

Showcasing research from Professors Yang and She's laboratory, State Key Laboratory Breeding Base of Green Chemistry-Synthesis Technology, Key Laboratory of Green Chemistry-Synthesis Technology of Zhejiang Province, College of Chemical Engineering, Zhejiang University of Technology, Hangzhou, Zhejiang 310014, China.

Synchronous and basic asynchronous hydrogen-atom abstraction of benzylic substrates by high-valent iron-oxo porphyrin species

The unsubstituted iron-oxo porphyrin reacts with unsubstituted benzylic C-H bond substrates *via* a synchronous HAT mechanism. In contrast, when an electronrich iron-oxo porphyrin reacts with electron-poor substrates, it follows a basic asynchronous HAT mechanism.







