

INORGANIC SEMINAR

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12:30 PM, BRWN 4102

“Proton Coupled Electron Transfer at the Surface of Molecular Metal Oxide Assemblies”



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Abstract

Atomistic understanding of charge transfer processes at redox active transition metal oxide surfaces are central to the development of large-scale energy storage and conversion technologies. Here, we describe our efforts in bridging the conceptual disconnect between molecular and solid-state cation-coupled electron transfer processes through investigations of charge transfer in a family of polyoxovanadate-alkoxide clusters. This talk will highlight recent results from our group interrogating the interactions of protons with the surface of the redox active vanadium oxide assemblies. These studies provide insight into how the manipulation of the surface structure of the cluster can influence mechanisms of charge transfer relevant to energy storage and small molecule activation.



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