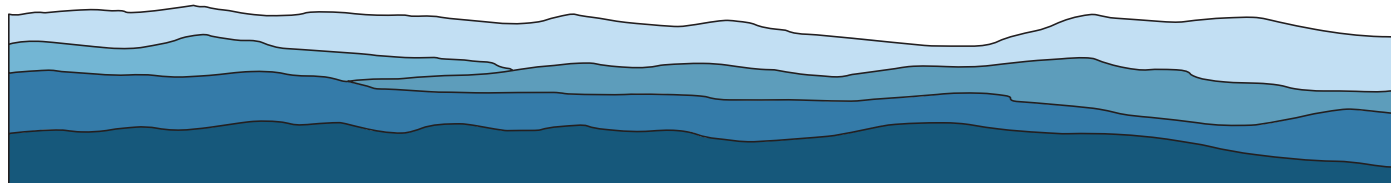


HIGHLANDS IN CHEMISTRY SEMINAR SERIES



JEFF MOORE

UNIVERSITY OF ILLINOIS, URBANA-CHAMPAIGN

“Materials Functions for Polymer Lifecycle Control”

In this talk I will discuss the molecular design of organic structural materials that mimic living systems to protect, report, heal and even regenerate themselves in response to damage, with the goal of increasing lifetime, safety and sustainability of many manufactured items. I will emphasize recent developments in frontal ring-opening metathesis polymerization (FROMP) to manufacture composites with minimal energy consumption. FROMP is an energy efficient bulk polymerization method with a traveling reaction boundary. Depending on intrinsic reactivity and boundary conditions, FROMP persists in stable and unstable modes of propagation. I will discuss opportunities for pattern generation by taking advantage of the unstable modes.

NOVEMBER 6, 2020

2:30PM

ZOOM

FACULTY HOST:
JOHN MATSON

