**Long-term Goal:** Understand how randomly oriented grains affect transport properties of relevant species

**Current Goal:** Characterize morphology and transitions of nanostructured poly( styrene-block-2-vinylpyridine) block copolymers

**Findings:** Macro-phase of copolymer displays stable coexistent mesophases of lamellar and hexagonally cylindrical morphologies as a function of volume fraction of a selectively solvent ionic liquid