

Tetrahedron Letters Vol. 50, No. 49, 2009

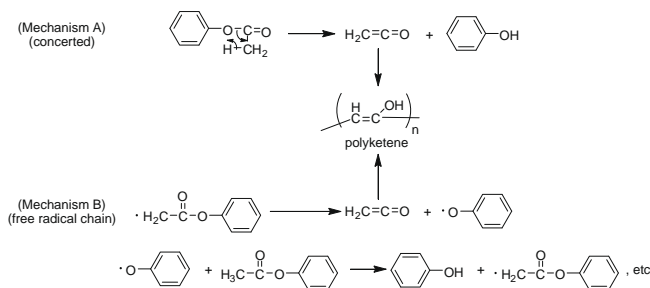
Contents

COMMUNICATIONS

Free-radical chain generation of ketene during the synthesis of liquid crystalline aromatic polyesters

pp 6743–6744

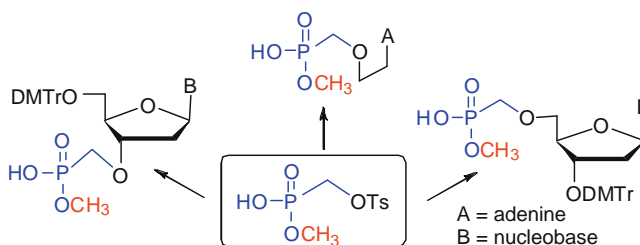
Mihaiela C. Stuparu, Juhua Xu, H. K. Hall Jr. \*



Methyl 4-toluenesulfonyloxymethylphosphonate, a new and versatile reagent for the convenient synthesis of phosphonate-containing compounds

pp 6745–6747

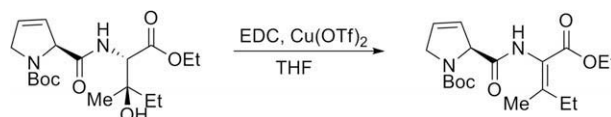
Ivana Kóšiová, Zdeněk Točík \*, Miloš Buděšínský, Ondřej Šimák, Radek Liboska, Dominik Rejman, Ondřej Pačes, Ivan Rosenberg \*



A copper-carbodiimide approach to the phomopsin tripeptide side chain

pp 6748–6750

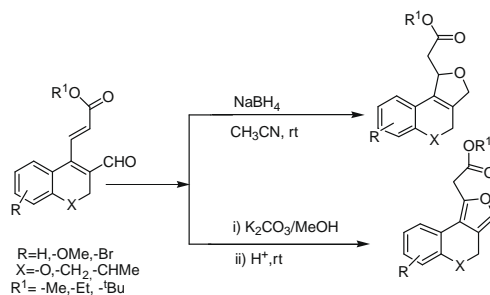
Ning Shanguan, Madeleine Joullié \*



**Sodium borohydride or potassium carbonate mediated intramolecular Michael addition: a general method for the synthesis of fused dihydrofuran and furan derivatives**

pp 6751–6754

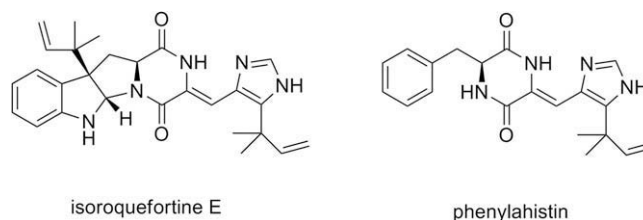
Shubhankar Samanta, Rathin Jana, Jayanta K. Ray \*



**Total synthesis of isoroquefortine E and phenylahistin**

pp 6755–6757

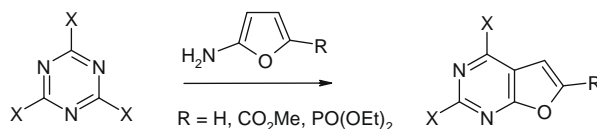
Ning Shangguan, Madeleine M. Joullié \*



**An efficient entry to furo[2,3-*d*]pyrimidines via inverse electron demand Diels–Alder reactions of 2-aminofurans with 1,3,5-triazines**

pp 6758–6760

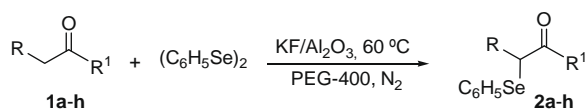
Qun Dang \*, Yan Liu



**KF/Al<sub>2</sub>O<sub>3</sub> and PEG-400 as a recyclable medium for the selective  $\alpha$ -selenation of aldehydes and ketones. Preparation of potential antimicrobial agents**

pp 6761–6763

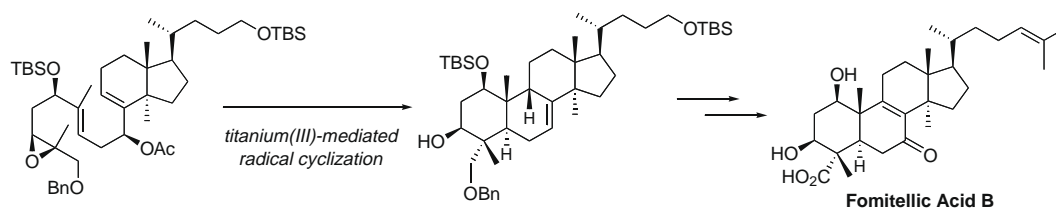
Francine Novack Victoria, Cátia S. Radatz, Maraisa Sachini, Raquel G. Jacob, Gelson Perin, Wladimir P. da Silva, Eder J. Lenardão \*



**Total synthesis of fomitellic acid B**

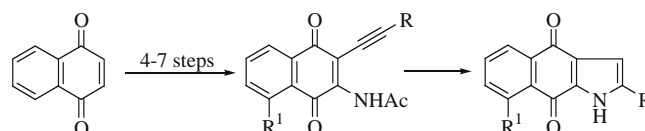
pp 6764–6768

Makoto Yamaoka, Atsuo Nakazaki, Susumu Kobayashi \*

**Synthesis of benz[*f*]indole-4,9-diones via acetylenic derivatives of 1,4-naphthoquinone**

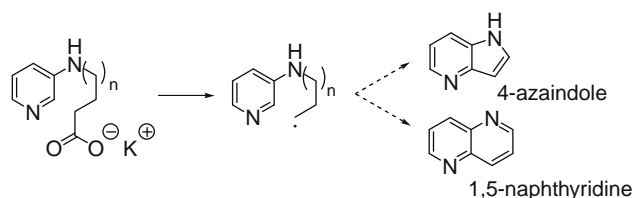
pp 6769–6771

Mark S. Shvartsberg \*, Ekaterina A. Kolodina, Nadezhda I. Lebedeva, Lidiya G. Fedenok

**Scope and limitations of the Minisci reaction for the synthesis of aza-heterocycles**

pp 6772–6774

Ryan N. Burgin, Simon Jones \*, B. Tarbit

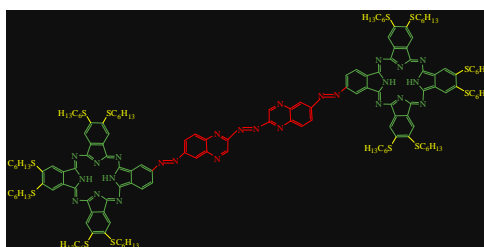


Mechanistic insights are provided on the use of the Minisci reaction to construct aza-heterocyclic systems such as azaindoles and 1,5-naphthyridines.

**Effect of peripheral substitution on the electronic absorption and magnetic circular dichroism (MCD) spectra of metal-free azo-coupled bisphthalocyanine**

pp 6775–6778

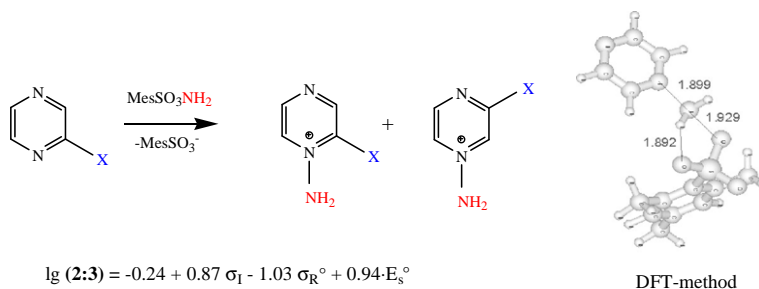
Ümit Salan, Nagao Kobayashi \*, Özer Bekaroğlu \*



A new azo-coupled metal-free bisphthalocyanine is synthesized. The effect of the azo units on the position and intensity of the electronic absorption and magnetic circular dichroism (MCD) spectra of the bisphthalocyanine is described.

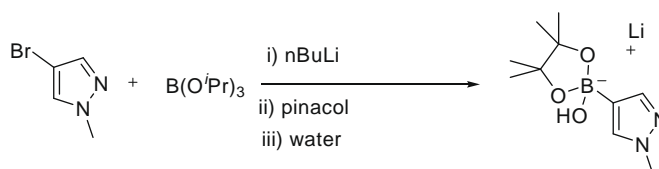
**Regioselectivity in 2-X-pyrazine aminations by *O*-mesitylenesulfonylhydroxylamine**

pp 6779–6782

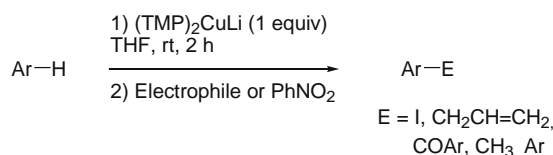
Gennady I. Borodkin<sup>\*</sup>, Aleksey Yu. Vorob'ev, Makhmut M. Shakirov, Vyacheslav G. Shubin**An improved synthesis of 1-methyl-1*H*-pyrazole-4-boronic acid pinacol ester and its corresponding lithium hydroxy ate complex: application in Suzuki couplings**

pp 6783–6786

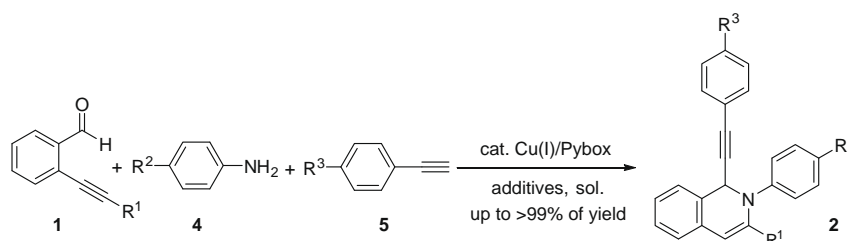
Peter R. Mullens

**New Gilman-type lithium cuprate from a copper(II) salt: synthesis and deprotonative cupration of aromatics**

pp 6787–6790

Tan Tai Nguyen, Floris Chevallier, Viatcheslav Jouikov<sup>\*</sup>, Florence Mongin<sup>\*</sup>Deprotonation of aromatics including heterocycles using the Gilman-type amido-cuprate (TMP)<sub>2</sub>CuLi is described.**Pybox ligand-promoted copper(I)-catalyzed three-component tandem coupling-annulation of terminal alkynes, amines and *ortho*-alkynylaryl aldehydes**

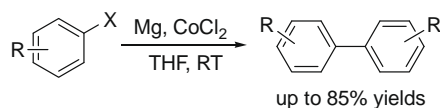
pp 6791–6794

Min Yu, Ying Wang, Chao-Jun Li<sup>\*</sup>, Xiaoquan Yao<sup>\*</sup>

**Cobalt-catalyzed homo-coupling of aryl and alkenyl bromide using atmospheric oxygen as oxidant**

pp 6795–6797

Shan-Yong Chen, Ji Zhang, Ying-Hao Li, Jun Wen, Shao-Quan Bian, Xiao-Qi Yu \*

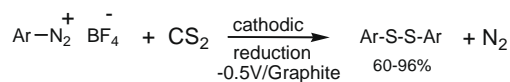


An efficient procedure for the synthesis of symmetric biphenyl and olefinic compounds was reported by cobalt-catalyzed direct homo-coupling reaction of aryl and alkenyl bromide in the presence of metallic magnesium using atmospheric oxygen as the oxidant.

**Electrochemical transformation of diazonium salts into diaryl disulfides**

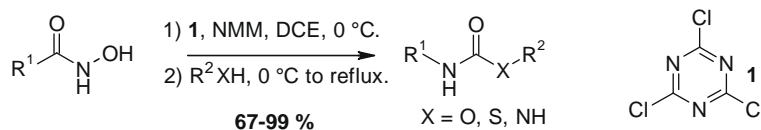
pp 6798–6799

Fructuoso Barba \*, Fernando Ranz, Belen Batanero \*

**Cyanuric chloride: an efficient reagent for the Lossen rearrangement**

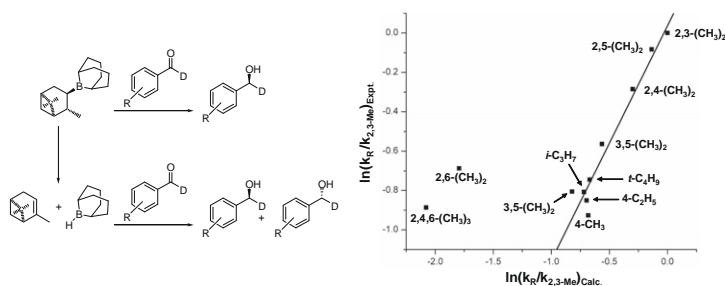
pp 6800–6802

Florian Hamon, Gildas Prié, Frédéric Lecornu, Sébastien Papot \*

**Computational and experimental structure–reactivity relationships: evidence for a side reaction in Alpine-Borane reductions of *d*-benzaldehydes**

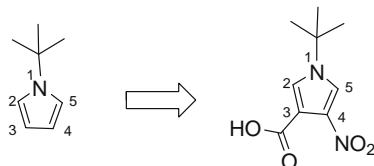
pp 6803–6806

Hui Zhu, N. Soledad Reyes, Matthew P. Meyer \*

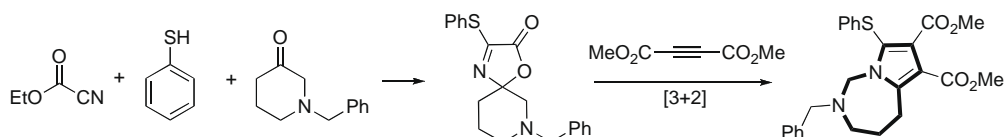


**Regio-selective synthesis of novel 1-tert-butyl-4-nitro-1H-pyrrole-3-carboxylic acid building block**

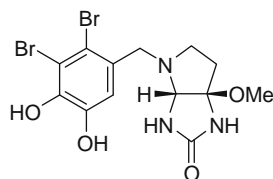
pp 6807–6809

Duyan V. Nguyen<sup>\*</sup>, Robert A. Schiksnis, Enrique L. Michelotti**Synthesis of pyrrolo[1,3]diazepines by a dipolar cycloaddition–retro-Mannich domino reaction**

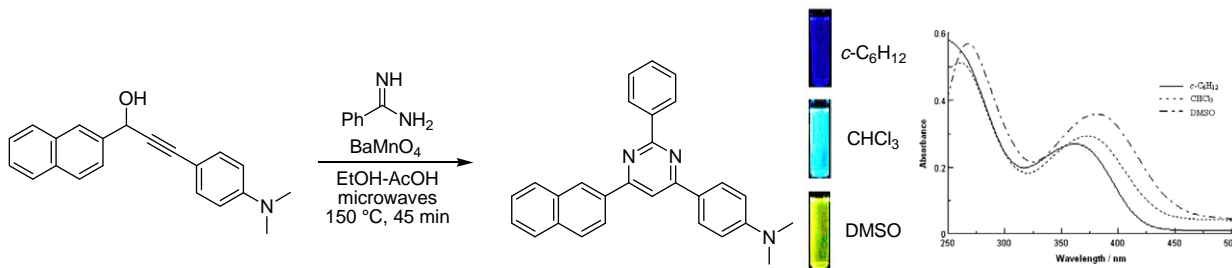
pp 6810–6813

Mary Liang, Cecilia Saiz, Chiara Pizzo, Peter Wipf<sup>\*</sup>**Colensolide A: a new nitrogenous bromophenol from the New Zealand marine red alga *Osmundaria colensoi***

pp 6814–6817

Wendy L. Popplewell, Peter T. Northcote<sup>\*</sup>**Barium manganate in microwave-assisted oxidation reactions: synthesis of solvatochromic 2,4,6-triarylpyrimidines**

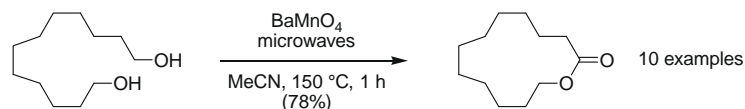
pp 6818–6822

Mark C. Bagley<sup>\*</sup>, Zhifan Lin, Simon J. A. Pope<sup>\*</sup>

A series of  $\pi$ -extended pyrimidines with unusual photophysical properties is prepared rapidly and efficiently by microwave-assisted tandem oxidation/heterocyclocondensation using  $\text{BaMnO}_4$ .

**Barium manganate in microwave-assisted oxidation reactions: synthesis of lactones by oxidative cyclization of diols**

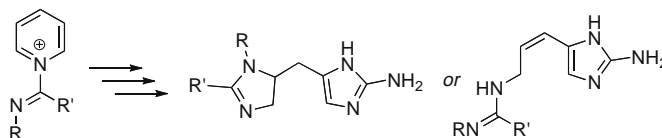
pp 6823–6825

Mark C. Bagley<sup>\*</sup>, Zhifan Lin, David J. Phillips, Andrew E. Graham<sup>\*</sup>

Tandem oxidation/heterocyclocondensation of diols using BaMnO<sub>4</sub> gives the corresponding lactone rapidly and efficiently under microwave dielectric heating without the need for chromatographic purification.

**N-Pyridinium imidates as new sources of 2-aminoimidazole and imidazoline derivatives**

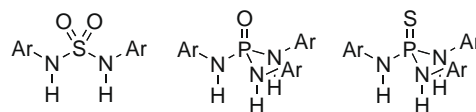
pp 6826–6829

Sylvain Picon, Anne Zaparucha<sup>\*</sup>, Ali Al-Mourabit<sup>\*</sup>

New 2-aminoimidazole (2-AI) and imidazoline derivatives were obtained in three steps through the reduction of *N*-pyridinium imidates into 1,2-dihydropyridine imidates and oxidative addition of guanidine derivatives. Among the possible transformations, imidate substitution allows selectivity in the last deprotection step, leading to an original 2-aminoimidazo-imidazoline skeleton.

**New architectures in hydrogen bond catalysis**

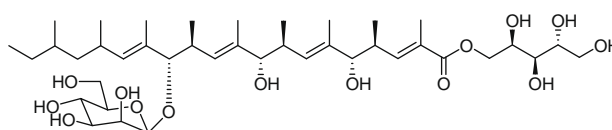
pp 6830–6833

Andrew A. Rodriguez, Hoseong Yoo, Joseph W. Ziller, Kenneth J. Shea<sup>\*</sup>

New achiral sulfamide, phosphoric triamide, and thiophosphoric triamide compounds have been synthesized. Their activity as hydrogen bond catalysts for the Friedel–Crafts and Baylis–Hillman reactions compares favorably with that of a known and an active thiourea catalyst. The new compounds were also studied by X-ray crystallography and their solid state structures are described.

**Bionectriol A, a polyketide glycoside from the fungus *Bionectria* sp. associated with the fungus-growing ant, *Apterostigma dentigerum***

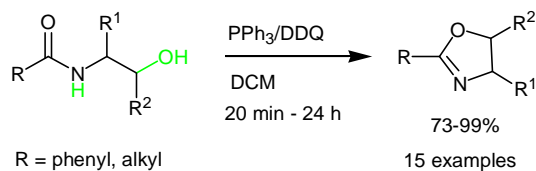
pp 6834–6837

Elizaveta Freinkman, Dong-Chan Oh, Jarrod J. Scott, Cameron R. Currie, Jon Clardy<sup>\*</sup>

### A facile synthesis of 2-oxazolines using a PPh<sub>3</sub>–DDQ system

pp 6838–6840

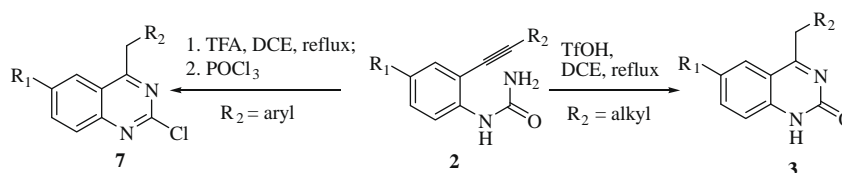
Quancai Xu, Zhengning Li \*



### An efficient synthesis of 4-alkyl-2(1H)-quinazolinones and 4-alkyl-2-chloroquinazolines from 1-(2-alkynylphenyl)ureas

pp 6841–6843

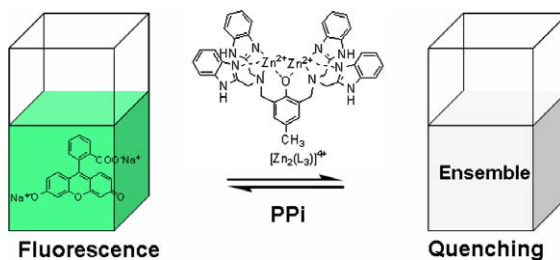
Honggen Wang, Lanying Liu, Yong Wang, Changlan Peng, Jiancun Zhang \*, Qiang Zhu \*



### A new chemosensing ensemble for fluorescent recognition of pyrophosphate in water at physiological pH

pp 6844–6847

Lijun Tang \*, Ye Li, Hong Zhang, Zhilong Guo, Jianhua Qian \*



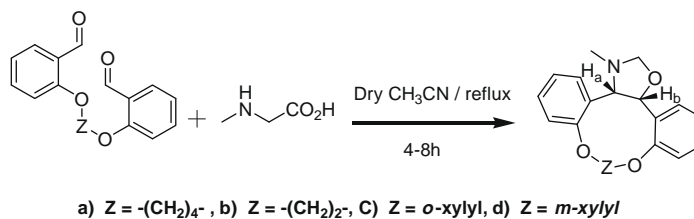
A new chemosensing ensemble that can effectively differentiate pyrophosphate from phosphate and other biologically important anions in 100% aqueous solution at physiological pH has been developed.



### Stereoselective synthesis of oxazolidine, hexahydropyrrolo [2,1-*b*] oxazole, and tetrahydro-2*H*-oxazolo [3,2-*c*] thiazole grafted macrocycles through intramolecular 1,3-dipolar cycloaddition reaction

pp 6848–6850

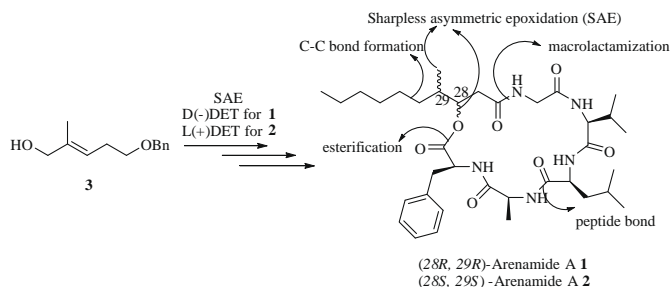
S. Purushothaman, R. Raghunathan \*



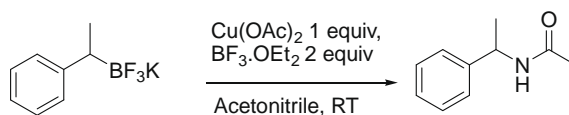


**Total synthesis of arenamide A and its diastereomer**

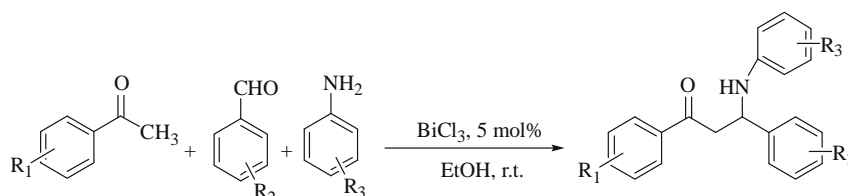
pp 6851–6854

S. Chandrasekhar<sup>\*</sup>, G. Pavankumarreddy, K. Sathish**Ritter-type amidation of alkylboron derivatives with nitriles**

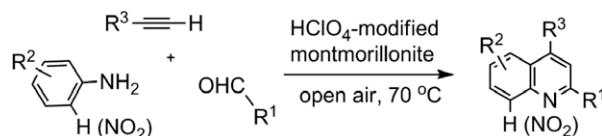
pp 6855–6857

Clément Cazorla, Estelle Métay, Bruno Andrioletti, Marc Lemaire<sup>\*</sup>**Bismuth(III) chloride-catalyzed one-pot Mannich reaction: three-component synthesis of  $\beta$ -amino carbonyl compounds**

pp 6858–6860

Hua Li, Hong-yao Zeng, Hua-wu Shao<sup>\*</sup>**A new process of multicomponent Povarov reaction–aerobic dehydrogenation: synthesis of polysubstituted quinolines**

pp 6861–6865

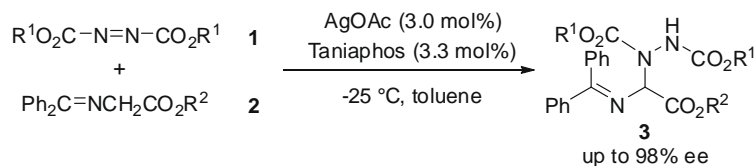
Sankar K. Guchhait<sup>\*</sup>, Khyati Jadeja, Chetna Madaan

$\text{HClO}_4$ -modified montmorillonite was found to be crucial catalyst in promoting a new domino process of three-component Povarov reaction–aerobic dehydrogenation toward the synthesis of polysubstituted quinolines relevant to antimalarials.

**AgOAc-catalyzed asymmetric amination of glycine Schiff bases with azodicarboxylates**

pp 6866–6868

Qing-An Chen, Wei Zeng, Yong-Gui Zhou \*

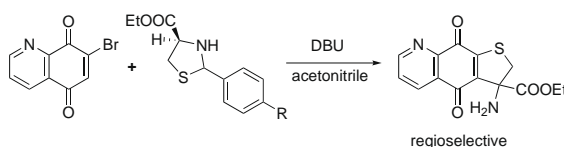


Asymmetric amination of glycine Schiff bases with azodicarboxylates has been developed with high yields and up to 98% ee using AgOAc/Taniaphos complex as the catalyst.

**A regioselective approach toward the synthesis of pharmacologically important quinone-containing heterocyclic systems**

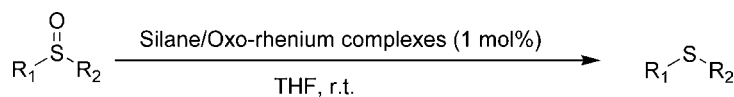
pp 6869–6871

Sabrina Castellano, Marisabella Santoriello, Pietro Campiglia, Giovanna Cardillo, Alessia Bertamino, Isabel Gomez-Monterrey, Ettore Novellino, Gianluca Sbardella \*

**Highly efficient and chemoselective reduction of sulfoxides using the system silane/oxo-rhenium complexes**

pp 6872–6876

Sara C. A. Sousa, Ana C. Fernandes \*

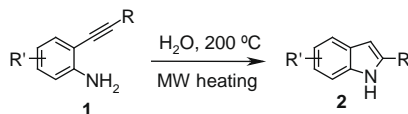


The catalytic system silane/oxo-rhenium complexes is highly efficient and chemoselective for the reduction of a wide range of sulfoxides in excellent yields under mild conditions.

**Microwave-assisted synthesis of indole-derivatives via cycloisomerization of 2-alkynylanilines in water without added catalysts, acids, or bases**

pp 6877–6881

Adriano Carpita, Arianna Ribecai \*

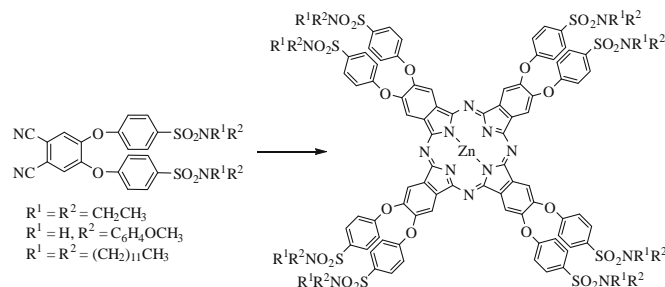


An unprecedented green methodology is described for the preparation of differently substituted indoles via microwave-assisted cycloisomerization of 2-alkynylaniline derivatives in water. Moderate to good yields in the cyclization can be achieved for a variety of 2-aminoaryl alkynes. Reactions are run without any added metal catalyst, acid, or base, and do not take place by applying conventional heating.

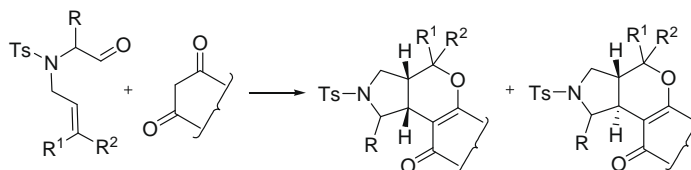


**Synthesis of sulfonamide-substituted phthalocyanines**

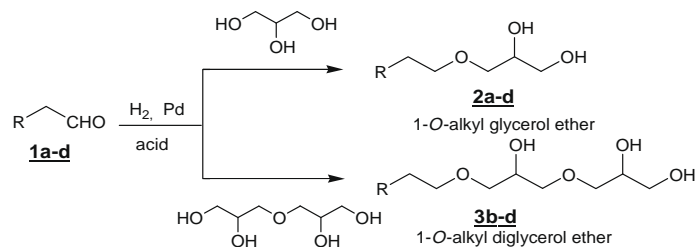
pp 6882–6885

Eliana F. A. Carvalho, Mário J. F. Calvete, Augusto C. Tomé<sup>\*</sup>, José A. S. Cavaleiro**An efficient synthesis of pyrano [4,5-c] pyrrole derivatives through microwave-accelerated intramolecular Knoevenagel hetero Diels–Alder reaction**

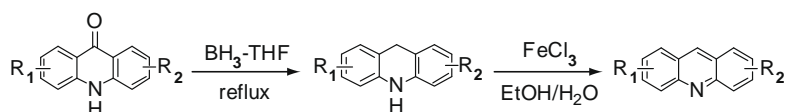
pp 6886–6890

Mathesan Jayagobi, Raghavachary Raghunathan<sup>\*</sup>**Straightforward selective synthesis of linear 1-O-alkyl glycerol and di-glycerol monoethers**

pp 6891–6893

Yan Shi, Wissam Dayoub, Alain Favre-Réguillon, Guo-Rong Chen, Marc Lemaire<sup>\*</sup>a: R = C<sub>6</sub>H<sub>5</sub>-CH<sub>2</sub>- b: R = nC<sub>3</sub>H<sub>7</sub> c: R = nC<sub>6</sub>H<sub>13</sub> d: R = nC<sub>10</sub>H<sub>21</sub>**Simple and convenient conversion of acridones into 9-unsubstituted acridines via acridanes using borane tetrahydrofuran complex**

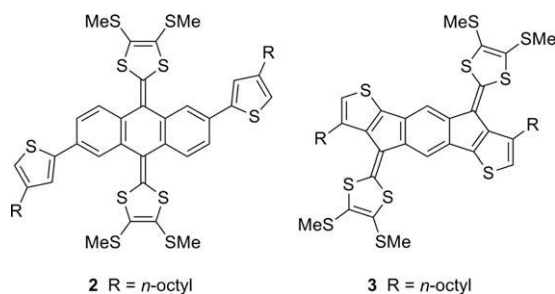
pp 6894–6896

Nicolas Desbois, Anna Szollosi, Aurélie Maisoniai, Valérie Weber, Emmanuel Moreau, Jean-Claude Teulade, Olivier Chavignon, Yves Blache, Jean Michel Chezal<sup>\*</sup>

### Synthesis and properties of thiophene-functionalized $\pi$ -extended tetrathiafulvalenes

pp 6897–6900

Min Shao, Yuming Zhao \*



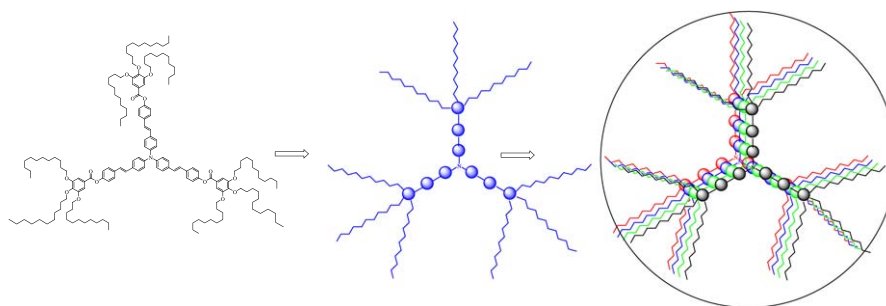
New hybrid compounds composed of thiophene and  $\pi$ -extended tetrathiafulvalene units were synthesized, and their electrochemical and spectroscopic properties were investigated.



### A new disc-shaped mesogenic compound with olefinic linkage derived from triphenylamine: synthesis, mesogenic behavior and fluorescence properties

pp 6901–6905

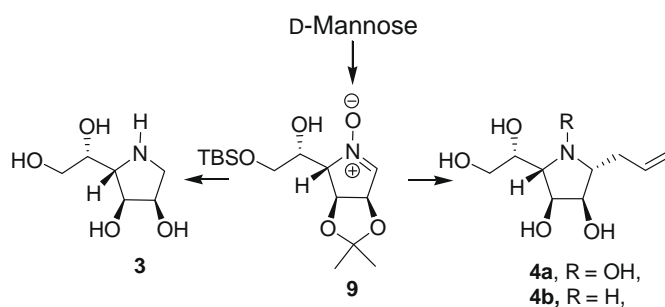
Krishna C. Majumdar \*, Buddhadeb Chattopadhyay, Pranab Kumar Shyam, Nilasish Pal



### Stereo-controlled approach to pyrrolidine iminosugar C-glycosides and 1,4-dideoxy-1,4-imino-L-allitol using a D-mannose-derived cyclic nitron

pp 6906–6908

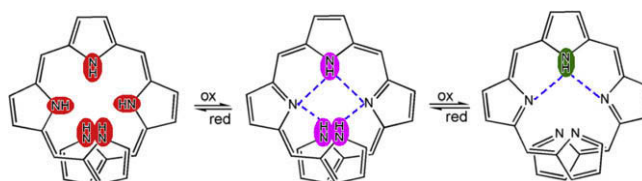
Omprakash P. Bande, Vrushali H. Jadhav, Vedavati G. Puranik, Dilip D. Dhavale \*, Marco Lombardo



### Linear fully conjugated meso-aryl pentapyrrins

pp 6909–6912

Ji-Young Shin, Steven S. Hepperle, David Dolphin \*



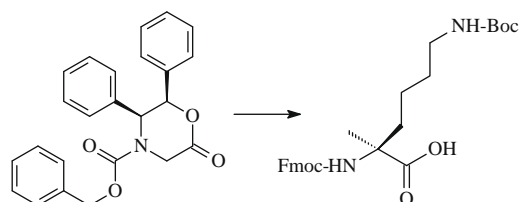
The structures of fully conjugated meso-2,6-dichlorophenyl pentapyrrin exhibiting different  $\pi$ -conjugated networks were studied using crystallographic as well as observed and calculated spectral data.



**Enantioselective synthesis of (*L*)-Fmoc- $\alpha$ -Me-Lys(Boc)-OH via diastereoselective alkylation of oxazinone as a chiral auxiliary**

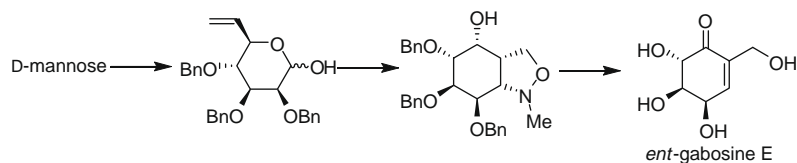
pp 6913–6915

Satendra S. Chauhan

A stereoselective and efficient synthesis of (*L*)-Fmoc- $\alpha$ -Me-Lys(Boc)-OH is reported.**Synthesis of *ent*-gabosine E from *D*-mannose by intramolecular nitron-olefin cycloaddition**

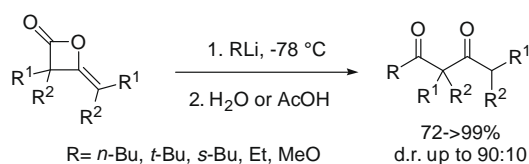
pp 6916–6918

Christos I. Stathakis, Maria N. Athanatou, John K. Gallos\*

**Synthesis of 1,3-diketones through ring-opening of ketoketene dimer  $\beta$ -lactones**

pp 6919–6922


Ahmad A. Ibrahim, Stephen M. Smith, Sarah Henson, Nessian J. Kerrigan\*



The reaction of ketoketene dimers with organolithium reagents afforded 1,3-diketones in good to excellent yields, and with good diastereoselectivity in some cases.



\*Corresponding author

+ Supplementary data available via ScienceDirect

## COVER

First asymmetric total synthesis of fomitellic acid B has been accomplished. The highly oxygenated AB ring system, with all requisite chiral centers, is stereoselectively constructed by means of titanium(III)-mediated radical cascade cyclization of epoxy polyene.

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