



## Tetrahedron Vol. 65, Issue 42, 2009

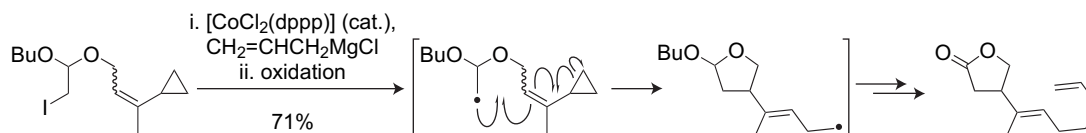
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## REPORT

## Radicals in organic synthesis. Part 1

Gareth J. Rowlands

pp 8603–8655



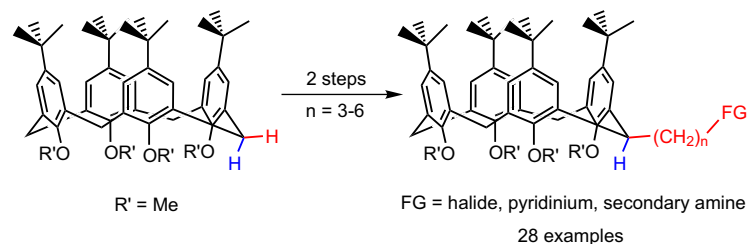
This report offers the first part of a two part overview of recent advances in radical reactions in organic synthesis. It includes an introduction to common radical reagents and outlines the use of radicals in intermolecular additions. The report includes over 300 references.

## ARTICLES

Synthesis of amine, halide, and pyridinium terminated 2-alkyl-*p*-*tert*-butylcalix[4]arenes

Matthew P. Hertel, Andrew C. Behrle, Samantha A. Williams, Joseph A.R. Schmidt\*, Jordan L. Fantini\*

pp 8657–8667

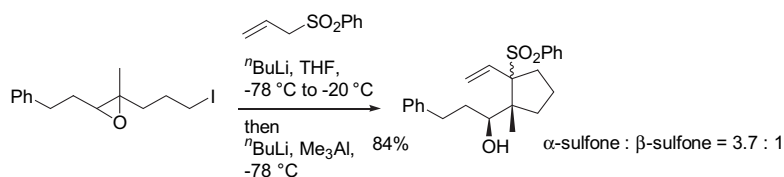


Calix[4]arenes that have been mono-lithiated at a methylene bridge react with 1, $\omega$ -bromochloroalkanes to give 2-( $\omega$ -chloroalkyl)-calix[4]arenes. Subsequent reactivity of these species has allowed for successful synthesis of 2-( $\omega$ -iodoalkyl)-calix[4]arenes, 2-( $\omega$ -pyridiniumalkyl)-calix[4]arenes, and 2-( $\omega$ -aminoalkyl)-calix[4]arenes.

**Stereocontrolled one-pot synthesis of cycloalkane derivatives possessing a quaternary carbon using allyl phenyl sulfone**

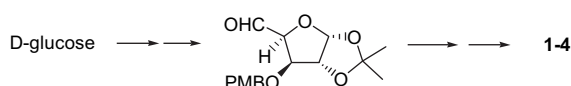
pp 8668–8676

Koichiro Ota, Takao Kurokawa, Etsuko Kawashima, Hiroaki Miyaoka\*

**A facile approach towards synthesis of verbalactone and biologically active  $\delta$ -lactones using D-glucose**

pp 8677–8682

Ashish Garg, Vinod K. Singh\*

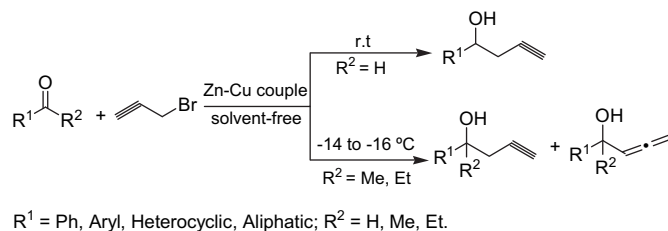


A general synthetic approach has been developed for the asymmetric synthesis of chiral  $\delta$ -lactones and verbalactone using D-glucose. The key intermediate used in this approach was  $\alpha$ -diazoketone.

**One-pot, solvent-free regioselective addition reactions of propargyl bromide to carbonyl compounds mediated by Zn–Cu couple**

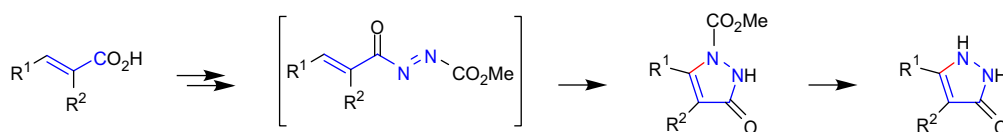
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Xiaofang Ma, Jin-Xian Wang\*, Shunxi Li, Ke-Hu Wang, Danfeng Huang

**A simple approach to pyrazol-3-ones via diazenes**

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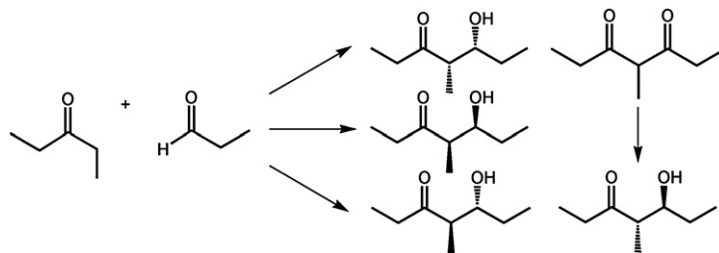
Bojan Burja, Marijan Kočevar, Slovenko Polanc\*



**Synthesis of all four stereoisomers of 5-hydroxy-4-methyl-3-heptanone using plants and oyster mushrooms**

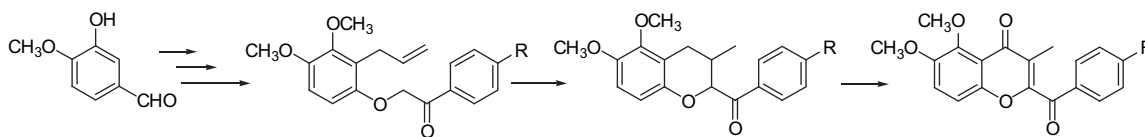
pp 8697–8701

Björn Bohman, C. Rikard Unelius\*

**Synthesis of substituted 2-aryl-3-methylchromen-4-ones from isovanillin via 2-aryl-3-methylchroman intermediates**

pp 8702–8707

Sie-Rong Li, Chung-Jung Shu, Liang-Yeu Chen, Hsing-Ming Chen, Po-Yuan Chen, Eng-Chi Wang\*

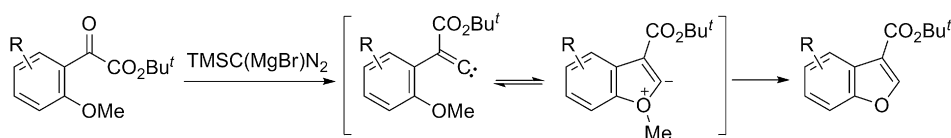


Intermediate 2-aryl-3-methylchromans prepared from isovanillin through a carbanion-olefin 6-*endo-trig* cyclization reaction were oxidized with DDQ to yield the title compounds, in good over-all yields.

**Facile synthesis of 2-unsubstituted benzofuran-3-carboxylates using diazo(trimethylsilyl)methylmagnesium bromide**

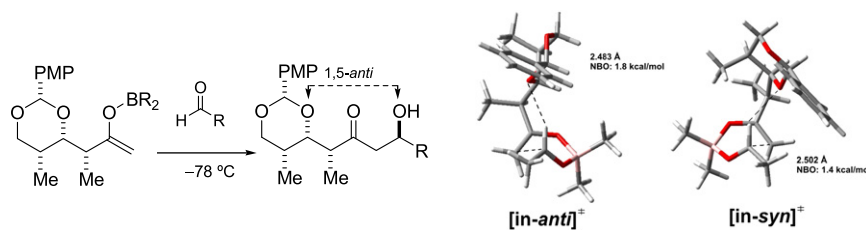
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Yoshiyuki Hari\*, Ryosuke Kondo, Koji Date, Toyohiko Aoyama\*

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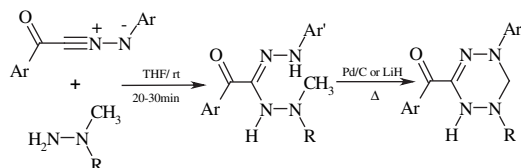
Luiz C. Dias\*, Sávio M. Pinheiro, Vanda M. de Oliveira, Marco A.B. Ferreira, Cláudio F. Tormena, Andrea M. Aguilar, Julio Zukerman-Schpector, Edward R.T. Tiekink



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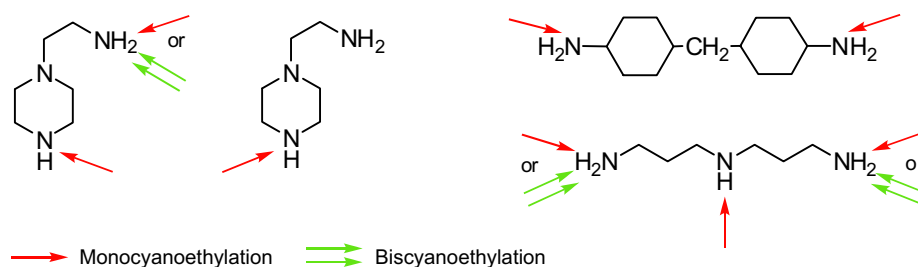
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Hany M.M. Dalloul

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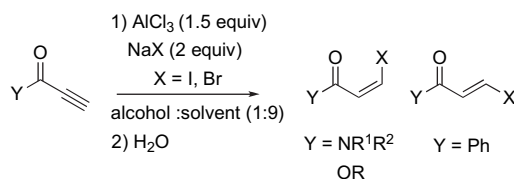
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Piotr Bałczewski\*, Remigiusz Żurawiński, Maciej Mikina, Bogdan Dudziński

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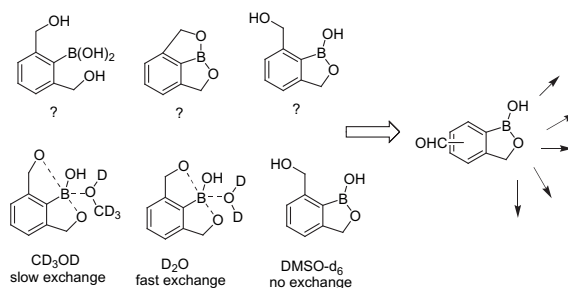
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Laurence Feray\*, Patricia Perfetti, Michèle Bertrand\*

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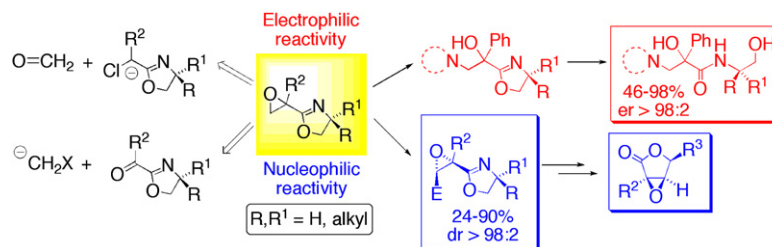
Long Ye, Dazhong Ding, Yiqing Feng, Dongsheng Xie, Puhua Wu, Hui Guo, Qingqing Meng, Huchen Zhou\*



**Terminal oxazolinylloxiranes: synthesis, reaction with amines and regioselective  $\beta$ -lithiation**

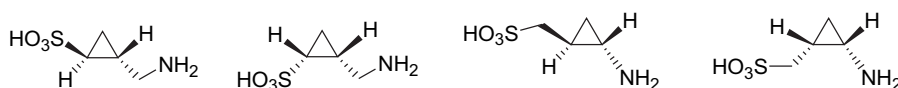
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Leonardo Degennaro, Vito Capriati, Claudia Carlucci, Saverio Florio\*, Renzo Luisi, Irene Nuzzo, Corrado Cuocci

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Maria Carmela Fulco, Maura Marinozzi, Burcu Çaliskan Ergün, Roccaldo Sardella, Benedetto Natalini, Roberto Pellicciari\*



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Supplementary data available via ScienceDirect

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