



Lori A. Streit, Ph.D.
Chemical and Environmental Science

Dr. Streit is a scientist with education and experience in the areas of surface analysis, microanalysis, materials characterization, chemistry, chemical analysis, materials analysis, material flammability, environmental science, and chemical safety and health. She has experience in the analysis and characterization of many substances, some of which are chemicals, metals, alloys, semiconductors, plastic, rubber, glass, ceramics, polymers, paper, textiles, minerals, composites, soot, soil, water, and air.

Employment

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| 1995-Present | Principal, Unified Engineering, Inc., Lombard, IL |
| 1990-1995 | Manager, Chemical and Environmental Science, Packer Engineering, Inc., Naperville, IL |
| 1990-1995 | Safety Director, Packer Engineering, Inc. Naperville, IL |
| 1987-1990 | Research Scientist, McCrone Associates, Inc., Westmont, IL |
| 1988 | Adjunct Professor of Chemistry, Elmhurst College, Elmhurst, IL |
| 1985-1987 | Research Assistant, Arizona State University, Tempe, AZ |
| 1983-1985 | Teaching Assistant, Arizona State University, Tempe, AZ |
| 1982-1983 | Research Technician, FMC Corp., Princeton, NJ |
| 1982 | Research Technician, Mobil Oil Corp., Trenton, NJ |

Education

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| 1987 | Ph.D. in Analytical Chemistry/Surface Analysis, Arizona State University, Tempe, AZ |
| 1983 | B.S. in Chemistry, Trenton State College, Trenton, NJ |

Continuing Education

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| 2001 | Indoor Air Quality, Identification of Fungal Spores, McCrone Research Institute |
| 1996 | OSHA 10-hour Occupational Safety & Health Course |
| 1993 | ASM Material Testing Methods |
| 1990, 1991 | Asbestos Worker Certification |
| 1990 | Fire Investigation Techniques, SIAAI |
| 1987 | Polarized Light Microscopy, McCrone Research Institute |

Professional Societies

American Chemical Society: Analytical Chemistry Division, Chemical Safety Division
American Society of Materials International (ASM)
Microbeam Analysis Society (MAS)
National Environmental Health Association (NEHA)
National Fire Protection Association (NFPA)

Associations

1993-1997 Arizona State University Alumni Association Board of Directors
1992-1999 Illinois School District 203, Business/Education Advisory Board
1991-1998 Congressman Fawell's Education Advisory Committee
1994-1995 Packer Engineering, Inc. Board of Directors
1991-1993 American Vacuum Society, Illinois Chapter, Board of Directors

Awards

2001 William M. Carey Award, Best Paper, NFPA Fire Protection Research Foundation Meeting, Orlando, 2001.
1987 J. Kocoyanakis Analytical Chemistry Award, ASU
1987 AVS Arizona Chapter Student Poster Award
1986 AVS National Student Award
1986 MAS Distinguished Scholar Award
1986 ASU Superior Teaching Assistant Award
1985 Arizona Board of Regents Graduate Academic Scholarship

Publications

- “Quantitative analysis using sputtered neutrals in a secondary ion microanalyzer”, P. Williams and L.A. Streit, Nucl. Instrum. Methods. B15 (1986) 159-164.
- “Effect of microstructure on the arsenic profile in implanted silicon”, W.A. Coughlan, M.H. Rhee, J.M. Williams, L.A. Streit, and P. Williams, Nucl. Instrum. Methods. B16 (1986) 171-176.
- “Quantitative SIMS microanalysis of trace elements in geological samples using *in situ* ion-implanted standards”, L.A. Streit, R.L. Hervig, and P. Williams, M.A.S. 22nd National Meeting, Albuquerque, 1986; M.A.S. Conf. Proc. (1986) 91-94.
- “Quantitative analysis of chemical vapor deposited refractory metal silicides”, L.A. Streit and P. Williams, A.V.S. 33rd National Meeting, Baltimore, 1986; J. Vac. Sci. Technol. A5(4) (1987) 1979-1983.
- “Limits of sensitivity in secondary ion mass spectrometry”, P. Williams, L.A. Streit, and R.T. Lareau, J. Mass Spec. and Ion Proc. (1987).
- “A hollow cathode ion source for SIMS / *in situ* ion implantation of metals”, L.A. Streit and P. Williams, SIMS VI International Conference, Paris, 1987; Secondary Ion Mass Spectrometry, SIMS VI (1988) 201-204.
- “Development of quantitative analytical methods for secondary ion mass spectrometry”, L.A. Streit, thesis, 1987.
- “SIMS / *in situ* ion implantation of metals and semiconductors generated by a hollow cathode ion source”, L.A. Streit and P. Williams, Anal. Chem. 1988.
- “XPS / AES study of contact surface contamination”, L.A. Streit and S.L. Maher, Applied Surface Science Meeting, Denver, 1988.
- “Factors affecting trace determination of hydrogen by secondary ion mass spectrometry”, L.A. Streit and C. Bowers, SIMS VII, Monterey, 1989.
- “SIMS image analysis of light element distributions in carbon composite material”, L.A. Streit, SIMSVII, Monterey, 1989.
- “Investigations of a Black Soot Phenomenon in Florida Residential Structures Associated with New Installation of Central Heating and Air Conditioning Systems”, J.D. Krause, K.K. Al-Ahmady, and L.A. Streit, Proceedings of the Engineering Conference on Air and Waste Management, North Carolina, July, 1997.

- "Enhanced Deposition, Acoustic Agglomeration, and Chladni Figures in Smoke Detectors", C. Worrell, G. Gaines, R. Roby, L. Streit, and J.L. Torero, *Fire Technology*, 37, 343-362, 2001.
- "Effect of Smoke Source and Horn Configuration on Enhanced Deposition, Acoustic Agglomeration, and Chladni Figures in Smoke Detectors", C.L. Worrell, J.A. Lynch, G. Jomaas, R.J. Roby, L. Streit and J.L. Torero, *Fire Technology*, 39, 309-346, 2003.
- "The Role of Smoke Detectors in Forensic Fire Investigation and Reconstruction", Olenick, S.M, Roby, R.J., Klassen, M.S., Zhang, W., Sutula, J.A., Worrell, C., Wu, D., D'Souza, V., Ashley, A., Dubois, J., Torero, J.L., and Streit, L., presented at a published in International Symposium on Fire Investigation Science and Technology (ISFI), June 26-28, 2006.
- "Evaluation of Heating, Ventilation and Air Conditioning (HVAC) Interior Surfaces to Determine the Presence of Fire-Related Particulate as a Result of a Fire in a Structure", IESO/RIA Standard 6001 (2012), an ANSI Standard.