

Tetrahedron Letters Vol. 50, No. 1, 2008

Contents

Publisher's Note

James Milne

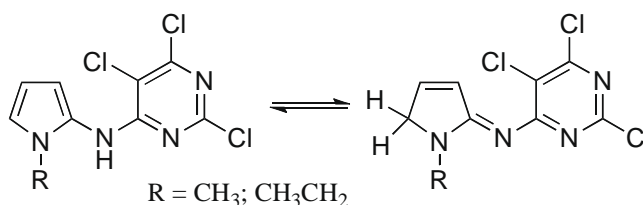
p 11

COMMUNICATIONS

The first example of tautomerism in 2-aminopyrroles: effect of structure and solvent

pp 12–14

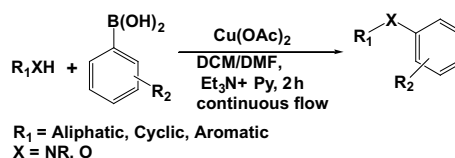
Michael De Rosa *, David Arnold, Bernie O'Hare



Copper-mediated N- and O-arylations with arylboronic acids in a continuous flow microreactor: a new avenue for efficient scalability

pp 15–18

Brajendra K. Singh, Christian V. Stevens *, Davy R. J. Acke, Virinder S. Parmar, Erik V. Van der Eycken *

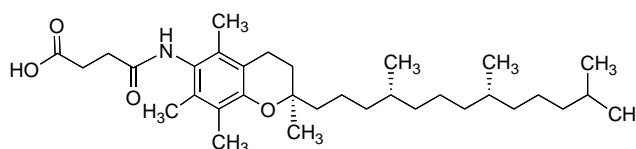


A continuous flow procedure has been elaborated for the copper(II)-mediated N- and O-arylation of a range of compounds with arylboronic acids using a commercial microreactor setup. The compounds could be continuously generated in good yields paving the way for efficient scalability.

A novel synthesis of tocopheryl amines and amides

pp 19–21

Elahe Mahdavian, Smink Sangsura, Geoffrey Landry, John Eytina, Brian A. Salvatore *

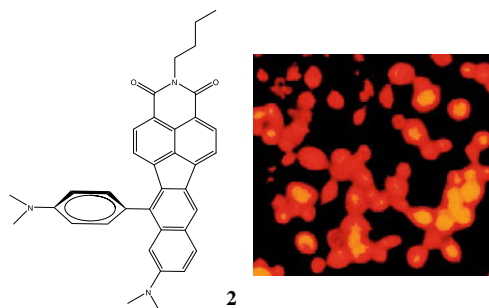


Novel naphthalimide derivatives with near-infrared emission: synthesis via photochemical cycloaromatization, fluorescence in solvents and living cell

pp 22–25

Liping Duan, Yufang Xu, Xuhong Qian*, Yexiang Zhang, Yang Liu

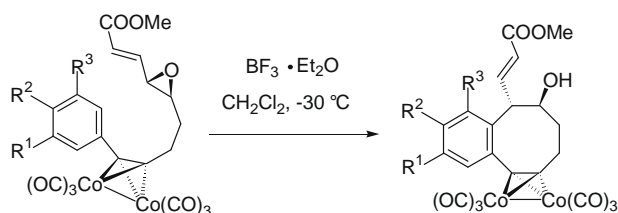
Naphthalimides with long-wavelength emission (>600 nm) and large Stokes Shift (>140 nm) as a potential NIR fluorescence imaging agent for cell, were developed through the photo-cycloaromatization, in which intramolecular radical-induced 1,3-aromatic hydrogen transfer might be occurred.



8-Endo selective Friedel–Crafts cyclization of vinyloxiranes with Co₂(CO)₆-complexed acetylene

pp 26–28

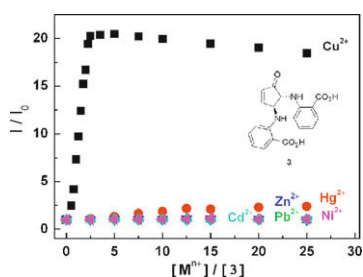
Shinji Nagumo*, Yusuke Ishii, Gen Sato, Megumi Mizukami, Masanori Imai, Norio Kawahara, Hiroyuki Akita



A highly selective and sensitive turn-on catalytic chemodosimeter for Cu²⁺ in aqueous solution

pp 29–31

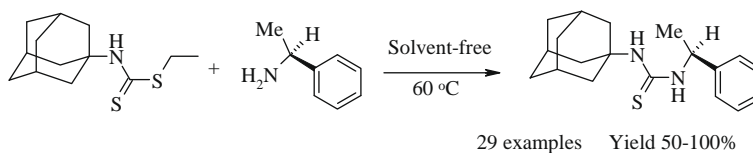
Qiang-Li Wang, Han Zhang, Yun-Bao Jiang*



Highly efficient and catalyst-free synthesis of unsymmetrical thioureas under solvent-free conditions

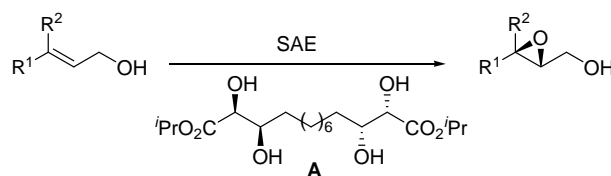
pp 32–34

Azim Ziyaei Halimehjani, Yaghoub Yaghoub Pourshojaei, Mohammad R. Saidi*



An optimised and recoverable tartrate surrogate for Sharpless asymmetric epoxidations

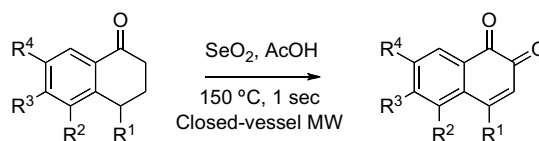
pp 35–38

David W. Knight ^{*}, Ian R. Morgan

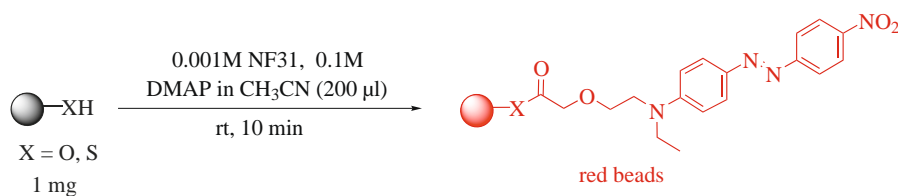
The readily synthesised tetrahydroxy diester **A** is shown to be almost as effective as tartrate esters in the Sharpless asymmetric epoxidations [SAE] of allylic alcohols, and is also amenable to recovery and reuse, following a relatively simple solvent extraction procedure.

Microwave-assisted selenium dioxide mediated selective oxidation of 1-tetralones to 1,2-naphthoquinones

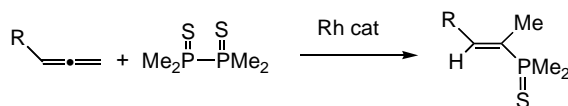
pp 39–40

Danny M. Gelman, Patrick Perlmutter ^{*}**A sensitive and practical colorimetric test for polymer-supported hydroxyl and thiol groups**

pp 41–44

Jurgen Caroen, Johan Van der Eycken ^{*}**Rhodium-catalyzed thiophosphinoylation reaction of 1,2-dienes with diphosphine disulfides**

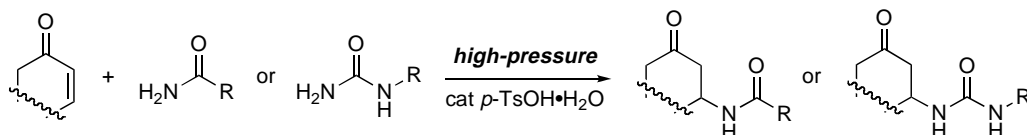
pp 45–47

Mieko Arisawa, Masahiko Yamaguchi ^{*}

Efficient Brønsted acid-catalyzed aza-Michael reaction of amides and ureas with α,β -unsaturated enones under high-pressure conditions

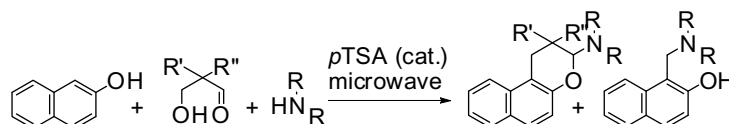
pp 48–50

Saleha Azad, Tomohiro Kobayashi, Keiji Nakano, Yoshiyasu Ichikawa, Hiyoshizo Kotsuki *


Novel synthesis of 2,2-dialkyl-3-dialkylamino-2,3-dihydro-1H-naphtho[2,1-b]pyrans

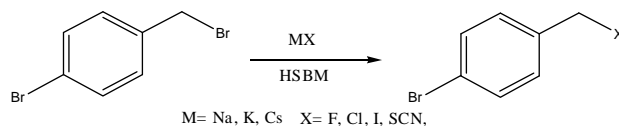
pp 51–54

Po-Jung Jimmy Huang, T. Stanley Cameron, Amitabh Jha *


Environmentally benign nucleophilic substitution reactions

pp 55–56

Philip Vogel, Sarah Figueira, Sivaramakrishnan Muthukrishnan, James Mack *

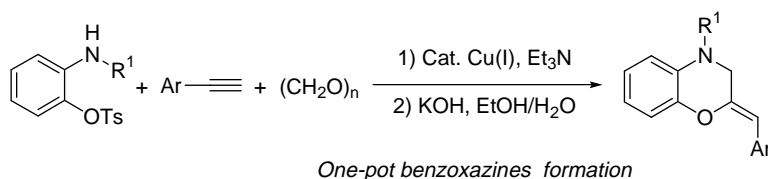


Herein, the development of environmentally benign conditions for heterogeneous nucleophilic addition reaction under novel high speed ball milling conditions is described.

Efficient stereoselective synthesis of benzoxazines via copper-catalyzed three-component coupling reactions

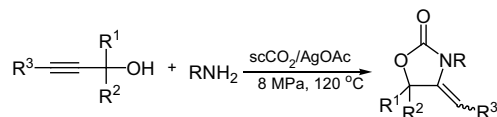
pp 57–59

Xiaobing Xu, Linfeng Liang, Jun Liu, Jingyu Yang, Lugen Mai, Yanzhong Li *



Silver-catalyzed activation of internal propargylic alcohols in supercritical carbon dioxide: efficient and eco-friendly synthesis of 4-alkylidene-1,3-oxazolidin-2-ones

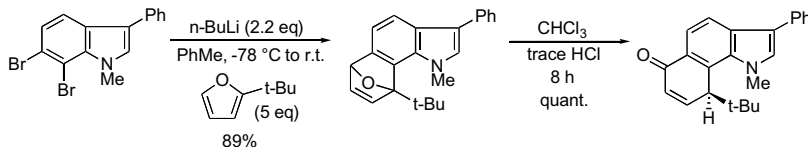
pp 60–62

Huan-Feng Jiang^{*}, Jin-Wu Zhao

The silver-catalyzed cycloaddition reactions of carbon dioxide with internal propargylic alcohols and primary amines under supercritical conditions give 4-alkylidene-1,3-oxazolidin-2-ones in good to excellent yields. The optimized conditions are to use an alcohol (2 mmol), an amine (2 mmol), silver acetate (0.1 mmol), and carbon dioxide (8 MPa) at 120 °C.

Regioselective Diels–Alder cycloadditions and other reactions of 4,5-, 5,6-, and 6,7-indole arynes

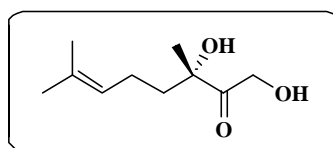
pp 63–65

Neil Brown, Diheng Luo, David Vander Velde, Shaorong Yang, Allen Brassfield, Keith R. Buszek^{*}

The regioselectivity of Diels–Alder cycloadditions of indole arynes (indolynes) at all three benzenoid positions was examined. The 6,7-indolynes displayed virtually complete preference for the more sterically congested cycloadduct, and undergoes an acid-catalyzed rearrangement to afford annulated enones.

Enantioselective synthesis of (*S*)-3,7-dimethyl-2-oxo-6-octene-1,3-diol: a Colorado potato beetle pheromone

pp 66–67

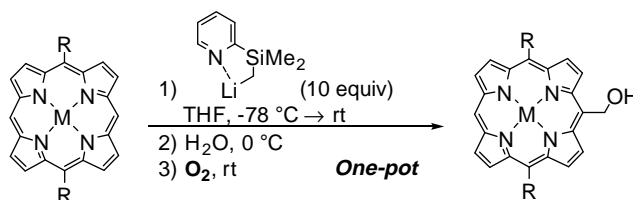
Bathini Nagendra Babu, Kamlesh R. Chauhan^{*}

(*S*)-3,7-Dimethyl-2-oxo-6-octene-1,3-diol
CPB-Pheromone

(*S*)-3,7-Dimethyl-2-oxo-6-octene-1,3-diol, pheromone of Colorado potato beetle, was synthesized by highly enantioselective yet simple method for commercial production.

A facile one-pot preparation of *meso*-hydroxymethylporphyrins via a sequential S_NAr reaction with (2-pyridyldimethylsilyl)methyl lithium followed by hydrolysis and aerobic oxidation

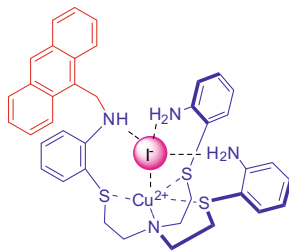
pp 68–70

Toshikatsu Takamami^{*}, Jun Matsumoto, Yoko Kumagai, Aoyo Sawaizumi, Kohji Suda^{*}

Cu(II) complex of a flexible tripodal receptor as a highly selective fluorescent probe for iodide

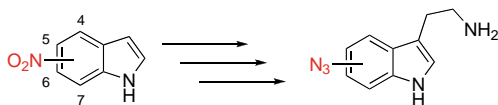
pp 71–74

Narinder Singh, Hee Jung Jung, Doo Ok Jang *

**Synthesis of 4-, 5-, 6-, and 7-azidotryptamines**

pp 75–76

Anne Friedrich, Stefan Bräse, Sarah E. O'Connor *

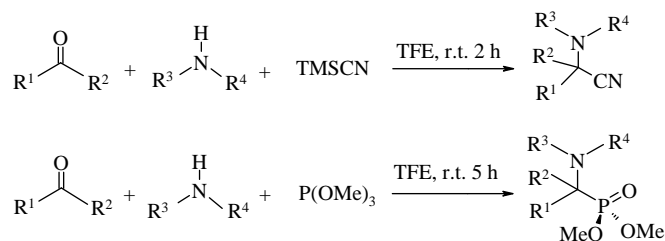


Synthesis of azidotryptamines from commercially available nitroindoles via the corresponding amino tryptamines in good overall yields (15–38%) is presented.

**Trifluoroethanol as a metal-free, homogeneous and recyclable medium for the efficient one-pot synthesis of α -amino nitriles and α -amino phosphonates**

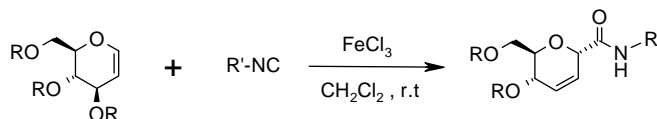
pp 77–80

Akbar Heydari *, Samad Khaksar, Mahmood Tajbakhsh

**First example of the carbon-Ferrier rearrangement of glycols with isocyanides: a novel synthesis of C-glycosyl amides**

pp 81–84

J. S. Yadav *, B. V. Subba Reddy, D. Narasimha Chary, C. Madavi, A. C. Kunwar

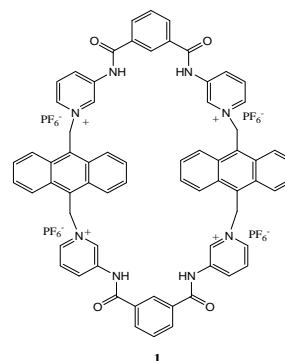


Anthracene-based macrocyclic fluorescent chemosensor for selective sensing of dicarboxylate

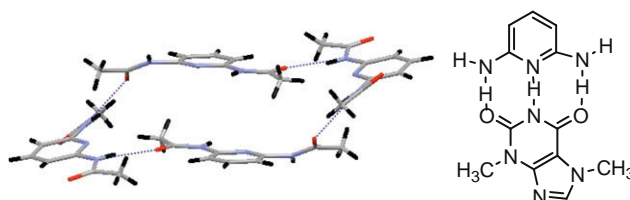
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Kumaresh Ghosh ^{*}, Avik Ranjan Sarkar

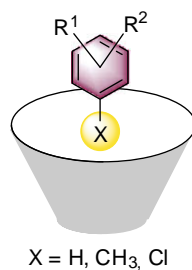
An anthracene-based macrocyclic receptor has been designed and synthesized for selective recognition of 1,4-phenylenediacetate ($K_a = 3.34 \times 10^5 \text{ M}^{-1}$). The macrocycle binds 1,4-phenylenediacetate selectively at the charged sites of the receptor with a concomitant increase in fluorescence of anthracene. The interaction properties of the macrocycle were evaluated by ^1H NMR, UV-vis and fluorescence spectroscopic methods.

**Fluorescence sensing of theobromine by simple 2,6-diamino-pyridine and the novel cyclic chair-like hydrogen-bonded tetramer of its diacetyl derivative**

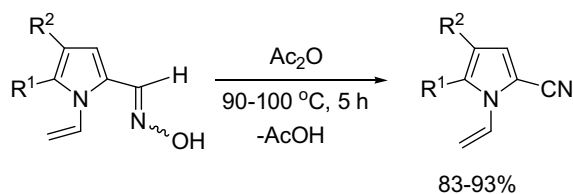
pp 89–92

Ajit Kumar Mahapatra ^{*}, Prithidipa Sahoo, Shyamaprosad Goswami ^{*}, Suchada Chantrapromma, Hoong-Kun Fun**Water-soluble calixarenes—self-aggregation and complexation of noncharged aromatic guests in buffered aqueous solution**

pp 93–96

Marion Rehm, Markus Frank, Jürgen Schatz ^{*}**Synthesis of 1-vinylpyrrole-2-carbonitriles**

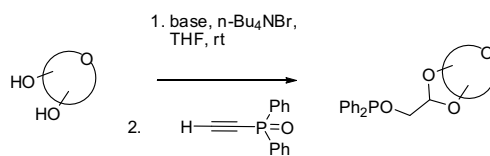
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Boris A. Trofimov ^{*}, Alexander M. Vasil'tsov, Al'bina I. Mikhaleva, Andrey V. Ivanov, Elena V. Skital'tseva, Elena Yu. Schmidt, Elena Yu. Senotrusova, Igor A. Ushakov, Konstantin B. Petrusenko

Diphenylphosphinoylethylidene (DPE) acetals: an alternative protective strategy in glycochemistry

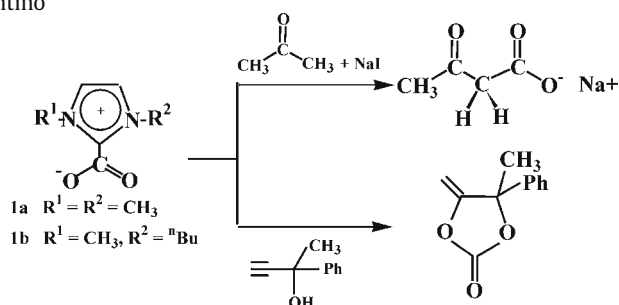
pp 101–103

Leonardo Pellizzaro, Arnaud Tatibouët, Fabrizio Fabris, Patrick Rollin *, Ottorino De Lucchi

**1,3-Dialkylimidazolium-2-carboxylates as versatile N-heterocyclic carbene- CO_2 adducts employed in the synthesis of carboxylates and α -alkylidene cyclic carbonates**

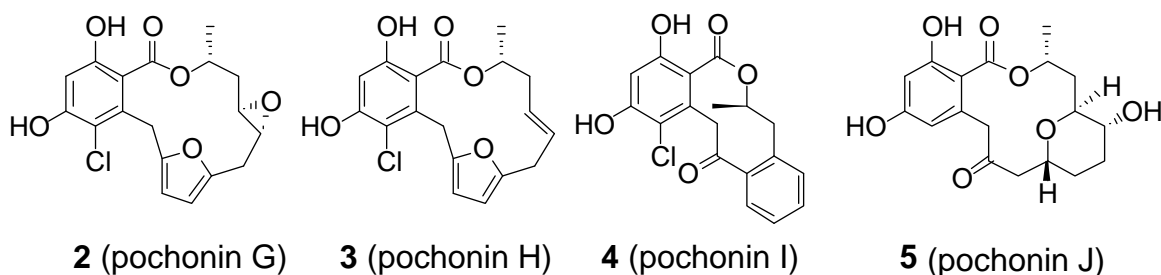
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Immacolata Tommasi *, Fabiana Sorrentino

**The search for a hair-growth stimulant: new radicicol analogues as WNT-5A expression inhibitors from *Pochonia chlamydosporia* var. *chlamydosporia***

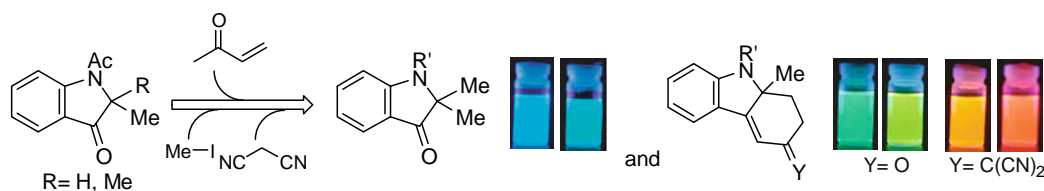
pp 108–110

Hideki Shinonaga *, Yoji Kawamura, Akiko Ikeda, Mari Aoki, Noriyoshi Sakai, Natsuko Fujimoto, Akira Kawashima

**Synthesis and physical properties of various organic dyes derived from a single core skeleton, 1,2-dihydroindol-3-one**

pp 111–114

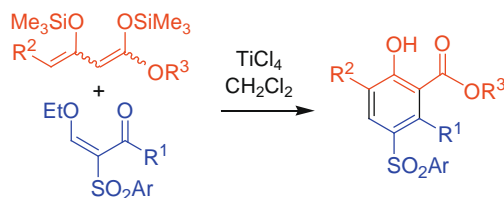
Shoji Matsumoto *, Daisuke Samata, Motohiro Akazome, Katsuyuki Ogura



First synthesis of 4-(arylsulfonyl)phenols by regioselective [3+3] cyclocondensations of 1,3-bis(silyloxy)-1,3-butadienes with 2-arylsulfonyl-3-ethoxy-2-en-1-ones

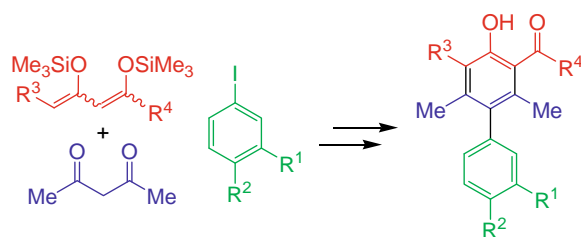
pp 115–117

Abdolmajid Riahi, Mohanad Shkooor, Olumide Fatunsin, Mathias Lubbe, Helmut Reinke, Peter Langer *


Synthesis of sterically encumbered biaryls based on a 'copper(I)-catalyzed arylation/[3+3] cyclocondensation' strategy

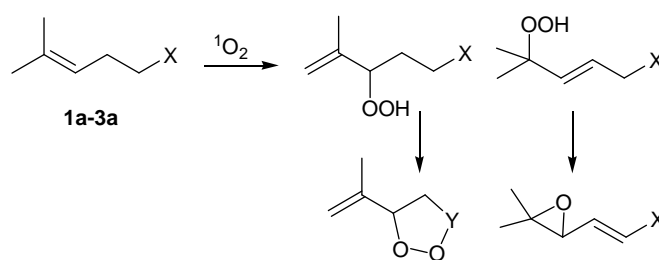
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Asad Ali, Ihsan Ullah, Muhammad Sher, Alexander Villinger, Peter Langer *


Singlet oxygen addition to homoallylic substrates in solution and microemulsion: novel secondary reactions

pp 121–123

Axel G. Griesbeck *, Miyeon Cho

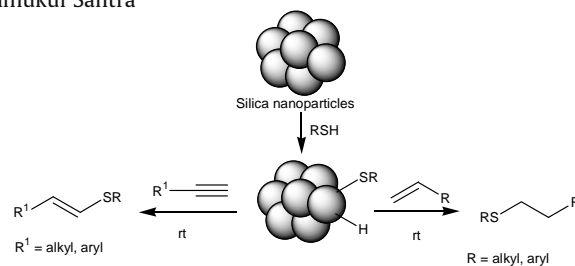


A novel base-catalyzed hydroperoxide–vinylepoxide rearrangement is described.

Native silica nanoparticle catalyzed anti-Markovnikov addition of thiols to inactivated alkenes and alkynes: a new route to linear and vinyl thioethers

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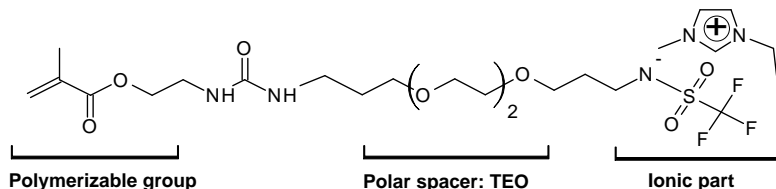
Subhash Banerjee, Jayanta Das, Swadeshmukul Santra *



A new route for the synthesis of thioethers and vinyl thioethers has been demonstrated using silica nanoparticles as catalyst under solvent-free conditions. The catalyst can be reused up to six times without loss of catalytic activity.

Synthesis, polymerization and conducting properties of an ionic liquid-type anionic monomer

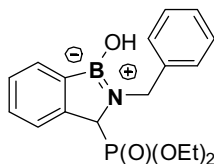
pp 128–131

Jonathan Juger, Franck Meyer, Frédéric Vidal ^{*}, Claude Chevrot, Dominique Teyssié

We describe the synthesis of an ionic liquid-type anionic monomer, the polymerization and the ionic conductivity of the monomer and the corresponding homopolymer as well.

**Unexpected formation of hydroxyborazaphosphonic acid in the reaction of (N-benzyl)benzylideneimine-2-boronic acid with diethyl phosphite**

pp 132–134

Agata Rydzewska, Katarzyna Ślepokura, Tadeusz Lis, Paweł Kafarski, Piotr Młynarz ^{*}**OTHER CONTENT****Erratum**

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Ya-Dong Ju, Li-Wen Xu ^{*}, Li Li, Guo-Qiao Lai ^{*}, Hua-Yu Qiu, Jian-Xiong Jiang, Yixin Lu**Calendar**

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^{*}Corresponding author

Supplementary data available via ScienceDirect

COVER

6,7-Indole arynes (6,7-indolynes) give highly regioselective Diels-Alder cycloadducts with 2-t-butylfuran. This cycloadduct can undergo various rearrangements and transformations to give new classes of 6,7-annulated products. This new reaction methodology provides a general and facile entry into annulated indoles.

Tetrahedron Letters **2009**, 50, 63–65.

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