



Houk-Jung Organic Colloquium

Stereocontrol in Photochemical Synthesis

Abstract: Photochemistry is intriguing as a synthetic tool because the absorption of light by an organic molecule results in the formation of exceptionally energetic reactive intermediates that can react in ways that are inaccessible to ground-state molecules. However, this high reactivity is also a challenge for stereoselective synthesis: control over the stereochemistry of photochemical reactions, particularly using enantioselective catalysts, has been a long-standing challenging synthetic problem with few general solutions. We recently developed a strategy that utilizes privileged chiral Brønsted acid scaffolds to control both the absolute and relative stereochemistry of complex [2+2] photocycloadditions. These reactions have enabled a general, concise, and stereocontrolled strategy for the synthesis of the truxinate and truxillate natural products.

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Thursday, Jan 19, 2023 | 4:00 PM
Mani L. Bhaumik Collaboratory - YH 4222
Dongwon Yoo Seminar & Conference Hall

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