

Towards the core structure of Strychnos alkaloids using samarium diiodide-induced reactions of indole derivatives.

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Abstract

This report describes the development of a first and second generation approach towards the synthesis of the ABCEG pentacyclic core structure of Strychnos alkaloids. First, we discuss a sequential approach applying a series of functional group transformations to prepare suitable precursors for cyclization reactions. These include attempts of samarium diiodide-induced cyclizations or a Barbier-type reaction of a transient lithium organyl, which successfully led to a tetracyclic key building block earlier used for the synthesis of strychnine. Secondly, we account our first steps towards the development of an atom-economical samarium diiodide-induced cascade reaction using

Involved units

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