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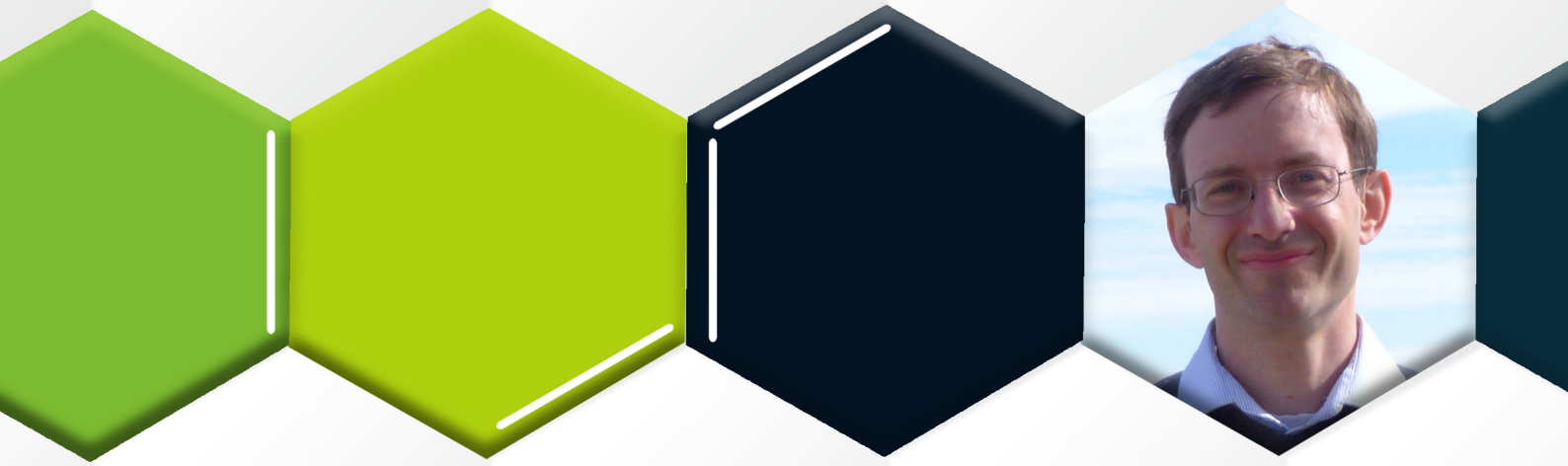
Merging Hypervalent Iodine and Photoredox Chemistry for Reaction Discovery



23 June 2021

15:00-16:00 CET
Zoom link:
https://us02web.zoom.us/j/85946790723

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The weak four-electron three-center bonds of hypervalent iodine reagents leads to the exceptional reactivity of these compounds as oxidants or atom-transfer reagents. Cyclic hypervalent iodine reagents are especially interesting, as they combine enhanced stability with unique opportunities for reactivity modulation. Recently, photoredox chemistry has been the focus of intensive investigation in synthetic chemistry. The use of visible light to generate reactive intermediates under mild conditions is especially attractive in the context of green chemistry. In this lecture, I will present how our group has merged the unique reactivity of hypervalent iodine reagents with the new opportunities offered by photoredox catalysis to discover new transformations in synthetic chemistry, ranging from the functional group conversion of biomass derived carboxylic acids and alcohols to multi-functionalization reactions of alkenes.