



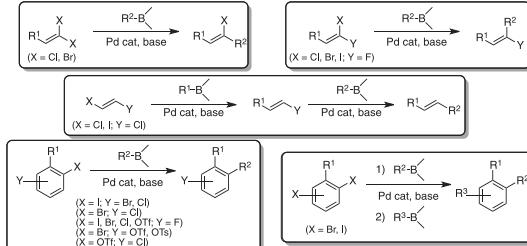
Tetrahedron Vol. 67, Issue 37, 2011

Contents

REPORT

Highly selective palladium-catalyzed Suzuki–Miyaura monocoupling reactions of ethene and arene derivatives bearing two or more electrophilic sites pp 6969–7025

Renzo Rossi*, Fabio Bellina*, Marco Lessi

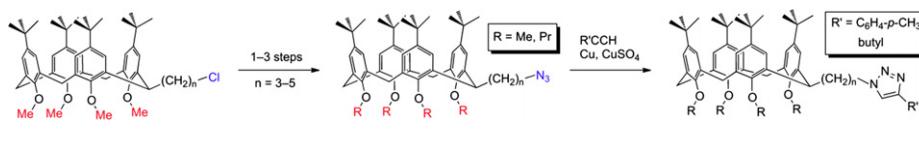


Selective Suzuki–Miyaura monocoupling reactions of di- and polyhalogenated ethenes and di- and polyhalogenated arene derivatives bearing different or identical halogen atoms are reviewed, and the reasons for the observed stereo-, site- and/or chemo-selectivities are discussed. The use of these reactions as key steps in the synthesis of naturally-occurring compounds, bioactive substances including drugs and liquid crystals is also reported.

ARTICLES

Synthesis and ‘click’ cycloaddition reactions of tetramethoxy- and tetrapropoxy-2-(ω -azidoalkyl)calix[4]arenes pp 7027–7034

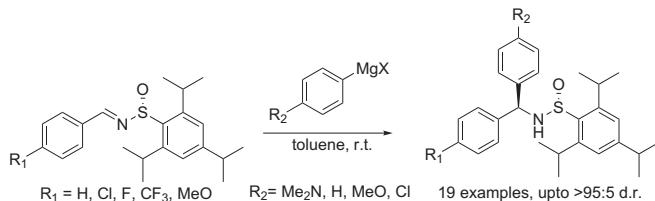
Michael J. Hardman, Ashley M. Thomas, Louise T. Carroll, Linus C. Williams, Sean Parkin, Jordan L. Fantini*



Asymmetric synthesis of diverse α,α -diarylmethylamines via aryl Grignard additions to chiral N-2,4,6-trisopropylbenzenesulfinylimines

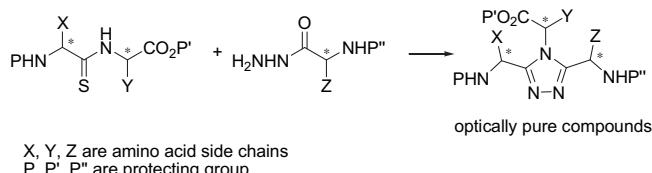
pp 7035–7041

Zhengxu Han*, Robert Busch, Keith R. Fandrick, Angelica Meyer, Yibo Xu, Dhileep K. Krishnamurthy, Chris H. Senanayake

**Amino acids as building blocks for the synthesis of substituted 1,2,4-triazoles**

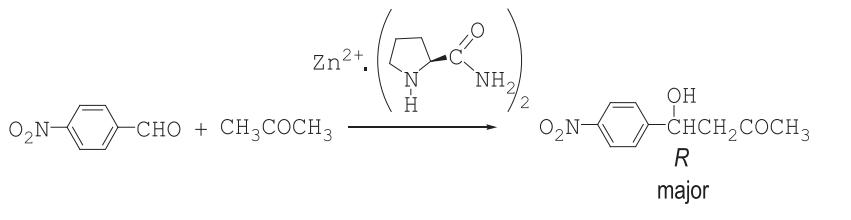
pp 7042–7049

Mathieu Bibian, Jean Martinez, Jean-Alain Fehrentz*

**The role of Zn^{2+} in enhancing the rate and stereoselectivity of the aldol reactions catalyzed by the simple prolinamide model**

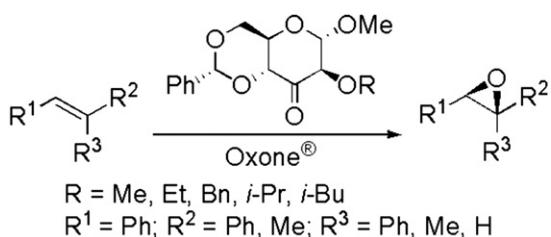
pp 7050–7056

Cecilia Andreu*, Gregorio Asensio

**New mannose-derived ketones as organocatalysts for enantioselective dioxirane-mediated epoxidation of arylalkenes. Part 3: Chiral ketones from sugars**

pp 7057–7065

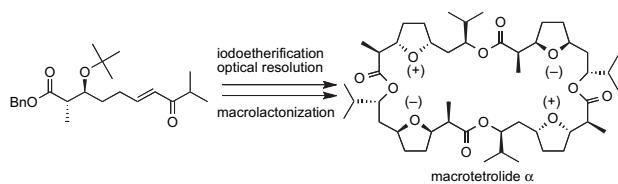
José M. Vega-Pérez*, Ignacio Periñán, Margarita Vega-Holm, Carlos Palo-Nieto, Fernando Iglesias-Guerra*



Synthesis of macrotetrolide α , a designed polynactin analog composed of bishomomonactinic acids

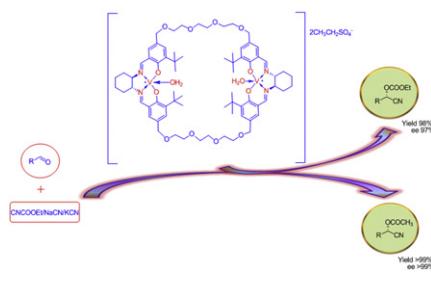
Kentaro Takai, Tadaatsu Hanadate, Masaki Abe, Yukie Ono, Teiko Yamada, Shigefumi Kuwahara, Hiromasa Kiyota*

pp 7066–7072

**Enantioselective O-acetylcyanation/cyanoformylation of aldehydes using catalysts with built-in crown ether-like motif in chiral macrocyclic V(V) salen complexes**

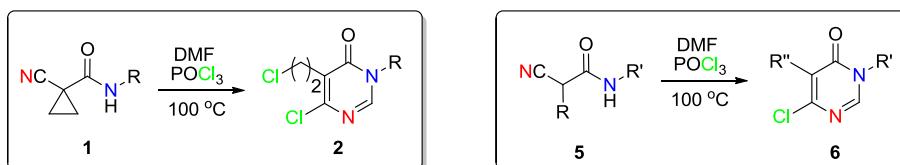
Noor-ul H. Khan*, Arghya Sadhukhan, Nabin C. Maity, Rukhsana I. Kureshy, Sayed H.R. Abdi, S. Saravanan, Hari C. Bajaj

pp 7073–7080

**Synthesis of polysubstituted 3*H*-pyrimidin-4-ones from cyanoacetamides under Vilsmeier conditions**

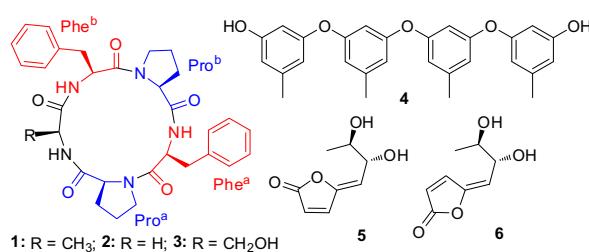
Zhiguo Zhang, Can Xue, Xiao Liu, Qian Zhang*, Qun Liu

pp 7081–7084

**Cyclopeptides and polyketides from coral-associated fungus, *Aspergillus versicolor* LCJ-5-4**

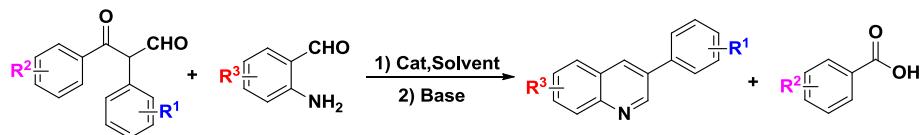
Yibin Zhuang, Xiancun Teng, Yi Wang, Peipei Liu, Hui Wang, Jing Li, Guoqiang Li, Weiming Zhu*

pp 7085–7089



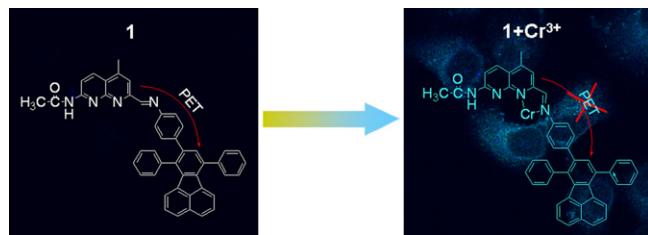
A novel Friedlander-type synthesis of 3-aryl quinolines from 3-oxo-2,3-diaryl-propionaldehydes
Wanrong Luo, Qiuchao Mu, Wenwei Qiu, Ting Liu, Fan Yang, Xiaofeng Liu*, Jie Tang*

pp 7090–7095



An ‘off-on’ fluorescent chemosensor of selectivity to Cr³⁺ and its application to MCF-7 cells
Zhanxian Li, Wanying Zhao, Yuna Zhang, Lifeng Zhang, Mingming Yu*, Jinxia Liu*, Hongyan Zhang*

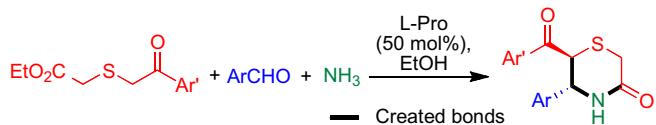
pp 7096–7100



L-Proline-catalysed three-component domino reactions for the diastereoselective synthesis of 5,6-disubstituted 3-thiomorpholinones

pp 7101–7105

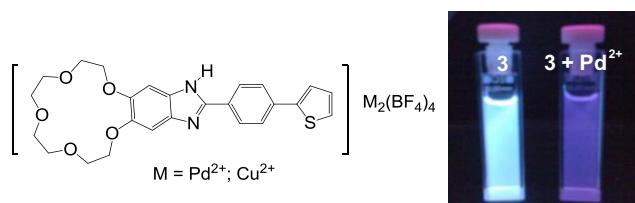
Sethuraman Indumathi, Subbu Perumal*, J. Carlos Menéndez*



Imidazo-benzo-15-crown-5 ethers bearing arylthienyl and bithienyl moieties as novel fluorescent chemosensors for Pd²⁺ and Cu²⁺

pp 7106–7113

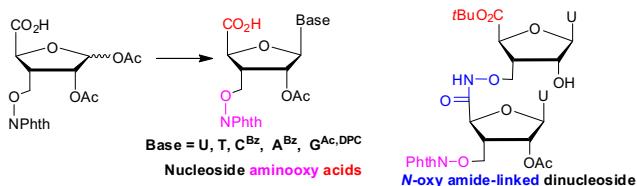
Rosa M.F. Batista, Elisabete Oliveira, Susana P.G. Costa, Carlos Lodeiro*, M. Manuela M. Raposo*



Synthesis of nucleoside aminoxy acids

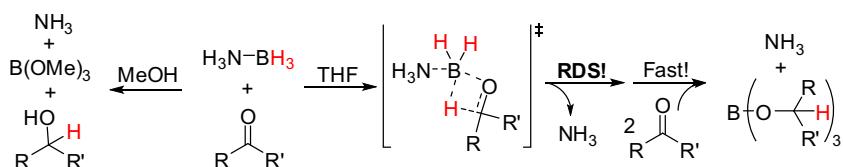
Yanchun Gong, Sandrine Peyrat, Hongbin Sun, Juan Xie*

pp 7114–7120

**Ammonia borane as a metal free reductant for ketones and aldehydes: a mechanistic study**

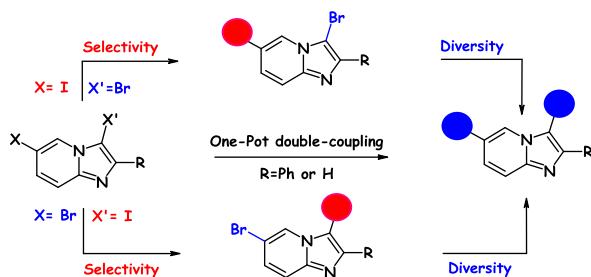
Xianghua Yang, Thomas Fox, Heinz Berke*

pp 7121–7127

**Pd-catalyzed regiocontrolled Sonogashira and Suzuki cross-coupling reaction of 3,6-dihalogenoimidazo[1,2-*a*]pyridines: one-pot double-coupling approach**

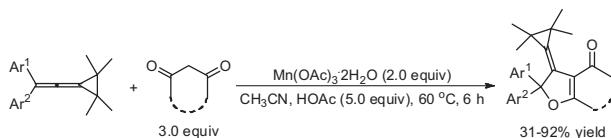
Ahmed El Akkaoui, Ibtissam Bassoude, Jamal Koubachi, Sabine Berteina-Raboin*, Abderrahim Mouaddib, Gérald Guillaumet

pp 7128–7138

**Manganese(III)-mediated oxidative annulation of vinylidenecyclopropanes with 1,3-dicarbonyl compounds**

Wei Yuan, Yin Wei, Min Shi*

pp 7139–7142



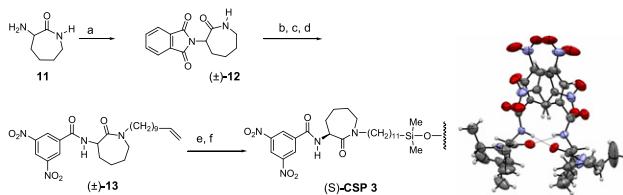
Manganese(III)-mediated oxidative annulation of vinylidenecyclopropanes with 1,3-dicarbonyl compounds in acetonitrile/acetic acid produces the corresponding functionalized dihydrofuran derivatives in moderate to good yields under mild conditions. The substrate scope has been examined and a plausible reaction mechanism has been also proposed on the basis of experimental results and previous literature.



Assessing chiral self-recognition using chiral stationary phases

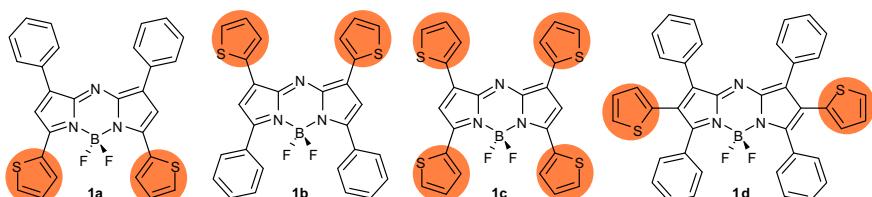
pp 7143–7147

Wonjae Lee, Seth E. Snyder, Phillip I. Volkers, William H. Pirkle, David A. Engebretson, William A. Boulanger, Huei-Shian Lin, Bin-Syuan Huang, James R. Carey*

**Synthesis of thiophene-substituted aza-BODIPYs and their optical and electrochemical properties**

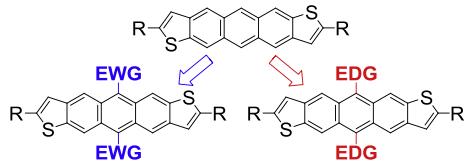
pp 7148–7155

Roland Gresser, Horst Hartmann*, Marion Wrackmeyer, Karl Leo, Moritz Riede

**Donor/acceptor-substituted anthradithiophene materials: synthesis, optical and electrochemical properties**

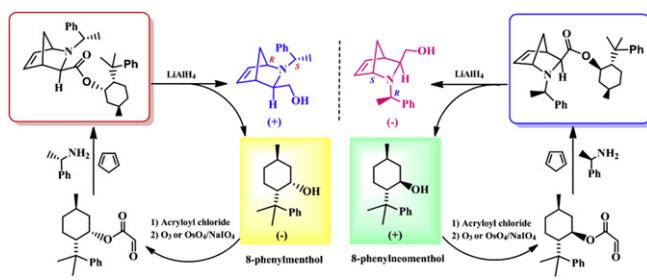
pp 7156–7161

Jean-Yves Balandier, Florence Quist, Noham Sebaihi, Claude Niebel, Benoît Tylleman, Pol Boudard, Saïd Bouzakraoui, Vincent Lemaire, Jérôme Cornil, Roberto Lazzaroni, Yves Henri Geerts, Sara Stas*

**Highly diastereoselective synthesis of 2-azabicyclo[2.2.1]hept-5-ene derivatives: Bronsted acid catalyzed aza-Diels–Alder reaction between cyclopentadiene and imino-acetates with two chiral auxiliaries**

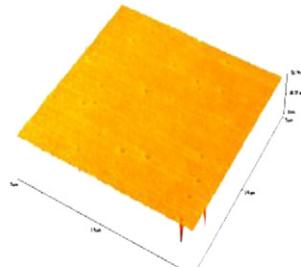
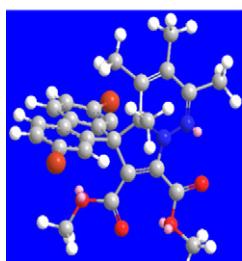
pp 7162–7172

Xerardo García-Mera*, José E. Rodríguez-Borges*, M. Luísa C. Vale, Maria J. Alves



Photochromism of dihydroindolizines. Part 16: Tuning of the photophysical behavior of photochromic dihydroindolizines in solution and in polymeric thin film**pp 7173–7184**

Saleh A. Ahmed*, Zeinab A. Hozien, Aboel-Magd A. Abdel-Wahab, Shaya Y. Al-Raqa, Abdulrahman A. Al-Simaree, Ziad Moussa, Saleh N. Al-Amri, Mouslim Messali, Ahmed S. Soliman, Heinz Dürr



*Corresponding author

i+ 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