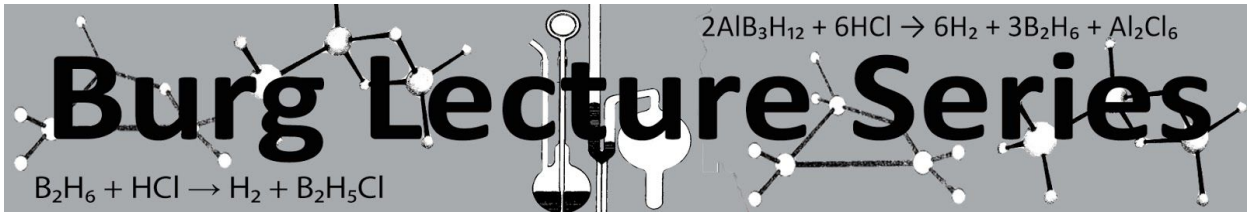

Anton B. Burg Memorial Lecture
Friday, October 18, 2019, 4:00 pm
Refreshments: 3:30 pm
Stauffer Science Lecture Hall
SLH 100

Professor Gerard Parkin

Department of Chemistry
Columbia University

Tripodal Ligands in Bioinorganic and Organometallic Chemistry: Carbon Dioxide Functionalization, Mercury Detoxification, and New Classes of Atranes

Despite the fact that certain metal ions are essential for life, some are highly poisonous. For example, while zinc is essential for humans, as exemplified by its roles in carbonic anhydrase and liver alcohol dehydrogenase, its congeners, cadmium and mercury, are most toxic. Synthetic analogues, *i.e.* small molecules that mimic the structure and function of enzymes, provide an important means to afford insight into the natural systems. Tripodal ligands provide a means to obtain such analogues, and the research described will focus on the application of tripodal ligands in the chemistry of zinc and mercury. In addition, tripodal ligands provide access to novel hydride compounds of zinc and magnesium that are capable of a variety of catalytic transformations. For example, these catalysts are capable of functionalizing carbon dioxide, a transformation that is of particular interest in view of the fact that carbon dioxide is a ubiquitous and typically inert compound.

The scientific community is invited

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