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An Approach to the Diastereoselective Synthesis of Cyclohexane-1,3-dicarboxamide Derivatives via a Pseudo Five-Component -Reaction Based on Diketene

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Abstract

A one-pot pseudo five-component reaction for the synthesis of 2-aryl-4-hydroxy-4-methyl-6-oxo-N 1,N 3-dialkylcyclohexane-1,3-dicarboxamide derivatives involving different primary amines, various aromatic aldehydes, and diketene in the presence of triethylamine with high yields is achieved.

Keywords: diketene, cyclohexanone, multicomponent reaction, one-pot reaction, diastereoselective synthesis