

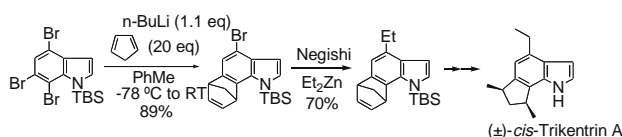
**Tetrahedron Letters Vol. 50, No. 51, 2009**

**Contents**

**COMMUNICATIONS**

**New synthesis of (±)-*cis*-trikentrin A via tandem indole aryne cycloaddition/Negishi reaction. Applications to library development** pp 7113–7115

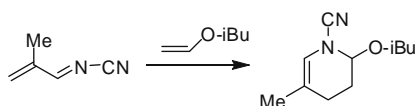
Neil Brown, Diheng Luo, Joseph A. Decapo, Keith R. Buszek \*



A new, efficient route to the trikentrins and their related structures using a tandem indolyne cycloaddition/Negishi cross-coupling reaction is described. The key steps involve formation of the 6,7-indolyne and trapping with cyclopentadiene in excellent yield followed by Negishi coupling with  $\text{Et}_2\text{Zn}$  at the remaining C4 bromo position.

**Synthesis and [2+4]cycloadditions of two 1-aza-1,3-butadiene-1-carbonitriles** pp 7116–7117

In Seo Kee, H. K. Hall Jr. \*

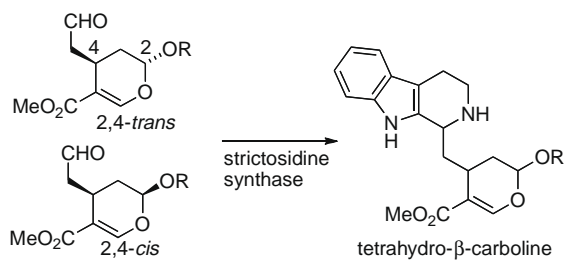


3-Methyl- and 3-ethyl-1-aza-1,3-butadiene-1-carbonitriles were synthesized by reaction of the corresponding 3-alkylacroleins with bis(trimethylsilyl)-carbodiimide using titanium tetrachloride as catalyst. These compounds were highly reactive and difficult to purify rigorously. Attempted anionic polymerizations gave only oligomers with molecular weights of ~500 Daltons. However, these 3-alkyl-azadienecarbonitriles cycloadded to the electron-rich olefins to give the corresponding [2+4] cycloadducts.



**Synthesis and biochemical evaluation of des-vinyl secologanin aglycones with alternate stereochemistry** pp 7118–7120

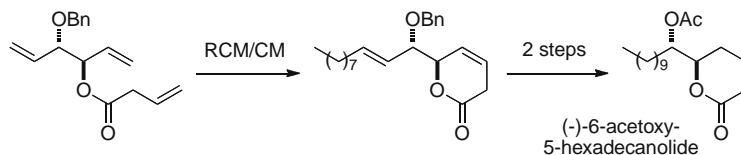
Peter Bernhardt, Sarah E. O'Connor \*



Alternate stereoisomers of des-vinyl secologanin were synthesized and assayed with strictosidine synthase, a gate-keeping monoterpene indole alkaloid biosynthetic enzyme. Both the natural 2,4-*trans* diastereomer and the unnatural 2,4-*cis* diastereomer are accepted by strictosidine synthase. An increased O-substituent size leads to an increase in selectivity for *trans* over *cis*.

**Facile synthesis of (–)-6-acetoxy-5-hexadecanolide by size-selective ring-closing/cross metathesis**

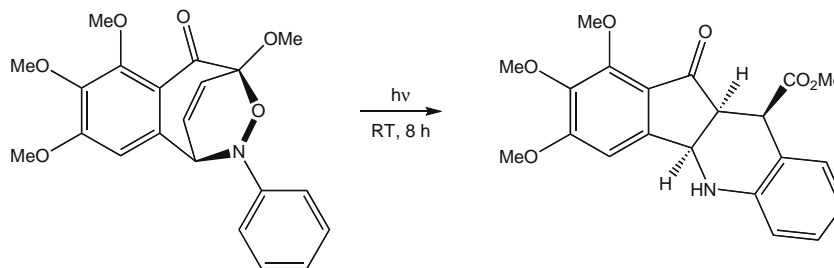
pp 7121–7123

Kevin J. Quinn <sup>\*</sup>, John M. Curto, Kevin P. McGrath, Neal A. Biddick**Molecular clips and tweezers with corannulene pincers**

pp 7124–7127

Lesya Kobryn, William P. Henry, Frank R. Fronczek, Renata Sygula, Andrzej Sygula <sup>\*</sup>**Synthesis of novel indenoquinolines and indenopyridazines via photoisomerization of benzotropolone derivatives**

pp 7128–7131

Carlos Tabarez, Carrie Waterman, Ashleigh L. Rapp, Patrick Moyna <sup>\*</sup>, Guillermo Moyna <sup>\*</sup>

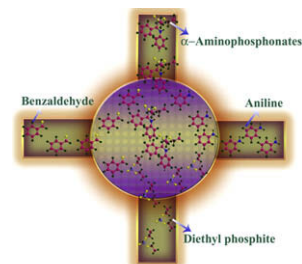
The photoisomerization of hetero Diels–Alder adducts of tetramethylpurpurogallin bearing  $\beta,\gamma$ -unsaturated ketone chromophores and endocyclic –N–O– or –N–N– groups is described.

**Mesoporous aluminosilicate nanocage-catalyzed three-component coupling reaction: an expedient synthesis of  $\alpha$ -aminophosphonates**

pp 7132–7136

Ajayan Vinu <sup>\*</sup>, Pranjal Kalita, Veerappan V. Balasubramanian, Hamid Oveisi, Tamil Selvan, Ajayan Mano, Murugulla A. Chari, B. V. Subba Reddy <sup>\*</sup>

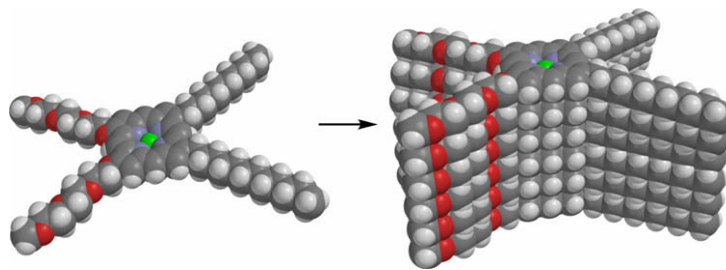
Here we demonstrate for the first time the synthesis of  $\alpha$ -aminophosphonates through the three-component coupling reaction of aldehydes, amines, and diethyl phosphite by using highly acidic 3D mesoporous aluminosilicate nanocage catalyst, which gave excellent yield with a high selectivity in a short reaction time due to its high acidity, 3D pores, and a huge space in the nanocages.



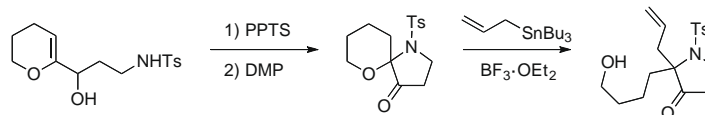
Synthesis of  $\alpha$ -aminophosphonates using mesoporous 3D highly acidic nanocage catalyst

**Highly planar amphiphilic porphyrins**

pp 7137–7140

Masafumi Oda, Tomoya Ishizuka<sup>\*</sup>, Shigeo Arai, Atsushi Takano, Donglin Jiang<sup>\*</sup>**Synthesis of pyrrolidin-3-ones from dihydropyran precursors via spiro-*N,O*-acetals**

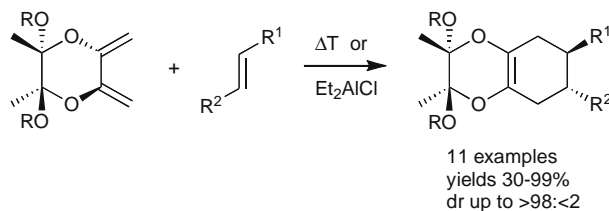
pp 7141–7143

Jeremy Robertson<sup>\*</sup>, Andrew J. Tyrrell, Praful T. Chovatia, Sarah Skerratt

2,2-Disubstituted pyrrolidin-3-ones are prepared in three steps from simple dihydropyran derivatives; the key spiro-*N,O*-acetal intermediate is a useful *N*-sulfonylketoiminium ion precursor.

**Synthesis and diastereoselective Diels–Alder reactions of homochiral *C*<sub>2</sub>-symmetric butane-1,2-diacetal-based 1,3-dienes**

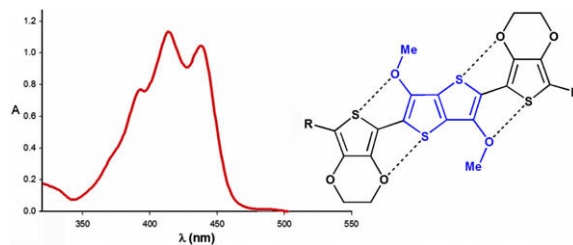
pp 7144–7147

Bruno Linclau<sup>\*</sup>, Philip J. Clarke, Mark E. Light

Thermal and Lewis acid-catalysed Diels–Alder reactions of a range of dienophiles with an axially chiral diene results in cycloadducts with moderate to excellent diastereoselectivity.

**Rigid oligomers based on the combination of 3,6-dimethoxythieno[3,2-*b*]thiophene and 3,4-ethylenedioxythiophene**

pp 7148–7151

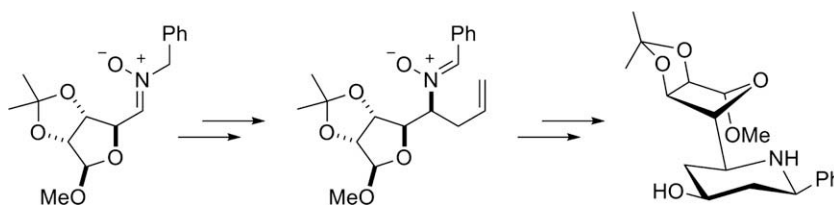
Mathieu Turbiez, Noémie Hergué, Philippe Leriche, Pierre Frère<sup>\*</sup>

A series of oligomers based on the combination of the 3,6-dimethoxythieno[3,2-*b*]thiophene unit and 3,4-ethylenedioxythiophene (EDOT) moieties have been prepared and studied by UV–vis spectroscopy and cyclic voltammetry.

**Intramolecular 1,3-dipolar cycloaddition of *N*-alkenyl nitrones *en route* to glycosyl piperidines**

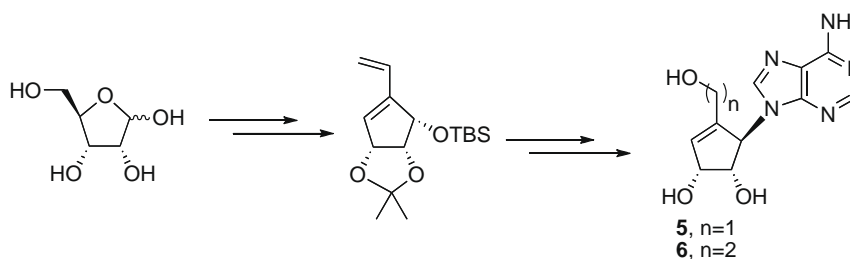
pp 7152–7155

Eduardo Marca, Ignacio Delso, Tomás Tejero, Jesús T. Vázquez, Rosa L. Dorta, Pedro Merino \*

**Synthesis of the 6'-*iso* analogues of neplanocin A and 5'-homoneplanocin A**

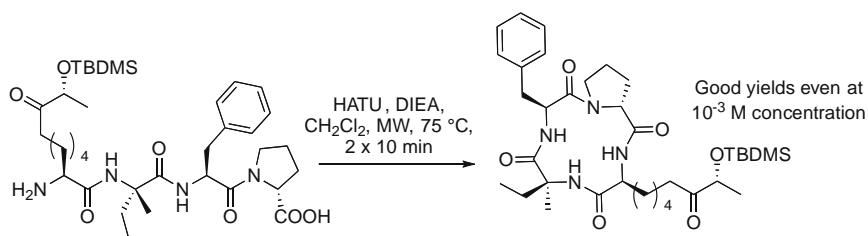
pp 7156–7158

Wei Ye, Mingzhu He, Stewart W. Schneller \*

**Microwaves enhance cyclisation of tetrapeptides**

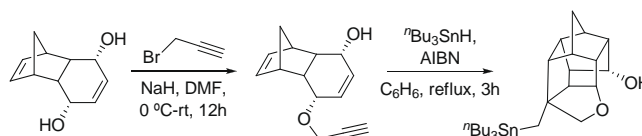
pp 7159–7161

Elena Cini, Cinzia B. Botta, Manuela Rodriguez, Maurizio Taddei \*

**Topologically driven tandem radical cyclization-based strategy for the synthesis of oxa- and aza-cages**

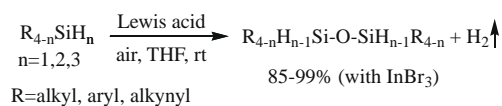
pp 7162–7165

Santosh J. Gharpure \*, Suheel K. Porwal

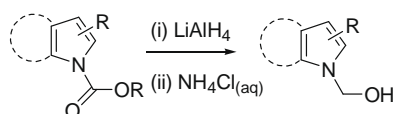
Tandem radical cyclizations involving two or three successive 5-*exo-trig* cyclizations result in the formation of the oxa- and aza-cage compounds.

**An efficient and simple method for the preparation of symmetrical disiloxanes from hydrosilanes by Lewis acid-catalyzed air oxidation**

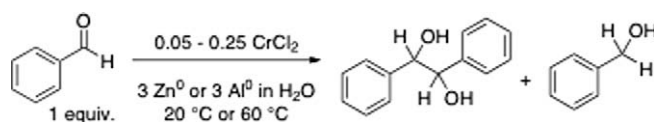
pp 7166–7168

Madabhushi Sridhar <sup>\*</sup>, Beeram China Ramanaiah, Chinthala Narsaiah, Mudam Kumara Swamy, Bellam Mahesh, Mallu Kishore Kumar Reddy**Reduction of 1-pyrrolyl and 1-indolyl carbamates to hemiaminals**

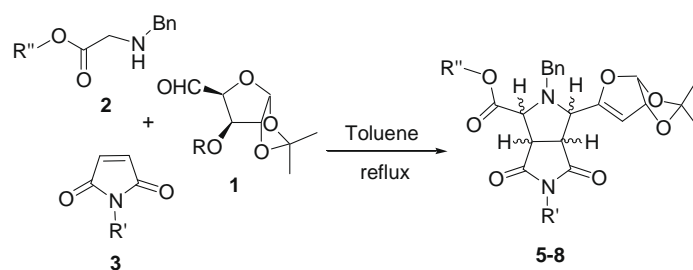
pp 7169–7171

He-Chu Hsu, Duen-Ren Hou <sup>\*</sup>**Chromium-catalyzed pinacol coupling of benzaldehyde in water**

pp 7172–7174

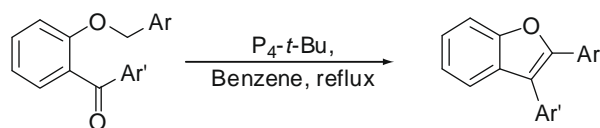
Ronald L. Halterman <sup>\*</sup>, Jessica P. Porterfield, Shekar MekalaCrCl<sub>2</sub> catalyzes the pinacol coupling of benzaldehyde in water in the presence of Zn<sup>0</sup> or Al<sup>0</sup>.**Diastereoselective synthesis of pyrrolidines via 1,3-dipolar cycloaddition of a chiral azomethine ylide**

pp 7175–7179

K. Karthikeyan, R. Senthil Kumar, D. Muralidharan, P. T. Perumal <sup>\*</sup>

**A new synthetic strategy for the synthesis of bioactive stilbene dimers. A direct synthesis of amurensin H**

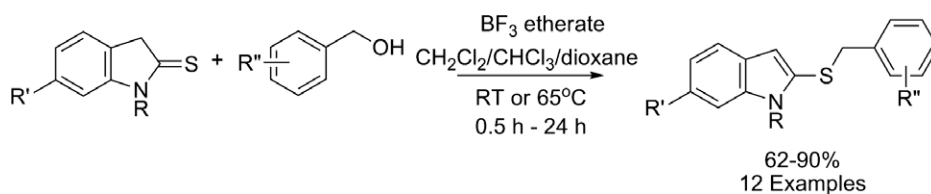
pp 7180–7183

George A. Kraus<sup>\*</sup>, Vinayak Gupta

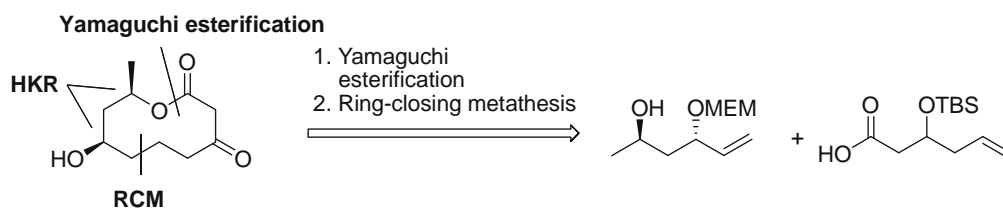
A series of 2,3-diarylbenzofurans are efficiently generated by the cyclization of *ortho*-benzyloxybenzophenones by a novel one-step procedure using phosphazene base  $P_4-t-Bu$ . This methodology is used toward the successful total synthesis of amurensin H.

**Chemoselective S-benylation of indoline-2-thiones using benzyl alcohols**

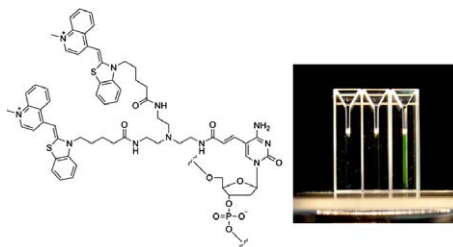
pp 7184–7187

Mukund Jha<sup>\*</sup>, Oro Enaohwo, Ashley Marcellus**Enantioselective synthesis of decarestrictine J**

pp 7188–7190

Partha Sarathi Chowdhury, Priti Gupta, Pradeep Kumar<sup>\*</sup>**Doubly thiazole orange-labeled cytidine for functional expansion of a hybridization-sensitive probe**

pp 7191–7195

Shuji Ikeda, Mizue Yuki, Hiroyuki Yanagisawa, Akimitsu Okamoto<sup>\*</sup>

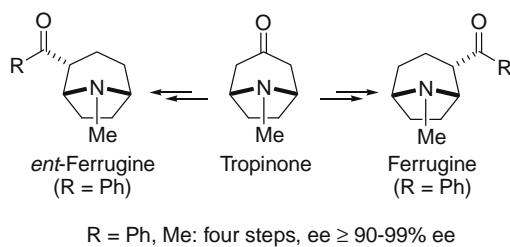
A 2'-deoxycytidine derivative modified by two thiazole orange dyes has been designed for functional expansion of hybridization-sensitive fluorescence probes.



**Enantioselective route to ferrugine and its methyl analogue via aldol deoxygenation**

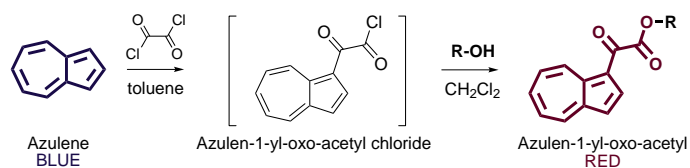
pp 7196–7198

Michal Sienkiewicz, Urszula Wilkaniec, Ryszard Lazny \*

**Az—a colourful azulene-derived protecting group**

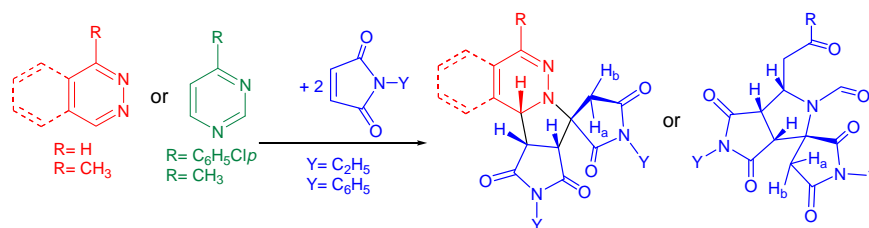
pp 7199–7204

Mattie S. M. Timmer \*, Bridget L. Stocker, Peter T. Northcote, Brendan A. Burkett \*

**Spiroheterocyclic compounds: old stories with new outcomes**

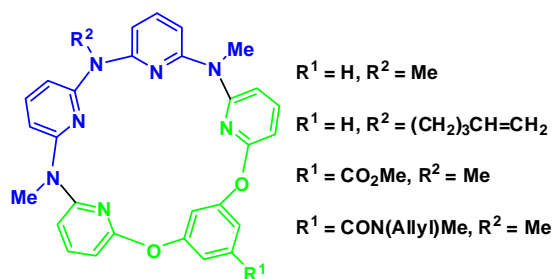
pp 7205–7208

Costel C. Moldoveanu, Peter G. Jones, Ionel I. Mangalagiu \*

**A [2+3] fragment coupling approach to N,O-bridged calix[1]arene[4]pyridines and their complexation with C<sub>60</sub>**

pp 7209–7212

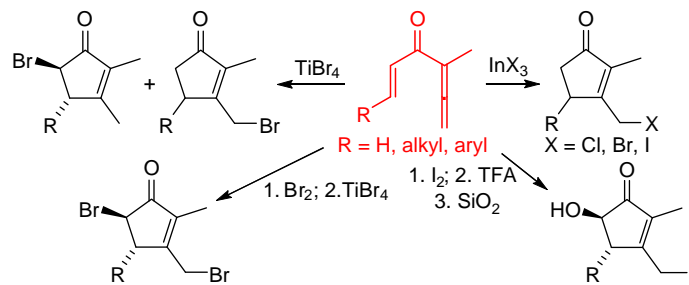
Jin-Cheng Wu, De-Xian Wang \*, Zhi-Tang Huang, Mei-Xiang Wang \*



**Formation of halogenated cyclopent-2-ene derivatives by interrupted Nazarov cyclizations**

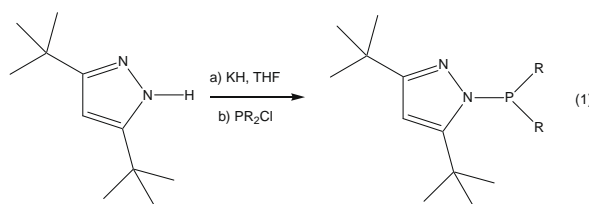
pp 7213–7216

Vanessa M. Marx, T. Stanley Cameron, D. Jean Burnell\*

**Novel bulky pyrazolylphosphine ligands for the Suzuki coupling of aryl chlorides**

pp 7217–7219

Jenifer Jackson, Aibing Xia\*



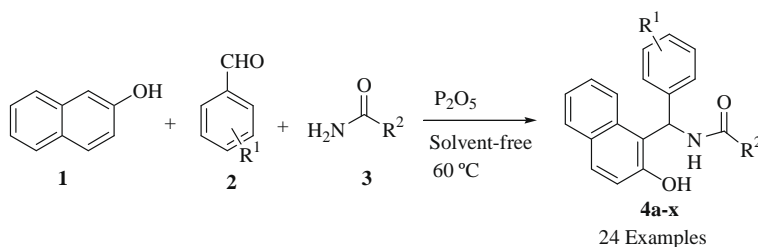
R = cyclohexyl (2) or tert-butyl (3)

Bulky 1-(3,5-di-*tert*-butyl)pyrazolyl-dicyclohexylphosphine and 1-(3,5-di-*tert*-butyl)pyrazolyl-di-*tert*-butylphosphine were prepared from the reactions of 3,5-di-*tert*-butylpyrazolide and corresponding chlorodialkylphosphines. They were successfully employed as ligands in the Suzuki coupling reactions of phenylboronic acid and various aryl bromides and chlorides.

**Atom-efficient and environment-friendly multicomponent synthesis of amidoalkyl naphthols catalyzed by P<sub>2</sub>O<sub>5</sub>**

pp 7220–7222

Ganesh Chandra Nandi, Subhasis Samai, Ram Kumar, M. S. Singh\*



\*Corresponding author

Supplementary data available via ScienceDirect

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