



Tetrahedron Vol. 64, No. 45, 2008

Contents

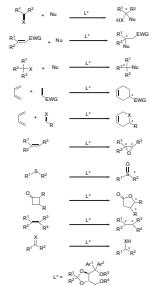
REPORT

Use of TADDOLs and their derivatives in asymmetric synthesis

Hélène Pellissier*

pp 10279–10317

This review is intended to update the most recent developments of asymmetric synthesis using TADDOLs and their derivatives as chiral auxiliaries or chiral ligands from 2001 to 2008. This compilation clearly demonstrates that TADDOLs and their derivatives represent a potential class of chiral reagents to be applied in numerous reaction types, such as nucleophilic additions to C=O bonds, nucleophilic conjugate additions to electron-deficient C=C double bonds, nucleophilic substitutions, cycloaddition reactions, oxidation and reduction reactions and miscellaneous reactions. One of the most significant and recent development is the use of TADDOLs and their derivatives as organocatalysts in a number of enantioselective organocatalysed reactions. In addition, the efficiency of TADDOLs as powerful resolving agents by inclusion complexation is also illustrated.

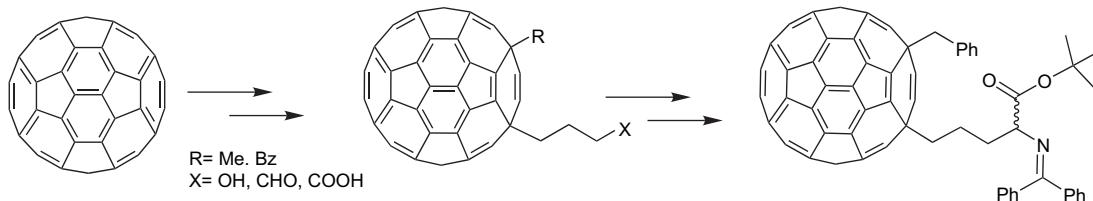


ARTICLES

Functionalization of C60 via organometallic reagents

Elise Champel, Conor Crean, Carlos Larraya, Gennaro Pescitelli, Gloria Proni, Léon Ghosez*

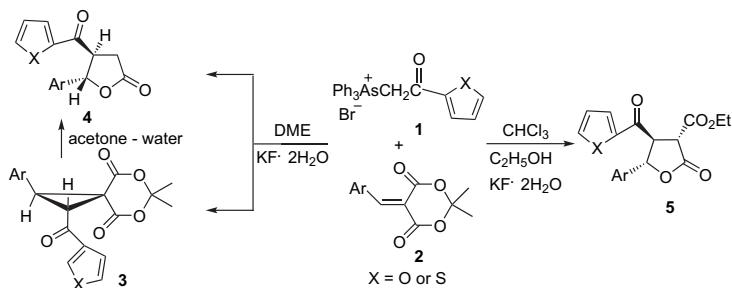
pp 10319–10330



Highly stereoselective synthesis of β,γ -disubstituted and α,β,γ -trisubstituted butyrolactones

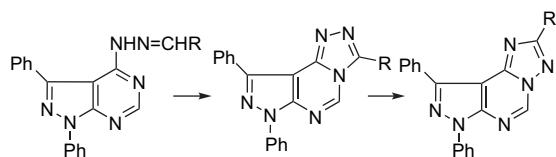
pp 10331–10338

Xiaoyu Wu*, Weiguo Cao*, Hui Zhang, Jie Chen, Haiyan Jiang, Hongmei Deng, Min Shao, Jiaping Zhang, Huiyun Chen

**A new strategy for the synthesis of pyrazolo[4,3-e][1,2,4]triazolo[4,3-c]pyrimidines and pyrazolo[4,3-e][1,2,4]triazolo[1,5-c]pyrimidines**

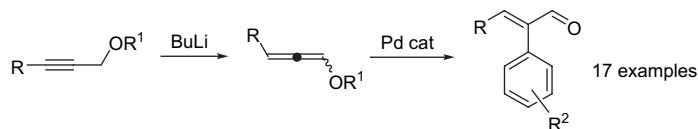
pp 10339–10343

Ahmad Sami Shawali*, Hamdi M. Hassaneen, Nabil Kh. Shurraab

**Palladium-catalysed Heck reaction on 1,2-dien-1-ols: a stereoselective synthesis of α -arylated α,β -unsaturated aldehydes**

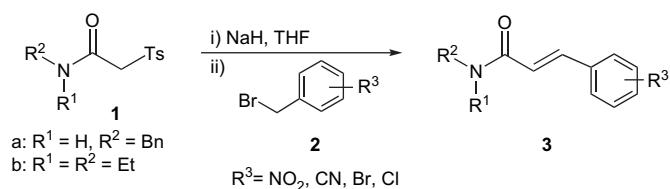
pp 10344–10349

Annamaria Deagostino*, Cristina Prandi, Antonio Toppino, Paolo Venturello

**A practical and efficient synthesis of (E)- β -aryl- α,β -unsaturated amides**

pp 10350–10354

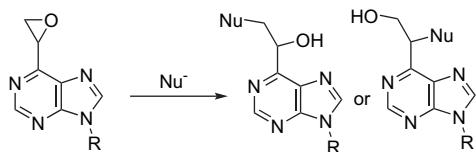
Chih-Ching Chen, Jung-Chieh Ho, Nein-Chen Chang*



In this paper, we report a one-step convergent synthesis of (E)- β -aryl α,β -unsaturated amides 3 from a-sulfonyl acetamide 1 and benzyl halide derivatives 2.

Synthesis of diverse 6-(1,2-disubstituted ethyl)purine bases and nucleosides via 6-(oxiran-2-yl)purines
 Martin Kuchař, Radek Pohl, Blanka Klepetářová, Michal Hocek*

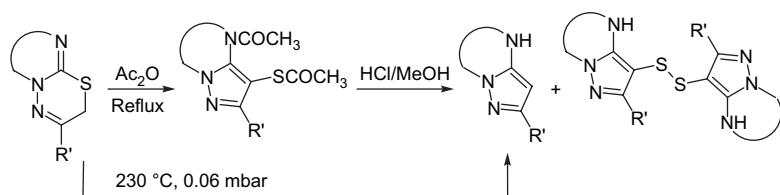
pp 10355–10364



Pyrolytic desulfurization ring contraction of condensed thiadiazines as a general route towards pyrazoloazines and pyrazoloazoles with a bridgehead (ring junction) nitrogen atom

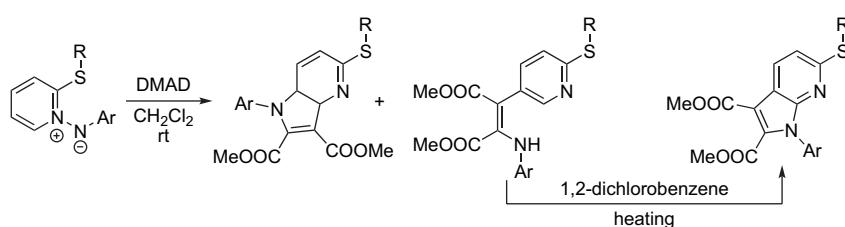
Yehia A. Ibrahim*, Nouria A. Al-Awadi, Elizabeth John

pp 10365–10374



Formation of new pyridyl substituted enamines. Observation of a diaza-Cope rearrangement
 Roberta Palkó, Orsolya Egyed, Petra Bombicz, Zsuzsanna Riedl, György Hajós*

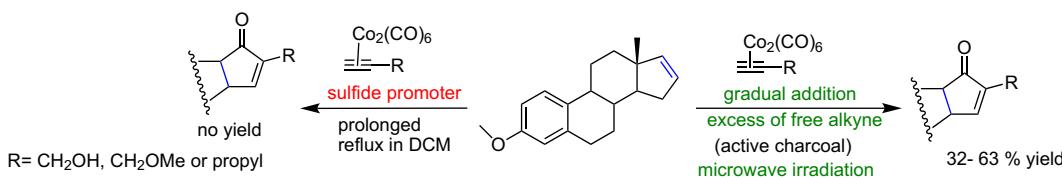
pp 10375–10380



Development of intermolecular additive free Pauson–Khand reactions for estrone E-ring extension using microwaves

Erika Fager-Jokela, Emmi Kaasalainen, Kirsi Leppänen, Jan Tois, Juho Helaja*

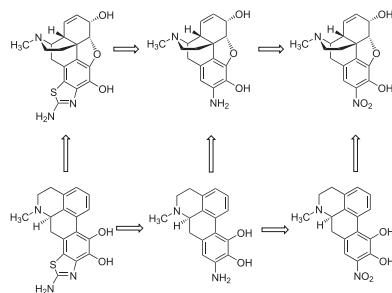
pp 10381–10387



Formation of novel thiazolomorphinans and thiazoloaporphines

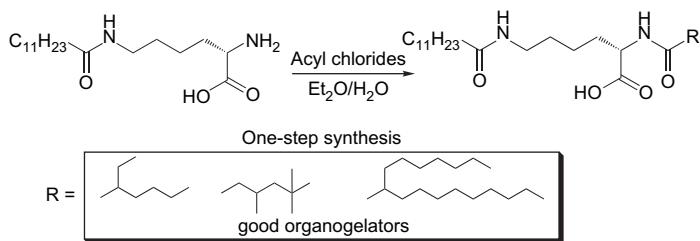
Levente Girán, Sándor Berényi, Attila Sipos*

pp 10388–10394

**A family of low-molecular-weight organogelators based on $N^{\alpha},N^{\varepsilon}$ -diacyl-L-lysine: effect of alkyl chains on their organogelation behaviour**

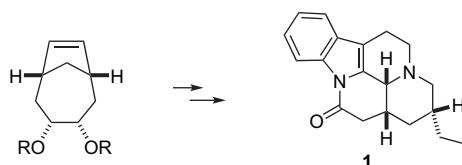
Masahiro Suzuki*, Mariko Yumoto, Hirofusa Shirai, Kenji Hanabusa

pp 10395–10400

**Stereoselective synthesis of (\pm)-tacamonine**

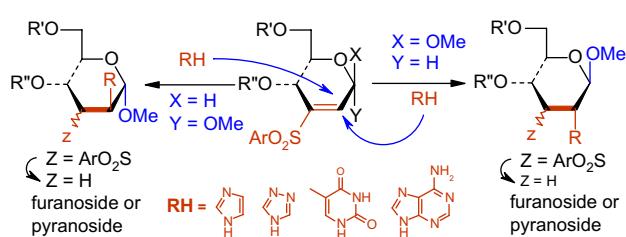
Tse-Lok Ho*, Qi-xian Lin

pp 10401–10405

**Diastereoselective addition of planar N-heterocycles to vinyl sulfone-modified carbohydrates: a new route to isonucleosides**

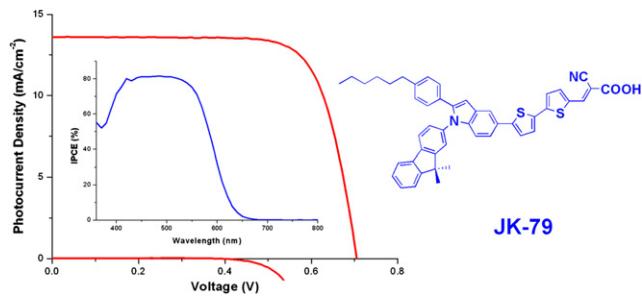
Aditya K. Sanki, Rahul Bhattacharya, Ananta Kumar Atta, Cheravakkattu G. Suresh, Tanmaya Pathak*

pp 10406–10416



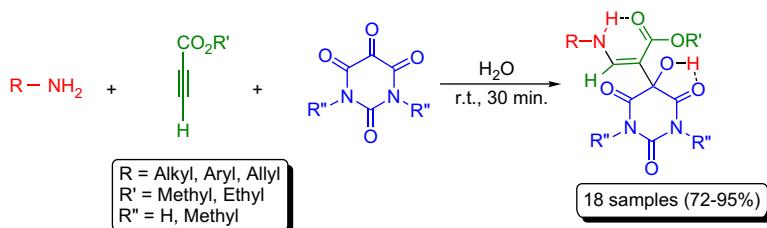
Molecular engineering of organic sensitizers containing indole moiety for dye-sensitized solar cells
Duckhyun Kim, Moon-Sung Kang, Kihyung Song, Sang Ook Kang*, Jaejung Ko*

pp 10417–10424



Novel multicomponent reactions of primary amines and alkyl propiolates with alloxan derivatives in water
Mohammad Bagher Teimouri*, Tayyebeh Abbasi, Houri Mivehchi

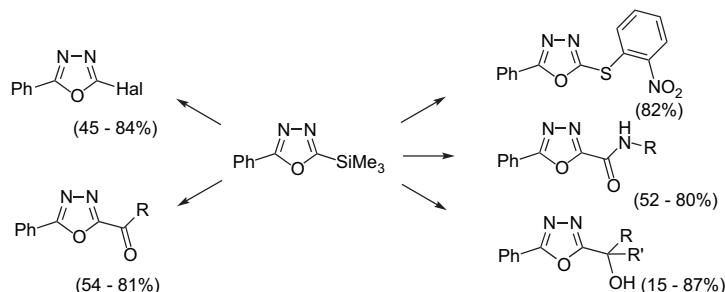
pp 10425–10430



Trimethylsilyl-1,3,4-oxadiazoles—new useful synthons for the synthesis of various 2,5-disubstituted-1,3,4-oxadiazoles

pp 10431–10442

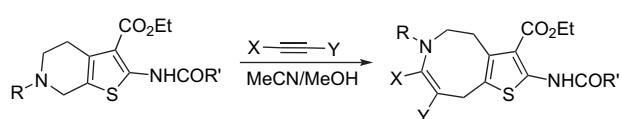
Evgenij V. Zarudnitskii, Igor I. Pervak*, Anatolij S. Merkulov, Aleksandr A. Yurchenko, Andrej A. Tolmachev



The first example of tetrahydrothieno[3,2-d]azocines synthesis

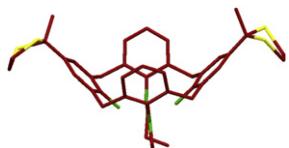
pp 10443–10452

Leonid G. Voskressensky*, Anna V. Listratova, Tatiana N. Borisova, Svetlana A. Kovaleva, Roman S. Borisov, Alexey V. Varlamov



Synthesis and characterization of linear molecular assembly of crystalline calix[4]arenes dithianes

H.M. Chawla*, N. Pant*, Bindu Srivastava

pp 10453–10458**OTHER CONTENT****Calendar****p I**

*Corresponding author

Supplementary data available via ScienceDirect

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®



ISSN 0040-4020