Burns receives ACS Francis P. Garvan–John M. Olin Medal

Carol Burns, executive officer for the Deputy Director for Science, Technology & Engineering (DDSTE), was selected as the recipient of the 2021 American Chemical Society’s (ACS) Francis P. Garvan–John M. Olin Medal. This national award recognizes distinguished service in the field of chemistry by female chemists.

Burns will be honored with the medallion at the ACS 2021 Spring National Meeting on March 23, 2021, in San Antonio, Texas. The award was established in 1936, recognizing one top female chemist each year.

“Carol has been a leader not only in her field of chemistry as well as all of science, technology and engineering but also as a mentor, role model and inspiration to the next generation of women scientists for many years,” said John Sarrao, deputy director for STE. “This is a very well-deserved award.”

Pioneering work

Burns is an expert in actinide chemistry. She was named a Laboratory Fellow in 2003 and has supported the role of chemistry in national security throughout her career.

While contributing to nuclear security programs, she has maintained a strong and vibrant research program in actinide coordination and organometallic chemistry. She pioneered the development of an entirely new class of high-valent uranium compounds containing metal-ligand multiple bonds, supported by cyclopentadienyl ligands. This work has contributed substantially
to the understanding of the electronic structure of the early actinides, and inspires current work in the field.

In her management positions at Los Alamos, Burns has championed workforce development and gender diversity issues. She has formally and informally mentored numerous students, postdocs, and early career scientists at LANL. She was recognized by LANL’s Women’s Diversity Working Group with their Women’s Career Development Mentoring Award.

Externally, she has served on advisory committees for universities and other national laboratories, and served in fellowship organizations at the graduate and postdoctoral level, including the Hertz Foundation and the Washington Research Foundation.

In her current role in DDSTE, she supports the deputy director and Director’s Office in oversight of line and program organizations in Chemistry, Earth, and Life Sciences; Global Security; Physical Sciences; and Simulation and Computation. She coordinates the development and integration of strategy for science, technology and engineering at the Laboratory and has oversight of the associated institutional investments.

Burns received her B. A. in Chemistry from Rice University, and her Ph.D. in Chemistry as a Hertz Foundation Fellow at the University of California at Berkeley. She came to LANL as a J. Robert Oppenheimer Postdoctoral Fellow.

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