Author Profile



L. Andrews

The author presented on this page has recently published his 10th article since 2000 in Angewandte Chemie: "Calculations and Matrix Infrared Spectra of Terminal Borylene Complexes FB=MF₂": X. Wang, B. Roos, L. Andrews, Angew. Chem. 2010, 122, 161–164; Angew. Chem. Int. Ed. 2010, 49, 157–160.

Lester Andrews

Date of birth: January 31, 1942

Recent awards

since 2000:

Position: Professor Emeritus of Chemistry, University of Virginia (USA)

Education: 1959–1963 BS in Chemical Engineering, Mississippi State University (USA)

1963–1966 PhD in Physical Chemistry with Prof. George Pimentel, "Spectroscopic Studies of Reactions of Lithium Atoms in Inert Gas Matrices", University of California, Berkeley (USA) **2001** Lippincott Award in Vibrational Spectroscopy; **2002** Distinguished Engineering Fellow, College of Engineering, Mississippi State University (USA); **2004** Docteur Honoris Causa, National College of Engineering Fellow, College of Engineering Fello

Université Paul Sabatier, Toulouse (France); 2007 George Pimentel Award in Matrix Isolation Spectroscopy; 2008 Distinguished Scientist Award, University of Virginia (USA); 2010 Earle K.

Plyler Prize for Molecular Spectroscopy, American Physical Society

Current research Investigating atom–molecule reactions by using matrix isolation spectroscopy. These subjects interests: have included metal oxides, free radicals, hydrogen-bonded complexes, molecular ions, metal

hydrides, methylidene and methylidyne complexes, metal dihydroxide and tetrahydroxide molecules, and other novel chemical species. Current sponsored work is aimed at understanding the laser-ablation process and using it to prepare new transition-metal and actinide-metal-

containing molecules that have multiple bonds

Hobbies: Listening to classical music and playing the E flat soprano clarinet

The biggest problem that chemists face is ... increasing the signal to noise ratio.

My favorite piece of research is ... our preparation of dialane in solid hydrogen.

My favorite subject at school was ... chemistry.

When I was eighteen I wanted to be ... a chemical engineer.

The most significant scientific advance of the last 100 years has been ... the Haber–Bosch process for ammonia synthesis.

chose chemistry as a career because ... I like to make things.

My first experiment was ... filling my Father's gas tank with water (age 4).

n a nutshell, my research involves ... making new molecules.

The secret of being a successful scientist is ... focus and hard work.

The best advice I have ever been given is ... to go to the best graduate school.

The part of my job which I enjoy the most is ... working with collaborators in the lab.

My favorite food is ... shrimp.

A good work day begins with ... an email from my collaborators.

My favorite composer is ... Mahler.

My favorite song/piece of music is ... Mahler's Second Symphony.

The biggest challenge facing the world is ... population control.

My 5 top papers:

- "The Infrared Spectrum of Al₂H₆ in Solid Hydrogen":
 L. Andrews, X. Wang Science 2003, 299, 2049 2052.
- "Formation of Unprecedented Actinide≡Carbon Triple Bonds in Uranium Methylidyne Molecules": J. T. Lyon, H.-S. Hu, L. Andrews, J. Li, *Proc. Natl. Acad. Sci.* 2007, 104, 18919 – 18924.
- "Infrared Spectra of CH₃-MoH, CH₂=MoH₂, and CH= MoH₃ Formed by Activation of CH₄ by Molybdenum Atoms": H.-G. Cho, L. Andrews, *J. Am. Chem. Soc.* 2005, 127, 8226 8231.
- "Simple N≡UF₃ and P≡UF₃ Molecules with Triple-Bonds to Uranium": L. Andrews, X. Wang, R. Lindh, B. O. Roos, C. J. Marsden, *Angew. Chem.* 2008, 120, 5446-5450; *Angew. Chem. Int. Ed.* 2008, 47, 5366-5370
- "Noble Gas-Actinide Compounds: Complexation of the CUO Molecule by Ar, Kr, and Xe Atoms in Noble Gas Matrices": J. Li, B. E. Bursten, B. Liang, L. Andrews, Science 2002, 295, 2242–2245.

DOI: 10.1002/anie.201000717

