

Catalytic and Self-Assembly Routes to Soft Materials Based on Main Group Elements or Metals

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This talk will focus on recent work by ourselves and our collaborators that attempts to address synthetic challenges in two different areas with different associated length scales. The first topic involves the development of catalytic dehydrocoupling/dehydrogenation routes to inorganic analogs of polyolefins using amine-borane adducts as substrates.

The second concerns the creation of supramolecular materials with controlled architectures via living self-assembly approaches using block copolymers as building blocks. Possible applications of the new polymeric, supramolecular, and hierarchical soft materials will also be discussed.