



Tetrahedron Vol. 66, Issue 16, 2010

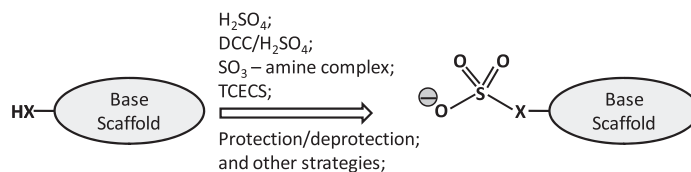
Contents

REPORT

Chemical sulfation of small molecules—advances and challenges

Rami A. Al-Horani, Umesh R. Desai*

pp 2907–2918

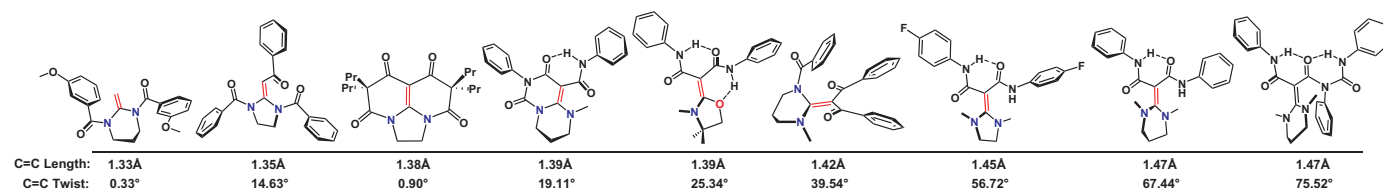


ARTICLES

Push–pull alkenes from cyclic ketene-*N,N'*-acetals: a wide span of double bond lengths and twist angles

Guozhong Ye, Sabornie Chatterjee, Min Li, Aihua Zhou, Yingquan Song, Bobby Lloyd Barker, Chunlong Chen, Debbie J. Beard, William P. Henry, Charles U. Pittman*

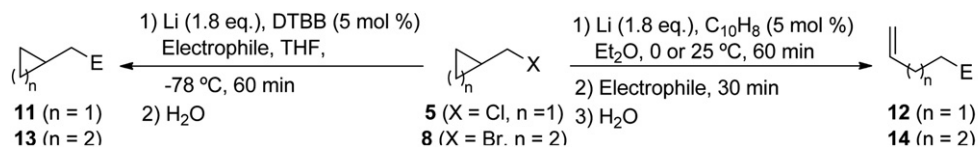
pp 2919–2927



Cyclopropylmethyl- and cyclobutylmethyl lithium by an arene-catalyzed lithiation. Stability and reactivity

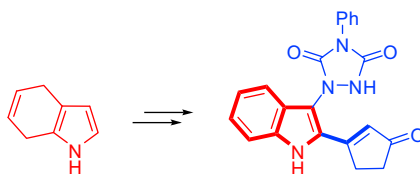
pp 2928–2935

Itziar Peñafiel, Isidro M. Pastor*, Miguel Yus*

**Synthesis of a new series of 2-vinylindoles and their cycloaddition reactivity**

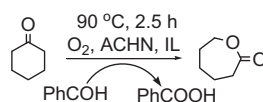
pp 2936–2939

Tayfun Arslan, Ali Enis Sadak, Nurullah Saracoglu*

**Baeyer–Villiger oxidation of ketones in ionic liquids using molecular oxygen in the presence of benzaldehyde**

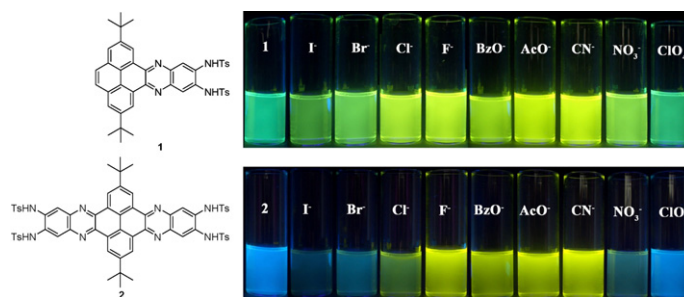
pp 2940–2943

Anna Chrobok*

**Novel quinoxalinophenanthrophenazine-based molecules as sensors for anions: synthesis and binding investigations**

pp 2944–2952

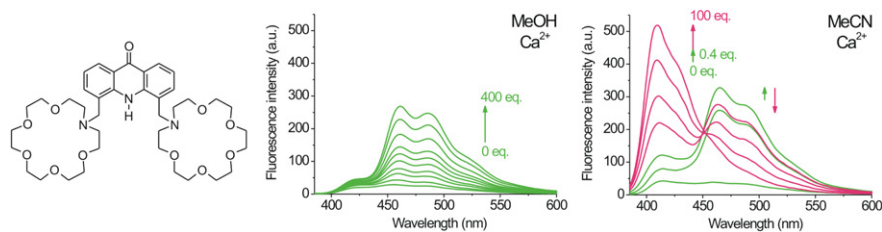
Farah S. Raad, Ala'a O. El-Ballouli, Rasha M. Moustafa, Mohammad H. Al-Sayah*, Bilal R. Kaafarani*



Synthesis and fluorescence studies of novel bis(azacrown ether) type chemosensors containing an acridinone unit

Ildikó Móczár, Ágnes Peragovics, Péter Baranyai, Klára Tóth, Péter Huszthy*

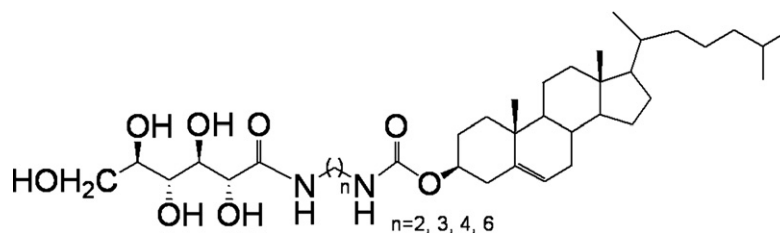
pp 2953–2960



Preparation and gelling properties of sugar-contained low-molecular-mass gelators: Combination of cholesterol and linear glucose

Di Gao, Min Xue, Junxia Peng, Jing Liu, Ni Yan, Panli He, Yu Fang*

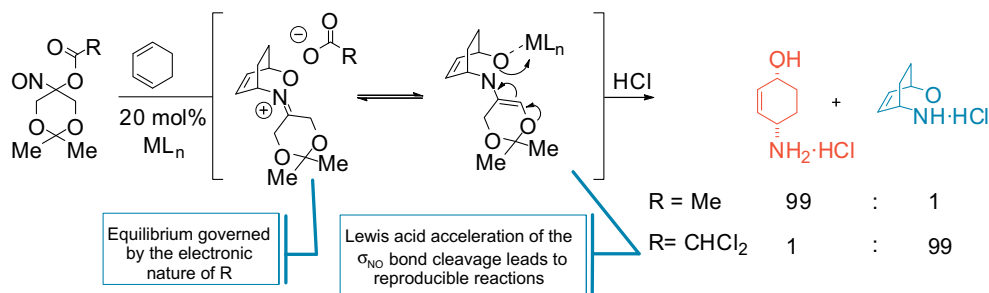
pp 2961–2968



α -Acyloxynitroso dienophiles in [4+2] hetero Diels–Alder cycloadditions: mechanistic insights

Géraldine Calvet, Susannah C. Coote, Nicolas Blanchard*, Cyrille Kouklovsky*

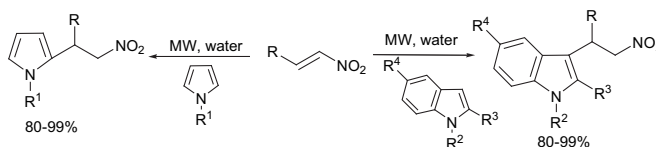
pp 2969–2980



A combination of water and microwave irradiation promotes the catalyst-free addition of pyrroles and indoles to nitroalkenes

Margherita De Rosa, Annunziata Soriente*

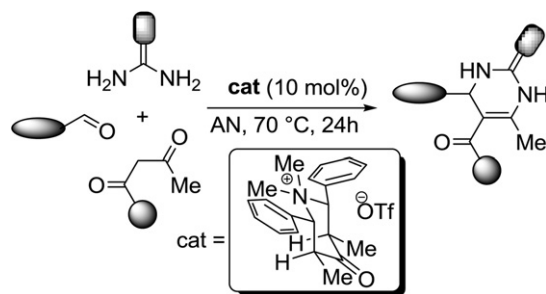
pp 2981–2986



A piperidinium triflate catalyzed Biginelli reaction

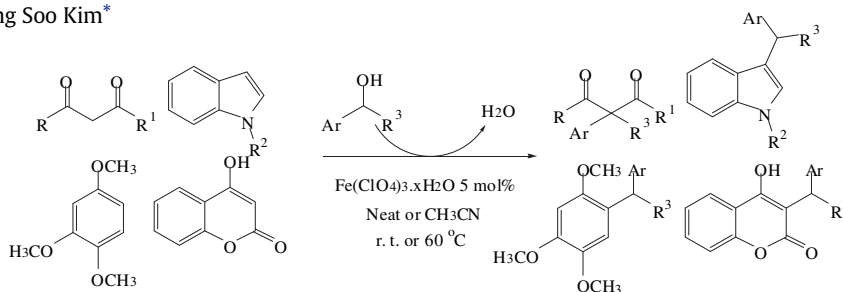
pp 2987–2994

Chennan Ramalingan, Su-Jung Park, In-Sook Lee, Young-Woo Kwak*

**Fe(ClO₄)₃ · xH₂O-Catalyzed direct C–C bond forming reactions between secondary benzylic alcohols with different types of nucleophiles**

pp 2995–3003

Ponnaboina Thirupathi, Sung Soo Kim*

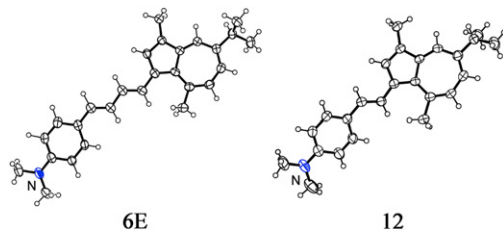


A mild and efficient Fe(ClO₄)₃ · xH₂O-catalyzed direct C–C bond coupling reactions of 1,3-dicarbonyl compounds, electron-rich heteroarenes and arenes, and 4-hydroxycoumarin with secondary benzylic alcohols have been described.

Preparation, crystal structure, and spectroscopic, chemical, and electrochemical properties of (2*E*,4*E*)-4-[4-(dimethylamino)phenyl]-1-(3-guaiazulenyl)-1,3-butadiene compared with those of (*E*)-2-[4-(dimethylamino)phenyl]-1-(3-guaiazulenyl)ethylene

pp 3004–3015

Shin-ichi Takekuma*, Hiroto Matsuoka, Toshie Minematsu, Hideko Takekuma

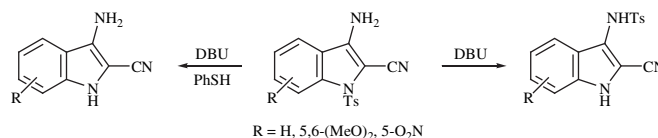


Wittig reaction of 3-[4-(dimethylamino)phenyl]propanal with (3-guaiazulenylmethyl)triphenylphosphonium bromide in ethanol containing NaOEt at 25 °C for 24 h under argon gives the title compound **6E** in 19% isolated yield. Preparation and crystal structure as well as spectroscopic, chemical, and electrochemical properties of **6E** compared with those of **12** are reported in detail.

**Detosylation of 3-amino-1-tosylindole-2-carbonitriles using DBU and thiophenol**

pp 3016–3023

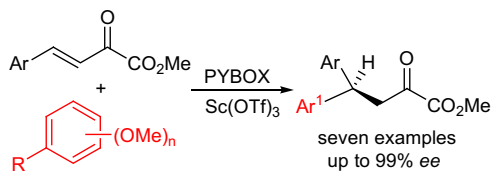
Sophia S. Michaelidou, Panayiotis A. Koutentis*



Asymmetric Friedel–Crafts alkylation of activated benzenes with methyl (*E*)-2-oxo-4-aryl-3-butenates catalyzed by [Pybox/Sc(OTf)₃]

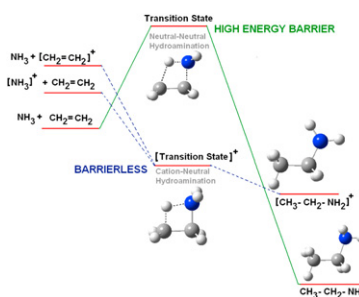
pp 3024–3029

Giuseppe Faita, Mariella Mella, Marco Toscanini, Giovanni Desimoni*

**Non-catalytic hydroamination of alkenes: a computational study**

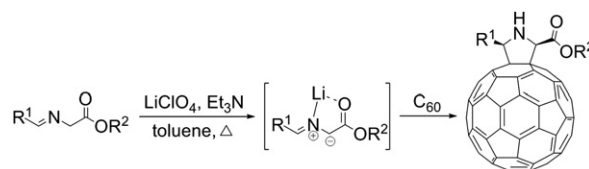
pp 3030–3036

Sanyasi Sitha*, Linda L. Jewell

**Diastereoselective lithium salt-assisted 1,3-dipolar cycloaddition of azomethine ylides to the fullerene C₆₀**

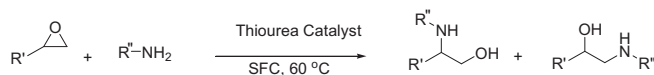
pp 3037–3041

Vitaliy A. Ioutsi, Alexander A. Zadorin, Pavel A. Khavrel, Nikita M. Belov, Natalia S. Ovchinnikova*, Alexey A. Goryunkov, Oleg N. Kharybin, Eugenio N. Nikolaev, Marina A. Yurovskaya, Lev N. Sidorov

**Thiourea catalyzed aminolysis of epoxides under solvent free conditions. Electronic control of regioselective ring opening**

pp 3042–3049

Swapandeep Singh Chimni*, Neeraj Bala, Vaibhav A. Dixit, Prasad V. Bharatam



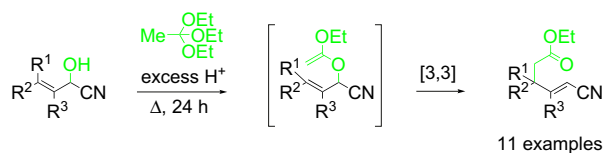
A reactant economizing method for epoxide ring opening reaction catalyzed by thiourea derivative at 60 °C is reported. DFT calculations and ¹³C NMR provide support to the experimentally observed electronic control of regioselective epoxide ring opening.



Exploring the versatility of the Johnson–Claisen rearrangement: access to functionally versatile δ -ethoxycarbonyl- α,β -unsaturated nitriles

pp 3050–3057

Kelly L. Cosgrove, Ross P. McGeary*

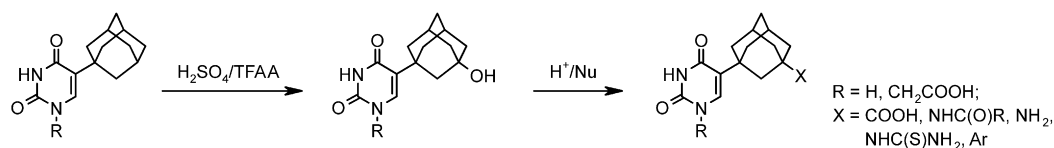


Subjecting cyanohydrins derived from enals to standard Johnson–Claisen conditions does not lead to the desired products. We have now developed methodology for accomplishing this reaction, giving δ -ethoxycarbonyl- α,β -unsaturated nitriles in good yields.

Synthesis of functionalized 5-(3-*R*-1-adamantyl)uracils and related compounds

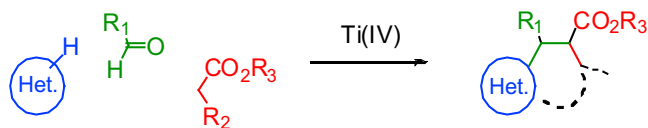
pp 3058–3064

Alexander Shmailov, Ludmila Alimbarova, Elvira Shokova, Viktor Tafenko, Ivan Vatsouro, Vladimir Kovalev*


Multicomponent reactions studies: Yonemitsu-type trimolecular condensations promoted by Ti(IV) derivatives

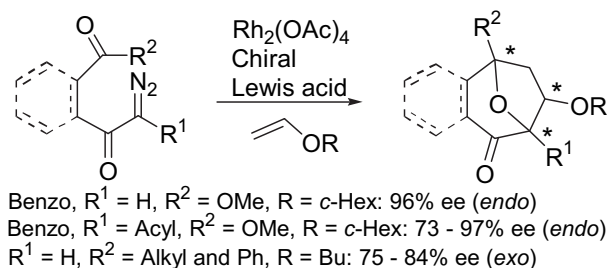
pp 3065–3069

Stéphane Gérard*, Andrea Renzetti, Bérangère Lefevre, Antonella Fontana, Paolo de Maria, Janos Sapi*



Inverse electron demand asymmetric cycloadditions of cyclic carbonyl ylides catalyzed by chiral Lewis acids—scope and limitations of diazo and olefinic substrates

pp 3070–3089

Hiroyuki Suga*, Satoshi Higuchi, Motoo Ohtsuka, Daisuke Ishimoto, Tadashi Arikawa, Yuta Hashimoto, Shunta Misawa, Teruko Tsuchida, Akikazu Kakehi, Toshihide Baba



*Corresponding author

 Supplementary data available via ScienceDirect

COVER

α -Acyloxynitroso derivatives are a class of heterodienophiles leading to valuable 1,4-*syn*-aminoalcohols in good yields starting from 1,3-dienes. The discovery that a α -oxygenated moiety led to a domino [4+2] cycloaddition/ σ (N–O) bond cleavage in the presence of a catalytic amount of Lewis acid was investigated in detail, through kinetic profiling of the reaction.

Details can be found in Tetrahedron, **2010**, 66, 2969–2980.

© 2010 N. Blanchard Published by Elsevier Ltd.



Full text of this journal is available, on-line from **ScienceDirect**. Visit www.sciencedirect.com for more information.

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®



ELSEVIER

ISSN 0040-4020