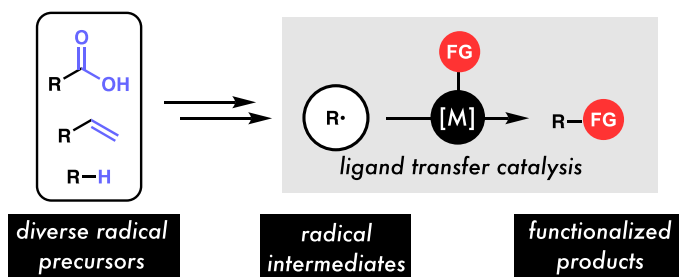


A Radical Approach to Organic Chemistry

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Synthetic chemists need ever better tools to synthesize the molecules of modern life, from life-changing pharmaceuticals to next generation materials. Further, there is increasing need for these transformations to be both step and atom efficient and sustainable, proceeding under mild conditions using earth abundant elements. Here we show how employing open shell intermediates strategically allows for challenging transformations to be achieved directly, from alkene difunctionalization to carboxylic acid deletion [1-3]. Importantly, these reactions make use of earth abundant elements and proceed under mild conditions, with many being driven by light. Together, our studies demonstrate the versatility of radical reactions to achieve challenging disconnections that are sustainable and environmentally-responsible [4].



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