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Education

A.A. 1969 Univ. of Cincinnati, Cincinnati, OH
B.A. 1972 Chemistry, Miami Univ., Oxford OH
Ph.D. 1985 Water Chemistry, Univ. of Wisconsin-Madison, WI

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Current professional duties:

Research Chemist, U.S. EPA, 1987-present.

Chair, U.S.EPA/OSP/OPPTS Physical Chemistry Workgroup on Manufactured Nanomaterials. 2007-present

U.S. delegate to OECD Steering Group 4 Section 1 Working Party on Manufactured Nanomaterials, 2007-present

Selected Recent Publications:

Loux, N.T. Extending the diffuse layer model of surface acidity behavior: II. Estimation of intrinsic acidity and electrolyte ion site binding constants. *Chem. Spec. Bioavail.* Accepted.

Loux, N.T. and Savage, N. 2008. An assessment of the fate of metal oxide nanomaterials in porous media. *Water, Air and Soil Pollution.*, Available on-line.

Loux, N.T. 2008. Simulating the vapour phase air/water exchange of p,p'-DDE, p,p'-DDT, lindane and 2,3,7,8-tetrachlorodibenzodioxin. *Chem. Spec. Bioavail.*, 20:77-91.

Loux, N.T. 2007. An assessment of thermodynamic reaction constants for simulating aqueous environmental monomethylmercury speciation. *Chem. Spec. Bioavail.*, 19(4):183-196.

Loux, N.T. 2006. Extending the Diffuse Layer Model of Surface Acidity Behavior: I. Model Development. *Chem. Spec. Bioavail.*, 18(3):105-116.

Loux, N.T., Hassan, S.M. and Chafin, C.R. 2005. Empirical Partitioning Models for Lead and Cadmium Using Data from 13 Soils, Sediments and Aquifer Materials, U.S. EPA/ORD/NERL/ERD, 960 College Station Road, Athens, GA . 30605-2700. EPA/600/R-05/077.

- Loux, N.T. 2005. Modeling Monomethylmercury and Tributyltin Speciation with EPA's Geochemical Speciation Model MINTEQA2, U.S. EPA/ORD/NERL/ERD, 960 College Station Road, Athens, GA 30605-2700. EPA/600/R-05/063.
- Loux, N.T. 2004. A critical assessment of elemental mercury air/water exchange parameters, *Chem. Spec. Bioavail.*, 16(4):127-138.
- Loux, N.T. 2003. Effective acidity constant behavior near zero charge conditions. Chapter 11 In Keane, M.A. (Ed.), Interfacial Applications in Environmental Engineering, Marcel Dekker, Inc., New York, New York, USA .
- Loux, N.T. 2002. An exact method for relating zwitterionic microscopic to macroscopic acidity constants. *Chem. Spec. Bioavail.*, 15:47-51.
- Loux, N.T. and Anderson, M.A. 2001. Mobile ion activities at charged interfaces. *Col. Surfs. A: Physicochem, & Eng. Aspects.* 177:123-131.
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Selected Recent Technical Presentations:

- Utterback, D., Loux, N.T., Hatto, P., Veronesi, B., Su, Y., Tolaymat, T. Diamond, S., Winchester, E., and Savage, N. Physical Chemistry Properties Workgroup Recommendations: Applicability of OPPTS Series 830 Guidelines to Nanomaterials. Ronald Reagan Building, Room 51161, Policyeum Room, 1300 Pennsylvania Ave., Washington, DC. July 17, 2008.
- Loux, N.T. and Savage, N. An assessment of the fate of metal oxide nanomaterials in porous media. Paper 27, Div. Environ. Chem., 235th Am. Chem. Soc. Nat. Meeting, New Orleans, LA. April 6-10, 2008.
- Loux, N.T. Issues in simulating elemental Hg air/water exchange and aqueous monomethylmercury speciation. Invited technical presentation at U.S. EPA Metals Fate and Transport Modeling Workshop, Denver, Colorado. February 13-15, 2007.
- Loux, N.T. Aqueous protonation properties of amphoteric nanoparticles. Poster number 145 Div. Environ. Chem., 231st Am. Chem. Soc. Nat. Meeting. Atlanta, GA. March 28-30, 2006.
- Loux, N.T. DIFMOD2PB: A next generation diffuse layer model. Poster AE.2.P041 presented at the Anal./Environ. session of the 39th IUPAC Conference and the 86th Conference of the Canadian Society for Chemistry, Ottawa, Ontario, Canada . August 10-15, 2003.
- Loux, N.T. Effective acidity constant behavior near zero charge conditions, Paper 290, Div. Coll. Surf. Chem., 222nd Am. Chem. Soc. Nat. Meeting, Chicago, IL. August 26-30, 2001.
- Loux, N.T. Variable bound-site charging contributions to surface complexation mass action expressions. Comp. Methods in Environ. Chem. Section, Paper 114, Environ., Computat. and Geochem. Divs., 219th Am. Chem. Soc. Nat. Meeting, San Francisco, CA. March 26-30, 2000.
- Loux, N.T. Charging contributions to bound-site activity coefficients with the entropic balanced surface potential model. Poster No. 197. Environ. & Geochem. Divs., Am. Chem. Soc. Nat. Meeting, Anaheim, CA. March 20-25, 1999.
- Loux, N.T. Aqueous mobile ion activities at charged interfaces. Paper # 36. Am. Chem. Soc. 72nd Coll. Surf. Science Symp., Pennsylvania State Univ., Univ. Park, PA. June 21-24, 1998.