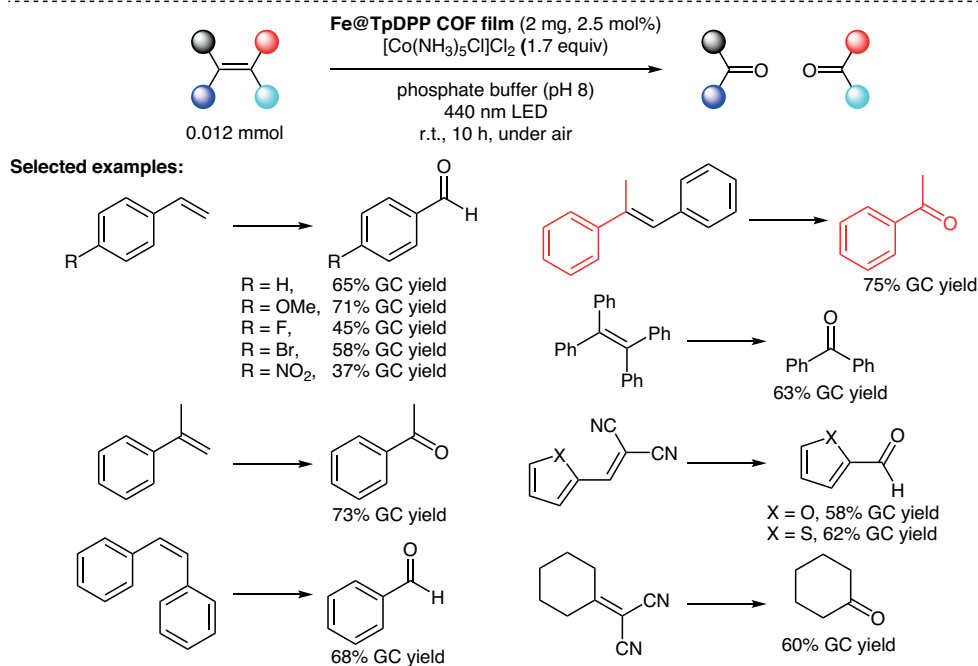
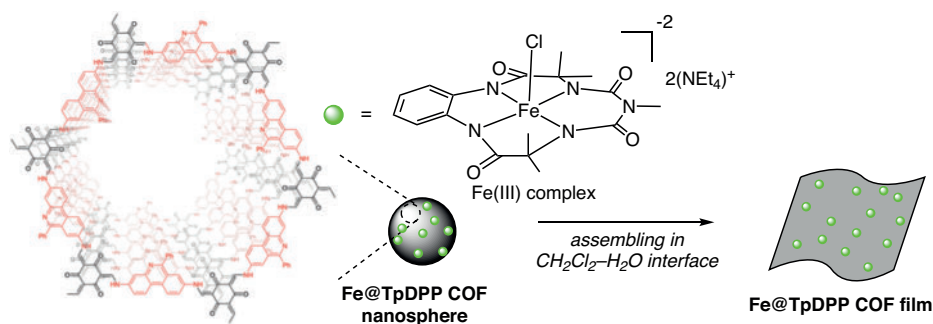


Oxidative Cleavage of Alkenes Promoted by a COF-Supported Fe Complex under Photoirradiation



Significance: Fe@TpDPP COF, where an Fe(III) complex was supported on the nanospheric COF, was reassembled to give Fe@TpDPP COF film. The latter catalyzed the aerobic oxidative cleavage of alkenes in the presence of [Co(NH₃)₅Cl]Cl₂ under visible-light irradiation to give the corresponding aldehydes and ketones in up to 75% GC yield.

Comment: The authors previously reported the preparation of Fe@TpDPP COF film and its application for photoinduced epoxidation of alkenes (*J. Am. Chem. Soc.* **2023**, 145, 18855). In the reaction of styrene, Fe@TpDPP COF film was recovered by centrifugation and reused three times without a significant loss of its catalytic activity.