

**Dr. James N. Jensen**

Revised: 5/24/00

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**Education:**

Ph.D., University of North Carolina at Chapel Hill, 1988  
Department of Environmental Sciences and Engineering

MSPH, University of North Carolina at Chapel Hill, 1983  
Department of Environmental Sciences and Engineering

BS, California Institute of Technology, 1980  
Engineering and Applied Sciences

**Employment History:**

1988 to present: Associate Professor  
(Assistant Professor: 1988-1994; Associate Professor: 1994 to present)  
Department of Civil Engineering  
State University of New York at Buffalo, Buffalo, NY

1994 to present: Director (Acting Director: 1992-93)  
Environmental Science Program, School of Engineering and Applied Science  
State University of New York at Buffalo, Buffalo, NY

1981-87: Research Technician and Teaching Assistant  
Department of Environmental Sciences and Engineering  
University of North Carolina at Chapel Hill, Chapel Hill, NC

1979: Research Assistant  
Environmental Engineering Science  
California Institute of Technology, Pasadena, CA

## Awards and Honors:

American Academy of Environmental Engineers, Honor Award (Research) for Excellence in Environmental Engineering - for research conducted with Camp, Dresser, and McKee and ALCOA on developing a protocol for deriving cleanup levels for soils and sediments, April 22, 1999  
Consulting Engineers Council of New York, Silver Medal Award - for research conducted with Camp, Dresser, and McKee and ALCOA on developing a protocol for deriving cleanup levels for soils and sediments, February 8, 1999  
Chancellor's Award for Excellence in Teaching, 1995  
American Water Works Association Distribution and Plant Operations Division Best Paper Award (with T.J. Brady, J.E. Van Benschoten, D.P. Lewis, and J. Sferrazza for: Sampling and Enumeration of Zebra Mussel Veligers: Implications for Control. *J. Amer. Water Works Assoc.*, **85**(6), 100-103, 1993).  
Certificate of Merit, American Chemical Society (for presentation with T. Coulibaly), 1991  
University Teaching Fellow, 1991  
American Chemical Society, Graduate Student Award in Environmental Chemistry, 1986  
Thomas J. Watson Fellow, 1980-81  
California Institute of Technology, graduation with honor, 1980  
Caltech Summer Undergraduate Research Fellow, 1979

### Student Awards:

B. Madge, 1<sup>st</sup> Place, Master's Division, WEF Student Paper Competition, 1999  
J. Yoon, ACS Graduate Student Award in Environmental Chemistry, 1993  
J.P. Stowell, ACS Graduate Student Award in Environmental Chemistry, 1989  
J.P. Stowell, Grand Prize, ASCE National Hazardous Waste Essay Competition, 1989

## Patents

U.S. Patent 5,393,781 Method for Controlling Zebra Mussels (co-inventor with J.E. Van Benschoten, A. Vegaga, and C.E. Manissero; assignees: Research Foundation of SUNY, FMC Corp.), February 28, 1995  
U.S. Patent 5,550,157 Method for Controlling Dreissenidae Mussels (co-inventor with J.E. Van Benschoten, A. Vegaga, and C.E. Manissero; assignees: Research Foundation of SUNY, FMC Corp.), August 27, 1996

## Courses Taught and Other Teaching Activities:

CIE 415: Civil Engineering Planning and Management, Spring 1997, 1998  
CIE 440: Principles of Water Quality, Fall, 1991, 1993  
CIE 441/562: Water Quality Engineering, Fall 1998, 1999  
CIE 500A: Advanced Physicochemical Treatment Processes, Spring 1989  
CIE 500E: Process Engineering Laboratory, Spring 1994  
CIE 562: Water Quality Labs and Processes, Fall 1989  
CIE 564: Chemical Principles in Environmental Engineering, Fall 1988-90, 1992, 1994, 1996  
CIE 556: Physicochemical Unit Processes, Spring, 1993, 1998, 1999, 2000  
CIE 662: Methods of Pollutant Analysis, Spring 1989-91, 1993, 1995, 1997

CIE 664: Organic Chemical Principles in Environmental Engineering, Spring 1990, 1992, 1994, 1996  
EAS 140: Engineering Solutions, Fall, 1997-99  
ENM 104: Science, Technology and the Environment, Fall, 1992-94 (with D.D. Meredith and A.S. Weber in 1992-93)  
ENS 542: Environmental Engineering Systems, Spring 1991-92, 1996  
LAI 588: Energy and Environment in the Great Lakes Basin, Summer 1998

### Graduate Student Advisement:

Major professor for the following former students:

M.S.:

Trzyna, Janusz. Kinetic Model for Complexed Cyanide Oxidation by Ozone. M.S. (Eng. Sci.), 2000  
Belen, Miguel A. Kinetic Model for the Ultrasonic Oxidation of Organic Compounds in Aqueous Solution. M.S., 2000  
Madhure, Bhavana. Evaluation of Ozone for Drinking Water Treatment. M.S. (Eng. Sci.), 2000  
Li, Chunxian. Ion Exchange for Water Reuse and Metal Recovery in the Electroplating Industry. M.S. (Eng. Sci.), 1999  
Madge, Bethany A. Disinfection of Wastewater Using 20 kHz Ultrasound. M.S. (Eng. Sci.), 1998  
Merlo, Peter. Oxidation of Hexachlorobutadiene by Ultrasonic Irradiation. M.S., 1998.  
Host-Steen, Erik H. Oxidation of Complexed Cyanides by Ozone, Chlorine, and Ozone/UV. M.S. (Eng. Sci.), 1997  
Chen, Wei-Ling. Effect of Nitrite on Wastewater Breakpoint Curves. M.S. (Eng. Sci.), 1997.  
Nelson, Leslie. Application of Ozone and/or Ozone/UV Oxidation as Secondary Treatment for Pre-treated Coke Waste Effluent. M.S., 1996  
Jacobs, C. Donald. Effect of Particles on PCB Treatment by Photolysis and Photocatalysis. M.S., 1995.  
Yeh, Tzu-Ling. Destruction of Cyanide by Ultrasonic Irradiation. M.S. (Eng. Sci.), 1995.  
Avala, Neelima. Degradation of Chlorendic Acid by Photocatalysis. M.S., 1994.  
Kleyman, Genady. Oxidation of Simazine in Aqueous Solution by Ultrasonic Irradiation. M.S., 1994.  
Kelley (nee Evans), Mark. Combined Use of Potassium and Oxidants for the Control of Zebra Mussels. M.Eng., 1994.  
Gassman, Lisa J. Hydrogen Sulfide Generation in Wastewater and Removal by Chemical Oxidants. M.S., 1993.  
Mattulke, Timothy R. Survey Method for Detection of Radon-222 in Potable Water Supplies. M.S. (Eng. Sci.), 1992.  
Jain, Priya. Volatilization and Oxidation of Organic Compounds by Ozone in a Continuous Flow Bubble Contactor. M.S., 1992.  
Puranik, Sanjay. Quantitation of Inorganic Monochloramine in Presence of Organic Chloramines. M.S. (Eng. Sci.), 1992.  
Rao, Arun. Advanced Oxidation Processes for the Degradation of Hexachloronorborene Compounds. M.S., 1992.  
Derrigan, James. The Measurement of Residual Chlorine in Wastewaters. M.S., 1992.  
Coulibaly, Tchonon. Ozone Demand in Aqueous Systems, M.S., 1991.  
Tuan, Yeu-Juin. Destruction of Thiocyanate by Ozone. M.S., 1991.  
Hempel, Christopher E. Measurement of Inorganic Monochloramine by the Modified Bertholet Reaction. M.S., 1991.  
Stowell, Janice P. Chemical Degradation of Chlorendic Acid by Ozonation, M.S., 1989.

M.Eng.:

Barry, William J. Purified Water Treatment System for Application in the Copper Beryllium Industry. M.Eng., 1999  
Vreisen, Steven. Evaluation of Ion Exchange at a Metal Finishing Facility. M.Eng, 1998.  
Scharf, Efrat. Adsorption of Chromium from a Metal Plating Waste Stream onto Granular Activated Carbon. M.Eng., 1996.  
Klekovic, Michelle. An Evaluation of Enhanced Coagulation at the Pilot Scale. M.Eng., 1995.

Ph.D.:

Yoon, Jeyong. Distribution of Chlorine Species in the Presence of Ammonia and Nitrogenous Organics. Ph.D., 1993.  
Stowell, Janice P. Sequential Ozonation/Biodegradation of Chlorophenols. Ph.D., 1993.

Major professor for the following students in progress:

Roble, Daniel. M.S. (Eng. Sci.); Strassburg, Jamie. M.S.  
Madge, Bethany. Ph.D. Kang, Namgoo. Ph.D. Tao, Zunyu. Ph.D.

### **Grant Support:**

Present research grants received:

Title: Evaluation of Ultraviolet Radiation Disinfection for Water Treatment Plants in NYS  
Funding Agency: Niagara Mohawk Power Corporation  
Dates: 3/1/99-5/31/01  
Total Funding Amount: \$51,632  
Investigator Status: Project Director

Title: Evaluation of Ultraviolet Radiation Technology for Wastewater Plant Effluent  
Funding Agency: Niagara Mohawk Power Corporation  
Dates: 3/1/99-8/31/01  
Total Funding Amount: \$42,342  
Investigator Status: Project Director

Title: Resins Technology for Remediation of PCB-Contaminated Soils/Sediments  
Funding Agency: NYS Energy Research and Development Authority  
Dates: 6/1/99-5/31/00  
Total Funding Amount: \$27,700  
Investigator Status: Principal Investigator (Project Director: A.S. Weber, PI: J.E. Van Benschoten)

Title: Use of Peracetic Acid for Disinfection of Commercial Shipping Ballast Water  
Funding Agency: U.S. Fish and Wildlife  
Dates: 9/30/98-3/31/00  
Total Funding Amount: \$147,810 (\$75,930 to the University at Buffalo)  
Investigator Status: Project Director (Principal Investigator: J.E. Van Benschoten)

Title: Evaluation of Drinking Water Ozonation in New York State  
Funding Agency: Niagara Mohawk Power Corporation

Dates: 11/1/97-12/31/99  
Total Funding Amount: \$47,549  
Investigator Status: Project Director

Title: Resource Recovery Technology for the Metal Finishing Industry  
Funding Agency: NYS Energy Research and Development Authority  
Dates: 12/30/97-6/30/99  
Total Funding Amount: \$182,289 (\$77,289 to the University at Buffalo)  
Investigator Status: Project Director (with L.P. Zicari, Jr.)

Past research grants received:  
Title: Evaluation of the Praxair In-Situ Oxygenator at the Buffalo Sewer Authority  
Funding Agency: Praxair, Inc.  
Dates: 12/1/96-3/31/99  
Total Funding Amount: \$43,194  
Investigator Status: Project Director (Principal Investigator: A.S. Weber)

Title: Water Reuse and Metals Recovery in the Metal Finishing Industry  
Funding Agency: NYS Energy Research and Development Authority  
Dates: 6/28/96-12/31/98  
Total Funding Amount: \$81,658 (include \$15,065 extension on original \$66,593)  
Investigator Status: Project Director (with L.P. Zicari, Jr.)

Title: Groundwater Sulfide Mitigation  
Funding Agency: Buffalo Crushed Stone  
Dates: 3/98-6/98  
Total Funding Amount: \$11,012  
Investigator Status: Principal Investigator (Project Director: A.S. Weber)

Title: Site Specific PCB Desorption/Adsorption Analysis of Massena PCB Impacted Soils  
Funding Agency: Aluminum Company of America (ALCOA)  
Dates: 11/97-6/98  
Total Funding Amount: \$52,602  
Investigator Status: Principal Investigator (Project Director: A.S. Weber)

Title: PCB Mobility Reduction by Biostabilization of PCBs  
Funding Agency: U.S. Department of Energy  
Dates: 10/96-9/97  
Total Funding Amount: \$149,801  
Investigator Status: Principal Investigator (Project Director: A.S. Weber)

Title: Disinfection of Intermittent Flows by Ultrasound  
Funding Agency: Water Environment Research Foundation  
Dates: 8/15/97-3/31/98  
Total Funding Amount: \$26,259  
Investigator Status: Project Director

Title: Impacts of Chlorine Dosage Reduction on Final Effluent Quality  
Funding Agency: NYS Department of Environmental Conservation (with the Buffalo Sewer Authority and SUC Buffalo)

Dates: 3/1/96-2/28/97

Total Funding Amount: \$50,000 (\$19,127 to University at Buffalo)

Investigator Status: Project Director

Title: Development of Interactive Environmental Models for the General Public

Funding Agency: New York Great Lakes Protection Fund

Dates:

Total Funding Amount: \$6,000

Investigator Status: Project Director

Title: Evaluation of Waste Treatment

Funding Agency: L.D. McCauley

Dates: 1/11/95 - 1/10/96

Total Funding Amount: \$30,857

Investigator Status: Project Director

Title: Biological Activated Carbon (BAC) Treatment of Waters Containing PCBs

Funding Agency: New York State Energy Research and Development Agency

Dates: 2/1/94 - 5/31/95

Total Funding Amount: \$132,988

Investigator Status: Principal Investigator (Project Director: A.S. Weber)

Title: Treatment of Chlorinated Hazardous Wastes by Ultrasonic Irradiation

Funding Agency: New York State Center for Hazardous Waste Management

Dates: 8/1/94 - 7/31/95

Total Funding Amount: \$83,509

Investigator Status: Project Director

Title: Dechloramination of Drinking Waters for the Beverage Industry

Funding Agency: Pepsi-Cola Company

Effective Dates: 8/1/92 - 10/31/93

Total Funding Amount: \$15,695

Investigator Status: Project director

Title: Optimizing the Combined Use of Potassium Ion and Chemical Treatment for Control of the Zebra Mussel

Funding Agency: Niagara Mohawk Power Corporation

Effective Dates: 7/1/92 - 12/31/93

Total Funding Amount: \$106,414 (includes \$20,650 subcontract to Aquatic Sciences, Inc.)

Investigator Status: Co-principal investigator (Project director: J.E. Van Benschoten)

Title: Development of a Sequential Chemical/Biological Process for the Treatment of Simazine

Funding Agency: Shimizu Corp.

Effective Dates: 1/1/93 - 12/31/93

Total Funding Amount: \$54,000

Investigator Status: Co-principal investigator (Project director: A.S. Weber)

Title: Taste and Odor Study

Funding Agency: Erie County Water Authority

Effective Dates: 2/15/92 - 8/31/93

Total Funding Amount: \$136,091

Investigator Status: Co-principal investigator (Project director: J.E. Van Benschoten)

Title: Application of Combined Chemical/Biological Oxidation Processes for the Treatment of Industrial Wastes

Funding Agency: Shimizu Corporation

Effective Dates: 12/1/90 - 11/30/92

Total Funding Amount: \$90,078

Investigator Status: Co-principal investigator (Project director: A.S. Weber)

Title: Feasibility Study of FMC Products for Zebra Mussel Control

Funding Agency: FMC Corporation

Effective Dates: 6/1/92-8/31/92

Total Funding Amount: \$9,209

Investigator Status: Project director (Co-principal investigator: J.E. Van Benschoten)

Title: Optimization of Hydrogen Sulfide Removal

Funding Agency: City of Niagara Falls (Dept. of Wastewater Facilities)

Effective Dates: 9/16/91 - 9/15/92

Total Funding Amount: \$37,279

Investigator Status: Project director (Co-principal investigator: M.R. Matsumoto)

Title: Combined Chemical/Biological Oxidation for the Reduction of Hazardous Waste Toxicity

Funding Agency: New York State Center for Hazardous Waste Management

Effective Dates: 9/1/90 - 8/30/92

Total Funding Amount: \$110,407

Investigator Status: Project director (Co-principal investigator: A.S. Weber)

Title: Optimizing the Use of Chemical Oxidants for Control of the Zebra Mussel (*Dreissena polymorpha*)

Funding Agency: Niagara Mohawk Power Corporation

Effective Dates: 7/1/91 - 6/30/92

Total Funding Amount: \$214,700 (includes \$82,045 subcontract to Aquatic Sciences, Inc.)

Investigator Status: Co-principal investigator (Project director: J.E. Van Benschoten)

Title: Treatability of Soil and Groundwater Contaminated with Ammonium Perfluorooctanoate - Phase I: Literature Review

Funding Agency: Du Pont

Effective Dates: 7/15/91 - 8/23/91

Total Funding Amount: \$4,942

Investigator status: Co-principal investigator (J.N. Jensen, A.S. Weber)

Title: Oxidative Degradation of Hexachloronorborene Compounds

Funding Agency: Occidental Chemical Corporation

Effective Dates: 1/1/90 - 12/31/91

Total Funding Amount: \$47,913

Investigator Status: Project director

Title: Development of Methods for the Analysis of Organic Chloramines and Organic Monochloramine in Natural and Engineered Systems

Funding Agency: U.S. Environmental Protection Agency  
Effective Dates: 8/8/90 - 12/31/91  
Total Funding Amount: \$52,185  
Investigator Status: Project director

Title: Hydraulic Analysis and Coagulant Optimization Study  
Funding Agency: City of Niagara Falls (Dept. of Water)  
Effective Dates: 4/15/90 - 4/14/91  
Total Funding Amount: \$25,000  
Investigator Status: Co-principal investigator (J.N. Jensen, J.E. Van Benschoten)

Title: Potable Water Treatment Control Methods for (1) Zebra Mussels and (2) Residual Aluminum  
Funding Agency: Erie County Water Authority  
Effective Dates: 3/1/90 - 2/28/91  
Total Funding Amount: \$58,190  
Investigator Status: Co-principal investigator (J.E. Van Benschoten, J.N. Jensen)

Title: Effect of Oxidant Type and Application Method on the Inactivation of the Zebra Mussel  
(*Dreissena polymorpha*) Veliger Larvae  
Funding Agency: Niagara Mohawk Power Corporation  
Effective Dates: 7/1/90 - 6/30/91  
Total Funding Amount: \$208,673 (includes \$81,457 subcontract to Aquatic Sciences, Inc.)  
Investigator Status: Co-principal investigator (J.E. Van Benschoten, J.N. Jensen)

Title: Analysis of Alternative Sludge Management Strategies  
Funding Agency: Erie County Water Authority  
Effective Dates: 6/1/89 - 12/31/90  
Total Funding Amount: \$43,288  
Investigator Status: Co-principal investigator (J.E. Van Benschoten, J.N. Jensen)

Title: Electrocoagulation for Hazardous Waste Management: Fundamental Aspects, Applications and  
Economic Feasibility  
Funding Agency: NYS Center for Hazardous Waste Management  
Effective Dates: 6/1/89 - 8/31/90  
Total Funding Amount: \$121,699 (includes \$53,040 subcontract to Electro-Pure Systems, Inc.)  
Investigator Status: Co-principal investigator (J.N. Jensen, J.E. Van Benschoten)

Title: Wastewater Chlorination Study  
Funding Agency: City of Niagara Falls (Dept. of Wastewater Facilities)  
Effective Dates: 3/1/90 - 10/1/90  
Total Funding Amount: \$37,635  
Investigator Status: Project director

Title: Removal of Thiocyanates Present in Coke Plant Weak Ammonia Liquor by Chemical Oxidants  
Funding Agency: BethEnergy  
Effective Dates: 2/1/89 - 5/15/89  
Total Funding Amount: \$10,701  
Investigator Status: Project director



## Publications:

### Book

J.N. Jensen. **A User's Guide to Engineering**. John Wiley and Sons, 1999.

### Book chapters (peer reviewed)

J.N. Jensen, M.R. Ryan, J.E. Van Benschoten, and A.S. Weber. Waste Management and Recycling. In: **Encyclopedia for Applied Physics**, Vol. 23, 355-374, 1998.

J.E. Van Benschoten, J.N. Jensen, D.P. Lewis, and T.J. Brady. Chemical Oxidants for Controlling Zebra Mussels: A Synthesis of Laboratory and Field Studies. In: **Zebra Mussels: Biology, Impacts and Controls**, T.F. Nalepa and D.W. Schloesser (eds.). Lewis Publ., Chelsea, MI, pp. 599-619, 1993.

### Articles in refereed journals

U. Ghosh, A.S. Weber, J.N. Jensen, and J.R. Smith, Jr. Relationship Between PCB Desorption Equilibrium, Kinetics and Availability During Land Biotreatment. Accepted for publication in *Environ. Sci. Technol.*, 2000 (Web release date: 5/6/00).

U. Ghosh, A.S. Weber, J.N. Jensen, and J.R. Smith, Jr. Congener Level PCB Desorption Kinetics of Field-Contaminated Sediments. *J. Soil Contamination*, **8**(5), 593-613, 1999.

U. Ghosh, A.S. Weber, J.N. Jensen, and J.R. Smith, Jr. Granular Activated Carbon and Biological Activated Carbon Treatment of Dissolved and Sorbed Polychlorinated Biphenyls. *Water Environ. Res.*, **71**(2), 232-240, 1999.

B.E. Reed, M.R. Matsumoto, J.N. Jensen, R. Viadero, Jr., and W. Lin. Physicochemical Processes. *Water Environ. Res.*, **70**(4), 449-473, 1998.

U. Ghosh, A.S. Weber, J.N. Jensen, and J.R. Smith. Dissolved PCB Congener Distribution in Generator Column Solutions. *Water Research*, **32**(5), 1373-1382, 1998.

D.K. Harrington, J.E. Van Benschoten, J.N. Jensen, D.P. Lewis, and E.F. Neuhauser. Combined Use of Heat and Oxidants for Controlling Adult Zebra Mussels. *Water Research*, **31**(11), 2783-2791, 1997.

B.E. Reed, W. Lin, M.R. Matsumoto, and J.N. Jensen. Physicochemical Processes. *Water Environ. Res.*, **69**(4), 444-461, 1997.

J. Yoon and J.N. Jensen. Negative Interferences in the Measurement of Total Residual Chlorine by Amperometric Titration. *J. Korean Soc. Environ. Eng.*, **18**(11), 1293-1302, 1996.

A.M. Dietrich, J.N. Jensen, and W.F. da Costa. Measurement and Monitoring of Pollutants - Chemical Species. *Water Environ. Res.*, **68**(4), 391-406, 1996.

M.R. Matsumoto, J.N. Jensen, B.E. Reed, and Wei Lin. Physicochemical Processes. *Water Environ. Res.*, **68**(4), 432-452, 1996.

S.S. Sisodia, A.S. Weber, and J.N. Jensen. Continuous Culture Biodegradation of Simazine's Chemical

Oxidation Products. *Water Research*, **30**(9), 2055-2064, 1996.

J.H. Sebastian, A.S. Weber, and J.N. Jensen. Sequential Chemical/Biological Oxidation of Chlorendic Acid. *Water Research*, **30**(8), 1833-1843, 1996.

C. Huang, J.E. Van Benschoten, and J.N. Jensen. Adsorption Kinetics of MIB and Geosmin Using Powdered Activated Carbon. *J. Amer. Water Works Assoc.*, **88**(4), 116-128, 1996.

T.J. Brady, J.E. Van Benschoten, and J.N. Jensen. Technical Note: Chlorination Effectiveness for Zebra and Quagga Mussels. *J. Amer. Water Works Assoc.*, **88**(1), 107-110, 1996.

J. Yoon and J.N. Jensen. Chlorine Transfer from Inorganic Monochloramine in Chlorinated Wastewaters. *Water Environ. Res.*, **67**(5), 842-847, 1995.

A.M. Dietrich and J.N. Jensen. Measurement of Pollutants - Chemical Species. *Water Environ. Res.*, **67**(4), 391-406, 1995.

M.R. Matsumoto, J.N. Jensen, and B.E. Reed. Physicochemical Processes. *Water Environ. Res.*, **67**(4), 415-440, 1995.

J.E. Van Benschoten, J.N. Jensen, D. Harrington, and D.J. DeGirolamo. Kinetics of Adult Zebra Mussel Mortality Using Chlorine. *J. Amer. Water Works Assoc.*, **87**(5), 101-108, 1995.

M.-S. Lai, J.N. Jensen, and A.S. Weber. Oxidation of Simazine: Ozone, Ultraviolet, and Combined Ozone/Ultraviolet Oxidation. *Water Environ. Res.*, **67**(3), 340-346, 1995.

M.-S. Lai, A.S. Weber, and J.N. Jensen. Oxidation of Simazine: Biological Oxidation of Simazine and Its Chemical Oxidation By-Products. *Water Environ. Res.*, **67**(3), 347-354, 1995.

J.E. Van Benschoten, J.N. Jensen, and M.A. Rahman. Effects of Temperature and pH on Residual Aluminum in Treated Waters. *ASCE (JEED)*, **120**(3), 543-559, 1994.

J.N. Jensen and A.M. Dietrich. Measurement of Pollutants - Chemical Species. *Water Environ. Res.*, **66**(4), 279-291, 1994.

M.R. Matsumoto, J.N. Jensen, P. McGinley, and B.E. Reed. Physicochemical Processes. *Water Environ. Res.*, **66**(4), 309-324, 1994.

Y.-J. Tuan and J.N. Jensen. Chemical Oxidation of Thiocyanate by Ozone. *Ozone Sci. Eng.*, **15**(4), 343-360, 1993.

B.E. Reed, J.N. Jensen, and M.R. Matsumoto. Acid-Base Characteristics of Powdered-Activated-Carbon Surfaces. *ASCE (JEED)*, **119**(3), 585-590, 1993.

M.R. Matsumoto, J.N. Jensen, P.M. McGinley, and B.E. Reed. Physicochemical Processes. *Water Environ. Res.*, **65**(4), 309-324, 1993.

J. Derrigan, L.-Y. Lin, and J.N. Jensen. Comparison of Free and Total Chlorine Measurement Methods in Municipal Wastewaters. *Water Environ. Res.*, **65**(3), 205-212, 1993.

T.J. Brady, J.E. Van Benschoten, J.N. Jensen, D.P. Lewis, and J. Sferrazza. Sampling and Enumeration of Zebra Mussel Veligers: Implications for Control. *J. Amer. Water Works Assoc.*, **85**(6), 100-103, 1993.

J.E. Van Benschoten, J.N. Jensen, T.J. Brady, D.P. Lewis, J. Sferrazza, and E.F. Neuhauser. Response of Zebra Mussel Veligers to Chemical Oxidants. *Water Research*, **27**(4), 575-582, 1993.

J. Yoon and J.N. Jensen. Distribution of Aqueous Chlorine with Nitrogenous Compounds: Chlorine Transfer from Organic Chloramines to Ammonia. *Environ. Sci. Technol.*, **27**(2), 403-409, 1993.

J.P. Stowell, J.N. Jensen, and A.S. Weber. Sequential Chemical/Biological Oxidation of 2-Chlorophenol. *Wat. Sci. Tech.*, **26**(9-11), 2085-2087, 1992.

M.R. Matsumoto, P.M. McGinley, B.E. Reed, and J.N. Jensen. Physicochemical Processes. *Water Environ. Res.*, **64**(4), 337-346, 1992.

J.P. Stowell and J.N. Jensen. Dechlorination of Chlorendic Acid with Ozone. *Water Research*, **25**(1), 83-90, 1991.

J.A. Jersey, E. Choshen, J.N. Jensen, J.D. Johnson, and F.E. Scully, Jr. N-Chloramine Derivatization Mechanism with Dansylsulfonic Acid: Yields and Routes of Reaction. *Environ. Sci. Technol.*, **24**(10), 1536-1541, 1990.

J.N. Jensen and J.D. Johnson. Interferences by Monochloramine and Organic Chloramines in Free Available Chlorine Methods. 1. Amperometric Titration. *Environ. Sci. Technol.*, **24**(7), 981-985, 1990.

J.N. Jensen and J.D. Johnson. Interferences by Monochloramine and Organic Chloramines in Free Available Chlorine Methods. 2. DPD. *Environ. Sci. Technol.*, **24**(7), 985-990, 1990.

J.N. Jensen and J.D. Johnson. Quantification of Interferences Under Equilibrium Conditions with Applications to Free Chlorine Analysis in the Presence of Organic Chloramines. *Anal. Chem.*, **61**(9), 991-994, 1989.

J.N. Jensen and J.D. Johnson. Specificity of the DPD and Amperometric Titration Methods for Free Available Chlorine: A Review. *J. Amer. Water Works Assoc.*, **81**(12), 59-64, 1989.

C. LeCloirec, J.D. Johnson and J.N. Jensen. Interference of Organic Nitrogen When Analysing Residual Oxidants: Chlorine Example. *Water Supply*, **6**(1), 39-44, 1988.

J.D. Johnson and J.N. Jensen. THM and TOX Formation: Routes, Rates and Precursors. *J. Amer. Water Works Assoc.*, **78**(4), 156-162, 1986.

J.N. Jensen, J.D. Johnson, J.J. St. Aubin and R.F. Christman. Effect of Monochloramine on Isolated Aquatic Fulvic Acid. *Org. Geochem.*, **8**(1), 71-76, 1985.

#### Discussion/Comment article in referred journals

J.N. Jensen. Response to: Reaction of Suwanee River Fulvic Acid with Chloramine: Characterization of Products via <sup>15</sup>N NMR (Comment). *Environ. Sci. Technol.*, **27**(11), 2612-2613, 1993.

#### Articles submitted to refereed journals

J. Yoon and J.N. Jensen. Specific Measurement of Chloramines. I. HPLC/Post Column Method for Organic and Inorganic Chloramines. Submitted to *Environmental Science and Technology*. Status: Responding to reviewer's comments.

J.N. Jensen, S. Puranik, and L.J. Harrington. Specific Measurement of Chloramines. II. Optimization of the Modified Indophenol Method for Inorganic Monochloramine. Submitted to *Environmental Science and Technology*. Status: Responding to reviewer's comments.

A.V. Rao, J.P. Stowell, and J.N. Jensen. Treatment of Cyclo-diene Pesticide Precursors and Endosulfan by Advanced Oxidation Processes. Submitted to *Water Research*. Status: Responding to reviewer's comments.

Conference proceedings (proceedings refereed)

J. Yoon and J.N. Jensen. Modeling the Distribution of Chloramines During Drinking Water Chloramination. In: **Disinfection By-Products in Water Treatment: The Chemistry of Their Formation and Control**, R.A. Minear and G.L. Amy, Eds., Lewis Publ., Inc., Chelsea, MI, pp.351-362, 1996.

J.N. Jensen, C. LeCloirec and J.D. Johnson. Chloramine Interferences in the Measurement of Free Chlorine by the Amperometric Membrane Electrode. In: **Water Chlorination: Chemistry, Environmental Impact and Health Effects**, Vol. 6, R.L. Jolley et al., Eds., Lewis Publ., Inc., Chelsea, MI, pp. 801-808, 1990.

J.N. Jensen, C. LeCloirec and J.D. Johnson. Measurement of Chlorine Residuals in Chlorinated Cooling Waters: Effect of Organic Nitrogen. In: **Water Chlorination: Chemistry, Environmental Impact and Health Effects**, Vol. 6, R.L. Jolley et al., Eds., Lewis Publ., Inc., Chelsea, MI, pp. 535-544, 1990.

E. Choshen, J.D. Johnson, F.E. Scully, Jr., J.A. Jersey, J.N. Jensen and J.T. Jewell. Identification of Organic N-Chloramines in Water. In: **Water Chlorination: Chemistry, Environmental Impact and Health Effects**, Vol. 6, R.L. Jolley et al., Eds., Lewis Publ., Inc., Chelsea, MI, pp. 751-761, 1990.

J.N. Jensen, J.J. St. Aubin, R.F. Christman and J.D. Johnson. Characterization of the Reaction Between Monochloramine and Isolated Aquatic Fulvic Acid. In: **Water Chlorination: Chemistry, Environmental Impact and Health Effects**, Vol. 5, R.L. Jolley, et al., Eds., Lewis Publ., Inc., Chelsea, MI, pp. 939-949, 1985.

Conference proceedings (non-refereed)

U. Ghosh, A.S. Weber, and J.N. Jensen. Influence of PCB Desorption Kinetics on Bioremediation and Mobility Risk. **Proceedings of the 29th Mid-Atlantic Industrial and Hazardous Waste Conference** (July, 1997), pp. 404-413, G.D. Boardman (ed.), Technomic Publ. Co., Inc., Lancaster, PA, 1997.

J.N. Jensen. Applications of Ultrasound for the Destruction of Hazardous Waste. **Proceedings of the 28th Mid-Atlantic Industrial and Hazardous Waste Conference** (July, 1996), pp. 265-274, A.S. Weber (ed.), Technomic Publ. Co., Inc., Lancaster, PA, 1996.

J.N. Jensen. Chlorine in Water Treatment and the Environmental Consequences. **Technical Papers of the Tenth Annual Environmental Management and Technology Conference West** (Nov., 1994), pp. 46-48, 1994.

J. Yoon and J.N. Jensen. Chlorine Transfer from Inorganic Monochloramine in Chlorinated Wastewaters. **Proceedings of the 66th Annual Water Environment Federation Conference** (Nov., 1993), pp. 757-586, 1993.

J. Yoon and J.N. Jensen. Analysis of Organic and Inorganic Monochloramines by HPLC. **Proceedings: 1992 American Water Works Association Water Quality Technology Conference** (Nov., 1992), pp. 475-488, AWWA, Denver, CO, 1993.

M.-S. Lai, A.S. Weber, and J.N. Jensen. Biological Oxidation of Simazine and Its Chemical Oxidation Products. **Proceedings: 24th Mid-Atlantic Industrial Waste Conference** (July, 1992), pp. 421-430, Technomic Publ. Co., Inc., Lancaster, PA, 1992.

J.N. Jensen and T. Coulibaly. Ozone Demand of Raw Drinking Waters. **Proceedings: American Water Works Annual Conference** (June, 1991), Volume: Water Research for the New Decade, pp. 301-312, AWWA, Denver, CO, 1991.

J.E. Van Benschoten, J.N. Jensen, T.J. Brady, D.J. DeGirolamo, D.P. Lewis and J. Sferrazza. Control of Zebra Mussel Larvae by Chemical Oxidants. **Proceedings: American Water Works Annual Conference** (June, 1991), Volume: Resources, Engineering and Operations for the New Decade, pp. 119-135, AWWA, Denver, CO, 1991.

D.J. DeGirolamo, J.E. Van Benschoten and J.N. Jensen. Inactivation of Adult Zebra Mussels by Chlorine. **Proceedings: American Water Works Annual Conference** (June, 1991), Volume: Water Research for the New Decade, pp. 477-494, AWWA, Denver, CO, 1991.

J.E. Van Benschoten, G.R. Stuart and J.N. Jensen. Recovery and Reuse of Polyaluminum Chloride Sludges. **Proceedings: American Water Works Annual Conference** (June, 1991), Volume: Water Research for the New Decade, pp. 461-476, AWWA, Denver, CO, 1991.

C.E. Hempel and J.N. Jensen. A New Method for the Measurement of Monochloramine with Minimal Interference From Organic Chloramines. **Proceedings: American Water Works Association Water Quality Technology Conference** (Nov. 1990), pp. 1033-1042, AWWA, Denver, CO, 1990.

J.P. Stowell, S.J. Masten and J.N. Jensen. Dechlorination of Chlorendic Acid by Ozone. **Proceedings of the 9th World Ozone Congress** (June, 1989), International Ozone Association, New York, Vol. 1, 1989.

J.N. Jensen and J.D. Johnson. Measurement of Free Chlorine by the DPD Procedure: Interference by Organic Chloramines and Monochloramine. **Proceedings: American Water Works Association Water Quality Technology Conference** (Nov., 1987), AWWA, Denver, CO, 1988.

J.D. Johnson and J.N. Jensen. Comparison of Free and Total Chlorine Residuals. **Proceedings: Condenser Biofouling Control - State-of-the-Art Symposium**, EPRI CS-4339, Electric Power Research Institute, Palo Alto, CA, pp. 4-188 to 4-195, Nov., 1985.

J.D. Johnson and J.N. Jensen. THM and TOX Formation: Routes, Rates and Precursors. **Proceedings: American Water Works Association Seminar in Strategies for the Control of Trihalomethanes**, AWWA, Denver, CO, pp. 1-20, 1983.

#### **Presentations:**

Conference presentations with no conference proceedings; speaker's name in italics:

*B.A. Madge* and J.N. Jensen.

*U. Ghosh, A.S. Weber, and J.N. Jensen.* A Tool for Determining Environmentally Acceptable Endpoints for PCBs in Soils. Presented at the 90th Annual Meeting and Exhibition of The Air Waste Management Association, Toronto, Canada, June, 1997.

*E.H. Host-Stein, J.N. Jensen, and C.X. Li.* Ozonation of Complex Cyanides in Metal Finishing Wastewaters. Presented at the Special Symposium on Emerging Technologies in Hazardous Waste Management IX, Industrial and Engineering Chemistry Division of the American Chemical Society, Pittsburgh, PA, September 15-17, 1997.

*U. Ghosh, A.S. Weber, J.N. Jensen, and J. Smith.* Determining Environmentally Acceptable Endpoints for Contaminated Soils. Presented at the Special Symposium on Emerging Technologies in Hazardous Waste Management IX, Industrial and Engineering Chemistry Division of the American Chemical Society, Pittsburgh, PA, September 15-17, 1997.

*J.N. Jensen and A.S. Weber.* Application of Sequential Chemical and Biological Oxidation for Contaminant Degradation. Presented at the Special Symposium on Emerging Technologies in Hazardous Waste Management VIII, Industrial and Engineering Chemistry Division of the American Chemical Society, Birmingham, AL, September, 1996.

*T.-L. Yeh and J.N. Jensen.* Oxidation of Cyanide by Ultrasonic Irradiation. Presented at the Second International Conference on Advanced Oxidation Technologies for Water and Air Treatment, London, Ontario, September, 1995.

*D.C. Roblee, P.J. Merlo, and J.N. Jensen.* Sonolysis of Trichloroethene and Hexachlorobutadiene. Presented at the Second International Conference on Advanced Oxidation Technologies for Water and Air Treatment, London, Ontario, September, 1995

*G. Kleyman and J.N. Jensen.* Sonochemical Destruction of the Herbicide Simazine by Ultrasonic Irradiation. Presented at the First International Conference on Advanced Oxidation Technologies for Water and Air Remediation, London, Ontario, June 25-30, 1994.

*N. Avala and J.N. Jensen.* Degradation of Chlorendic Acid by Photocatalysis. Presented at the First International Conference on Advanced Oxidation Technologies for Water and Air Remediation, London, Ontario, June 25-30, 1994.

*J. Yoon and J.N. Jensen.* Modeling the Distribution of Chloramines During Drinking Water Chloramination. Presented at the Disinfection By-Products in Water Treatment: The Chemistry of Their Formation and Control Symposium, Division of Environmental Chemistry, American Chemical Society National Meeting, August 23-25, 1993.

*J.P. Stowell, J.N. Jensen, and A.S. Weber.* Chlorophenol Ozonation: Byproducts and Kinetics. Presented at the 1993 Summer National AIChE Meeting, Seattle, WA, August 15-19, 1993.

*D.K. Harrington, J. Van Benschoten, J.N. Jensen, T. Brady, D. Lewis, J. Sferrazza, and E. Neuhauser.* Combined Use of Heat and Oxidants for Controlling Zebra Mussels. Presented at the Third International Zebra Mussel Conference, Toronto, Feb. 23-26, 1993.

*M.-S. Lai, S.S. Sisodia, A.S. Weber, and J.N. Jensen.* Chemical Oxidation of Simazine and Assessment of the Relative Biodegradability of Its Oxidation Products. Presented at the 65th Annual Conference of the Water Environment Federation, New Orleans, LA, September, 1992.

- M.-S. Lai*, A.S. Weber, and J.N. Jensen. Biodegradation of Simazine and Its Chemical Oxidation Products. Presented at the 1992 American Institute of Chemical Engineers Summer National Meeting, August, 1992.
- M.-S. Lai*, J.N. Jensen, and A.S. Weber. Chemical Oxidation of Simazine with Implications for Sequential Chemical/Biological Treatment Processes. Presented at the 1992 American Institute of Chemical Engineers Summer National Meeting, August, 1992.
- J. Boguslavsky* and J.N. Jensen. Destruction of a Commercial Dye with Hydrogen Peroxide/Ultraviolet Radiation. Presented at Water Quality International 1992 (Sixteenth Biennial Conference and Exposition of the International Association on Water Pollution Research and Control), Washington, DC, May 24-30, 1992.
- A.V. Rao and *J.N. Jensen*. Treatment of Cyclodiene Pesticides By Advanced Oxidation Processes. Presented at Chemical Oxidation: Technology for the Nineties (Second International Symposium), Nashville, TN, February 19-21, 1992.
- J. Sebastian, *J.N. Jensen*, and A.S. Weber. Sequential Chemical/Biological Oxidation of Chlorendic Acid. Presented at Chemical Oxidation: Technology for the Nineties (Second International Symposium), Nashville, TN, February 19-21, 1992.
- T.J. Brady*, J. Sferrazza, J.E. Van Benschoten, J.N. Jensen, D.P. Lewis, and E.F. Neuhauser. Mechanisms of Zebra Mussel Control by Chemical Oxidants. Presented at the Second International Zebra Mussel Conference, Toronto, ON, February, 1992.
- J.E. Van Benschoten*, J.N. Jensen, D.P. Lewis, T.J. Brady, J. Sferrazza, and E.F. Neuhauser. Combined Use of Chemical Oxidants with Heat or Potassium Chloride for Controlling Zebra Mussels. Presented at the Second International Zebra Mussel Conference, Toronto, ON, February, 1992.
- M. K. Evans*, J.E. Van Benschoten, and J.N. Jensen. Use of Chemical Oxidants in Combination with Potassium for the Control of Zebra Mussels. Presented at the Great Lakes Research Consortium Student/Faculty Conference, Syracuse, NY, January, 1992.
- D.K. Harrington*, J.N. Jensen, and J.E. Van Benschoten. Combined Use of Heat and Oxidants for Controlling Zebra Mussels. Presented at the Great Lakes Research Consortium Student/Faculty Conference, Syracuse, NY, January, 1992.
- J.E. Van Benschoten, *J.N. Jensen*, and D. DeGirolamo. Control of Zebra Mussels by Chlorine: Comparison of Laboratory and Field Studies. Presented at the Second International Zebra Mussel Research Conference, Rochester, NY, November 19-22, 1991.
- Y.-J. Tuan and *J.N. Jensen*. Oxidation of Thiocyanate and Cyanide by Ozone. Presented at the 1991 ASCE Specialty Conference on Environmental Engineering, Reno, NV, July 8-10, 1991.
- J.N. Jensen* and A.S. Weber. Combined Chemical and Biological Oxidation for the Reduction of Hazardous Waste Toxicity. Waste Reduction Conference, Albany, NY, June 11-12, 1991.
- T. Coulibaly and *J.N. Jensen*. Mixed-Order Model for Ozone Demand in Natural Waters. Presented at the 201st National Meeting of the American Chemical Society (Division of Environmental Chemistry), Atlanta, GA, April 14-19, 1991.
- J.N. Jensen* and J.E. Van Benschoten. Relationships Between Taste and Odor Problems and the Zebra Mussel.

Presented at Zebra Mussels - Strategies for Control, Niagara Falls, NY, March 14-15, 1991.

*J.E. Van Benschoten* and J.N. Jensen. Summary of Research Activities for Control of Zebra Mussels. Presented at Zebra Mussels - Strategies for Control, Niagara Falls, NY, March 14-15, 1991.

*J.E. Van Benschoten*, J.N. Jensen, T.J. Brady, D.P. Lewis and J. Sferrazza. Chemical Oxidants for the Control of Zebra Mussel Veligers. Presented at the First International Zebra Mussel Research Conference, Columbus, OH, December 5-7, 1990.

J.N. Jensen and *J.D. Johnson*. Quantification of Interferences Under Equilibrium Conditions with Applications to Free Chlorine Analysis in the Presence of Organic Chloramines. Presented at the 194th National Meeting of the American Chemical Society (Division of Environmental Chemistry), New Orleans, LA, Aug. 30-Sept. 4, 1987.

*J.D. Johnson*, J.N. Jensen and C. LeCloirec. Electrochemical Methods for the Measurement of Disinfectant Residuals. Presented at the American Water Works Association, Water Quality Technology Conference, Houston, TX, Dec., 1985.

*J.N. Jensen*, J.D. Johnson and C. LeCloirec. Interferences in the Measurement of Free Available Chlorine by Organic Chloramines. North Carolina Water Pollution Control Association/North Carolina Section of the American Water Works Association, 65th Annual Meeting, Charlotte, NC, Nov., 10-13, 1985.

*J.D. Johnson*, J.N. Jensen and C. LeCloirec. Chloramine Chemistry in Drinking Water. Presented before the National Academy of Sciences, National Research Council, Commission on Life Sciences, Safe Drinking Water Committee, Washington, DC, Oct. 21, 1985.

*J.D. Johnson* and J.N. Jensen. Measurement and Significance of Chloramine Residuals. Presented at the Water Pollution Control Federation, Conference on Analytical Techniques in Water Pollution Control, Cincinnati, OH, May 2-3, 1985.

*J.N. Jensen*, Y.-H. Seo, J.J. St. Aubin, R.F. Christman and J.D. Johnson. The Reaction Between Monochloramine and Isolated Aquatic Fulvic Acid. Presented at the International Chemical Congress of Pacific Basin Societies (PACCHEM), Symposium on New and Modified Disinfection Processes, Honolulu, HI, Dec. 16-21, 1984.

Invited presentations (speaker's name in italics):

*B.A. Madge* and J.N. Jensen. Disinfection of Wastewater Using 20 kHz Ultrasound. Presented at the Greater Buffalo Environmental Conference, April 17, 2000.

*B.A. Madge* and J.N. Jensen. Disinfection of Wastewater Using 20 kHz Ultrasound. Presented at WEFTEC 1999 (73rd Annual Conference & Exposition of the Water Environment Federation), October 11, 1999.

*J.N. Jensen*. Alternative Disinfection Strategies and Benefits for Drinking Water Treatment, Western New York Water Works Conference Workshop, Batavia, NY, May 12, 1999.

*U. Ghosh*, A.S. Weber, J.N. Jensen, and J.R. Smith, Jr. Effect of Land Biotreatment on PCB Leachability and Risk from Field-Contaminated Sediments. Presented at the 19<sup>th</sup> Annual Meeting, SETAC, Charlotte, NC, November 15-19, 1998.



U. Ghosh, A.S. Weber, J.N. Jensen, and J. Smith, Understanding Effects of Land-Biotreatment on PCB Desorption and Leaching. Poster Presentation at the Gordon Research Conference on Environmental Sciences: Water, New England College, Henniker, New Hampshire, June 14-19, 1998.

J.N. Jensen and B.A. Madge. Ultrasound Technology and CSO Abatement. Presented at the Greater Buffalo Environmental Conference, April 27, 1998.

J.N. Jensen. Detection and Characterization of Organic Nitrogen-Containing DBPs. Presented at the EPA DBP Identification Workshop, Feb. 11-13, 1998.

J.N. Jensen and L.P. Zicari, Jr. Water Reuse in Metal Finishing. Presented at the Greater Buffalo Environmental Conference, April, 1997.

J.N. Jensen. Zebra Mussel Research Update. Presented at the 1994 Spring New York State Section American Water Works Association Meeting, Buffalo, NY, April 20, 1994.

J.N. Jensen. Interferences in the Measurement of Oxidant Residuals. Presented before the Department of Chemistry, Kent State University, May 3, 1990.

J.N. Jensen. Interferences in the Measurement of Free Available Chlorine. Presented before the Department of Civil Engineering, University of Massachusetts at Amherst, September 30, 1988.

#### Professional Activities:

##### Professional service:

##### Reviewer:

*American Society of Civil Engineers (JEED)*  
*Environmental Science and Technology*  
*Journal of the American Water Works Association*  
*Water Research*  
*Water Environment Research*  
*Ozone Science and Engineering*  
*Analytical Chemistry*  
*Journal of Great Lakes Research*  
*Organic Geochemistry*

International Association on Water Pollution Research and Control  
American Chemical Society Books

##### Proposal reviewer:

Great Lakes Research Consortium, Small Grants Program  
Delaware Water Resources Institute  
New York State Center for Hazardous Waste Management

##### Other professional activities:

Member, American Water Works Association, University Student Activity Committee, 1997-

present

Member, Planning Committee, Greater Buffalo Environmental Conference, 1996-present.  
Session Chair, Greater Buffalo Environmental Conference, Buffalo, NY, May, 1996-97.  
Chairman, Standard Methods Joint Task Group on Chlorine, 20th edition, 1996  
Session Chairman, 26th Mid-Atlantic Industrial Waste Conference, July, 1996  
Session Chair, First International Conference on Advanced Oxidation Technologies for Water and Air Remediation, June 25-30, 1994  
Session Chairman, 24th Mid-Atlantic Industrial Waste Conference, July, 1992  
Member, American Water Works Association Disinfection Committee, 1990-present  
Lecturer, Great Lakes Research Consortium, 1990, 1993, 1995, 1996  
Instructor, Professional Engineer Review Course, 1990-98  
Panel member, Impact of Zebra Mussel from the Local Government Perspective Conference, Buffalo, NY, January 24, 1991  
Chairman, Standard Methods Joint Task Group on Oxidant Demand/Requirement, 17th edition supplement, 1988-1990  
Member, Organizing Committee for the NYS Center for Hazardous Waste Management/American Society of Civil Engineers (Buffalo Section) Seminar on Hazardous Waste Management, September 12, 1989.  
Instructor, North Carolina Water Pollution Control Association Annual School, Chapel Hill, NC, April, 1986

Consultant to: Pepsi-Cola Company (Valhalla, NY), 1991  
BethEnergy (Lackawanna, NY), 1988-89

#### Community Service:

Lecturer, "Wastewater Chlorination - How It Works", Western Chapter, NYS Water Environment Association Chlorine Training Seminar, July, 1995  
Panel member, Impact of Zebra Mussel from the Local Government Perspective Conference, Buffalo, NY, January 24, 1991  
Lecturer, Western New York Science Exploration Day, 1989-92, 1994  
Mentor, New York State Summer Institute for Science and Mathematics, 1991-2  
Advisor, Western New York Science Fair participants, 1991-2  
Member, Organizing Committee, Zebra Mussels - Strategies for Control (A Workshop for Water Plant Operators), Niagara Falls, NY, March 14-15, 1991  
Lecturer, "Zebra Mussels - An Invasion in Progress", Western New York Chapter, American Meteorological Society, November 7, 1990.  
Member, Organizing Committee for the NYS Center for Hazardous Waste Management/American Society of Civil Engineers (Buffalo Section) Seminar on Hazardous Waste Management, September 12, 1989.

#### Departmental Service:

Member, Graduate Studies Committee, 1990-present  
Member, Faculty Search Committees, 1994, 1995, 1996-7

#### School Service:

Director, Environmental Science Program, 1994-present (Acting Director: 1992-1993)  
Member, Graduate Division Academic Programs Committee

University Service:

Member, Vice President for Graduate Studies Committee on Transfer Credits, 1996-98  
Faculty Consultant for the Vice Provost for Faculty Development's Video Consultation Project, 1996-present  
Affiliate, Environment and Society Institute, 1998-present  
Member, Selection Committee for 1992 University Teaching Fellows Program