

Donald G. Graczyk

Argonne National Laboratory
Chemical Sciences and Engineering Division
9700 South Cass Avenue, Building 200
Argonne, IL 60439-4837
phone: 630/252-3489, fax: 630/252-4489
e-mail: graczyk@anl.gov

Professional Experience

- **2006-Present.** Chemist, Inorganic Analysis Technical Lead at Argonne National Laboratory. Application of chemical and analytical expertise to support client program's needs for analytical chemistry support, including interacting with staff analysts, contributing to proposals and work plans, and consulting with clients on specific problems. Lead responsibility for inorganic analytical chemistry methods and services involving elemental analysis, isotopic analysis, and wet-chemistry techniques.
- **1988-2006.** Senior Group Leader, Inorganic Analysis Group at Argonne National Laboratory. Provided technical leadership and administrative oversight for chemical analysts serving clients in nuclear technology, environment and waste, separations science, geoscience, and materials characterization. Applied considerable expertise in inorganic isotopic analysis, analysis of gases, atomic spectroscopy, instrumental methods, and wet chemistry to determine major and minor inorganic constituents and impurities. Responsible for conformance with regulatory requirements associated with US EPA methods. Led development of specific methods for analysis of irradiated nuclear fuel, characterization of waste (including radioactive and hazardous components), and compositional/isotopic analysis of lithium aluminate ceramics.
- **1979-1988.** Chemist, Instrumental Analysis Group at Argonne National Laboratory. Developed methods and carried out analysis of permanent gases, fission-product gases, and other samples using gas chromatography, nuclear counting, inert-gas fusion, combustion methods, and mass spectrometry. Served as Principal Analyst in a program that made exceptionally precise and accurate isotopic and compositional measurements on irradiated fuel from the Shippingport Light Water Breeder Reactor. Work involved hot-cell operations, thermal-ionization mass spectrometry for isotopic and assay measurements, radiochemical methods for fission products, and statistical analysis of data. Wrote specifications for computer programs to collect, compile, and report data and standard operating procedures for methods in all areas.
- **1975-1979.** Assistant Chemist, Instrumental Analysis Group at Argonne National Laboratory. Devised methods and assembled apparatus for measurement of gaseous fission products in irradiated nuclear fuel. Conducted wet-chemical and isotopic analysis of uranium and plutonium

samples. Set up equipment for inorganic gas chromatography.
Synthesized isotopically labeled gases for spectroscopic analysis.
Participated in research on atmospheric sulfate aerosols.

Education

- Ph.D., Analytical Chemistry, University of Wisconsin, Madison, 1975.
- M.S., Analytical Chemistry, University of Wisconsin, Madison, 1971.
- B.S., Chemistry, University of Illinois, Urbana, 1968.

Awards

- University of Chicago Outstanding Service Award, Argonne National Laboratory (2006)
- Argonne Pacesetter Award for Tritium Target Qualification Program Development (2000)
- Kenneth J. Jensen Award for Excellence, Argonne Analytical Chemistry Laboratory (1996)
- Argonne Pacesetter Award for Water Quality Task Force Leadership (1990)
- Argonne Pacesetter Award for LWBR-POB Team Leadership (1987)
- University Honors, Bronze Tablet, University of Illinois at Urbana (1968)

Career Activities & Highlights

- More than 30 years of service with the Analytical Chemistry Laboratory, Chemical Sciences and Engineering Division, Argonne National Laboratory. Areas of expertise include inorganic elemental and isotope measurements, atomic spectroscopy, inorganic mass spectrometry, gas analysis, nuclear and radiochemical analysis, analysis of water and waste, chemical separations, and statistical analysis of measurement data.
- Record of accomplishment in developing or implementing special analysis methods for high-accuracy measurements, difficult sample matrices, and other special program needs.
- Professional Organizations
 - American Chemical Society
 - Sigma Xi
 - Phi Beta Kappa

Publications & Patents

- Author or co-author of more than 80 scientific publications or presentations.
- Patents: 1