

CHEM5550 Organolanthanide Chemistry

Course Description:

This course consists of introduction, metallocene and non-metallocene complexes of lanthanides and their applications in homogeneous catalysis. It will focus on the synthesis, structure, and reactivity of organolanthanide compounds. Similarities and differences between d- and f-block organometallic chemistry will be discussed.

Main Course Outline (for reference only):

1. Introduction
2. Organolanthanide Compounds without Cyclopentadienyl Ligand
3. Cyclopentadienyl-based Organolanthanide Compounds: Synthesis, Structure, and Reactivity
4. Carboranyl-based Organolanthanide Compounds: Synthesis, Structure, and Reactivity
5. Applications in Homogeneous Catalysis