South China University of Technology, Guangzhou, P.R. China, 2007.
- Microbiology in Biological Waste Treatment Systems. School of Environmental & Municipal Engineering, Xi'an University of Architecture & Technology, Xi'an, P.R. China, 2007.
- Introduction to Water Pollution Control. School of Geography & Environmental Sciences, Capital Normal University, Beijing, P.R. China, 2007.
- Wastewater Treatment Overview. School of Geography & Environmental Sciences, Capital Normal University, Beijing, P.R. China, 2007.
- Microbiology in Biological Waste Treatment Systems, Parts 1 & 2. School of Geography & Environmental Sciences, Capital Normal University, Beijing, P.R. China, 2007.
- Composting Yard Waste: It Isn't All Rubbish. 2007 Copeland Lecture, Delaware Center for Horticulture, Wilmington, DE, 2007.
- Biological Treatment of Wastes and Bioremediation. York College, CUNY, 1994
- Microbiology of Composting. Michigan State University, 1991.
- Plastics, Degradability, and the Environment. Michigan State University, 1990.
- Biodegradable Plastics. University of Notre Dame, 1989.
- Municipal Leaf Composting Practices, Benefits and Costs. Elkhart, IN, 1989.
- Troubleshooting Activated Sludge Process Problems. Taipei and Taichung, Taiwan, Republic of China, 1987.
- Microbial Ecology of Activated Sludge Process Problems. Harvard Univ., 1985.
- Activated Sludge Bulking A U.S. Viewpoint. The Institute of Water Pollution Control, Northeast Branch. University of Leeds, England, 1985.
- Identification and Significance of Filamentous Organisms in Activated Sludge. National Agricultural University, Ås, Norway, 1985.
- Microbial Ecology of Activated Sludge Settling Problems. National Agricultural University, Ås, Norway, 1985.
- Optimizing/Troubleshooting Process Control of Activated Sludge Systems. New England Regional Wastewater Institute, Portland, ME, 1985.
- Activated Sludge Settling Problems. Canada Centre for Inland Waters, Wastewater Technology Centre, Burlington, Ontario, Canada, 1983.
- Identification of Filamentous Microorganisms in Activated Sludge. New York State Dept. of Environmental Conservation, Albany, NY, 1983.

Microbial Ecology of Activated Sludge Settling Problems. Manhattan College, NY, 1982. Microbiology of Activated Sludge Setting Problems. Shell Development Co., Houston, TX, 1981.

Selected Other Projects and Consulting

Troubleshooting and Process Control of Activated Sludge Treatment Plants (1978 -)

- Training Courses in Wastewater Treatment Plant Operations, Bioremediation, Environmental Health, Hazardous Waste Management, Industrial Waste Treatment, & Waste Composting (NJ, CA, FL, MA, ME, MI, MN, NY, PA, VA, 1980 -)
- Troubleshooting and Odor Control at Yard Waste Composting Facilities (1975)

Troubleshooting Coliform Testing (NJ, NY, 2016-2017)

Evaluation of Oily Sludge Landfarming Operations for a Refinery (1993-1995)

Yard Waste Study for Atlantic County, NJ (with CDM, 1988)

Troubleshooting Industrial Wastewater Treatment Plants, Republic of China (1986-87)

- Evaluation of a Proposed Regional Leaf Composting Facility in Franklin Township, NJ (with Louis Berger & Associates, 1987)
- Development of a Municipal Ordinance on Sludge Composting for Parsippany-Troy Hills, NJ, (with Dresdner Associates, Inc., 1985-86)

Joyce Kilmer Regional Leaf Composting Facility (Middlesex County, 1983-1992)

Biodegradability of Plastic Materials (1982-1993)

Premarketing Tests of Two Potential New Sanitary Products for Biodegradability and Effect on Waste Treatment Systems (Personal Products, 1981)

Evaluation of the Nova Fertilia Composting Process for Use in Cairo, Egypt (Environmental Quality International, Inc., 1981)

Activated Sludge Floc Sizing and Counting (Brown & Caldwell, 1978)

Odor & Process Control, Municipal Leaf Composting Facility (Westfield, NJ, 1975-77)

Nitrification Potential in the Kanawha River, West Virginia (Dupont, 1975-76)

Nitrification in a Home Wastewater Treatment System with Complete Recycle (Thetford Corporation, 1975)

Microbial Aerosols and Odors Associated with Spray Application of Digested Sewage Sludge for On-land Disposal (Ocean County, NJ, 1973-77)

Chemical and Physical Analyses for a Physical-Chemical Sewage Treatment Plant for a Housing Development (Freehold, NJ, 1973)

Indicator Organisms in the Effluent from a Chemical Industry (Tenneco, 1973)

Other University Activities

Student Advising

Undergraduate Adviser (since 1980, 5-50 students each year)

M.S. Committees - 360 (Chair of 167 completed degrees)

Ph.D. Committees – 195 students (Chair of 18 completed degrees)

Cooperative Education:

Undergraduates - 132 students (175 co-ops)

Graduates - 8 students (13 co-ops)

Undergraduate Internships/Independent Studies - 96 students (106 semesters)

George H. Cook Honors Program:

Adviser - 7 students

Reader - 10 students

Honors Tutorial – 5 students (6 tutorials)

Department

Department Centennial Celebration Committee (2019-)

Undergraduate Program Director (2008-2012) Curriculum Committee (1996-) Junior and Non-Tenure Track Faculty Mentoring Committees (1994-; number varies:2017 = 4) Faculty Awards Committee (2015-2017) Space Committee (1995-1997, 1998-2008) Faculty Peer Evaluation Committee (Chair, 1997-99, 2001, 2002, 2004, 2006-08, 2015-17; this is every year there was a committee) Faculty Search Committees: Biological Unit Processes Engineering (2001-2002) Soil Chemist (1997) Environmental Biochemistry (1996-1997) 2 Environmental Chemistry (Chair, 1995-96) Environmental Science (Chair, 1995) Department Chair (1994) **Bioenvironmental Engineer (1993-94)** Environmental Engineer (1980-81) External Review Response Committee (2001-02) Departmental Recycling/Environmental Awareness Liaison (1994-99) Master Plan Committee (Chair, 1988-89; member, 1991) Library Committee (Chair, 1980-83; member, 1991-1996) Unit Safety Committee (Chair, 1980-85; member, 1985-89) Bylaws Committee (Chair, 1981-82, 1991; member, 1994) Faculty Supplemental Salary Award Committee (1986-1989, 1993) New Facilities Planning Committee (Chair, 1986) New Research Wing Coordination Committee (Chair, 1981-82) Open House Committee (1982) Ag-Field Day Committee (Chair, 1981-89) Graduate Program Graduate Program Director (1998-2002, 2003-2004) Coordinator, Pollution Prevention and Remediation Option (1993-) Curriculum Committee (2007-) Strategic Planning Committee (1993) Academic Standards Committee (Chair, 1993-96; member, 1990-98) Admissions Committee (Chair, 1983-89; member, 1980-89, 1990-2002) Curriculum Review Committee (1981-82, 1990-98) Core Curriculum Committee (1983-84) Bylaws Committee (1981-82, 1994) Program Flyer Committee (Chair, 1985-86) Cook College/SEBS and N.J. Agricultural Experiment Station (NJAES) Scholastic Standing and Admissions Committee (1986-89, 2011-2014, 2016-2019; Chair, 1988-89) Curriculum and Educational Policy Committee (2004-2012; Chair, 2006-2008) Financial Aid Committee (1996-2000, 2009-2014; Chair, 1999-2000, 2012-2014) SEBS Ad Hoc Core Curriculum Committee, Chair (2011-2012) Student to Professional Intern Network Faculty Oversight Committee (2009-2012) Appointments and Promotions Committee (2005-2008; Chair, 2007-2008) Search Committee, new Environmental Law Professor (2009-2011)

George H. Cook Honors Program, Session Chair (2008-2009, 2015) Cook College Student Life and Services Committee (2000-2004, 2005-2006; Chair, 2004) Cook College Standing Committee on Sludge Policy (2004-2005) Cook College Differential Tuition & Special Projects Advisory Committee (2000-2005) College Ad Hoc Committee on Teaching Assistants (Chair, 2001) College Ad Hoc Committee on Undergraduate Environmental Engineering (1998-99) Cook College/NJAES Research Awards Committee (1997) State Operator Training Center Advisory Committee (1996-2004) Search Committee, new Director, EcoPolicy Center (1996) Nominations Committee (1995-97; Chair, 1996-1997) Reading Committee for Promotion of Agricultural and Resource Management Agent (Extension) Jonathan Forsell to Associate Professor (1995) NJAES Intellectual Properties Management Committee (1993) Strategic Planning Committee - Natural Resources and the Environment (1993) Library Committee (1993-95; Chair, 1995) Professional and Continuing Education Committee (1991-2001) Recycling/Solid Waste Advisory Committee (1991-2001) General Honors Committee (1990-94) NJAES Sludge Task Force (1990-95) Reading Committee for Reappointment/Promotion of Agricultural and Resource Management Agent (Extension) as Assistant Professor (1992) Search Committee, new faculty, outside of Department Bioenvironmental Engineering (1993) Extension Specialist in Environmental Science (1988-89, 1992-95) Professor in Environmental Molecular Biology and Associate Director, NJAES Environmental Thrust Area (1991) Rules of Procedure Committee (1990-92) Cook College Computer Committee (Dept. Representative, 1984-87) George H. Cook Honors Committee (Adjunct member, 1984-86) Cook College Council (Faculty Representative, 1983-84) <u>Rutgers University</u> University Senate: Senator (1984-87, 1999-2002) Research Committee (1984-87) Equal Opportunity Committee (1999-2002) University Health/Safety Council Member, Industrial Hygiene and Toxicology Committee (1986-89) Member, Radiation Safety Committee (1995-2000) Member, Laboratory Safety and Design Committee (2000-) AAUP-AFT Litigation/Grievance Committee (2005-) University Judicial Hearing Board (1997-) Workshop/Panel Discussion, Evaluation Procedures at Rutgers University, invited speaker to discuss Appointments & Promotion Committee Review (2007) Foran Hall Library Program Review Committee (1994) University Speakers Bureau (1995-2005) New Brunswick Faculty Council Library Committee (1995-97) Rutgers Institutional Steering Committee, Kellogg Mid-Atlantic Consortium (1996-2001)

PUBLICATIONS Book

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- Strom, P.F. 1985. Effect of Temperature on Species Diversity among Thermophiles in Solid Waste Composting. Appl. Environ. Microbiol. 50:899-905.
- Strom, P.F. 1985. Identification of the Thermophilic Bacteria in Solid Waste Composting. Appl. Environ. Microbiol. 50:906-913.
- Finstein, M.S., F.C. Miller, & P.F. Strom. 1986. Monitoring and Evaluating Composting Process Performance. J. Water Pollution Control Fed. 58:272-278.
- Strom, P.F., F.B. Flower, M.H.P. Liu, & M.S. Finstein. 1986. Municipal Leaf Composting: Recommended Methods. BioCycle 27(9):48-52.

- Finstein, M.S., F.C. Miller, J.A. Hogan, and P.F. Strom. 1987. Analysis of EPA Guidance on Composting Sludge: Part I Biological Heat Generation and Temperature. BioCycle 28(1):20-26.
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- Finstein, M.S., F.C. Miller, J.A. Hogan, and P.F. Strom. 1987. Analysis of EPA Guidance on Composting Sludge: Part IV - Decomposition Rate and Facility Design and Operation. BioCycle 28(4):56-61.
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- Chung, J.C. & P.F. Strom. 1991. Microbiological Study of Ten New Jersey Rotating Biological Contactor Wastewater Treatment Plants. Research J. Water Pollution Control Fed. 63:35-43.
- Hu, P. and P.F. Strom. 1991. Fungal Bulking of Activated Sludge at Low pH. Research J. Water Pollution Control Fed. 63:276-277.
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- Lajoie, C.A., S.-Y. Chen, K.-C. Oh, & P.F. Strom. 1992. Development and Use of Field Application Vectors to Express Non-Adaptive Foreign Genes in Competitive Environments. Appl. Environ. Microbiol. 58: 655-663.
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- Laor, Y., W.J. Farmer, & P.F. Strom. 1996. The Effect of Sorption on Phenanthrene Bioavailability. J. Biotechnol. 51:227-234.
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- Romano, P.V., U. Krogmann, M.L. Westendorf, & P.F. Strom. 2006. Small-Scale Composting of Horse Manure Mixed with Wood Shavings. Compost Science & Utilization 14:132-141.
- Littleton, H.X., G.T. Daigger, & P.F. Strom. 2007. Application of Computational Fluid Dynamics to Closed Loop Bioreactors: I. Characterization and Simulation of Fluid Flow Pattern and Oxygen Transfer. Water Environment Research 79:600-612.
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- Ramirez-Perez, J.C., P.F. Strom, and U. Krogmann. 2007. Horse Manure and Cranberry Fruit Composting Kinetics and Measures of Stability. Compost Science & Utilization 15: 200-214.
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- Tsai, C.-L., U. Krogmann, and P.F. Strom. 2010. Effect of Forced Aeration and Mechanical Turning on Leachate Quantity and Quality from Glass Cullet Stockpiles. Journal of Environmental Engineering 136:854-859.
- Subroy, V., D. Giménez, M. Qin, U. Krogmann, P.F. Strom, and R.J. Miskewitz. 2014. Hydraulic Properties of Coarsely and Finely Ground Woodchips. Journal of Hydrology 517:201–212. [doi:10.1016/j.jhydrol.2014.05.025]

- Kannepalli, S., E. Ravit, & P.F. Strom. 2016. Composting of aged reed bed biosolids for beneficial reuse: a case study in New Jersey, USA. Compost Science & Utilization 24:281-290. [http://dx.doi.org/10.1080/1065657X.2016.1171739]
- Kannepalli, S., P.F. Strom, U. Krogmann, V. Subroy, D. Gimenez, and R.J. Miskewitz. 2016. Characterization of Wood Mulch and Leachate/Runoff from Three Wood Recycling Facilities. Journal of Environmental Management 182:421-428. [doi:10.1016/j.jenvman.2016.07.093]
- Amato, M.T., V. Subroy, D. Giménez, P.F. Strom, & U. Krogmann. 2019. Dielectric permittivitywater content relationships in woodchips: Particle size and temperature effects. Journal of Hydrology 572:251-260. [https://doi.org/10.1016/j.jhydrol.2019.02.047]
- Amato M.T., D. Giménez, S. Kannepalli, P.F. Strom, U. Krogmann, & R.J. Miskewitz 2020. Forecasting leachate generation from pilot woodchip stockpiles using a three-dimensional transient flow model. Journal of Environmental Management 262: (page numbers pending) [https://doi.org/10.1016/j.jenvman.2020.110379]

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<u>Manuals</u>

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- Strom, P.F. & M.S. Finstein. 1994. New Jersey's Manual on Composting Leaves and Management of other Yard Trimmings. New Jersey Department of Environmental Protection, 81pp. [http://www.nj.gov/dep/dshw/rrtp/compost/cptitle.htm]

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Strom, P.F. 1988. Interview: Options for Leaf Composting - Rutgers Researcher Updates Recommended Methods. BioCycle 29(9):38-43.

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Strom, P.F. & J.C. Chung. 1985. The Rotating Biological Contactor (RBC) for Wastewater Treatment. Advances Biotechnological Processes 5:193-225.

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Lajoie, C.A. & P.F. Strom. 1994. Biodegradation of Polynuclear Aromatic Hydrocarbons in Coal Tar Oil Contaminated Soils. Chapter 8, pp. 149-162, in Process Engineering for Pollution Control and Waste Minimization, D.L. Wise & D.J. Trantolo (eds.), Marcel Dekker, Inc., New York.

Strom, P.F. & M.S. Finstein. 2000. Leaf Composting. Chapter 20, pp. 311-335 in Handbook of Urban and Community Forestry in the Northeast, J.E. Kuser (ed.), Kluwer Academic/Plenum Publishers, New York. [Note: J.E. Kuser won the Author's Citation Award from the New Jersey Arborists for this volume.]

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Book Reviews

Strom, P.F. 1980. Book Review: <u>Microbiology for Environmental Scientists and Engineers</u>. ASM News 46:631-632.

Strom, P.F. & M.S. Finstein. 1997. Book Review: <u>Environmental Science and Engineering</u>. BioScience 47:258-259.

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Strom, P.F. 2021. As part of the College Board's special AP Daily video program to support high school teachers' response to virtual teaching for Advanced Placement Environmental Science courses, provided a Faculty Lecture entitled "The Biological Treatment of Sewage" (available at https://youtu.be/SWluhv7EqBg).

Other Publications

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Strom, P.F., W.-T. Liu, & M. Healey. In Press. Anaerobic Testing of Biodegradable Plastics. Invited Paper for Biodegradation of Plastics, Mini-Symposium convened by the Interdisciplinary Bioremediation Working Group, AgBiotech Center, New Brunswick, NJ, 5pp.

Cowan, R.M., J.A. Joshi, P.F. Strom, & M.S. Finstein. 1997. Biological Processes for Air Trace Contaminant Control in ALS. International Conference on Environmental Systems (ICES) SAE Technical Paper #972552, Society of Automotive Engineers, Inc., Warrendale, PA.

Hogan, J.A., R.M. Cowan, J.A. Joshi, P.F. Strom, & M.S. Finstein. 1998. On the Development of Advanced Life Support Systems Maximally Reliant on Biological Systems. ICES SAE Technical Paper #981535, SAE, Inc., Warrendale, PA.

Joshi, J.A., R.M. Cowan, J.A. Hogan, P.F. Strom, & M.S. Finstein. 1998. Gaseous Ammonia Removal in Biofilters: Effect of Biofilter Media on Products of Nitrification. ICES SAE Technical Paper #981613, SAE, Inc., Warrendale, PA.

Tambwekar, J.A., R.M. Cowan, J.A. Joshi, P.F. Strom, & M.S. Finstein. 1998. Removal of Trace Concentrations of Ethylene from Air by Biofiltration: Preliminary Results. ICES SAE Technical Paper #981614, SAE, Inc., Warrendale, PA.

Lam, Y., R.M. Cowan, and P.F. Strom. 1999. The Treatability of Monoethanolamine (MEA) in Nitrifying Activated Sludge. Final Report, SEED-07. Hazardous Substances Management Research Center, NJIT, Newark, NJ, 109pp.

Strom, P.F. 2000. Composting: Overview of Research Needs. In Proceedings of: Biosolids Management in the 21st Century. University of Maryland, College Park, MD; Invited Paper for NSF Workshop, pp. 94-98.

Littleton, H.X., G.T. Daigger, P.F. Strom, & R.M. Cowan. 2000. Evaluation of Autotrophic Denitrification and Heterotrophic Nitrification in Simultaneous Biological Nutrient Removal Systems. Proceedings, WEFTEC 2000, 73rd Annual Conference, Water Environment Federation, Anaheim, CA, Session 19, 21 pp. [CD-ROM].

R .M. Cowan, J. A. Hogan, & P. F. Strom. 2001. Development of Biological Reactors for Trace Air Contaminant Control. Proceedings, Bioastronautics Investigators' Workshop, Galveston, TX, No. 156.

Hull, R.M., U. Krogmann, & P.F. Strom. 2001. Characterization of Municipal Solid Waste (MSW) Reclaimed from a Landfill. Proceedings, 8th International Waste Management and Landfill Symposium, Sardinia.

Littleton, H.X., G.T. Daigger, & P.F. Strom. 2001. Application of Computational Fluid Dynamics to Closed Loop Bioreactors - Analysis of Macro-Environment Variations in Simultaneous Biological Nutrient Removal Systems. Proceedings, WEFTEC 2001, 74th Annual Conference, Water Environment Federation, Atlanta, GA [CD-ROM].

Hogan, J.A., J.C. Ramirez Perez, W. Lertsiriyothin, P.F. Strom, and R.M. Cowan. 2001. Integration of composting, plant growth and biofiltration for Advance Life Support Systems. ICES SAE Technical Paper #01-2211, SAE, Inc., Warrendale, PA.

Hull, R.M., U. Krogmann, & P.F. Strom. 2002. Characterization of Municipal Solid Waste (MSW) Excavated from a Landfill. Proceedings, 34th Mid-Atlantic Industrial & Hazardous Waste Conference, New Brunswick, NJ.

Sudame, A., S. Lee, H. Lee, T. Lundquist, P. Muller, K. Hida, H. Ng, P.F. Strom & T. Leighton. 2002. Selenite Reducing Bacteria of Panoche Algal Bacterial Selenium Removal (ABSR) Facility, CA. Proceedings, 34th Mid-Atlantic Industrial & Hazardous Waste Conference, New Brunswick, NJ.

Littleton, H.X., G.T. Daigger, P.F. Strom & R. Jin. 2002. Simulation of BIO P Removal in CFD Environment: Analysis of Macro-Environment Variations in Simultaneous Biological Nutrient Removal Systems. Proceedings, WEFTEC 2002, 75th Annual Conference, Water Environment Federation, Chicago [CD-ROM].

Krogmann, U., R.M. Hull, & P.F. Strom. 2003. Characterization of Materials "Mined" from the Burlington County Landfill. Final Report to NJDEP.

Littleton, H.X., G.T. Daigger, & P.F. Strom. 2003. Summary Paper: Mechanisms of Simultaneous Biological Nutrient Removal in Closed Loop Bioreactors. Proceedings, WEFTEC 2003, 76th Annual Conference, Water Environment Federation, Los Angeles [CD-ROM].

Chowdhury, M., C.C.Obropta, P.F. Strom, J.R. Johnson, & L. Rera. 2004. Upper Cohansey Watershed Management Project. Final Report to Cumberland Soil Conservation District, Deerfield, NJ. 45 pp.

Water Environment Research Foundation Staff & P.F. Strom. 2004. Researchers Use Models to Improve Control of SBNR. Project Profile in WERF Progress 15(4):5-6.

Chowdhury, M., C.C.Obropta, & P.F. Strom. 2005. Nonpoint Source Phosphorus Contribution from Nurseries in the Upper Cohansey Watershed, New Jersey. Water Environment Federation Specialty Conference, TMDL 2005, Philadelphia, Paper 1F.

Strom, P.F. 2007. Technologies to Remove Phosphorus from Wastewater. New Jersey Effluents 40(4):31-35.

Littleton, H., G. Daigger, H. Zhao, P. Strom, D. Noguera, & J. Wen. 2013. Optimization of Simultaneous Nitrification Denitrification Performance in Different ENR Process Configurations. Proceedings of the Water Environment Federation, WEFTEC 2013: Session 47, pp. 3365-3388.

Krogmann, U., D. Gimenez, R. Miskewitz, S. Kannepalli, V. Subroy, & P.F. Strom. 2013. An Investigation of Quantity and Quality of Runoff from Wood Mulch Stockpiles. Proc. 14th Intern. Waste Management Landfill Symp., S. Margherita di Pula, Italy, published by CISA, Padova, Italy.

Strom, P.F., J. Held, H. Kipen, & U. Krogmann. 2020. Outdoor Food Waste Composting. Final Report of the NJ DEP Science Advisory Board's Ad Hoc Work Group (<u>https://dep.nj.gov/wp-content/uploads/sab/sab-food-composting.pdf</u>).

Invited Papers at National/International Professional Meetings

Strom, P.F. & D. Jenkins. 1980. Rational Control of the Activated Sludge Process. Invited Paper for "Environmental Control: Rational Management of Microbial Ecosystems." Presented at the 80th Annual Meeting, American Society for Microbiology, Miami Beach, Session 143.

Strom, P.F. 1980. Significance of Nitrification in Receiving Streams. Invited Paper for "Environmental Control: Rational Management of Microbial Ecosystems." Presented at the 80th Annual Meeting, American Society for Microbiology, Miami Beach, Session 143.

Strom, P.F. 1983. Sources and Quantities of Hazardous Waste. Invited Paper for "Managing Hazardous Wastes in the Eighties: How to Instruct Local Public Health Officials." American Public Health Assoc., Washington, DC.

Strom, P.F. 1983. Characteristics of Hazardous Materials. Invited Paper for "Fire Safety for First Responders." Presented at the 8th Annual Inland Spills Conference, Dayton, Ohio.

Flower, F.B. & P.F. Strom. 1984. Municipal Leaf Composting. Invited Paper for "Yard Wastes and Residential Organics Composting." Presented at the Third National Recycling Congress, New Brunswick, NJ.

Strom, P.F. & F.B. Flower. 1985. Leaf and Yard Waste Composting. Invited Paper for the 15th National Conf. on Composting and Waste Recycling, Philadelphia, PA.

Strom, P.F. & F.B. Flower. 1985. Low Cost Composting Techniques for Leaves and Yard Wastes. Invited Paper for the Special BioCycle Workshop on New Options for Recycling Solid Waste, Philadelphia, PA.

Strom, P.F., M.J. Healey, & Y.H. Pang. 1986. Evaluation of Bioaugmentation Products for Activated Sludge Treatment of Toxic Wastewater. Invited Paper for Internat. Conf. on Innovative Biological Treatment of Toxic Wastewaters, Arlington, VA.

Flower, F.B. & P.F. Strom. 1987. Leaf Composting: A Key to Landfill Volume Reduction. Invited Paper for the Conference on Solid Waste Management and Materials Policy, New York State Legislative Commission on Solid Waste Management, New York, NY.

Strom, P.F. 1987. Community Composting. Invited Paper for Municipal Waste Alternatives '87, National Solid Waste Management Association, Boston, MA.

Strom, P.F. & M.J. Healey. 1987. Some Limitations on the Usefulness of Bioaugmentation in Waste Treatment. Invited Paper for Seminar/Workshop on Detoxification of Recalcitrant Organics by Naturally Occurring and Genetically Engineered Microorganisms, Industry/University Cooperative Center for Research in Hazardous and Toxic Substances, NJ Institute of Technology, Newark, NJ.

Strom, P.F. 1988. Leaf and Yard Waste Composting: Key Components of a Successful Program. Invited Paper for BioCycle Northeast Conference 88, Albany, NY.

Strom, P.F. & E. McShane. 1988. Yard Waste Composting Workshop. Invited Session for Seventh National Recycling Congress, St. Paul, MN.

Strom, P.F. 1988. Introduction to Composting and Yard Waste Management. Invited Paper for Seventh National Recycling Congress, St. Paul, MN.

Strom, P.F. 1992. Improving the Composting System. Invited Paper for BioCycle Northeast Conference 92, Albany, NY.

Strom, P.F. 2000. Composting: Overview of Research Needs. Invited Paper for NSF Workshop on Biosolids Management in the 21st Century, College Park, MD.

R.M. Cowan, J. A. Hogan, & P. F. Strom. 2001. Development of Biological Reactors for Trace Air Contaminant Control. Bioastronautics Investigators' Workshop, Galveston, TX.

Other Presentations at National/International Professional Meetings

Strom, P.F. & M.S. Finstein. 1975. Autotrophic Nitrifying Bacteria in Wastewater Effluents and Their Resistance to Chlorination. Presented at the 75th Annual Meeting, American Society for Microbiology, New York, Q38.

Finstein, M.S., V.A. Matulewich, & P.F. Strom. 1976. Autotrophic Nitrifying Bacteria in Sewage & Related Environments. Presented at the American Society for Microbiology Conference on Nitrification and the Reduction of Nitrogen Oxides, Athens, Georgia, Session V.

Cirello, J., P.F. Strom, V.A. Matulewich, & M.S. Finstein. 1977. Nitrification in Passaic River Water Samples. Presented at the 77th Ann. Meeting, Amer. Soc. for Microbiol., New Orleans, Q18.

Strom, P.F. & M.S. Finstein. 1979. Thermophilic Bacterial Populations of Solid Waste Composting. Presented at the 79th Ann. Meeting, Amer. Soc. for Microbiol., Los Angeles, Q89.

Strom, P.F. & D. Jenkins. 1980. Filamentous Microorganisms in Activated Sludge. Presented at the 80th Ann. Meeting, Amer. Soc. for Microbiol., Miami Beach, Q125.

Lau, A.O., P.F. Strom, & D. Jenkins. 1980. The Competitive Growth of *Pseudomonas sp.* and *Sphaerotilus natans*: A Model for Activated Sludge Bulking. Presented at the 53rd Annual Conference, Water Pollution Control Fed., Las Vegas.

Strom, P.F. & D. Jenkins. 1981. Identification and Significance of Filamentous Microorganisms in Activated Sludge. Presented at the 54th Annual Conference, Water Pollution Control Fed., Detroit.

Lin, K.T.J. & P.F. Strom. 1985. Bacterial Community Structure in Secondary Wastewater Treatment. Presented at the 85th Ann. Meeting, Amer. Soc. for Microbiol., Las Vegas, N50.

Rajput, V.S., M.E. Singley, A.J. Higgins, & P.F. Strom. 1989. Removal of Hazardous Substances from Contaminated Soil by Extraction and Washing Using Flow Through Column System. Presented at the U.S. Army Chemical Research, Development and Engineering Center Conference on Chemical Defense Research, Aberdeen Proving Ground, MD.

Rajput, V.S., M.E. Singley, A.J. Higgins, & P.F. Strom. 1990. Removal of Hazardous Organic Compounds from Soils by Extraction and Washing. Presented at the 63rd Annual Conference, Water Pollution Control Federation, Washington.

Oh, K.-C., G.J. Zylstra, & P.F. Strom. 1994. Development of Field Application Vectors for Bioremediation of Trichloroethylene Contaminated Soils. Poster presented at the Annual Meeting, Society for Industrial Microbiology, Boston.

Laor, Y. & P.F. Strom. 1994. Adsorption Analyses for Studying the Effect of Humic Acids on Phenanthrene Bioavailability. Poster presented at the 94th Ann. Meeting, Amer. Soc. for Microbiol., Las Vegas, Q-139.

Oh, K.C., G.J. Zylstra, & P.F. Strom. 1995. Bioremediation of Trichloroethylene in Soils by Field Application Vectors Containing Toluene Dioxygenase from *Pseudomonas putida* F1. Poster presented at the 95th Ann. Meeting, Amer. Soc. for Microbiol., Washington, Q-19.

Oh, K.C. & P.F. Strom. 1995. Biodegradation of Phenol with and without Magnetic Fields. Poster presented at the 95th Ann. Meeting, Amer. Soc. for Microbiol., Washington, Q-378.

Oh, K.C., P.F. Strom, & G.J. Zylstra. 1996. Degradation of Polycyclic Aromatic Hydrocarbons by Recombinant and Non-Recombinant Surfactant Degrading Microorganisms. Poster presented at the 96th Ann. Meeting, Amer. Soc. for Microbiol., New Orleans, Q335.

Joshi, J.A., J.A. Hogan, R.M. Cowan, P.F. Strom, & M.S. Finstein. 1997. Biological Removal of Ammonia in Biofilters. 90th Annual Meeting of the Air & Waste Management Association, Toronto.

Cowan, R.M., J.A. Joshi, P.F. Strom, & M.S. Finstein. 1997. Biological Processes for Air Trace Contaminant Control in ALS. 27th International Conference on Environmental Systems (ICES), Lake Tahoe, Nevada.

Joshi, J.A., J.A. Hogan, R.M. Cowan, P.F. Strom, & M.S. Finstein. 1998. Biological Removal of Ammonia in Biofilters. 3rd International Conference on Life Support & Biosphere Science (LSBS), Lake Buena Vista, FL.

Cowan, R.M., J. Russell, & P.F. Strom. 1998. Removal of Volatile Organics from Air Using Bioreactors: Theoretical Aspects and Modeling. Biological Removal of Ammonia in Biofilters. 3rd International Conf. on LSBS, Lake Buena Vista, FL.

Joshi, J.A., R.M. Cowan, J.A. Hogan, P.F. Strom, M.S. Finstein. 1998. Nitrous and nitric oxide production by nitrifying enrichment cultures. Poster presented at the 98th Ann. Meeting, Amer. Soc. for Microbiol., Atlanta.

Hogan, J.A., R.M. Cowan, J.A. Joshi, P.F. Strom, & M.S. Finstein. 1998. On the Development of Advanced Life Support Systems Maximally Reliant on Biological Systems. 28th ICES, Danvers, MA, SAE Technical Paper #981535, Society of Automotive Engineers, Inc., Warrendale, PA.

Joshi, J.A., R.M. Cowan, J.A. Hogan, P.F. Strom, & M.S. Finstein. 1998. Gaseous Ammonia Removal in Biofilters: Effect of Biofilter Media on Products of Nitrification. 28th ICES, Danvers, MA, SAE Technical Paper #981613, Society of Automotive Engineers, Inc., Warrendale, PA.

Tambwekar, J.A., R.M. Cowan, J.A. Joshi, P.F. Strom, & M.S. Finstein. 1998. Removal of Trace Concentrations of Ethylene from Air by Biofiltration: Preliminary Results. 28th ICES, Danvers, MA, SAE Technical Paper #981614, Society of Automotive Engineers, Inc., Warrendale, PA.

Hogan, J.A., M.R. Gilrain, J. Ramirez, R.M. Cowan, & P.F. Strom. 2000. Composting of Advanced Life Support Plant Inedible Biomass: Use of Compost as a Plant Growth Medium and Biofiltration of Exhaust Gases. Paper BLSS 51, 4th International Conference on Life Support & Biosphere Science, Baltimore, MD.

Hogan, J.A., W. Lertsiriyothin, R.M. Cowan, & P.F. Strom. 2000. Composting of Advanced Life Support Plant Inedible Biomass: Process Behavior and Exhaust Trace Air Contaminant Analysis. Paper BLSS 52, 4th International Conference on Life Support & Biosphere Science, Baltimore, MD.

Li, W., R.M. Cowan, J.A. Hogan, P.F. Strom, & C. Brook. 2000. Biofiltration of an Advanced Life Support Ersatz Gas Mixture. Paper BLSS 54, 4th International Conference on Life Support & Biosphere Science, Baltimore, MD.

Tambwekar, J.A., J.A. Hogan, R.M. Cowan, & P.F. Strom. 2000. Nitrogen Limitation and Effect of Ammonium or Nitrate as Nitrogen Sources on the Removal of 1 ppm Ethylene in Air using Biofiltration. Paper BLSS 60, 4th International Conference on Life Support & Biosphere Science, Baltimore, MD.

Tambwekar, J.A., J.A. Hogan, R.M. Cowan and P.F. Strom. 2000. Biofiltration of Trace Concentrations of Ethylene: Effect of Ammonium vs. Nitrate as a Nitrogen Source. Poster presented at 93rd Annual Conference of Air & Waste Management Association, Salt Lake City, Utah.

Littleton, H.X., G.T. Daigger, P.F. Strom, & R.M. Cowan. 2000. Evaluation of Autotrophic Denitrification and Heterotrophic Nitrification in Simultaneous Biological Nutrient Removal Systems. WEFTEC 2000, 73rd Annual Conference, Water Environment Federation, Anaheim, CA.

Hull, R.M., U. Krogmann, & P.F. Strom. 2001. Characterization of Municipal Solid Waste (MSW) Reclaimed from a Landfill. Abstract No. 535, accepted for workshop presentation at the 8th International Waste Management and Landfill Symposium, Sardinia.

Littleton, H.X., G.T. Daigger, P.F. Strom, & R.M. Cowan. 2001. Evaluation of Autotrophic Denitrification and Heterotrophic Nitrification in Simultaneous Biological Nutrient Removal Systems. Third IWA International Specialized Conference onMicroorganisms in Activated Sludge and Biofilm Processes, Rome, Italy. Session X.

Hogan, J.A., J. Ramirez, W. Lertsiriyothin, P.F. Strom, & R.M. Cowan. 2001. Integration of Composting, Plant Growth and Biofiltration for Advanced Life Support Systems. 31st ICES, Orlando, FL. Paper No. 01ICES-260.

Littleton, H.X., G.T. Daigger, & P.F. Strom. 2001. Application of Computational Fluid Dynamics to Closed Loop Bioreactors - Analysis of Macro-Environment Variations in Simultaneous Biological Nutrient Removal Systems. WEFTEC 2001, 74th Annual Conference, Water Environment Federation, Atlanta, GA.

Hogan, J.A., R.M. Cowan, J.C Ramierez-Perez, P.F. Strom. 2001. Biological Treatment of Solid Waste: Composting, Biofiltration of Compost Offgas, and Nutrient Recovery from Compost. Poster presentation, American Society of Gravitational and Space Biology, Alexandria, VA.

Cowan, R.M., J.A. Hogan, P.F. Strom, F. Qiao, J.A. Tambwekar. 2001. Development of Biological Technology for Use in Trace Contaminant Control: Biofiltration of Ammonia, Ethylene and an Ersatz ISS Atmosphere. Poster presentation, American Society of Gravitational and Space Biology, Alexandria, VA.

Littleton, H.X., G.T. Daigger, P.F. Strom, & R. Jin. 2002. Simulation of Bio P Removal in CFD Environment - Analysis of Macro-Environment Variations in Simultaneous Biological Nutrient Removal Systems. WEFTEC 2002, 75th Annual Conference, Water Environment Federation, Chicago, IL.

Hull, R.M., U. Krogmann, & P.F. Strom. 2002. Characterization of Material Excavated from a Municipal Solid Waste Landfill. Poster presentation, 34th Mid-Atlantic Industrial & Hazardous Waste Conference, New Brunswick, NJ.

Sudame, A., S. Lee, H. Lee, T. Lundquist, P. Muller, K. Hida, H. Ng, P.F. Strom & T. Leighton. 2002. Selenite Reducing Bacteria of Panoche Algal Bacterial Selenium Removal (ABSR) Facility, CA. Poster presentation, 34th Mid-Atlantic Industrial & Hazardous Waste Conference, New Brunswick, NJ.

Littleton, H.X., G.T. Daigger, & P.F. Strom. 2003. Summary Paper: Mechanisms of Simultaneous Biological Nutrient Removal in Closed Loop Bioreactors. Proceedings, WEFTEC 2003, 76th Annual Conference, Water Environment Federation, Los Angeles.

Ramirez-Perez, J., P.F. Strom, & J.A. Hogan. 2004. Composting for Advanced Life Support Systems. Presentation, Habitation 2004, Orlando FL. Abstract HLS51.

Qiao, F., J.A. Hogan, & P.F. Strom. 2004. Effect of Ammonia Loading and Media Nitrogen on Methane and Ethanol Biofilter Performance. Presentation, Habitation 2004, Orlando FL. Abstract HLS78.

Ramirez-Perez, J., J.A. Hogan, & P.F. Strom. 2004. Development and Application of a Respirometric Technique to Assess the Stability of Compost for Advanced Life Support Systems. Poster presentation, Habitation 2004, Orlando FL. Abstract MC41.

Chowdhury, M., C.C.Obropta, & P.F. Strom. 2005. Nonpoint Source Phosphorus Contribution from Nurseries in the Upper Cohansey Watershed, New Jersey. Presentation, Water Environment Federation Specialty Conference, TMDL 2005, Philadelphia.

Ramirez-Perez, J.C., P.F. Strom, & J.A. Hogan. 2006. Aerobic Biodegradation Kinetics of Inedible Biomass and Resource Recovery for Advanced Life Support Systems Applications. Presented at Habitation 2006, Orlando, FL. Abstract OTR15.

Ramirez-Perez, J.C., R.M. Cowan, & P.F. Strom. 2006. Respirometric Analysis to Assess Stability of Compost and Modeling of Composting Kinetics. ORBIT 2006, Weimar, Germany. Session 14B1, Paper 186.

Johnson, L.D., U. Krogmann, P.F. Strom, & C.-L. Tsai. 2007. Speciation of Coliforms in Wash Water of Glass Cullet and in Leachate from Glass Cullet Stockpiles. Annual Biomedical Research Conference for Minority Students, Poster 07-P-609, Austin, TX.

Tsai, C.-L., U. Krogmann, & P.F. Strom. 2008. Handling Leachate from Glass Cullet Stockpiles. Presentation at 23rd International Conference on Solid Waste Technology & Management, Philadelphia.

Tsai, C.-L., U. Krogmann, & P.F. Strom. 2008. Handling Leachate from Glass Cullet Stockpiles. Poster presentation at Global Waste Management Symposium, Copper Mountain, CO.

Kannepalli, S., P.F. Strom, & U. Krogmann. 2011. Assessment of Environmental Effects of Leachate Generated from Wood Recycling Facilities. Poster presentation at 26th International Conference on Solid Waste Technology & Management, Philadelphia.

Littleton, H.X. & P.F. Strom. 2016. Promoting Granulation with Metal Addition and Controlling Simultaneous Nutrient Removal in Granules. Invited presentation for WEF/WE&RF Knowledge Development Forum: Aerobic Granular Sludge, Workshop 01, 89th Water Environment Federation Technical Exhibition & Conference, September 24, 2016, New Orleans.

Amato, M.T., D. Giménez, P.F. Strom, U. Krogmann, R.J. Miskewitz. 2018. Three-Dimensional Numerical Simulations of Variably Saturated Flow through Woodchips. Poster presentation, European Geosciences Union General Assembly, EGU2018-10626, accepted in Session SSS9.11/NH9.18 – Urban sustainable development: resilience to environmental problems and natural hazards through eco-engineering solutions, Vienna, Austria.

Presentations at State and Regional Professional Meetings

Strom, P.F. & D. Jenkins. 1979. Filamentous Microorganisms in California Activated Sludge Plants. Invited Presentation for the 51st Annual Meeting, California Water Pollution Control Assoc., San Diego.

Strom, P.F. 1983. Ask the Experts on Operations. Panel Discussion at the 68th Annual Conference, NJ Water Pollution Control Assoc., Atlantic City, NJ.

Strom, P.F. 1983. Controlling Activated Sludge Bulking. Invited Presentation for the Spring Meeting, NY Water Pollution Control Assoc., Monticello, NY.

Strom, P.F. 1983. Physical, Chemical, and Biological Treatment of Hazardous Wastes. Invited Presentation for U.S. Senator Bill Bradley's Special Conference, "Hazardous Waste and Public Health: Policies and Practices,"New Brunswick, NJ.

Strom, P.F. 1984. Process Control in Activated Sludge. Invited Presentation for the 69th Annual Conference, NJ Water Pollution Control Assoc., Atlantic City, NJ.

Flower, F.B. & P.F. Strom. 1984. Leaf Composting Update. Invited Presentation for the 59th Annual Meeting, NJ Shade Tree Federation, Cape May, NJ.

Chung, J.C. & P.F. Strom. 1986. Microbiology of Rotating Biological Contactors. Presented at the Annual Meeting, Theobald Smith Society (NJ Branch, American Society for Microbiology), North Brunswick, NJ.

Strom, P.F. 1987. Microbiology and Troubleshooting the Activated Sludge Process. Invited Presentation at the NY Water Pollution Control Association Western Chapter Conference, Buffalo, NY.

Healey, M.J. & P.F. Strom. 1987. Testing of Commercial Bioaugmentation Preparations. Presented at the Annual Meeting, Theobald Smith Society, North Brunswick, NJ.

Strom, P.F. 1987. Current Research. Panel Discussion at "Toxic Wastes: Strategies for Control." NJ Public Health Association Special Meeting, Piscataway, NJ.

Strom, P.F. 1987. Nitrification in the Passaic River. Invited Presentation for "Workshop on Water Quality Standards Implementation Using the Passaic River Study as a Model." NJ DEP, Division of Water Resources Special Conference, Bernards Twp., NJ.

Strom, P.F. 1988. Current Research in Yard Waste Composting. Invited Presentation, Association of New Jersey Recyclers' Roundtable, Somerset, NJ.

Strom, P.F. 1988. Biological Treatment of Hazardous Waste. Invited Presentation for Solid and Hazardous Waste Management Research Update, Mid-Atlantic States Section of the Air Pollution Control Association, New Brunswick, NJ.

Strom, P.F. 1988. Microbiology and Troubleshooting the Activated Sludge and RBC Processes. Invited Presentation for the Greater Buffalo Environmental Conference, Buffalo, NY.

Liu, W.-T. & P.F. Strom. 1989. Anaerobic Biodegradation of Plastic Films. Presented at the Annual Meeting, Theobald Smith Society, East Brunswick, NJ.

Strom, P.F. 1990. Composting Facility Design and Operation - Special Case of Yard Waste. Invited Presentation for Composting of Municipal Solid Waste Fractions Short Course, Guelph, Ontario.

Strom, P.F. 1990. Composting and Pathogens. Invited Presentation for Composting of Municipal Solid Waste Fractions Short Course, Guelph, Ontario.

Strom. P.F. 1991. Introduction to the Microbial Ecology of Bioremediation. Invited Presentation for Soil and Groundwater Bioremediation, Stevens Institute of Technology, Hoboken, NJ.

Strom, P.F. 1991. *Aspergillus fumigatus* Research. Invited Presentation at the 8th Annual Minnesota Solid Waste Seminar, Bloomington, MN.

Zwerling, E.M. & P.F. Strom. 1991. Levels of *Aspergillus fumigatus* at Yard Waste Composting Facilities in New Jersey. Presented at the Annual Meeting, Theobald Smith Society, Woodbridge, NJ.

Strom, P.F. 1991. Bioremediation Research Needs. Invited Presentation for Research Priorities for Water Resources Research in the 1990s, New Brunswick, NJ.

Strom, P.F. 1992. The Hazardous Waste Regulation Maze. Invited Speaker for Metropolitan Dairy Technology Society New Year's Meeting, Elizabeth, NJ.

Strom, P.F. 1992. Municipal Scale Composting - Good Management Practices. Invited Paper for Compost Michigan: Solutions to Yard Waste, East Lansing, MI.

Strom, P.F. 1993. The Niche for Biodegradable Plastics; Anaerobic Testing. Invited Paper for Biodegradation of Plastics, Mini-Symposium convened by the Interdisciplinary Bioremediation Working Group, AgBiotech Center, New Brunswick, NJ.

Strom, P.F. 1993. The Microbiology of Activated Sludge. Invited Paper for 78th Annual Meeting, NJ Water Pollution Control Association, Atlantic City, NJ.

Oh, K.-C., G.J. Zylstra, & P.F. Strom. 1994. Development of Field Application Vectors for Bioremediation of Trichloroethylene Contaminated Soils. Presented at the Annual Meeting, Theobald Smith Society, Somerset, NJ.

Strom, P.F. & G. Whalen. 1994. Using a Microscope to Troubleshoot and Optimize Activated Sludge Operations. Invited Paper for 79th Annual Meeting, NJ Water Pollution Control Association, Atlantic City, NJ.

Lefkowitz, D., Y. Lam, & P.F. Strom. 1995. Effects of Elevated Temperature on Activated Sludge. Poster Presented at the 80th Annual Meeting, NJ Water Environment Association, Atlantic City, NJ.

Strom, P.F. & P. Habrukovich. 1997. Foaming and *Nocardia*-like Bacteria. Invited Presentation for NJWEA Technology Transfer Seminar, East Windsor, NJ.

Tambwekar, J.A., J.A. Joshi, R.M. Cowan, P.F. Strom & M.S. Finstein. 1998. Removal of Trace

Levels of Ethylene using Biofiltration: Preliminary Results. Awarded 1st Prize at MASS-A&WMA Student Poster Competition, Philadelphia, PA.

Strom, P.F. & Phanida Prommasith. 1998. Nitrification in Potable Water Distribution System Biofilms. Invited Presentation for "Drinking Water Research in New Jersey," NJ Section, American Water Works Association, Princeton, NJ.

Tambwekar, J.A., J.A. Hogan, R.M. Cowan and P.F. Strom. 2000. Biofiltration of Trace Concentrations of Ethylene: Nitrogen Limitation and effect of Ammonium vs. Nitrate as a Nitrogen Source. Awarded 1st Prize for Best Poster at the 85th Annual New Jersey Water Environment Association Conference, Atlantic City, NJ.

Tambwekar, J.A., J.A. Hogan, R.M. Cowan and P.F. Strom. 2000. Nitrogen Limitation and Effect of Ammonium or Nitrate as Nitrogen Sources on the Removal of 1ppm Ethylene in Air Using Biofiltration. Awarded Best Paper in the Chemical Engineering Session at the 9th Annual Uni-Tech Student Conference on Science and Technology at New Jersey Institute of Technology, Newark, NJ.

Strom, P.F. 2002. The Anaerobic Digestion Process. Invited Presentation for NJWEA Technology Transfer Seminar, Tinton Falls, NJ.

Chowdhury, M. & P.F. Strom. 2002. Preliminary Report on the Status of the Upper Cohansey River Watershed Management Project. Awarded 2nd Prize for Best Poster at the 87th Annual New Jersey Water Environment Association Conference, Atlantic City, NJ.

Strom, P.F., J.A. Hogan, & R.M. Cowan. 2002. Biofiltration: Biological Treatment of Contaminated Air. Invited Paper for 87th Annual Meeting, NJ Water Pollution Control Association, Atlantic City, NJ.

Strom, P.F. 2003. Activated Sludge Microbiology, Filament Identification and Control. Invited Paper for 88th Annual Meeting, NJ Water Pollution Control Association, Atlantic City, NJ.

Strom, P.F. 2003. Microbiology Lab for Control of Activated Sludge Bulking and Foaming. Invited Presentation for NJWEA Technology Transfer Seminar, Tinton Falls, NJ.

Strom, P.F. 2003. Activated Sludge in Industrial Wastewater Treatment. Invited Presentation for NJWEA Technology Transfer Seminar, Tinton Falls, NJ.

Strom, P.F., J.A. Hogan, R.M. Cowan, J. Joshi, J. Tambwekar, and F. Qiao. 2003. Introduction to Biofiltration for Emissions Control. Invited Dinner Speaker, Northern & Central New Jersey Chapter, Mid-Atlantic States Section, Air & Waste Management Assoc., East Brunswick, NJ.

Strom, P.F. 2004. Introduction to Anaerobic Digestion. Invited Presentation for Solid Waste Association of North America – New Jersey Chapter, Solid Waste Conversion Technology Seminar, Rutgers EcoComplex, Bordentown, NJ.

Strom, P.F. 2005. Utilizing Microscopy and Analytical Testing for Trouble Shooting Plant Operations. Invited Presentation for NJWEA Technology Transfer Seminar, Tinton Falls, NJ.

Strom, P.F. 2006. Introduction to Phosphorus Removal. Invited Presentation for Wastewater Treatment Operator's Workshop, 91st Annual Meeting, NJWEA, Atlantic City, NJ.

Strom, P.F. 2006. Phosphorus Removal Techniques. Invited Presentation for Water Quality Trading, 91st Annual Meeting, NJWEA, Atlantic City, NJ.

Strom, P.F. 2006. Introduction to Phosphorus Removal. Invited Presentation for NJ Water Environment Association Technology Transfer Seminar, Tinton Falls, NJ.

Strom, P.F. 2006. Microbes in Activated Sludge. Invited Presentation for NJWEA Technology Transfer Seminar, Tinton Falls, NJ.

Strom, P.F. 2007. Intro to Biofiltration for Emissions Control. Invited presentation for 2nd Innovative Environmental Technology Conference, Session II: Air Monitoring & Emission Control Technologies, Environmental Business Council of the Commerce & Industry Assoc. of New Jersey, Newark, NJ.

Kannepalli, S., P.F. Strom, B. Ravit. 2008. Preliminary Study to Determine the Feasibility of Composting as a Treatment Option in Achieving Class A Status for Reed Bed Biosolids. 93rd Annual Meeting, NJ Water Environment Association, Student Poster Competition, Atlantic City, NJ. Winner of second place award.

Strom, P.F. 2008. An Introduction to Anaerobic Digestion and Biomethane. Invited Presentation for Alternate Fuel Refuse and Recycling Trucks: Leading the Way to Energy Independence and a Cleaner Environment, Piscataway, NJ.

Strom, P.F. 2008. Phosphorus – The Catch 22. Invited presentation for Joint NJ Amer. Water Works Assoc./NJWEA Seminar, "From Wastewater to Drinking Water and Back Again," Tinton Falls, NJ.

Strom, P.F. 2008. Wastewater Microbiology and Microscopic Examination at BNR Plants. Invited presentation for NJWEA Technology Transfer Seminar, Tinton Falls, NJ.

Kannepalli, S., P.F. Strom, B. Ravit. 2008. Preliminary Study to Determine the Feasibility of Composting as a Treatment Option in Achieving Class A Status for Reed Bed Biosolids. NJ Water Environment Association Student Poster Competition, Atlantic City. Winner of second place award.

Strom, P.F. 2008. Fundamentals of Wastewater Microbiology. Invited presentation for NJWEA Technology Transfer Seminar, Eatontown, NJ.

Strom, P.F. 2009. Troubleshooting Bulking Sludge and Foam Operation Issues in Wastewater Treatment Plants. Invited presentation for March NJWEA Technology Transfer Seminar, Eatontown, NJ.

Strom, P.F. 2009. Troubleshooting Foaming Problems. Invited presentation for September NJWEA Technology Transfer Seminar, Eatontown, NJ.

Strom, P.F. 2009. Ecosystem Services: What Has the Environment Done for You Lately?. Invited presentation for September NJWEA Technology Transfer Seminar, Eatontown, NJ.

Strom, P.F. 2012. Bioremediation: What It Can Do, and What It Might. Invited dinner speaker for the Association of Consulting Chemists & Chemical Engineers, Winter Meeting, Scotch Plains, NJ.

Strom, P.F. 2012. Using the Microscope to Support Activated Sludge Operations. Invited Presentation for Laboratory Workshop, 97th Annual Meeting, NJWEA, Atlantic City, NJ.

Cowan, R.M., P.F. Strom, J.C. Young 2014. Opening the Black Box – Improved Process Design and Control with Increased Understanding of the Activated Sludge Ecosystem. Presentation for the American Academy of Environmental Engineers and Scientists Workshop – 100 Years of the Activated Sludge Process, 99th Annual Meeting, NJWEA, Atlantic City, NJ.

Strom, P.F. 2015. Secondary Treatment as a Microbial Ecosystem: An Operations Viewpoint. Invited presentation for Winter NJWEA Technology Transfer Seminar, Eatontown, NJ.

Strom, P.F. 2015. 100 Years of Wastewater Treatment Practices in New Jersey. Invited presentation at the 101st Annual Meeting, NJWEA, Atlantic City, NJ.

Strom, P.F. 2016. The Microbial Ecology of Sewage Treatment. Invited presentation at the Annual Conference of Northeastern Microbiologists – Physiology, Ecology, Taxonomy (NEMPET), Blue Mountain Lake, NY.

Strom, P.F. 2017. Troubleshooting Foaming Problems. Invited presentation for Winter NJWEA Technology Transfer Seminar, Eatontown, NJ.

Ravit, E., S. Kannepalli, P.F. Strom. 2017. Composting of Aged Reed Bed Biosolids for Beneficial Reuse: A Case Study in New Jersey, USA. Invited presentation for Fall NJWEA Technology Transfer Seminar, Biosolids Session, Eatontown, NJ.

Strom, P.F. 2019 Plastics, Degradability, and the Environment. Montclair State University Doctoral Program in Environmental Management and MSU Sustainability Seminar Series.

Strom, P.F. 2019. Using the Microscope to Evaluate Activated Sludge. Invited presentation for Fall NJWEA Technology Transfer Seminar, Biosolids Session, Eatontown, NJ.

Strom, P.F. 2024. Introduction to Anaerobic Digestion for Operators. Invited presentation at the 109th Annual Meeting, NJWEA, Atlantic City, NJ.

Presider or Co-Presider at Sessions of National Professional Meetings

Wastewater Treatment: Composting. 1980. Session 230, American Society for Microbiology, 80th Annual Meeting, Miami Beach.

Research Needs Panel Discussion. 1987. Seminar/Workshop on Detoxification of Recalcitrant Organics by Naturally Occurring and Genetically Engineered Microorganisms, Industry/University Cooperative Center for Research in Hazardous and Toxic Substances, NJ Institute of Technology, Newark.

Biological Treatment. 1988. Session II, International Conference on Physiochemical and Biological Detoxification of Hazardous Wastes. Atlantic City.

Organizing Committee. 1991. Workshop on Utilizing Bioremediation Technologies: Difficulties and Approaches, Princeton.

Biological Treatment Processes. 1992. Water Quality International '92, 16th Biennial Conference, Int.'l Assoc. on Water Pollution Research & Control, Washington.

Session Facilitator. 1994. Invitational Workshop on The Emerging Relevance of Evolutionary Biology to Applied Problems and Opportunities, Princeton.

Session Moderator. 2004. Session 3D: Waste Processing IV. Habitation 2004. Orlando, FL.

Workshop Co-Moderator. 2010. Workshop 204: Design and Control Strategies for Simultaneous Nitrification and Denitrification in Wastewater Treatment. 83rd Annual Water Environment Federation Technical Exhibition & Conference, New Orleans.

Attendance at National and International Professional Meetings

Water Environment Fed. (formerly Water Pollution Control Fed.), Annual Conf. (now WEFTEC): 50th, October 2-7, 1977, Philadelphia 51st, October 1-6, 1978, Anaheim 53rd, September 28 - October 3, 1980, Las Vegas 54th, October 4-9, 1981, Detroit 58th, October 6-10, 1985, Kansas City 60th, October 4-8, 1987, Philadelphia 62nd, October 15-20, 1989, San Francisco 73rd, October 14-18, 2000, Anaheim, CA 74th, October 13-17, 2001, Atlanta 75th, September 29 - October 2, 2002, Chicago 83rd, October 2-6, 2010, New Orleans 89th, September 23-27, 2016, New Orleans 91st, September 29 – October 3, 2018, New Orleans American Society for Microbiology, Annual Meetings: 73rd, May 6-11, 1973, Miami Beach 75th, April 27 - May 2, 1975, New York 76th, May 2-7, 1976, Atlantic City 77th, May 8-13, 1977, New Orleans 79th, May 4-8, 1979, Los Angeles 80th, May 11-16, 1980, Miami Beach 85th, March 3-8, 1985, Las Vegas 95th, May 21-25, 1995, Washington, D.C. Annual Inland Spills Conference: 8th, September 26-28, 1983, Dayton, OH National Recycling Congress: 3rd, October 10-12, 1984, New Brunswick, NJ 7th, September 26-30, 1988, St. Paul, MN International Conference on Fixed-Film Biological Processes: 2nd, July 10-12, 1984, Washington, DC National Conference on Composting and Waste Recycling: 15th, May 1-3, 1985, Philadelphia Special BioCycle Workshop on New Options for Recycling Solid Waste: September 25-27, 1985, Philadelphia International Conference on Innovative Biological Treatment of Toxic Wastewaters: June 24-26, 1986, Arlington, VA

- National Solid Waste Management Assoc., Municipal Waste Alternatives '87: September 9-11, 1987, Boston
- Seminar/Workshop on Detoxification of Recalcitrant Organics by Naturally Occurring and Genetically Engineered Microorganisms: October 19, 1987, Newark
- International Conf. on Physiochemical & Biological Detoxification of Haz. Wastes: May 3-5, 1988, Atlantic City
- BioCycle Northeast Conference '88, Recycling/Composting Solid Waste and Sludge: September 14-16, 1988, Albany, NY
- Microbiology of the Deep Subsurface: January 15-19, 1990, Orlando
- Utilizing Bioremediation Technol.: Difficulties & Approaches: July 12-14, 1991, Princeton
- International Association on Water Pollution Research and Control: 16th Biennial, May 24-30, 1992, Washington.
- BioCycle Northeast Conference '92, New Horizons for Composting: September 9-11, 1992, Albany, NY
- Emerging Relevance of Evolutionary Biology to Applied Problems and Opportunities: May 13-15, 1994, Princeton (by invitation)
- International Conf. on Microorganisms in Activated Sludge and Biofilm Processes: 2nd, July 21-23, 1997, Berkeley, CA
- International Conference on Life Support & Biosphere Science: 3rd, January 11-14, 1998, Lake Buena Vista, FL. 4th, August 6-9, 2000, Baltimore, MD.
- International Conference on Environmental Systems (ICES): 28th, July 13-16, 1998, Danvers, MA
- NSF Workshop on Biosolids Management in the 21st Century: April 10-11, 2000, College Park, MD
- American Society of Gravitational and Space Biology: November 7-10, 2001, Alexandria, VA.
- 34th Mid-Atlantic Industrial & Hazardous Waste Conference: September 20-21, 2002, New Brunswick, NJ

Habitation 2004:

January 4-7, 2004, Orlando, FL.

- NSF Self-Sustaining High-Rise Building Workshop: January 13-14, 2005, Bloustein School of Planning and Public Policy, New Brunswick, NJ (by invitation)
- Water Environment Research Foundation Workshop 05-CTS-1W, Nutrient Removal: How Low Can We Go & What Is Stopping Us from Going Lower?: March 9-11, 2006, Washington, DC (by invitation).
- Water Environment Research Foundation Workshop 04-CTS-3T, Regrowth/Reactivation of Fecal Coliforms in Anaerobically Digested, Centrifuge Dewatered Sludges: August 16-17, 2006, Washington, DC (by invitation).

Attendance at State and Regional Professional Meetings

California Water Pollution Control Association Annual Meeting: 51st, April 25-27, 1979, San Diego New Jersey Water Environment Association Annual Conference: 66th, April 27-30, 1981, Atlantic City 67th, May 11-14, 1982, Atlantic City 68th, May 3-6, 1983, Atlantic City 69th, May 8-11, 1984, Atlantic City 72nd, May 5-8, 1987, Atlantic City 76th, May 13-17, 1991, Atlantic City 77th, May 4-8, 1992, Atlantic City 78th, May 3-7, 1993, Atlantic City 79th, May 2-6, 1994, Atlantic City 80th, May 1-5, 1995, Atlantic City 81st, April 29 - May 1, 1996, Atlantic City 82nd, May 5-7, 1997, Atlantic City 83rd, May 6-8, 1998, Atlantic City 84th, May 4-7, 1999, Atlantic City 85th, May 1-5, 2000, Atlantic City 86th, April 30 - May 4, 2001, Atlantic City 87th, April 29 - May 3, 2002, Atlantic City 88th, May 5-9, 2003, Atlantic City 89th, May 3-7, 2004, Atlantic City 90th, May 2-6, 2005, Atlantic City 91st, May 1-5, 2006, Atlantic City 92nd, April 30-May 4, 2007, Atlantic City 93rd, April 28-May 2, 2008, Atlantic City 94th, May 11-15, 2009, Atlantic City 95th, May 10-14, 2010, Atlantic City 96th, May 9-13, 2011, Atlantic City 97th, May 14-18, 2012, Atlantic City 98th, May 13-17, 2013, Atlantic City 100th, May 11-15,2015, Atlantic City 101st, May 16-20, 2016, Atlantic City 102nd, May 8-12, 2017, Atlantic City 103rd, May 7-11, 2018, Atlantic City 104th, May 6-10, 2019, Atlantic City 107th, May 9-13, 2022, Atlantic City 108th, May 8-12, 2023, Atlantic City 109th, May 6-10, 2024, Atlantic City Theobald Smith Society, NJ Branch, American Soc. for Microbiology, Annual Meeting: February 20, 1986, North Brunswick February 19, 1987, North Brunswick April 27, 1989, East Brunswick

- April 18, 1991, Woodbridge
 - April 21, 1994, Somerset

NJ Section, American Water Works Association

Drinking Water Research in New Jersey, June 3, 1998, Princeton

NY State Legislative Comm., Conf. on Solid Waste Management & Materials Policy: February 12-14, 1987, New York

New York Water Pollution Control Association: Spring Meeting, June 12-15, 1983, Monticello Greater Buffalo Environmental Conference 5th, September 15-17, 1987 6th, September 12-14, 1988

Soil and Groundwater Bioremediation: January 29, 1991, Hoboken, NJ

Minnesota Annual Solid Waste Seminar: 8th, February 27-28, 1991, Bloomington

Research Priorities for Water Resources in the 1990s: June 6, 1991, New Brunswick, NJ

Mini-Symposia convened by the Interdisciplinary Bioremediation Working Group,

AgBiotech Center, New Brunswick, NJ. Biotreatment and Pollution Control, June 22, 1992

Bioscrubbing of Gaseous Emissions, November 18, 1992 Biodegradation of Plastics, June 21, 1993

Economic Development through Environmental Responsibility: Partnerships for New Jersey: September 18, 1995, New Brunswick, NJ (by invitation)

 SWANA (Solid Waste Association of North America) New Jersey Chapter Annual Meeting and Technical Seminar, Solid Waste Conversion Technology Symposium on Anaerobic Digestion, "Opportunities to Produce New Types of Recycled Products from MSW": October 1, 2004, Bordentown, NJ

Northeastern Microbiologists – Physiology, Ecology, Taxonomy: June 24-26, 2016, Blue Mountain Lake, NY