

EILEEN B. EKSTROM, PH.D., LCACP

E-MAIL: eekstrom@ecosystem-analytics.com · PHONE: (888) 751-5384

www.ecosystem-analytics.com

EDUCATION

- 2000-2007 **Princeton University** Princeton, NJ
Ph.D., M.A. Civil & Environmental Engineering
- Dissertation: Investigations Into the Mechanisms of Biotic and Abiotic Mercury Methylation
- 1994-1998 **Northwestern University** Evanston, IL
B.A. Environmental Science
- Interdisciplinary coursework in environmental engineering, biology, geology, and chemistry

PROFESSIONAL EXPERIENCE

- 2011-present **Ecosystem Analytics Inc.** Wilmette, IL
DIRECTOR
- Founded company dedicated to helping companies, agencies, and non-profits evaluate life cycle impacts and improve sustainability of their products, services, and organizations
 - Gained Life Cycle Assessment Certified Professional status (certification # 2015-74)
 - Certified as ISO 14001:2015 Lead Auditor - EM, AU, and TL (BSI certificate 8441473-156414)
 - Proficient in SimaPro software, ISO 14044, ISO 14040, ISO 14020, ISO 14024, ISO 14025, ISO 21930, and ISO/IEC 17065
- 2013-present TECHNICAL ASSESSOR – AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
- Serving as sole technical assessor for ANSI accreditation program on Environmental Product Declarations (EPD) and a technical assessor for certification bodies (C.B.s) in the ecolabel sector
 - Assessed NSF International, ASTM International, ICC Evaluation Service, SCS Global Services, and Epstein Group, Inc. for conformance to ISO 14020, ISO 14025, ISO 21930, and ISO 17065 as either a program operator or body that verifies EPDs
 - Assessed C.B.s in the ecolabel sector for conformance to ISO 14024 and ISO 17065
 - Assisted organization in evaluating if current ecolabel policies conform to the US EPA Draft Guidelines for Environmental Performance Standards and Ecolabels for Use in Federal Procurement
 - Aided ANSI in the development of procedures for the evaluation of program operators and the assessment of organizations that verify EPDs
 - Providing technical review and comments on behalf of ANSI to the ISO as part of the development of ISO TS 14026 and ISO TS 14027
 - Submitted technical comments on behalf of ANSI to the USGBC/UL's EPD guidance documents
 - Presented on behalf of ANSI at ACLCA LCA XVI in Charleston, SC on "Navigating Environmental Declarations: Lessons Learned From ANSI's Eco-Label and Environmental Product Declaration Accreditation Pilot Programs"

PROFESSIONAL EXPERIENCE (CONTINUED)

- 2010 **Gnarus Advisors, LLC** Waltham, MA
SENIOR CONSULTANT. Gnarus Environmental Services
- Performed probabilistic analysis of remedial scenarios and costs for DOE, Superfund, and State Priority List sites, including abandoned uranium mines, former thorium-processing factories, and former wood-treating facilities
 - Produced site-specific cleanup cost estimates using Monte-Carlo based cost modeling to determine the expected range of future cleanup costs
 - Reviewed technical and regulatory documents, contributed to expert witness report for a litigation-related project, and participated in meeting with the client
- 2008-2010 **Harvard University Extension School** Cambridge, MA
LECTURER. Environmental Management Program
- Designed and taught course: Environmental Systems: A Problem-Solving Approach to Understanding Environmental Processes, Spring 2009 & Spring 2010
 - Taught students how to use problem solving and principles of chemistry and engineering to understand the fate & transport of environmental pollutants in air and water and the constraints and impacts of energy production
 - Delivered guest lectures on the environmental impacts of Bisphenol-A to both an in class and online audience in Environmental Management I, Fall 2008 & Fall 2010
- 2007-2009 **Harvard University School of Engineering & Appl. Sciences** Cambridge, MA
POSTDOCTORAL FELLOW. Environmental Microbiology & Geochemistry Lab
- Examined how naturally-occurring aluminum in iron oxides can decrease growth rates of iron-reducing bacteria and thus slow bioremediation at uranium-contaminated sites
 - Managed renovation of new laboratory space, procurement of over \$100,000 of lab equipment, supplies, and chemicals, and the EH&S documentation for the lab
 - Assisted in the writing and preparation of grant applications to fund research
- 2000-2006 **Princeton University Dept. of Environmental Engineering** Princeton, NJ
GRADUATE RESEARCH ASSISTANT. Environmental Bioinorganic Chemistry Lab
- Investigated the mechanisms of mercury methylation by sulfate-reducing bacteria (SRB) in freshwater and coastal waters and the formation of methylmercury in deep ocean hydrothermal vents
 - Presented research to USEPA and international scientific organizations
 - Delivered 2 guest lectures, ran problem-solving sessions, and graded homework as a Teaching Assistant in GEO 418 – Environmental Aqueous Geochemistry
- 1998-2000 **Professional Service Industries** Lombard, IL
STAFF SCIENTIST. Environmental Division
- Conducted ASTM Phase I and II environmental assessments of over 50 commercial & industrial properties, including a chemical plant, car parts manufacturing facility, and a former landfill
 - Performed historical, regulatory, and field research for clients
 - Communicated assessment results to clients in written reports and conference calls

SKILLS	Computer: SimaPro, Sigmaplot, Quickbooks, STATA, Word, Excel, Powerpoint, Endnote
PROFESSIONAL ACTIVITIES	Reviewer for <i>Environmental Science & Technology</i> , <i>Environmental Chemistry</i> , <i>Geobiology</i> , <i>Chemosphere</i> , <i>Environmental Pollution</i> , and the <i>Journal of Industrial Microbiology & Biotechnology</i> .
CONTINUING EDUCATION	Life Cycle and Supply Chain Sustainability (Dr. Greg Norris), Harvard University; Health in Numbers: Quantitative Methods in Clinical & Public Health Research (Dr. Marcello Pagano & Dr. E. Cook), Harvard University
PRESENTATIONS	Gave oral and poster presentations of graduate and postdoctoral research at 14 scientific conferences, an EPA workshop, NGO meetings, and at interdisciplinary meetings at Harvard and Princeton Universities.
SELECT PUBLICATIONS	<p>C. M. Hansel, D. R. Lerman, E. B. Ekstrom. 2011. Effect of absorbed and substituted Al on Fe(II)-Induced Mineralization Pathways of Ferrihydrite. <i>Geochim. Cosmochim. Acta</i> 75: 4653-4666</p> <p>Ekstrom, E. B., D. R. Learman, A. S. Madden, C. M. Hansel. 2010. Contrasting effects of Al substitution on microbial reduction of Fe(III) (hydr)oxides. <i>Geochim. Cosmochim. Acta.</i> 74:7086-7099.</p> <p>Ekstrom, E. B., F. M. M. Morel. 2008. Cobalt limitation of growth and mercury methylation in sulfate-reducing bacteria. <i>Environmental Science & Technology.</i> 42(1): 93-99.</p> <p>Ekstrom, E. B., F. M. M. Morel, and J. M. Benoit. 2003. Mercury Methylation Independent of Acetyl-Coenzyme A Pathway in Sulfate-Reducing Bacteria. <i>Applied and Environmental Microbiology.</i> 69(9):5414-5422.</p>