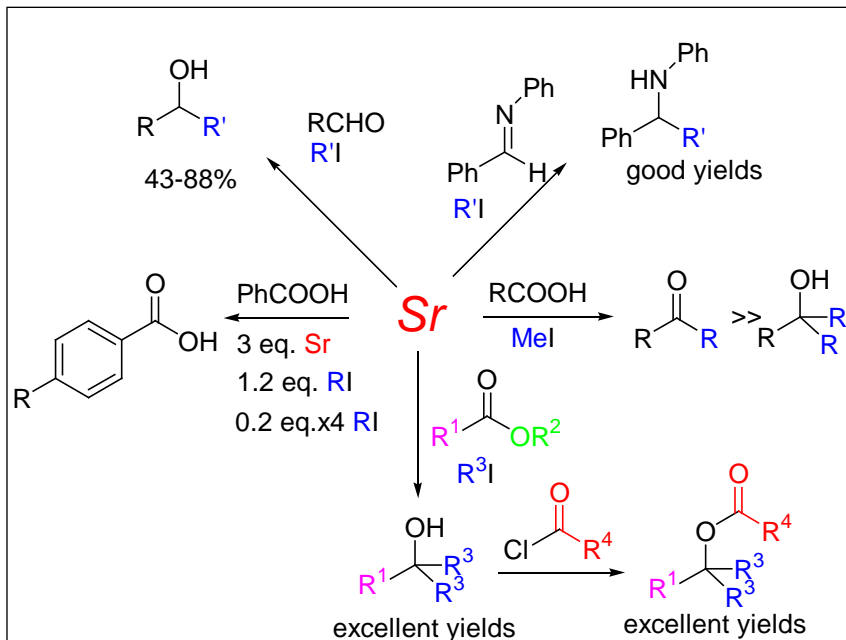




# Study on the Sr-mediated New Synthetic Methods

## Professor Ph, D Norikazu Miyoshi



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Organometallic compounds are some of the most versatile reagents in organic synthesis and among them are organometallic compounds of alkaline-earth elements. However, few studies on the preparation and reactivity of organostrontium compounds were found in the literature<sup>1</sup> outside our study. We have been investigating synthetic reactions using strontium compounds and have reported that the alkylation of aldehydes or imines with alkyl iodides<sup>1,2</sup> and dialkylation of esters with alkyl iodides<sup>3</sup> proceeded smoothly using metallic strontium to afford the corresponding adducts in good yields. Moreover, various esters reacted with metallic strontium and alkyl iodides to give dialkylated products, followed by adding acid chlorides or acid anhydrides to afford the corresponding bulky *tert*-alcohol esters in good yields.<sup>6</sup> Furthermore, aliphatic carboxylic acids reacted with methyl iodide to give the corresponding methyl ketones in moderate to good yields, and benzoic acid proceeded to obtain the unexpectedly *p*-alkylated adducts in good yields.

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E-mail: <miyoshi@ias.tokushima-u.ac.jp>

Tel. <+81-88-656-7250>

Fax: <+81-88-656-7250>