Spring 2016 Joint Colloquium
Materials Department & Materials Research Laboratory

Professor Aaron Esser-Kahn
Dept. of Chemistry
UC Irvine

Friday, April 15th, 2016
11:00 am, ESB 1001

MicroVaSCulature and Mechanically Active Polymerization for Self-Improving Materials and Carbon Capture

My group is interested in materials that improve their function upon addition of stress. I will speak on novel methodologies for allowing dynamic rearrangement of materials via polymerization and depolymerization events mediated by fluoride and siloxane reactivity. I will also describe our recent efforts to develop mechanically active methods of controlled radical polymerization as a switch to guide the arrangement and patterning of these materials. We will also talk about how these ideas can be used for carbon capture.

Bio

Aaron was born and raised in Bloomfield Hills, MI. As a high-school student, he began his interest in research at Wayne State University. He then traveled west to study chemistry at the California Institute of Technology where he worked in the Tirrell lab. After completing his degree, he traveled north to Berkeley for a PhD in chemistry as part of the Francis lab and the Chemical-Biology Program. Inspired by the work going on at Autonomous Materials Systems group at UIUC, Aaron traveled back to the Midwest to work on new materials. Aaron began his independent career at the University of California, Irvine in 2011 and has been working in two areas – synthetic approaches to vaccine design and biomimetic approaches to carbon capture.

chem.uci.edu/~esserkahngroup/

Hosted by Neil Dolinski and Will Gutekunst (Hawker Group)