Dr. Steven Suib

“Applications of Porous Metal Oxides and Sulfide in Adsorption, Batteries, and Catalysis”

Dr. Steven Suib
Director, Institute of Materials Science Board of Trustees
Distinguished Professor
Chemistry Department, University of Connecticut

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Abstract

This presentation will focus on synthesis, characterization, and applications of novel mesoporous materials. Such mesoporous materials have crystalline walls, high thermal stability, and monomodal pore size distributions. These systems can be made for most elements throughout the periodic table. They have unique catalytic reactivity in a number of reactions including selective oxidations, total oxidations, coupling reactions, water splitting, one pot Wittig reactions, dehalogenations, and others. Some other applications include adsorbents for sulfur species, adsorption of oils and hydrophobic materials, and battery materials.