

Abstract

The subject of this work is the preparation of multiple chiral triazole-derived conjugate acids of *N*-heterocyclic carbenes (NHC), a class of covalent organocatalysts used in many stereoselective transformations. The NHC conjugate acids in question were prepared in the form of triazolium salts by multi-step syntheses starting from readily available natural compounds.

The prepared chiral triazolium salts were used as pre-catalysts in a chosen enantioselective spiroannulation reaction between a benzofuranone derivative and an α -bromoal compound. Additionally, an alternative oxidative approach to the key azolium-dienolate intermediate was explored.