

Thesis Title	Samarium Iodide Mediated Reduction of α -Chloro β -Hydroxy Phenyl Sulfoxide Derivatives
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Date of Graduation	2 November B.E. 2538 (1995)

ABSTRACT

Samarium(II) iodide mediated reactions and its applications in synthetic organic chemistry are of interest in current research topics. It has been proved to be a powerful one-electron reducing agent to mediate various kinds of reduction reactions such as cleavage of carbon-heteroatom bonds, reductive coupling reactions, ring opening reactions and deoxygenation reactions.

Samarium(II) iodide in THF was successfully utilized as a reagent to induce eliminative deoxygenation reaction of α -chloro- β -hydroxy phenyl sulfoxide derivatives to afford vinyl sulfides in moderate to high yields. Addition of HMPA to the reaction seemed to accelerate the reducing power of samarium(II) iodide, and higher yields of vinyl sulfides were achieved as shown in **Scheme I**.

Scheme I

