

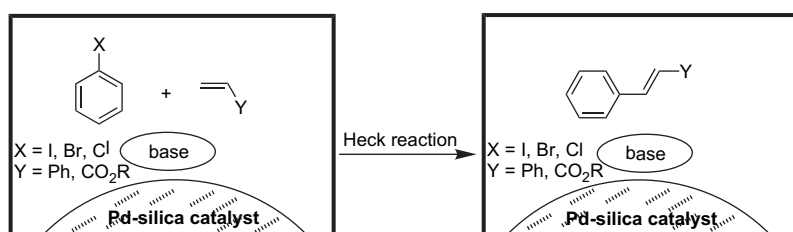
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REPORT

Silica-supported Pd catalysts for Heck coupling reactions

Vivek Polshettiwar\* and Árpád Molnár\*

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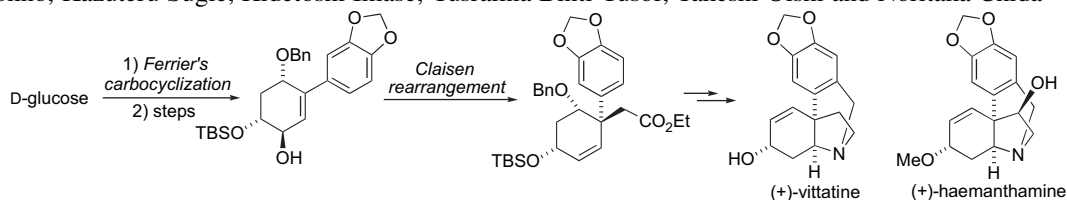


ARTICLES

Total synthesis of Amaryllidaceae alkaloids, (+)-vittatine and (+)-haemanthamine, starting from D-glucose

Masahiro Bohno, Kazuteru Sugie, Hidetoshi Imase, Yusralina Binti Yusof, Takeshi Oishi and Noritaka Chida\*

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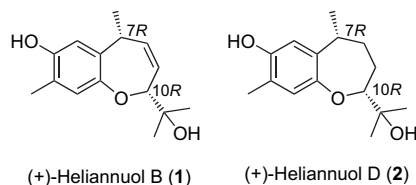


The stereoselective total synthesis of (+)-vittatine **1** and (+)-haemanthamine **2** starting from D-glucose is described. The quaternary carbons in **1** and **2** were stereoselectively generated via chirality transfer by way of Claisen rearrangement of cyclohexenol, prepared in an optically active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

Asymmetric syntheses of heliannuols B and D

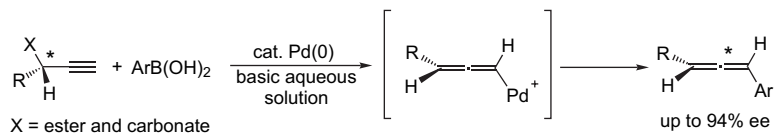
Jiyong Zhang, Xiaolei Wang, Wenkuan Wang, Weiguo Quan, Xuegong She\* and Xinfu Pan\*

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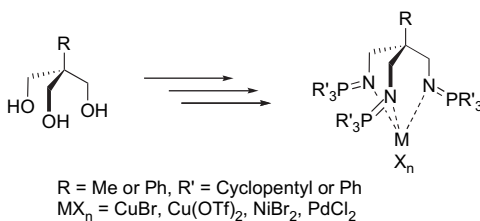


**Enantiospecific synthesis of 1,3-disubstituted allenes by palladium-catalyzed coupling of propargylic compounds with arylboronic acids** pp 6996–7002

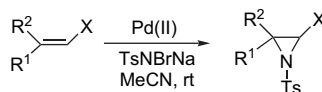
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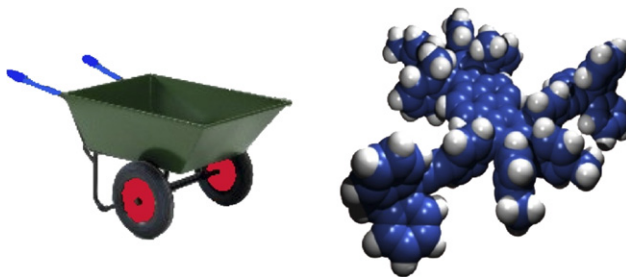
Alexandra M. M. Antunes, Vasco D. B. Bonifácio, Susana C. C. Nascimento, Ana M. Lobo, Paula S. Branco\* and Sundaresan Prabhakar



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**Molecular machines: synthesis and characterization of two prototypes of molecular wheelbarrows** pp 7018–7026

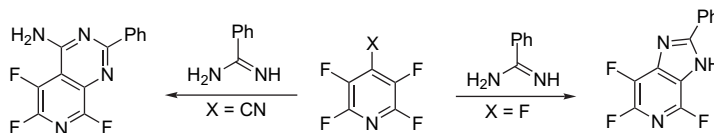
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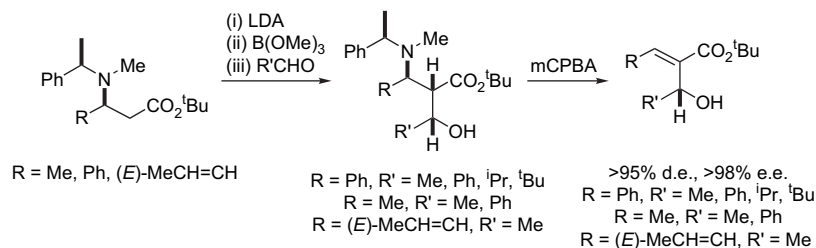
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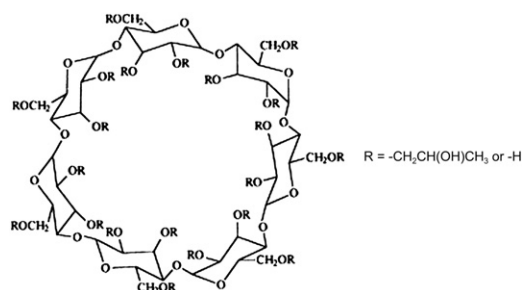
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The conjugate addition of lithium (*R*)-*N*-methyl-*N*-( $\alpha$ -methylbenzyl)amide, followed by an asymmetric aldol reaction and subsequent tandem *N*-oxidation and Cope elimination affords homochiral  $\beta$ -substituted Baylis–Hillman products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

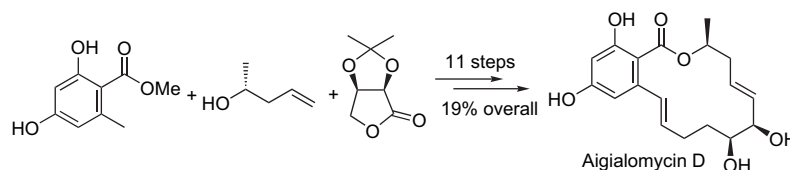
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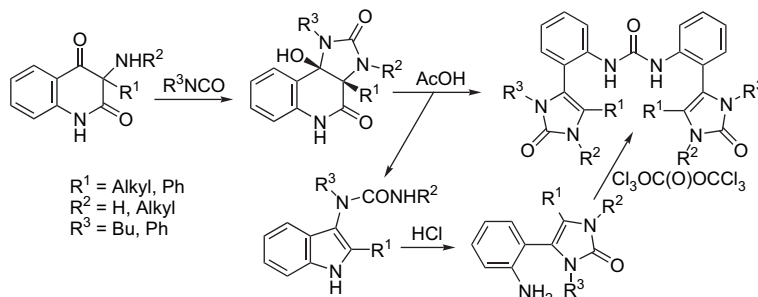
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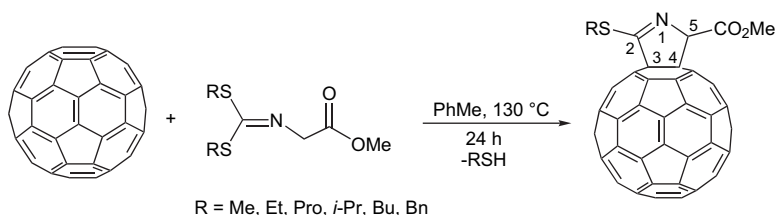
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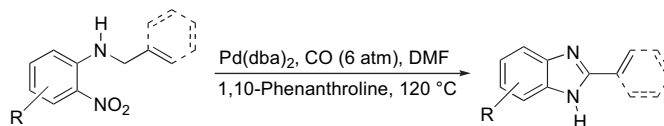
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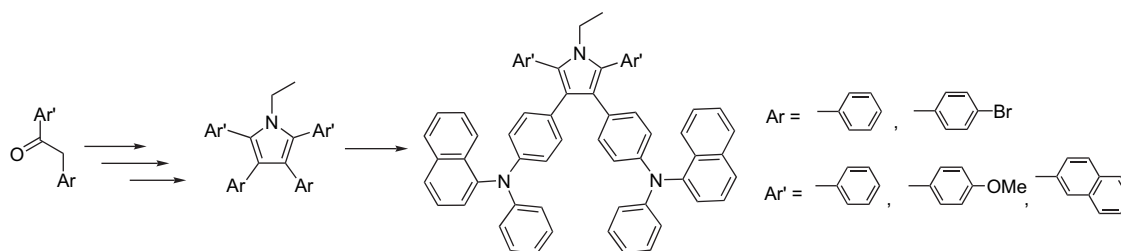
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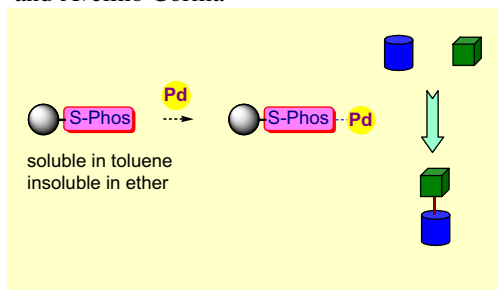
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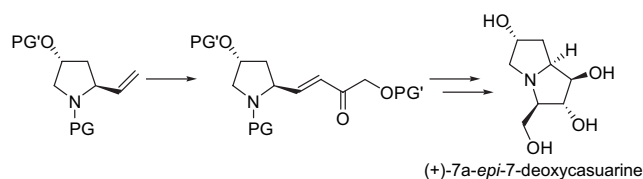
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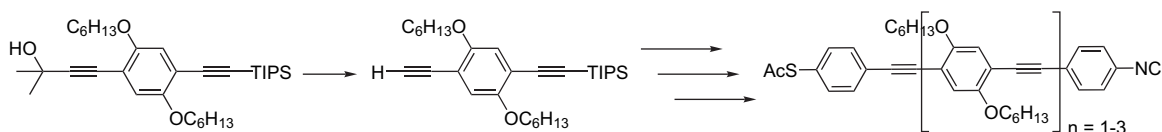
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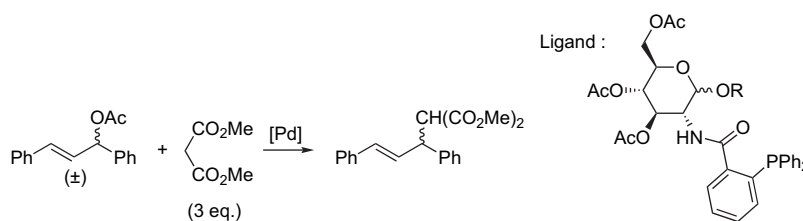
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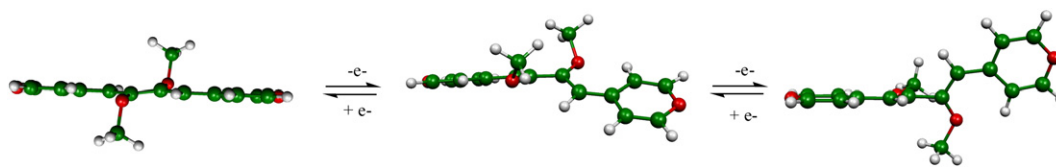
OR =  $\alpha$ -OAc,  $\beta$ -OAc,  $\alpha$ -OMe,  $\beta$ -OMe,  $\alpha$ -OBn,  $\beta$ -OBn



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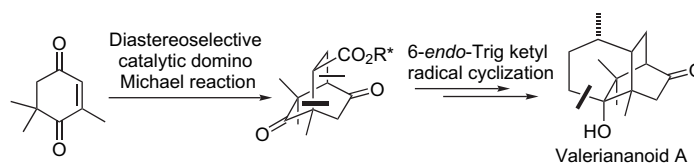
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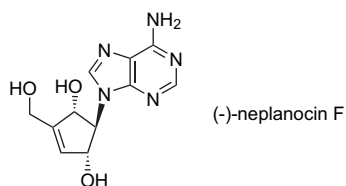
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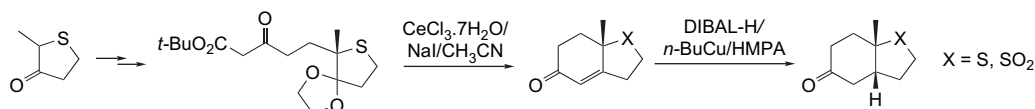
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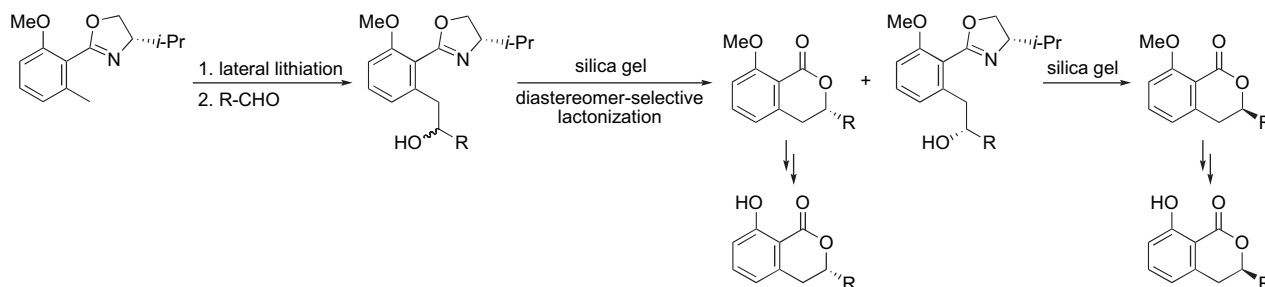
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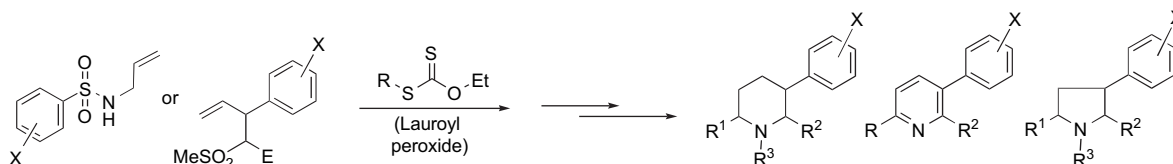
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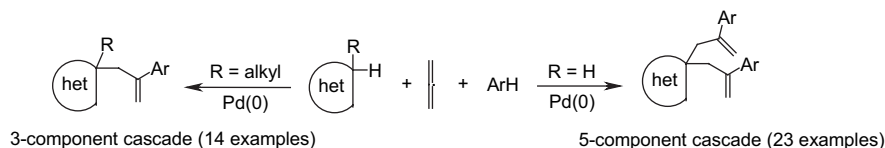
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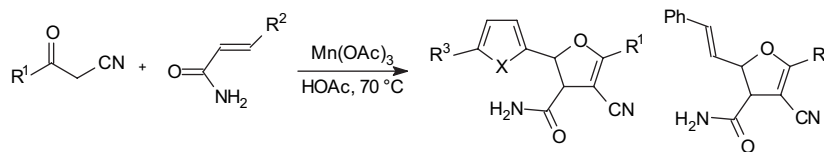
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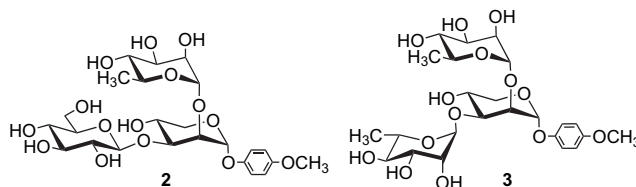
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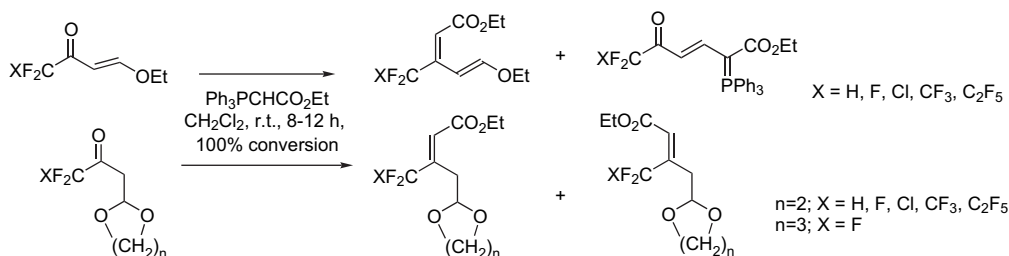
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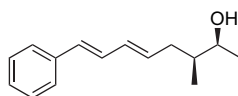
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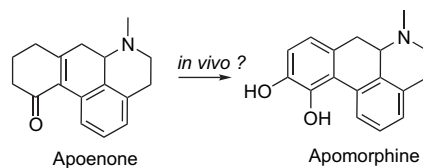
Giorgio Della Sala, Adele Cutignano, Angelo Fontana,\* Aldo Spinella,\* Gianpiero Calabrese, Anna Domenech Coll, Giuliana d'Ippolito, Carmela Della Monica and Guido Cimino



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.


**Synthesis of supposed enone prodrugs of apomorphine and *N*-propyl-norapomorphine** pp 7264–7270

Danyang Liu, Bastiaan J. Venhuis, Håkan V. Wikström and Durk Dijkstra\*





\*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.

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ISSN 0040-4020