



College of Science and Mathematics

Department of Chemistry
and Biochemistry

Departmental Seminar Series

Tuesday, April 19, 2016

12:30pm - 1:30pm in CL 1009

*The Route to Stable Nucleophilic Carbenes &
A Path Forward*



Dr. A.J. Arduengo

Saxon Professor of Chemistry, University of Alabama

The history leading up to the discovery and isolation of stable imidazol-2-ylidenes will be discussed along with a brief look at some of the emerging reactivity of these highly nucleophilic substances with transition-metal electrophiles and electron deficient olefins. Research into stable carbenes and their roles in chemistry spans over one and three quarters centuries. During that time there were many “false starts,” particularly in the early research. However, some of the insight of early researchers has proved true and accurate when examined with the aid of modern analytical techniques. The twists and turns of the progression of carbene chemistry provides some interesting insights into the sometimes pathological science that can entrap chemists. In more recent times, the chemistry of carbenes and their uses have undergone a renaissance to see an explosion of applications and understanding.