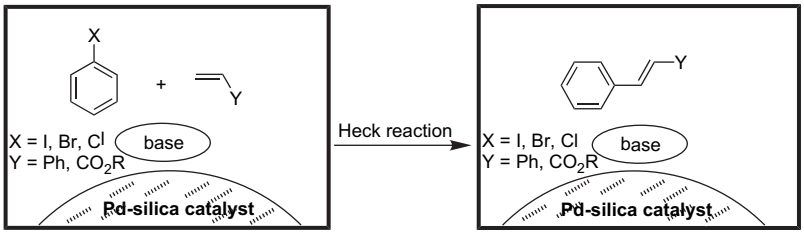
ELSEVIER

Tetrahedron

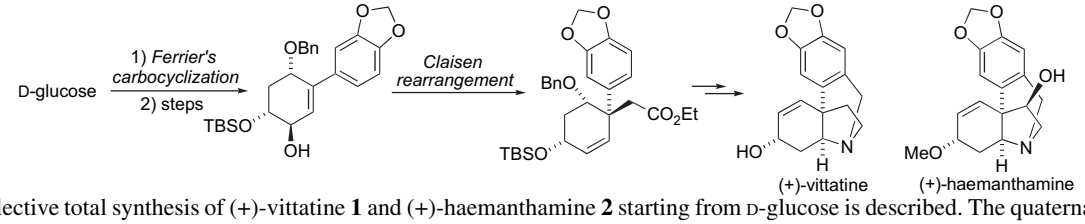
Tetrahedron Vol. 63, No. 30, 2007

Contents

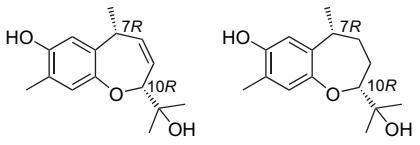
REPORT

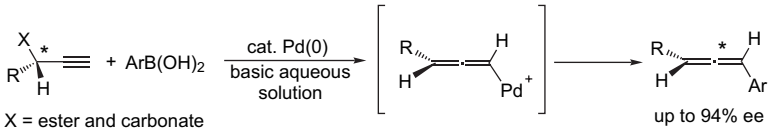


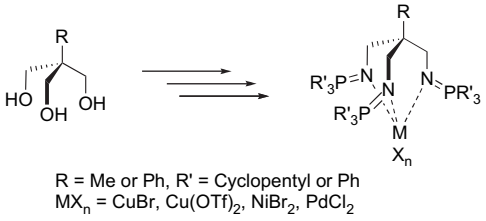
ARTICLES

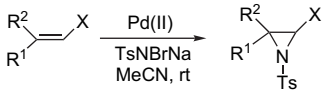


The stereoselective total synthesis of (+)-vittatine **1** and (+)-haemanthamine **2** starting from D-glucose is described. The quaternary carbons in **1** and **2** were stereoselectively generated via chirality transfer by way of Claisen rearrangement of cyclohexenol, prepared in an optically active form from D-glucose using Ferrier's carbocyclization reaction. The hexahydroindole skeleton was constructed by intramolecular aminomercuration–demercuration, followed by Chugaev reaction.

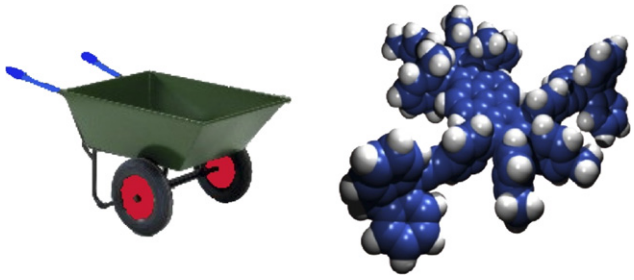


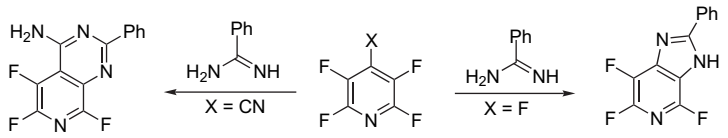


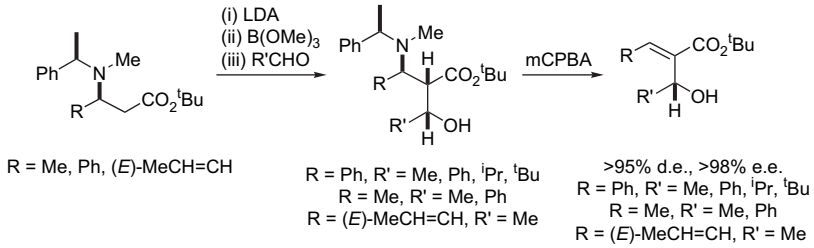




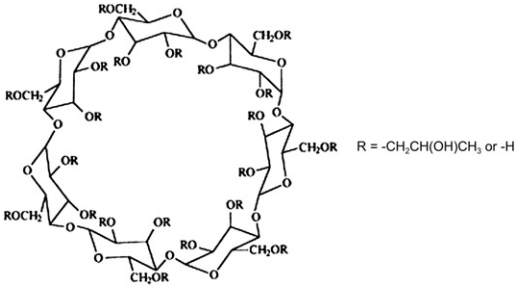
A simple method is described for the palladium(II) mediated aziridination of a broad range of olefins using bromamine-T as the nitrogen source.

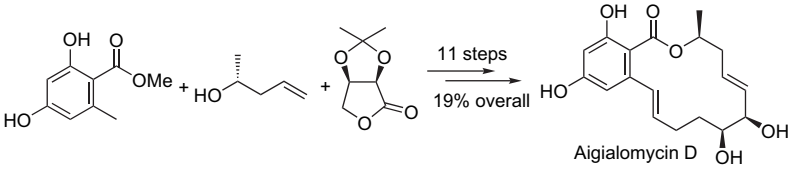


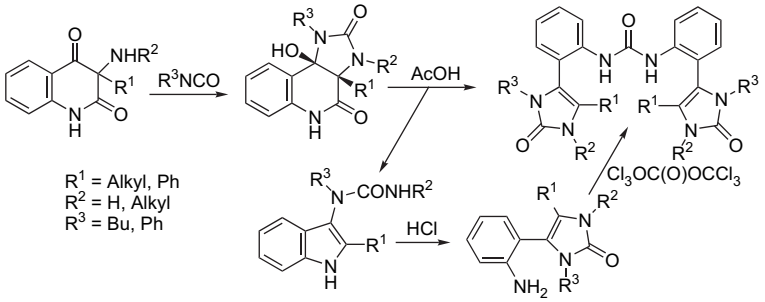


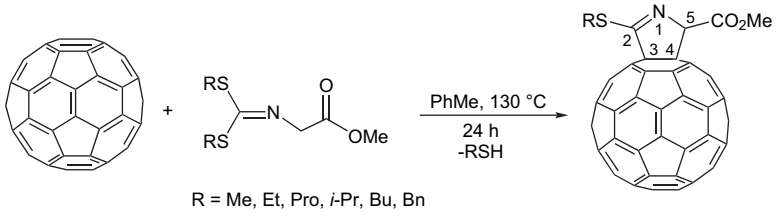


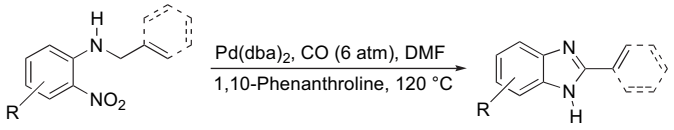
The conjugate addition of lithium (*R*)-*N*-methyl-*N*-(α-methylbenzyl)amide, followed by an asymmetric aldol reaction and subsequent tandem N-oxidation and Cope elimination affords homochiral β-substituted Baylis–Hillman products in good yield.

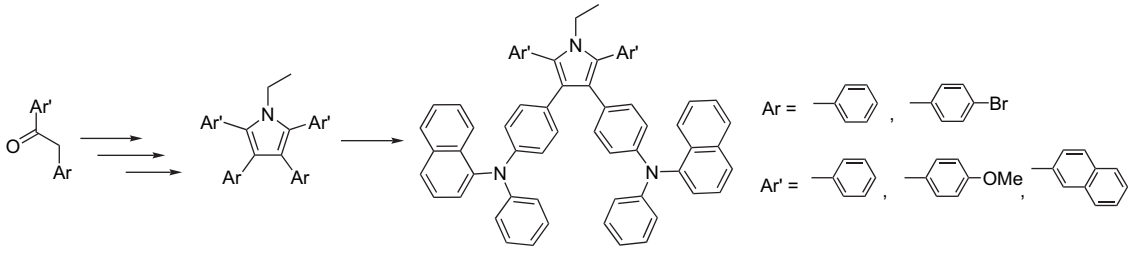


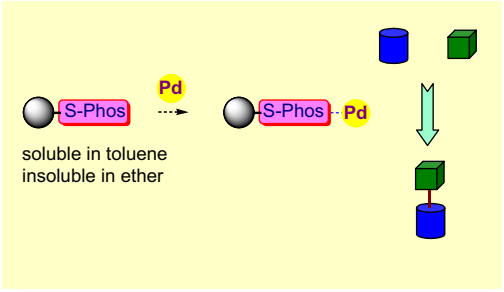


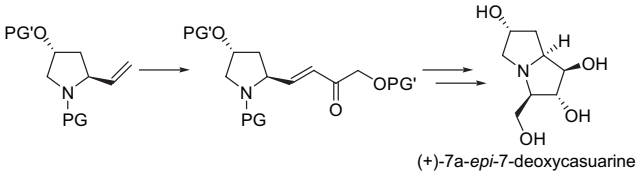


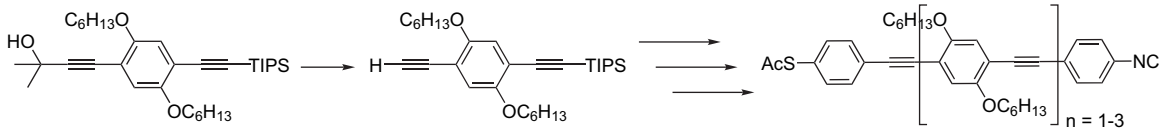


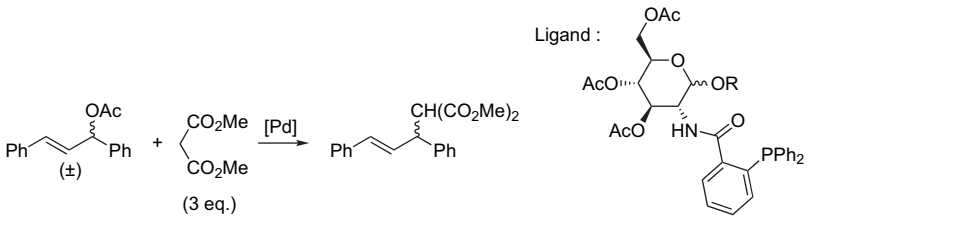


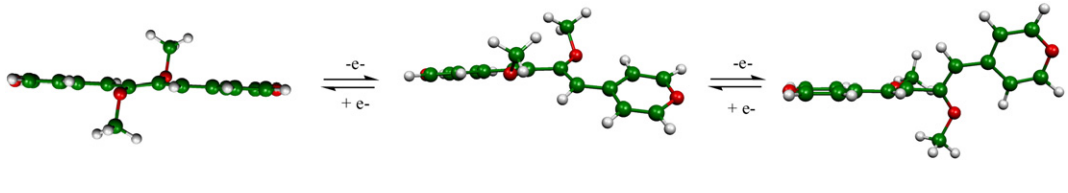


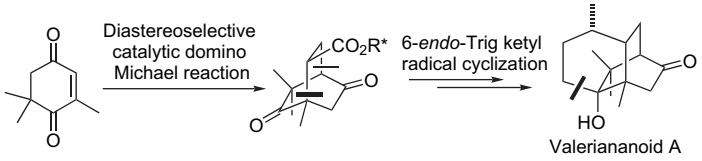


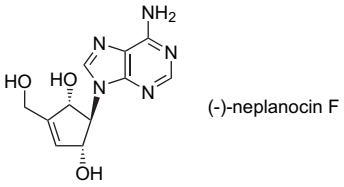


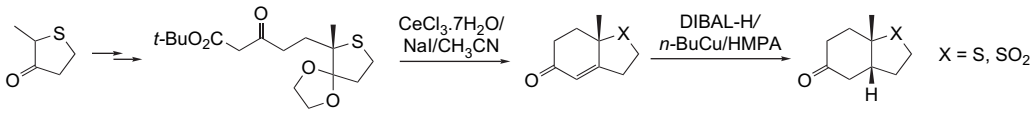


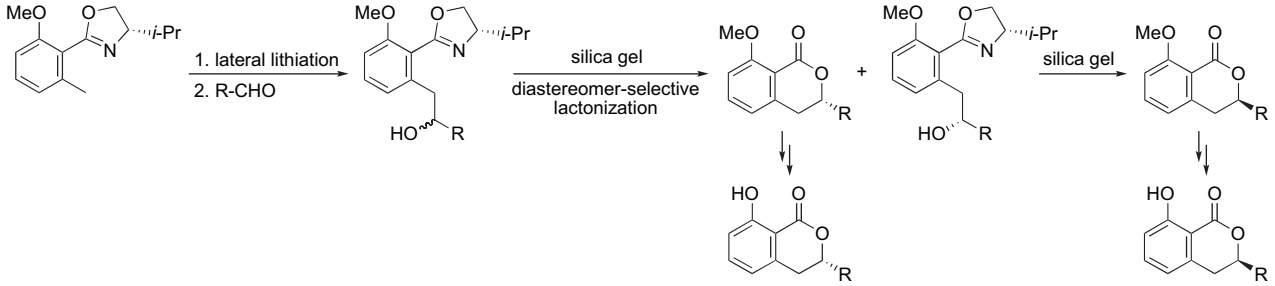


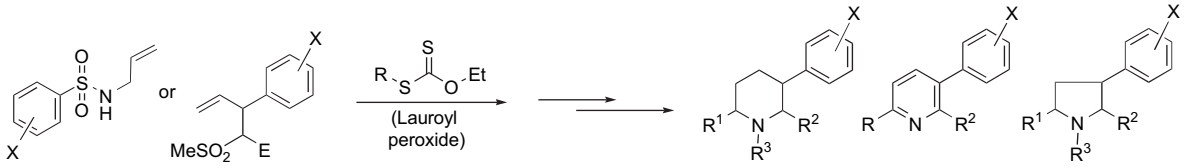


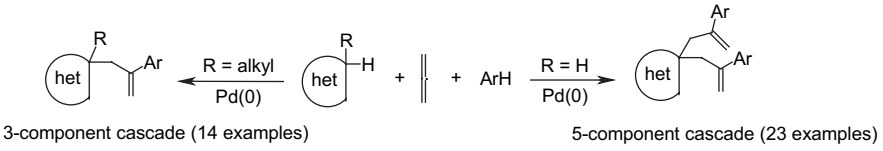


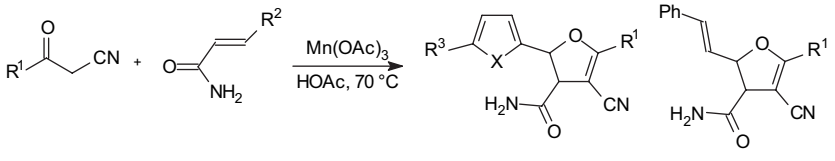


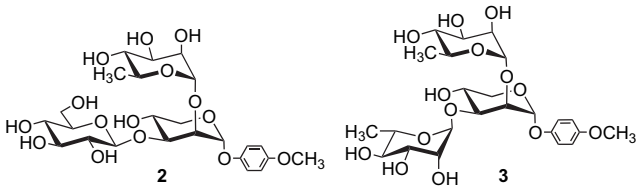


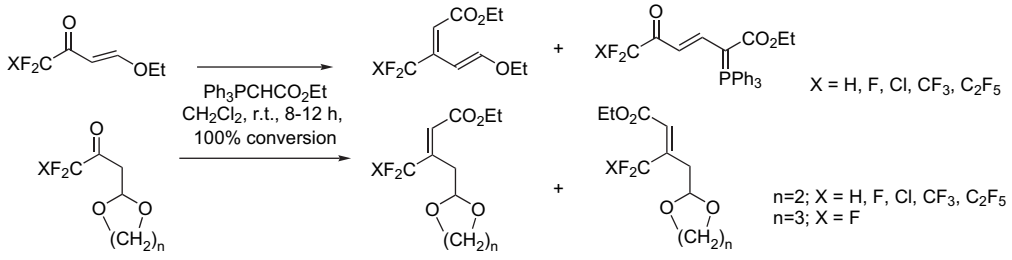


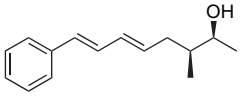




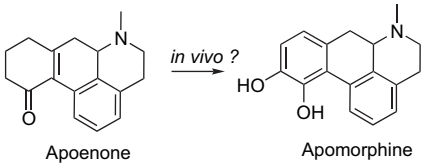








The paper describes the isolation, structure elucidation and synthesis of a unique class of phenyloctanoids featuring the organic extracts of the mollusc. Absolute stereochemistry is secured by stereoselective synthesis.



*Corresponding author
Supplementary data available via ScienceDirect

COVER

This article describes the synthesis of two polyaromatic hydrocarbons designed by analogy with macroscopic wheelbarrows. The molecular wheelbarrows are synthesized following a modular strategy based on sequential double Knoevenagel and Diels–Alder reactions. Our strategy allowed to easily vary the chemical nature of the handles, which is crucial for subsequent manipulation with an STM tip. *Tetrahedron* **2007**, *63*, 7018–7026.

Abstracted/indexed in: AGRICOLA, Beilstein, BIOSIS Previews, CAB Abstracts, Chemical Abstracts. Current Contents: Life Sciences, Current Contents: Physical, Chemical and Earth Sciences, Current Contents Search, Derwent Drug File, Ei compendex, EMBASE/Excerpta Medica, Medline, PASCAL, Research Alert, Science Citation Index, SciSearch. Also covered in the abstract and citation database SCOPUS®. Full text available on ScienceDirect®

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