Rothchild Lecture

Wednesday, April 27, 12 pm

140 Hutchison Hall—Zoom Link Available

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"Base Metals in Photoredox Oxidation Reactions"

Abstract: Photocatalysis offers a uniquely facile strategy for the generation of a wide variety of open-shell intermediates, and the development of new photoredox transformations based upon their reactivity has been a major theme of research in the past decade. This broad effort has led to the development of a remarkable variety of net redox-neutral and, to a lesser extent, net-reductive transformations of significant synthetic utility. The development of net-oxidative photoredox transformations, in contrast, has been somewhat slower, due to the incompatibility of photoredox conditions with many of the terminal oxidants that are ideally suited to ground-state oxidative catalysis. We propose that simple base metal salts are inexpensive, earth-abundant, and environmentally benign terminal oxidants that readily support the one-electron oxidation state changes typical of photoredox reactions. Their incorporation into the design of photoredox reactions enable a broad range of useful net oxidative photochemical transformations.

Zoom Meeting: https://us02web.zoom.us/j/82176727664?pwd=ZEQ1dE8yWGZLZkh5WGx2RnJCOHlyZz09

Website: https://events.rochester.edu/event/chemistry_2022_rothchild_yoon

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