



LaCNS/Macromolecular Chemistry Seminar

Friday, November 22

12:30 pm

206 Williams Hall

Louisiana State University

Mesoscale Organization and Dynamics in Ionic Liquids

The impact of mesoscale organization on transport and dynamics in ionic liquids is investigated by broadband dielectric spectroscopy and dynamic mechanical spectroscopy as well as x-ray and neutron scattering techniques, complemented by computational approaches. Signatures of slow, sub- α dynamics are identified in the dynamic-mechanical and dielectric spectra and employed to probe lifetimes and dynamics of mesoscale aggregates in ionic liquids. It is found that the dynamics of mesoscale aggregates dominate many physicochemical properties such as the static dielectric permittivity and viscosity. By using mixtures of ionic liquids to tune composition-dependent evolution of the morphology, it becomes possible to realize ionic liquids with enhanced physicochemical properties that are otherwise inaccessible in neat systems. This talk will discuss the role of mesoscale organization and dynamics on macroscopic physical properties of ionic liquids.

SEMINAR SERIES 2019



Guest Speaker

**Dr.
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