Lab scientists Burns, Hay named new AAAS Fellows

February 3, 2009

LOS ALAMOS, New Mexico, February 3, 2009—Laboratory researchers Carol Burns and Jeffrey Hay are new 2008 Fellows of the American Association for the Advancement of Science. The AAAS is the world's largest general scientific society and publisher of the journal Science.

Burns is a Laboratory Fellow and the group leader for the Nuclear and Radiochemistry Group. She has served as a senior policy analyst in the White House Office of Science and Technology Policy working in the area of national security and as a spokesperson for the Laboratory's nuclear forensics mission.

Recognized worldwide as a leader in actinide chemistry, Burns was named a Fellow for her contributions to the field of actinide science and to the understanding of actinide metal-ligand multiple bonds.

On being selected an AAAS Fellow, Burns said, “I am extremely honored that my colleagues chose to nominate me and that the Society selected me. I think the Society has a very important role to play at the cusp of science and politics; it champions science in the political dialogue and informs science policy.”

Hay of Physics and Chemistry of Materials was recognized for “distinguished contributions in the field of computational and theoretical chemistry, particularly in the area of inorganic chemistry.”

His research includes theoretical studies of the electronic properties and reactions of actinide and transition metal complexes. Hay, who is a Laboratory Fellow, helped develop relativistic effective core potential techniques to enable accurate electronic structure calculations on molecules containing heavier atoms in the periodic chart. These techniques are widely used in theoretical studies of inorganic chemistry, metal catalysis of hydrogen and hydrocarbons, and the role of metals in biological processes.

Before he retired after 33 years at the Lab, Hay conducted research in the areas of organoactinide chemistry, hydrogen production, catalysis, laser chemistry, materials design, and surface chemistry. He was also group leader of the Lab’s Theoretical Chemistry and Molecular Physics Group and participated in various collaborative research activities with industrial partners.

A member of AAAS for 20 years, Hay said, “I greatly appreciate the efforts of my colleagues on my behalf for this honor. This recognition is both for me as well as the chemical community at the Laboratory, since much of this research has been carried out in collaboration with my colleagues.” He added, “Chemistry will play a pivotal role in the challenges the Society will be addressing involving energy security and the fate of the environment.”

In November 2008, AAAS named a total of 486 fellows, who will be recognized for their contributions to science at the Fellows Forum scheduled for February 14, 2009, during the AAAS annual meeting in Chicago. The tradition of AAAS Fellows began in 1874.

AAAS members can be considered for the rank of Fellow if nominated by the Steering Group of their respective sections, by three AAAS Fellows or by the association's chief executive officer. Each Steering Group then reviews the nominations of individuals within its respective section and forwards a final list to the AAAS Council.

The AAAS Council votes on the final aggregate list. The Council is the policymaking body of the association, and is chaired by the President. The Council consists of members of the Board of Directors, the retiring section chairs, delegates from each electorate and each regional division and two delegates from the National Academy of Science.