INORGANIC CHEMISTRY SEMINAR

Professor Omar K. Farha
International Institute for Nanotechnology, Northwestern University

Programmable Smart Sponges

Abstract: Metal–organic frameworks (MOFs) are a class of solid-state materials built up from metal-based nodes and organic linkers. They exhibit permanent porosity and unprecedented surface areas which can be readily tuned through coordination chemistry at the inorganic node and/or organic chemistry at the linkers. The high porosities, tunability, and stability are highly attractive for many applications including, but not limited to, storage, separations and catalysis. Enzyme-mediated catalysis is a practical, sustainable and environmentally benign strategy for the production of industrially relevant chemicals. Advances in protein engineering have led to enzymes with enhanced catalytic performance, yet their use industrially is often hampered by the lack of long-term stability, recyclability and efficient recovery. This talk will address new advances in the synthesis, stabilization and catalytic activity of Enzyme/MOF composite materials developed at Northwestern University.

Monday, December 2\textsuperscript{nd}, 2019 11:00 a.m.
3440 Mol Sci

More information: jzabala@chem.ucla.edu