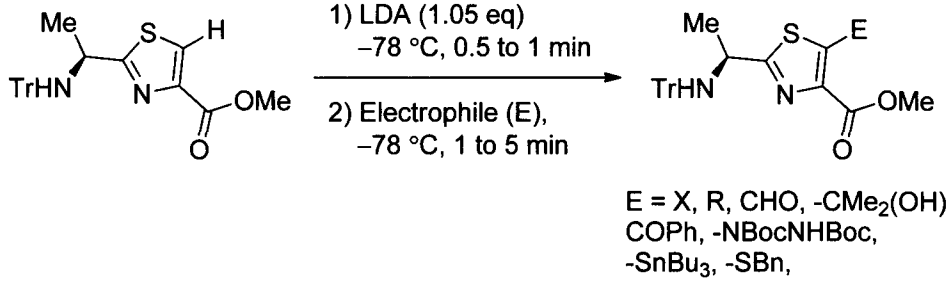
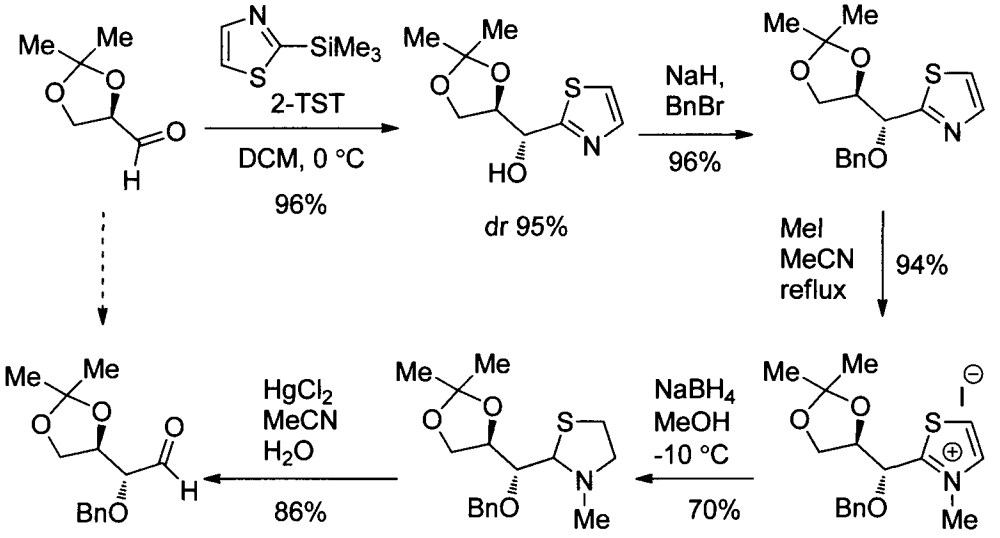
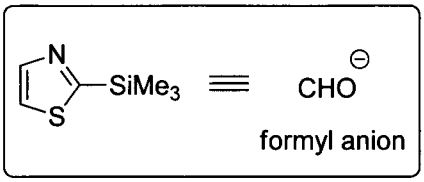


Taunton and co-workers have reported a one-step racemization free organolithium-mediated diversification of peptide thiazoles.[43] A mild procedure for the C5 lithiation of 2,4-disubstituted thiazoles has been described in this report, and an example is shown below. The method is compatible with *N*-Boc, *N*-trityl, carboxylic ester, and carboxamide protecting groups and has been used to functionalize directly the thiazole ring of cyclopeptide natural products.





A key feature of the thiazole deprotonation chemistry is its potential as a latent formyl group in the assembly of tightly functionalized, chiral molecular architecture. The use of 2-(trimethylsilyl) thiazole (TST) as a formyl anion equivalent has been well investigated and popularized by