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John E. Van Benschoten

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Education:

Ph.D. University of Massachusetts, Amherst, MA, 1988, Civil Engineering
M.S. University of Massachusetts, Amherst, MA, 1985, Environmental Engineering
M.S. University of Vermont, Burlington, VT, 1977, Natural Resources Planning
B.S. Union College, Schenectady, NY, 1973, Industrial Economics

Employment:

2005 - Associate Dean for Undergraduate Education, School of Engineering and Applied Sciences, University at Buffalo
2001 - Professor, State University of New York at Buffalo
1994-2001 Associate Professor, State University of New York at Buffalo
1988-1994 Assistant Professor, State University of New York at Buffalo
1987-1988 Post_Doctoral Research Associate, Virginia Polytechnic and State University (conducted at University of Massachusetts).
1985-1986 Research Assistant, University of Massachusetts
1983-1985 Teaching Assistant, University of Massachusetts
1984 Consultant, A.R. Lombardi Associates. Vernon, CT. (conducted at University of Massachusetts). (summer appointment)
1982-1983 Research Assistant, University of Massachusetts
1977-1982 Water Resources Assistant Planner, Vermont Agency of Environmental Conservation, Montpelier, VT.
1977 Consultant, New England River Basins Commissions, Lake Champlain Level B Study, Burlington, VT.

Awards:

ASCE (Env. and Water Resources Institute) 2001 Rudolph Hering Medal, awarded for Ganguly, C., Huang, C., Rabideau, A.J., and Van Benschoten, J.E. 'Simple Metal Sorption Model for Heterogeneous Sorbents: Application to Humic Materials', **Journal of Environmental Engineering**, 125(8):712-720 (1999).

JAWWA best paper award, Distribution and Plant Operations Division. 1994. 'Sampling and Enumeration of Zebra Mussel Veligers in the Niagara River: Implications for Veliger Control Strategies', **JAWWA**. 85:6:100-103 (1993).

Professional Affiliations and Service:

American Water Works Association
Particulate Contaminants Committee (past member)
Inorganic Contaminants Committee (past member)
Chairman, Student Activities Committee, NY Section AWWA (1992 - 2001)
Member, Research Committee, NY Section AWWA (1990 - 1998)
Member (1988-present)

American Water Works Association Research Foundation
Project Advisory Committee - Controlling Zebra Mussels at Water Treatment
Plant Intakes II (past member)

American Society of Civil Engineers
Associate Member
Environmental and Water Resources Institute, Environmental Multimedia
Council Awards Committee (Chair, 2001 - 2005)
Energy Division-Environmental Effects Committee (past member)
Organizing committee member for the 2002 Joint CSCE/ASCE International
Conference held in Niagara Falls, Ontario.

Editorship

Editorial Board. Environmental Technology (1990 -2003)

Reviewer/Referee

Journals

Aqua
Chemosphere
Environmental Science and Technology
Environmental Engineering Science
Environmental Technology
Journal American Water Works Association
Journal of Environmental Quality
Journal of Environmental Engineering, ASCE
Journal of Soil Contamination
Ozone: Science and Engineering
Water Environment Research
Water Research

Research Grant Proposals

NIEHS Special Emphasis Panel - SBIR Grants for Innovative Remediation
Technologies
NIEHS Superfund Basic Research Program
NY Center for Hazardous Waste Management
Maryland SeaGrant
NY State Water Resources Institute

Regulatory

Implementing Indicators for Human Health Workshop for Drinking Water,
International Joint Commission and U.S. EPA

Patents:

U.S. Patent 5,393,781 and 5,550,157. Method for Controlling Zebra Mussels (with J.
Jensen), Patent assignees FMC Corporation and the Research Foundation of the State
of New York.

University Service

Member, University Instructional Facilities Subcommittee (2005-)
Member, University Academic Integrity Awareness Working Group (2006 -)
Search Committee for Director of Capital Facilities and Space Planning (2006)
Member, Ad Hoc Undergraduate Curriculum Committee of the Environment and Society Institute
Steering Committee Member, Environment and Society Institute (2000 - 2005)
University Honors Council (2005 -)

School of Engineering and Applied Sciences Service

Associate Dean for Undergraduate Education (2005-)
SENS Committee (2005-2006)
Search Committee for Engineering Career Counselor (2005)
SEAS Faculty Personnel Committee (1999 -2000)
Academic Programs Committee (2003-2005)

Departmental Service

Faculty Awards Committee (2004 -)
Director, Undergraduate Studies Committee (2003 - 2005)
Laboratory Committee (1998 - 2003)
Departmental Safety Committee (2002- 2004)
Strategic Planning Committee (1999 -2001)
Undergraduate Studies Committee (1992 - 1999)
Ad Hoc Committee to Change Department Name
Faculty advisor to student group participating in the Environmental Design Contest sponsored by the Waste- Management Education and Research Consortium, Las Cruces, NM April 18-20, 1991
ASCE Student Activities Club Advisor (1998 - 2000)

Community Service

Trustee, Lockport Board of Education (1996 -2001)
Member, Lockport Ice Rink Committee
Member, Strategic Planning Action Team for Administrative Operations

Courses

Undergraduate

EAS 103 Introduction to Engineering
CIE 440 Principles of Water Quality
CIE 441 Ecological Engineering
CIE 442 Water Quality Systems Design
CIE 443 Hydraulic Engineering

Graduate

CIE 548, 549 Contemporary Issues in the Environment
ENS 542 Environmental Engineering Systems
CIE 562 Water Quality Engineering
CIE 564 Chemical Principles in Env. Eng.
CIE 556 Physicochemical Treatment Processes
CIE 567 Advanced Unit Operations
CIE 569 Hazardous Waste Management

CIE 665 Environmental Engineering Design
Other
NY State PE Review Course
Public Service Workshop Program - What Everyone Should know about Hazardous Waste

Funded Research:

Environment and Society Institute, 6/1/03-8/31/03. \$10,140. Application of surface science methods for assessment of fouling in membrane filtration of drinking water. (Project Director: John Van Benschoten, co-PI: Joseph Gardella).

National Science Foundation. 9/01/01-9/30/06. \$443,160. A new high-performance contaminant transport model. (Project Director: A. Rabideau, co-PIs: J. Van Benschoten, I. Jankovic)

EPA. 1/1/02-1/1/05. \$325,000. Material selection in green design and environmental cost analysis. (Project Director: Li Lin, co-PIs: John Van Benschoten, John Vena).

NYSERDA, 6/1/01-7/31/02. \$57,883 (UB share) Evaluation of dissolved air flotation and membrane filtration for drinking water treatment in New York State (Project Director: J. Van Benschoten; project conducted in collaboration with URS Corporation, City of Buffalo, Pall Corporation).

EPA. 12/1/00-11/30/01, \$40,000. Technical Assistance to Southside Advisory Committee (Project Director: J. Van Benschoten, co-PI A. S. Weber).

Gemus, Inc. 5/1/99-10/1/99, \$13,498. Recovery of Tartrates from Argol. (Project Director: J. Van Benschoten)

West Valley Nuclear Services Co. Inc., 11/16/98-5/31/99, \$107,800. *Zeolite Barrier Bench Scale Testing* (Project Director: A. Rabideau, co-PI: J. Van Benschoten)

U.S. Fish and Wildlife, 10/98-9/99. \$147,809, *Use of Peracetic Acid for Disinfection of Commercial Shipping Ballast Water* (Project Directors: J. Jensen and J. Van Benschoten; with D. Lewis, ESG International and P. Jenkins, P.T. Jenkins and Associates).

NYSERDA, 12/98-12/99. \$31,889. *Demonstration of Energy Efficient Water Treatment Plant Residuals Technologies*. (Project Director: J. Van Benschoten, with URS Greiner and City of Niagara Falls).

Golden Artist Colors, 9/98-8/99. \$18,419. Recycling Waste Water at an Acrylic Paint Manufacturing Facility (Project Director: A. Scott Weber, co-PI John Van Benschoten).

Cornell Cooperative Extension - Genesee County. 11/1/97-3/31/97. \$26,736. *Critical Review of Genesee County Water Resources Planning: An Environmental Community Assistance Consortium Study* (Project Director: Joseph V. DePinto, co-PIs: John Fountain, James Jensen, William Page, John Van Benschoten).

EPA. 5/1/98-4/30/99. \$59,321. *Metal Binding in Heterogeneous Systems: An Experimental Study to Support Selection and Development of Mathematical Models for Environmental Decision-making* (Project Director: J. Van Benschoten).

NY Office of Recycling and Market Development. \$55,621. *Recycling of Metal Grinding Swarf* (Project Director: J. Van Benschoten, co-PI: L. Zacari).

American Water Works Research Foundation. 11/1/95-3/31/97. \$100,535. *Particle Image Velocimetry: A New Tool for Water Treatment Studies* (Project Director: J. Atkinson, co-PI: J. Van Benschoten).

Northeast Hazardous Substance Research Center. 6/1/95-5/31/97. \$190,875. *Soil Washing for Remediating Metal Contaminated Soils* (Project Director: J. Van Benschoten, co-PI: A. Rabideau).

New York State Center for Hazardous Waste Management. 7/1/94-8/31/94. \$89,783 *Remediation of Metal/Organic Contaminated Soils by Combined Acid Extraction and Surfactant Washing*. (Project Director: J. Van Benschoten, co-PI: M. Ryan).

Northeast Hazardous Substance Research Center. 1/15/93-1/15/95, \$149,557. *Kinetics of Metal Leaching from Heavy Metal Contaminated Soils*, (Project Director: J. Van Benschoten, co-PI: M. Matsumoto).

National Sea Grant College Program. 9/1/93-8/31/94. \$130,648. 'Control of Zebra Mussel Veligers in Water Treatment Plants by Chemical Coagulants', (Project Director: J. Van Benschoten, co-PI: J. Atkinson).

E.I. DuPont de Nemours & Co. 1/1/93-4/14/94. \$137,637. 'Test Protocols for Soil Washing of Lead Contaminated Soils', (Project Director: J. Van Benschoten, co-PI: M. Matsumoto).

Erie County Water Authority. 2/15/92-8/31/93. \$136,091. *Erie County Water Authority Taste and Odor Study*. (Project Director: J. Van Benschoten, co-PI's: J. DePinto, J. Jensen).

Niagara Mohawk Power Corporation. 7/1/92-12/31/93. \$106,414. *Optimizing the Combined Use of Potassium Ion and Chemical Treatment for Control of the Zebra Mussel*. Joint research with Aquatic Sciences Inc.(\$85,764 UB, \$20,650 ASI). (Project Director: J. Van Benschoten, co-PI: J. Jensen).

New York State Center for Hazardous Waste Management. 7/1/92-8/31/93. \$61,283. *Development of a Test Protocol for Assessing the Remediation of Heavy Metal Contaminated Soils by Soil Washing Procedures*. (Project Director: J. Van Benschoten, co-PI: M. Matsumoto).

FMC Corporation. 6/1/92-8/31/92. \$9,209. *Feasibility Study of FMC Products for Zebra Mussel Control*. (Project Director: J. Jensen, co-PI: J. Van Benschoten).

Niagara Mohawk Power Corporation. 7/1/91-6/30/92. \$214,700. *Optimizing the Use of Chemical Oxidants for Control of the Zebra Mussel*. Joint research with Aquatic Sciences Inc.(\$132,651 UB, \$82,045 ASI). (Project Director: J. Van Benschoten, co-PI: J. Jensen).

Niagara Mohawk Power Corporation. 7/1/90-6/30/91. \$208,673. *Effect of Oxidant Type and Application Method on the Inactivation of the Zebra Mussel (*Dreissena polymorpha*) Veliger*

Larvae. Joint research with Aquatic Sciences Inc.(\$127,216 UB, \$81,457 ASI). (co-Project Director's: J. Van Benschoten, J. Jensen).

City of Niagara Falls. 7/15/91-5/15/92. \$35,499. *Niagara Falls Wastewater Treatment Facility Physical/Chemical Process Optimization Study*. (Project Director: J. Van Benschoten, co-PI: M. Matsumoto).

E.I. DuPont de Nemours & Co. 6/91-8/91. \$50,000. *Feasibility Study Clean-up of Contaminated Soil*. (Project Director: R. Rumer, co-PI's: M. Matsumoto, J. Van Benschoten, B. Reed).

City of Niagara Falls. 4/15/90-4/14/91. \$25,000. *Hydraulic Grade Line Analysis and Coagulant Optimization Study*. (Project Director: J. Jensen, co-PI: J. Van Benschoten).

Town of Amherst NY. 2/90-1/91. \$36,136. *Sludge Composting Feasibility Study*. (Project Director: M. Matsumoto, co-PI: J. Van Benschoten).

Erie County Water Authority. 3/1/90-2/28/91. \$58,190. *Potable Water Control Methods for Zebra Mussels and Residual Aluminum*. (Project Director: J. Van Benschoten, co-PI: J. Jensen).

Erie County Water Authority. 6/1/89-12/31/90. \$43,288. *Alternative Sludge Management Strategies*. (co-Project Director's: J. Van Benschoten, J. Jensen).

New York State Center for Hazardous Waste Management. 6/1/89-8/31/90. \$121,699. *Electrocoagulation for Hazardous Waste Management*. Joint research with Electro-Pure Systems, Inc. (\$68,659 UB, \$53,040 Electro-Pure) (Project Director: J. Jensen, co-PI: J. Van Benschoten).

Publications

Book Chapters:

Atkinson, Joseph F., Chakraborti, Rajat K. and Van Benschoten, John (2004), Effects of Floc Size and Shape in Particle Aggregation. in *Flocculation in Natural and Engineered Environmental Systems*, ed. I.G. Droppo et al., CRC Press.

Rabideau, A.J., Van Benschoten, J.E., Khandelwal, A., Patel, A. and Repp, C.L. "Sorbing Vertical Barriers", in **Physical/Chemical Groundwater Remediation**, Smith, J. and Burns, S. (eds), Kluwer Academic/Plenum Publishers (2001).

Jensen, J.N., Ryan, M.E., Van Benschoten, J.E., Weber, A.S. 'Waste Management and Recycling', **Encyclopedia of Applied Physics**, Vol. 23, Wiley-VCH Verlag GmbH (1998).

Van Benschoten, J., Jensen, J.N., Lewis, D. and T.J. Brady. 'Chemical Oxidants for Controlling Zebra Mussels: A Synthesis of Laboratory and Field Experiences', in **Zebra Mussels: Biology, Impacts, and Controls**, Nalepa, T.F. and Schloesser, D.W. (eds). Lewis Publishers, Boca Raton, FL,pp 599-620 (1993).

Edzwald, J.K. and J. Van Benschoten. 'Aluminum Coagulation of Natural Organic Matter', in **Chemical Water and Wastewater Treatment**, Proceedings of the 4th International Gothenburg

Symposium 1990. October 1_3, 1990, Madrid, Spain. Hahn, H.H. and Klute, R. (ed). Springer-Verlag, Berlin. pp 341-359.

Published Reports:

Atkinson, J.F., Van Benschoten, J.E., and Cheng, C. **Development of Particle Image Technology for Water Treatment Studies**. AWWA Research Foundation, Denver, Co., (published final project report.)

Articles in Archival Journals:

Rabideau, A. J., Van Benschoten J., Bandilla, K., and Patel, A. (2005). "Performance assessment of a zeolite treatment wall for removing Sr-90 from groundwater" **Journal of Contaminant Hydrology**, 79(1-2): 1-24 (2005).

Chakraborti, R.K., Gardner, K.H., Atkinson, J.F. and Van Benschoten, J.E. "Changes in Fractal Dimensions during Aggregation", **Water Research**, 37:873-883 (2003)

Shen, P., Huang, C., Ganguly, C., Gaboriault-Whitcomb, S., Rabideau, A.J., and Van Benschoten, J.E. "Comparison of Soluble and Immobilized Acetate for Removing Pb from Contaminated Soil", **Jour. of Hazardous Materials**, 87(1-3):59-72(2001).

Ganguly, C., Van Benschoten, J.E., and Griffiths, R. 'A Variable Reactivity Model for Ion Binding to Environmental Sorbents: Model Development', **Envir. Eng. Science**. 18(1):9-23 (2001).

Chakraborti, R.K., Atkinson, J.F., and Van Benschoten, J.E., 'Demonstration of an Image Processing Technique for Characterization of Alum Floc', **Environ. Sci. Technol.**, 34(18):3969-3976(2000).

Huang, C. and Van Benschoten, J.E. 'Effect of pH on Adsorption of Sulfonated Surfactants to a Sandy Soil', **Envir. Eng. Science**, 17(3):159-168 (2000).

Chen, C., Atkinson, J.F., Van Benschoten, J.E., Bursik, M.I., and DePinto, J.V. 'An Image-Based System for Particle Counting and Sizing', **Journal of Environmental Engineering**, 126(3):258-266 (2000)

Ganguly, C., Huang, C., Rabideau, A.J., and Van Benschoten, J.E. 'Simple Metal Sorption Model for Heterogeneous Sorbents: Application to Humic Materials', **Journal of Environmental Engineering**, 125(8):712-720 (1999).

Ganguly, C., Matsumoto, M.R., Rabideau, A.J., and Van Benschoten, J.E. 'Metal Ion Leaching from Contaminated Soils: Model Development', **Journal of Environmental Engineering**, 124(3):278-287 (1998).

Ganguly, C., Matsumoto, M.R., Rabideau, A.J., and Van Benschoten, J.E. 'Metal Ion Leaching from Contaminated Soils: Model Calibration and Application', **Journal of Environmental Engineering**, 124(12):1150-1158 (1998).

- Van Benschoten, J.E., Young, W.H., Matsumoto, M.R., and Reed, B.E. 'A Non-electrostatic Surface Complexation Model for Pb Sorption on Soils and Mineral Surfaces', **Journal of Environmental Quality**, 27:24-30 (1998).
- Harrington, D.K., Van Benschoten, J.E., Jensen, J.N. and Neuhauser, E.F. 'Combined Use of Heat and Oxidants for Controlling Adult Zebra Mussels', **Water Research** 31(11):2783-2791 (1997).
- Huang, C., Van Benschoten, J.E., Healy, T.C., and Ryan, M.E. 'Feasibility Study of Surfactant Use for Remediation of Organic and Metal Contaminated Soils', **Journal of Soil Contamination**, 6(5):537-556 (1997).
- Van Benschoten, J.E., Matsumoto, M.R., and Young, W.H. 'Evaluation and Analysis of Soil Washing for Seven Lead-Contaminated Soils', **Jour. of Environmental Engineering, ASCE**, 123:3:217-224 (1997).
- Huang, C.; Van Benschoten, J. E.; and Jensen, J.N. 'Adsorption Kinetics of MIB and Geosmin Using Powdered Activated Carbon', **JAWWA**, 88:4:116-128 (1996).
- Brady, T.J., Van Benschoten, J.E., and Jensen, J.N. 'Comparison of Chlorination Effectiveness for Zebra Mussel (*Dreissena polymorpha*) and Quagga Mussels', Research Note. **JAWWA**, 88:1:107-110 (1996).
- Van Benschoten, J.E., Jensen, J.N., Harrington, D., and DeGirolamo, D.J. 'Kinetics of Adult Zebra Mussel Mortality Using Chlorine', **JAWWA**, 87:5:101-108 (1995).
- Yarlagadda, P. S., Matsumoto, M.R., Van Benschoten, J.E., and Kathuria, A. 'Characteristics of Heavy Metal Contaminated Soils', **Jour. of Environmental Engineering, ASCE**, 121:4:276-286(1995).
- Van Benschoten, J.E., Jensen, J.N., and Rahman, M.A. 'Effects of Temperature and pH on Residual Aluminum in Alkaline Treated Waters', **Jour. of Environmental Engineering, ASCE**. 120:3:543-559 (1994).
- Van Benschoten, J.E., Reed, B.E., Matsumoto, M.R., and McGarvey, P.J. 'Effects of Iron Oxides on Soil Washing a Metal Contaminated Sandy Soil', **Water Environment Research**. 66:2:168-174 (1994).
- Brady, T.J., Van Benschoten, J.E., Jensen, J.N., Lewis, D.P., and Sferrazza, J. 'Sampling and Enumeration of Zebra Mussel Veligers in the Niagara River: Implications for Veliger Control Strategies', **JAWWA**. 85:6:100-103(1993).
- Van Benschoten, J.E., Jensen, J.N., Brady, T.J., Lewis, D.L., Sferrazza, J., and Neuhauser, E.F. 'Mechanisms of Zebra Mussel Veliger Control by Chemical Oxidants', **Water Research**. 27:4:575-582 (1993).
- Knocke, W.R., Conley, L. and J.E. Van Benschoten. 'Impact of Dissolved Organic Carbon on the Removal of Iron during Water Treatment', **Water Research**. 26:11:1515-1522 (1992).

Van Benschoten, J., Lin, W., and W.R. Knocke. 'Kinetic Modeling of Manganese (II) Oxidation by Chlorine Dioxide and Potassium Permanganate', **Environ. Sci. Technol.** 26:7:1327-1333 (1992).

Knocke, R.R., Van Benschoten, J.E., Kearney, M.J., Soborski, A.W., and D.A. Reckhow. 'Kinetics of Manganese (II) and Iron (II) Oxidation by Potassium Permanganate and Chlorine Dioxide', **JAWWA**, 83(6):80-87 (1991).

Van Benschoten, J. and J.K. Edzwald. 'Aluminum Measurements During Water Treatment: Methodology and Applications', **JAWWA**, 82(5):71_78(1990).

Van Benschoten, J. and J.K. Edzwald. 'Chemical Aspects of Coagulation Using Aluminum Salts: 1. Hydrolytic Reactions of Alum and Polyaluminum Chloride', **Water Research**, 24(12)1519_1526 (1990).

Van Benschoten, J. and J.K. Edzwald. 'Chemical Aspects of Coagulation Using Aluminum Salts: 2. Coagulation of Humic Substances Using Alum and Polyaluminum Chloride', **Water Research**, 24(12)1527_1535(1990).

Van Benschoten, J. and W.W. Walker, Jr. 'Calibration and Application of Qual_II to the Lower Winooski River', **Water Resources Bulletin**, 20:1:109_117(1984).
Discussions

Van Benschoten, J.E. 'Kinetics of Manganese (II) Oxidation with Chlorine', discussion paper, **Jour. of Environmental Engineering, ASCE**. 119:2:392-395 (1993).

Conference Proceedings:

Van Benschoten, J.E., Martin, C. Schaefer, J., Xu, L, and Franceschini, S. Evaluation of Dissolved Air Flotation and Membrane Filtration for Drinking Water Treatment. Proceedings of the 2002 Joint CSCE/EWRI of ASCE Environmental Engineering Conference : an international perspective on environmental engineering / Warren H. Stiver, co_editor, Richard G. Zytner, co_editor. __ Guelph, Ont. : School of Engineering, University of Guelph, 2002.

Van Benschoten, J.E., Rabideau, A.J., Bandilla, K., Chang, H. and Patel, A. "Application of a competitive cation exchange model for simulating removal of strontium in a zeolite permeable reactive barrier", Proceedings of the 2001 International Containment & Remediation Conference and Exhibition, 10-13 June, 2001, Orlando, FL (available online at www.containment.fsu.edu).

Ganguly, C., Van Benschoten, J. E., Rabideau, A. J. "A novel approach for modeling heavy metal sorption to heterogeneous media under batch and column settings." 5th International Conference: Water Pollution'99: Modeling, Measuring and Prediction, Lemnos, Greece, May 24-26, 1999.

Ganguly, C., Van Benschoten, J. E, and Rabideau, A. "Bridging the Gap between Research and Field Models for Describing Metal and Proton Binding to Heterogeneous Sorbents" American Chemical Society, Division of Environmental Chemistry, Preprints of Extended Abstracts, 217th ACS National Meeting, Anaheim, CA, March 21-25. Vol 39, No.1 (1999).

Ganguly, C., Huang, C., Rabideau, A.J., Van Benschoten, J.E., 'Modeling Metal Ion Sorption to Heterogeneous Sorbents', Proceedings, Twenty-Ninth Industrial and Hazardous Waste Conference, G.D. Boardman (ed.), Virginia Polytechnic Institute and State University, July 13-26, 1997, Technomic Publishing Inc. Lancaster, PA.

DiTomasso, J.E. and Van Benschoten, J.E. 'The Path Dependence of Coagulation Reactions: An Experimental Study of Humic Acid Coagulation by Al and Fe Salts', Influence of Natural Organic Matter Characteristics on Drinking Water Treatment and Quality, Poitiers, France, September 18-19, 1996, pp 34-1:34-4.

Van Benschoten, J.E., Rabideau, A.J., Green, M., and Krishnan, S. 'Surface Complexation Modeling in Soil Washing: An Essential Tool or Academic Exercise?', In: Hazardous and Industrial Wastes: Proceedings of the Twenty-Eighth Mid-Atlantic Industrial and Hazardous Waste Conference, A. Scott Weber (ed). Buffalo, NY July 14-17, 1996.

Van Benschoten, J.E., 'Simplified Surface Complexation Modeling for Simulation of Metal Sorption in Soils', 70th Colloid and Surface Science Symposium, American Chemical Society, Clarkson University, Potsdam, NY, June 16-19, 1996.

Van Benschoten, J.E., Matsumoto, M.R., and Ganguly, C. 'Soil Washing Process Research', Emerging Technologies in Hazardous Waste Management VI, American Chemical Society, Industrial & Engineering Division, Atlanta, GA September 19-21 (1994).

Van Benschoten, J.E., 'Kinetics of Metal Leaching from Heavy Metal Contaminated Soils', 21st Annual RREL Research Symposium, Risk Reduction Engineering Laboratory, U.S. EPA, Cincinnati, OH, EPA/600/R-95/012, April 1995.

Young, W.H., Buck, M.E., Van Benschoten, J.E., and Matsumoto, M.R. 'Evaluation of Soil Washing for Remediating Lead Contaminated Soils', Proceedings of the 49th Industrial Waste Conference, Purdue University, West Lafayette, IN, May 9-11 (1994).

Huang, C., Van Benschoten, J.E., and Jensen, J.N. 'Removal of 2-Methylisoborneol and Geosmin with Powdered Activated Carbon', Proceedings, 1993 Annual Conference. American Water Works Association. San Antonio, Texas. June 6-10 (1993)

Morgan, J.M., Mogavero, J., Van Benschoten, J.E., and Cornwell, D.A., 'Taste and Odor Management for Lake Erie Drinking Water', Proceedings, 1993 Annual Conference. American Water Works Association. San Antonio, Texas. June 6-10 (1993)

Rahman, M.A. and J.E. Van Benschoten. 'Effects of Temperature on Residual Aluminum in Treated Waters', Proceedings, 1992 Annual Conference. American Water Works Association. Vancouver, B.C. June 18-22 (1992).

Van Benschoten, J.E, Rahman, M.A. and Edzwald, J.K. 'Effects of Temperature and pH on Residual Aluminum for Alum and Polyaluminum Coagulants', Aluminum in Drinking Water, International Workshop. International Water Supply Association, Hong Kong. Jan. 15-17 (1992).

Van Benschoten, J.E., Jensen, J.N., Brady, T.J., DeGirolamo, D.J., Lewis, D.P. and J. Sferrazza. 'Control of Zebra Mussel Larvae by Chemical Oxidants', AWWA Annual Conference Proceedings, Philadelphia, PA, June 23-27. 119-135 (1991).

DeGirolamo, D.J., Jensen, J.N. and J. Van Benschoten. 'Inactivation of Adult Zebra Mussels by Chlorine', AWWA Annual Conference Proceedings, Philadelphia, PA, June 23-27. 477-494 (1991).

Van Benschoten, J.E., Stuart, G.R., and J.N. Jensen. 'Recovery and Reuse of Polyaluminum Chloride Sludges', AWWA Annual Conference Proceedings, Philadelphia, PA, June 23-27. 461-476 (1991).

Van Benschoten, J., Knocke, W.R., Kearney, K., Soborski, A. and W. Lin. 'Mechanisms of Mn(II) Oxidation by Various Oxidants', AWWA Annual Conference Proceedings, Los Angeles CA, June 18-22. 1133-1150 (1989).

Conference Presentations: (presenter in bold)

Xu, L., Martin, C., Schaefer, J., and **Van Benschoten, J.**, 'Pilot-scale Evaluation of Dissolved Air Flotation and Membrane Filtration for Drinking Water Treatment', 2002 Joint CSCE/EWRI of ASCE Environmental Engineering Conf. Niagara Falls, ON. July 21-24, 2002.

Chakraborti, R., Atkinson, J.F., and Van Benschoten, J.E. 'Non-Intrusive Characterization of Fractal Aggregates Formed by Alum', Universities Forum, American Water Works Association Annual Conference and Exposition, Denver, CO. June 12-15, 2000.

Patel, A. and Van Benschoten, J.E. 'Plant Operational Experiences for Taste and Odor Control Using Powdered Activated Carbon', NY Section AWWA Meeting, Niagara Falls NY, April 30, 1998.

Van Benschoten, J.E., 'Taste and Odors in Drinking Water: Sources, Detection and Treatment', NY AWWA Water Supply Symposium, Syracuse, NY, Oct. 29, 1998.

Van Benschoten, J.E., **Ganguly, C.**, Rabideau, A.J., "Modeling Metal Ion Sorption to Heterogeneous Sorbents", Emerging Technologies in Hazardous Waste Management IX, American Chemical Society, September 15-17, 1997, Pittsburgh, PA.

DiTomasso, J.E. and **Van Benschoten, J.E.** 'The Path Dependence of Coagulation Reactions: An Experimental Study of Humic Acid Coagulation by Al and Fe Salts', Influence of Natural Organic Matter Characteristics on Drinking Water Treatment and Quality, Poitiers, France, September 18-19, 1996.

DiTomasso, J.E. and Van Benschoten, J.E. 'The Path Dependence of Coagulation Reactions: An Experimental Study of Humic Acid Coagulation by Al and Fe Salts', Universities Forum, American Water Works Association Annual Conference and Exposition. Toronto, Canada, June 23-27, 1996.

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Van Benschoten, J.E., 'Control of Dreissenid Mussels', Quagga Mussel Symposium, sponsored by Southern Nevada Water Authority and Black and Veatch, Las Vegas, Nevada, March 16, 2007.

Van Benschoten, J.E. 'Removal of Sr from Groundwater by Natural Zeolites' Department of Civil and Environmental Engineering, Syracuse NY, Nov. 8, 2000.

Van Benschoten, J.E. 'Taste and Odor in Drinking Water: Sources, Detection, and Treatment. NY AWWA Water Supply Symposium, Syracuse NY, Oct. 29, 1998.

Van Benschoten, J.E. and Kozubowski, C. 'Chemical Selection for Coagulation Processes', NY Section AWWA Workshop, Buffalo, NY, May 9, 1997.

Van Benschoten, J.E., 'Control of Zebra Mussels in Water Treatment Plants', 46th Annual Environmental Engineering Conference, Lawrence, Kansas, February 7, 1996.

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Van Benschoten, J.E., 'Lead Contaminated Soil Washing', Innovative Remedial Technologies, Sponsored by NYS Legislative Commission on Toxic Substances and Hazardous Wastes, NYS Center for Hazardous Waste Management, NYS Department of Environmental Conservation, EPA Northeast Hazardous Substances Research Center. Albany, NY. October 12-14, 1993.

Van Benschoten, J. 'Chemical Approaches for Zebra Mussel Control', The Impact of Zebra Mussels from a Local Government Perspective. Sponsored by The New York State Senate Majority Task Force on Zebra Mussels. Buffalo, NY. January 24 (1991).

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