JEFFREY I. ZINK INORGANIC CHEMISTRY SEMINAR

Prof. Joseph W. Kolis

Department of Chemistry, Clemson University

"Hydrothermal Synthesis of Metal Vanadates: From Lasers to Frustrated Magnets and Maybe Even Some Quantum Materials"

Abstract: The high-temperature hydrothermal method (with temperatures 5-700˚C, pressures 200MPa) can be an excellent route to new materials, often in the form of large, high-quality single crystals. This talk will focus on the transition metal vanadates as a test bed for of this experimental method. The evolution from metal vanadate crystals as laser hosts to low dimensional magnetic structures to long-range frustration will be traced. The use of neutron diffraction to determine the magnetic structures of these materials will be discussed, and the value of hydrothermal single crystal growth in this class of materials will be highlighted.

Meet the Speaker
11:00 a.m. | YH 3096

Wednesday, October 5th, 2022

4:00 p.m. | YH4222 - Collaboratory
Yoo Seminar & Conference Room

UCLA College | Physical Sciences
Chemistry & Biochemistry

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