Inorganic Seminar

Friday, December 3, 11 am

Virtual Event

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"Metal Arenides as Low-Valent Synthons"

Abstract: A defining quality of the early-metals and the early actinide elements is their propensity to readily undergo oxidation to achieve high-valence states. In an effort to further expand the reactivity profile of these elements, we have been investigating the reduction chemistry of titanium and uranium. For example, the intramolecularly arene-masked titanium complex (ketguan)(η^6-ImN)Ti is a potent two-electron reductant capable of performing challenging chemical transformations such as C-H activation and the hydrodesulfurization of thiophene. More, recently, we have been exploring the chemistry of the highly reduced dimeric system (η^6-ImN)$_2$Ti$_2$, which is also a versatile reductant. Building upon this work with masked-titanium complexes, the synthesis of uranium arene-sandwich complexes using reductive conditions has been pursued in our laboratory. Recent successes in the isolation and characterization of unprecedented actinide arene sandwich compounds will be discussed.

Zoom Meeting: https://rochester.zoom.us/j/93387396679

Website: https://events.rochester.edsu/event/chemistry_inorganic_seminar_fortier

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