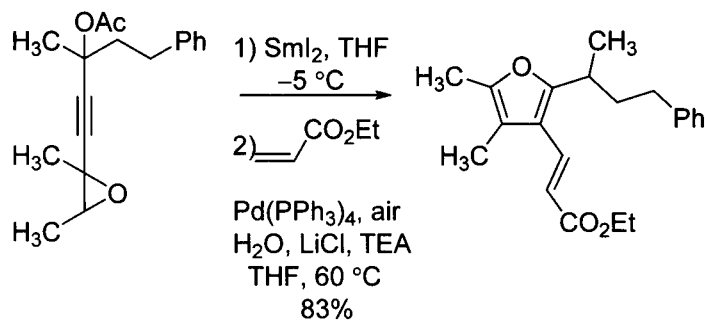


highly functionalized tetrasubstituted furans.⁵² Treatment of a functionalized epoxy-propargyl ester with samarium(II) iodide, followed by palladium-catalyzed cycloisomerization/conjugate addition yielded the desired tetrasubstituted furan in high yield. Several additional examples were reported with yields between 20% and 80%.



Ring-closing metathesis (RCM) has also been employed in the synthesis of substituted furans. Donohoe and co-workers used a ring-closing metathesis strategy to form the furan moiety of (-)-(Z)-deoxypukalide,⁵³ a compound from the family cembranolides, which have been shown to exhibit neurotoxicity and anti-inflammatory properties. Treatment of a mixed acetal with Grubbs' II catalyst, followed by *in situ* aromatization with PPTS, yielded the disubstituted furan in 85% yield over two steps. Seven additional steps were required to reach of (-)-(Z)-deoxypukalide.

