



Chemoenzymatic total synthesis of cryptocaryalactone natural products

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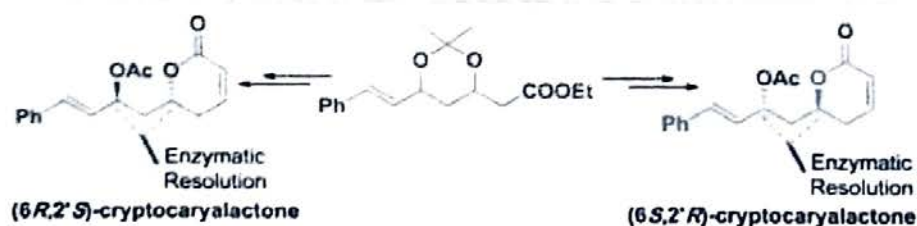
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Abstract

A new chemoenzymatic route for the preparation of cryptocaryalactones natural products using a kinetic resolution process as the key step is described. Novozyme-435 catalyzed hydrolysis of the prochiral ($\pm$)-monoester **7** afforded the precursors of cryptocaryalactones with high enantiomeric excess and excellent yields. The compounds (4*S*,6*S*)-**7** and (4*R*,6*R*)-**7** were converted to (+)-(6*R*,2'*S*)-cryptocaryalactone (**1**) and (–)-(6*S*,2'*R*)-cryptocaryalactone (**2**), respectively by employing Wittig-olefination, lactonization and acylation reactions.

Graphical abstract



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