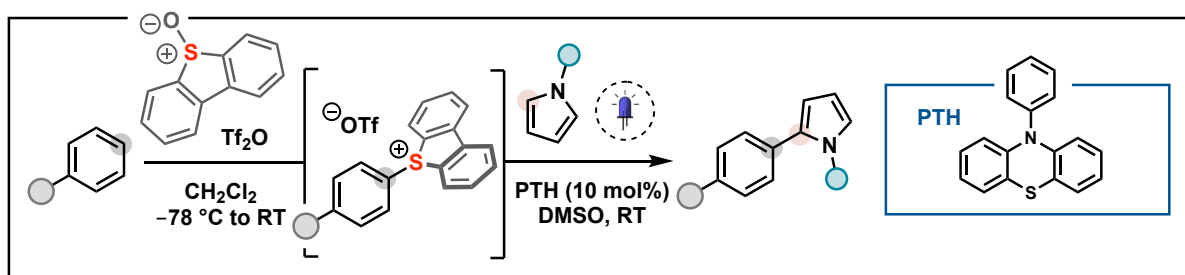


From sulfonium salts to samarium catalysis: new radical chemistry for synthesis

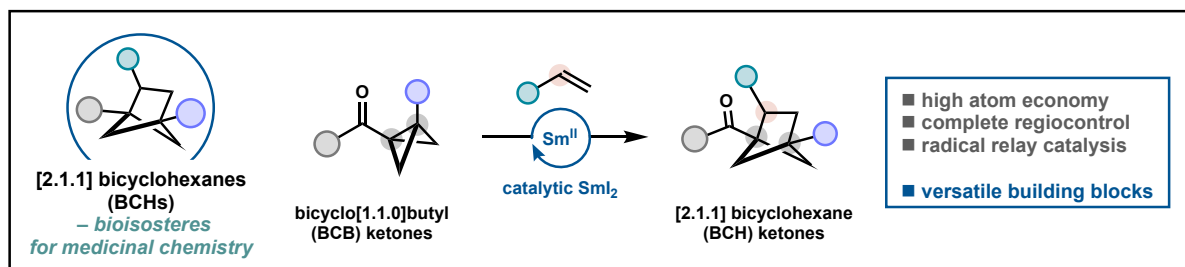
David J. Procter

Department of Chemistry, University of Manchester, Manchester, M13 9PL, UK
david.j.procter@manchester.ac.uk

Part I – Our approach to transition metal-free cross-coupling uses sulfur to replace metals in activating substrates and generating reactive intermediates for exploitation in C–C bond-formation. In particular, we will describe the exploitation of *in situ* generated aryl sulfonium salts in photocatalytic¹ and photochemical² coupling processes involving aryl radicals.



Part II – Samarium(II) iodide is one of the most widely-used single electron transfer reductants in chemistry. We will describe our recent studies on catalysis with SmI₂^{3,4} and its application in a catalytic approach to bioisostere synthesis.⁵



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