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Catalog # 62-3100 Samarium(II) iodide, 0.1M in THF

Technical Note:

1. Sml₂ has been used extensively in literature due to its large reduction potential. Known as a single-electron transfer reagent.

$$R-X \xrightarrow{Sml_2} \begin{bmatrix} R \bullet \end{bmatrix} \xrightarrow{Sml_2} \begin{bmatrix} R-Sml_2 \end{bmatrix} \xrightarrow{further chemistry}$$
further chemistry
$$R^1 \xrightarrow{R^2} R^2 \xrightarrow{R^1 \bullet R^2} R^2 \xrightarrow{gml_2} R^1 \xrightarrow{gml_2} R^2$$
 further chemistry

References:

- 1. Chem. Rev., 1996, 96, 307. (review)
- 2. Tetrahedron, 1998, 54, 3321.
- Org. React., 1994, 46, 211.
 Tetrahedron, 2003, 59, 10351. (review)
- Chem. Rev., 2004, 104, 3371. (review)
 Angew. Chem. Int. Ed., 2009, 48, 7140. (review)
- 7. Chem. Soc. Rev., 2004, 33, 599. (review)