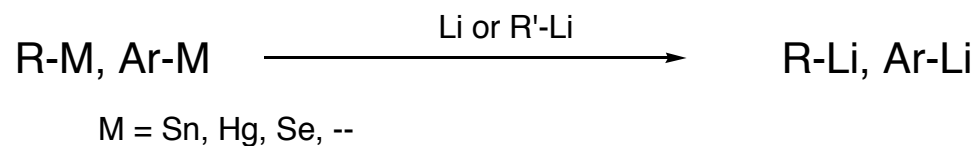
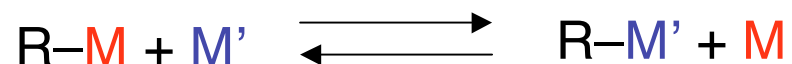


From R-Met., Ar-Met.

• Metal-Metal Exchange

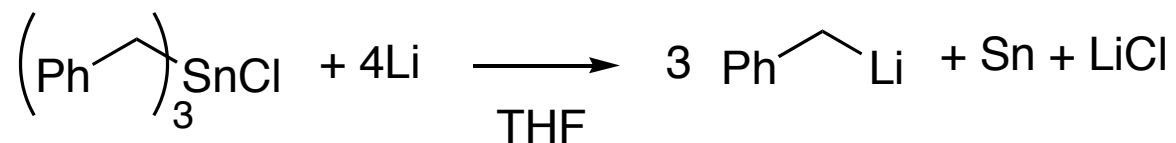


1) 有機金属と金属の直接反応

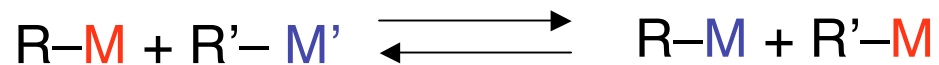


電気陰性度 $\text{M}' < \text{M}$

M' による RM の 1 電子還元



2) 有機金属と金属の直接反応

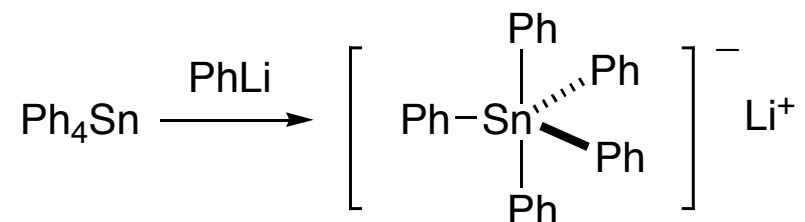


生成系が熱力学的に安定

$\textcolor{red}{SnR}_3, \textcolor{red}{BR}_2, \text{etc.}$

$\textcolor{blue}{Li}, \textcolor{blue}{ZnR}, \textcolor{blue}{CuR(CN)Li}_2, \text{etc.}$

$RX + R'M$ の場合と同様にhypervalent ate complex経由



Reaction rate (in THF -70°C)

