Kristy M. Long

Highlights

- Experienced chemistry instructor, teacher and tutor; active clearances and PA teaching certificate
- Adept laboratory chemist with a background in nuclear material handling, open-front hood work, and glove box work
- Excellent interpersonal and communication skills; strong organizational and writing skills

Education

M.S., Chemistry, The University of New Mexico, Albuquerque, NM, GPA: 3.81/4.00 2006

- Advisor: G. Dana Brabson

B.S., Chemistry Education, The Pennsylvania State University, University Park, PA, GPA: 3.73/4.00 2000

- Undergraduate Research Advisor: Dr. Altaf Carim

Experience

Point Park University, Pittsburgh, PA, Chemistry Instructor 2016-present

- Teach General Chemistry I and II classes with a focus on atomic theory and structure, chemical bonding, properties of the elements and the periodic table, chemical equations and stoichiometry, states of chemical matter, equilibrium and kinetics, thermodynamics, and electrochemistry
- Instruct laboratory chemistry classes on topics including safety, measurement, density, chemical reactions, titrations, oxidation-reduction, gases, and equilibrium

North Pittsburgh Enrichment Program, Pittsburgh, PA, Chemistry Teacher 2014-2016

- Instruct high school students in an introductory chemistry class with a laboratory component
- Teach middle school students in an inquiry-based class focusing on kitchen chemistry concepts

WyzAnt Tutoring, Pittsburgh, PA, Chemistry Tutor 2013-2016

- Tutored several college students in first and second semester general chemistry classes
- Assisted numerous high school students in classes ranging from introductory to AP chemistry
- Guided advanced elementary and middle-school students interested in chemistry

Los Alamos National Lab, Los Alamos, NM, Laboratory Scientist 2007 - 2012

- Researched the use of conventional and task-specific ionic liquids; studied various precipitants, ion exchangers, and resins as part of an alternative reprocessing scheme for spent nuclear fuel
- Mentored high school and undergraduate student researchers; trained new postdoctoral researchers to work with radioactive materials
- Served as chemical hygiene officer for research group of 60 members; completed/verified yearly chemical inventory, assisted with chemical storage, and coordinated hazardous waste disposal

Los Alamos National Lab, Los Alamos, NM, Chemical Technician 2002 - 2007

- Used and maintained a Total Organic Carbon analyzer and a DX 500 Ion Chromatography System
- Prepared samples and helped with the analysis of ICP-MS/ICP-AES results for an advanced fuel cycle project
- Maintained accurate records associated with calibrated electronic balances, DI water system, inert glove box, chemical inventory, MSDS, and process safety documents

Altoona Area High School, Chemistry Teacher, Altoona, PA 2000 - 2001

- Taught applied chemistry and physical science to eleventh and twelfth grade students
- Supervised and instructed students in laboratory activities

The Pennsylvania State University, Chemistry Tutor/Undergraduate Research, University Park, PA 1996-1999

- Tutored individual chemistry students and reviewed material with student groups before exam
- Assisted graduate students in a materials science laboratory

Awards

Distinguished Performance Award for contribution to Uranium Nitride Fuel Fabrication Team 2005

Los Alamos Award for contribution to the Aberdeen Disposition Team 2010

Publications

- "Separation of Pertechnetate from Uranium in a Simulated UREX Processing Solution Using Anion Exchange Extraction Chromatography," G. Jarvinen, K. Long, G. Goff, W. Runde, E. Mausolf, K. Czerwinski, F. Poineau, D. McAlister, E. Horwitz, Solvent Extraction and Ion Exchange, 2013, 31, 416-429.
- "Anion Exchange Resins for the Selective Separations of Technetium from Uranium Carbonate Solutions," K. Long, G. Goff, S. Ware, G. Jarvinen, W. Runde, *Ind. Eng. Res*, 2012, 51, 10445-10450.
- "Uranium/technetium separation for the UREX process- synthesis and characterization of solid reprocessing forms", F. Poineau, J. Du Mazaubrun, D. Ford, J. Fortner, J. Kropf, G.W.C. Silva, N. Smith, K. Long, G. Jarvinen, and K. Czerwinski, *Radiochim. Acta*, 2008, 96, 527-533.

Presentations

- Long, K., Goff, G., Scott, B., Ewing W., Chen, X., and Runde, W., "Exploring the Chemistry of the Actinides in [Hbet][Tf_2N], Oral Presentation, *LDRD-DR First Year Project Appraisal*, Los Alamos, NM, 2011.
- Long, K.M, Goff, G.S., Runde, W.H, Scott, B., "Exploring the Chemistry of the Transuranic Elements in Ionic Liquids, Oral Presentation, *American Chemical Society National Meeting*, Denver, CO, 2011.
- Long, K.M, Jarvinen, G.D, Villarreal, R., Ford D.K., Fitzpatrick, J.R., "Actinide Separations in Alkaline Media for Advanced Nuclear Power Cycles and Defense Materials Production: Cesium Separation." Oral Presentation, *LDRD-DR Mid-Year Project Review*, Los Alamos, NM, 2007.
- Long, K.M, Jarvinen, G.D, Ford D.K., "Photochemical Oxidation of Oxalate, Urea, and Hydroxylammonium in Pu-238 Process Streams." Oral Presentation, *Presentation at University of New Mexico*, Albuquerque, NM, 2006.
- Long, K.M., Ford, D.K, Jarvinen G.D, "Photochemical Oxidation of Oxalate, Urea, and Hydroxylammonium in ^{238}Pu Process Streams." Oral Presentation, *Space Technology and Applications International Forum*, Albuquerque, NM, 2005.

Affiliations

Member of the American Chemical Society 2003-present

Member of Toastmasters International 2012-present

Newsletter Editor	2013-2015
VP of Public Relations	2014-2015
VP of Education	2016-present

Volunteer Work

Career Counselor through the American Chemical Society 2012-present

Pennsylvania Adult Literacy Tutor 2001-2002