

Abstract

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Title of Thesis: Reduction of electron-deficient dendralenes by hydride reagents

This diploma thesis is focused on the preparation of electron-deficient [3]dendralenes containing electron withdrawing groups such as carbonyl and ester functionalities. The synthesis is based on a palladium-catalyzed Migita-Stille coupling between stannylated diene and iodinated alkene (cycloalkene).

Subsequent reaction of these substituted [3]dendralenes with hydride anion leads to a 1,2- or 1,4-addition to the α , β -unsaturated carbonyl group, resulting in the formation of an enolate or alcoholate, which are further transformed to various products depending on the type of the [3]dendralene.