



# Center for Integrated Catalysis Webinar Series



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## Ligand Design in Catalyst Development

**Abstract:** The importance of ligands in molecular inorganic chemistry cannot be overstated. They are an integral part of metal complexes and serve a myriad of functions, such as providing solution solubility, structural support, electronic control, chirality, and luminescence. In this webinar, I will reflect on the many ways in which ligand design played pivotal roles throughout my scientific journey, from supramolecular chemistry to synthetic protein modeling. I will suggest a workflow for starting ligand-based projects and offer practical advice on tackling common problems. To illustrate the steps involved in ligand design, I will describe my group's work on cation-tunable olefin polymerization catalysts and explain why conducting structure-activity relationship studies and adopting an iterative design approach are critical to success. Finally, I will conclude by discussing how ligand design will be important to catalyst engineering and its relevance to the work being conducted in the NSF Center for Integrated Catalysis.

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**Tuesday, November 17th 2020**

**1:00 p.m. | ZOOM**