



Houk-Jung Organic Colloquium

Searching for Selective Catalytic Reactions in Complex Molecular Environments

Abstract: This lecture will describe recent developments in our efforts to develop catalysts for asymmetric reactions, in particular for the preparation of densely functionalized, stereochemically complex structures. Over time, our foci have been on enantioselectivity, site-selectivity and chemoselectivity. In much of our current work, we are studying issues of enantioselectivity as a prelude to the extrapolation of catalysis concepts to more complex molecular settings where multiple issues are presented in a singular substrate. Mechanistic paradigms, and their associated ambiguities – especially in light of catalyst or substrate conformational dynamics – will figure strongly in the lecture, raising analogies to enzymes. Finally, several interesting – and often unexpected – collaborations with colleagues in industry will be discussed.

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4:00 PM | CS 24
& via Zoom