

化学科講演会のお知らせ

講演題目：Asymmetric Superacid Catalysis for the
Synthesis of Chiral Azacycles

講師：Professor Daniel Seidel
(University of Florida, USA)

日時：6月22日（月）15時30分より

場所：南7号館7階セミナー室

Summary: This lecture will present recent advances in the design of highly acidic chiral Brønsted acid catalysts and their application to two long-standing problems in asymmetric synthesis. A new catalyst class enables the catalytic enantioselective synthesis of 1,1-disubstituted tetrahydro- β -carbolines, products that have eluded the Pictet–Spengler field for decades when starting from simple unactivated ketones, by instead exploiting an alternative enantioselective hydroamination strategy to access these previously inaccessible scaffolds. A related catalyst platform enables the first catalytic enantioselective aza-Prins cyclization, converting simple homoallylic amines into octahydroisoquinolines and related scaffolds with high stereocontrol while overcoming persistent challenges in substrate reactivity, product inhibition, and noncovalent activation, thereby providing direct access to key intermediates for morphinan alkaloids and novel analogs. Computational models rationalizing the origin of enantioselectivity in both processes will also be discussed.

問い合わせは秋山まで