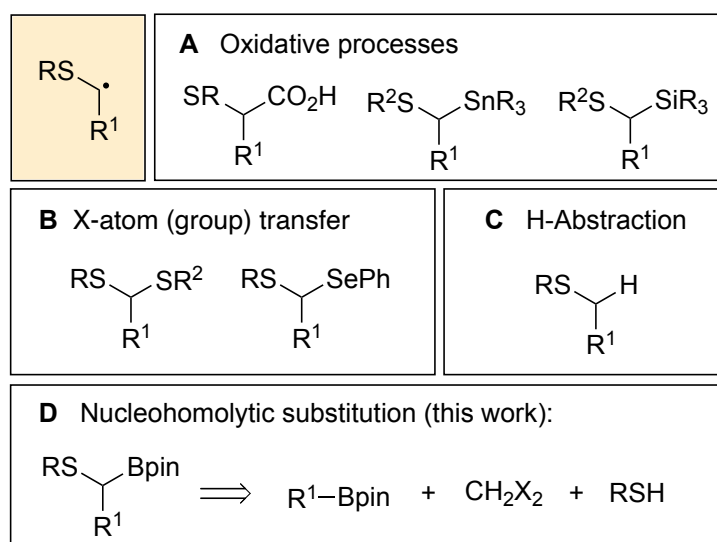


Generation of 1-thioalkyl radicals from pinacol boronic ester precursors

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Over the last decades, the generation of 1-thioalkyl radicals has emerged as a powerful strategy for functionalization of thioethers, which represent important structural components of natural and biologically active compounds.¹ For example, the generation of 1-thioalkyl radicals by oxidative processes,² X-atom transfer³ and H-abstraction⁴ has been well established.



Scheme 1. Generation of 1-thioalkyl radicals.

Organoboron derivatives have proven over the years to be an efficient source of alkyl radicals.⁵ Herein, we report a novel protocol for the generation of 1-thioalkyl radicals starting from 1-thioalkyl pinacol boronic ester precursors, readily prepared by Matteson homologation of commercially available boronic esters and subsequent 1,2-metalate shift with diverse sodium thiolates.

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