

#### Tetrahedron Letters Vol. 48, No. 31, 2007

#### Contents

#### COMMUNICATIONS

Polymer-supported thiobenzophenone: a self-indicating traceless 'catch and release' linker for the pp 5355–5358 synthesis of isothiocyanates

Brendan A. Burkett,\* Jacqueline M. Kane-Barber, Robert J. O'Reilly and Lei Shi



The application of polymer-supported thiobenzophenone as a self-indicating linker for the synthesis of isothiocyanates is described.

A sensitive fluorescent chemosensor for anions based on a styryl-boradiazaindacene framework pp 5359–5361 Ali Coskun, Erhan Deniz and Engin U. Akkaya\*



Silica hybrid material containing Pd–NHC complex as heterogeneous catalyst for Mizoroki–Heck pp 5363–5366 reactions

Vivek Polshettiwar, Peter Hesemann\* and Joël J. E. Moreau\*



A new silica hybrid material bearing Pd–NHC species, which shows high catalytic activity and excellent recyclability in Mizoroki–Heck reactions.



Sequential cross-metathesis/phosphorus-based olefination: stereoselective synthesis of 2,4-dienoates Tapas Paul and Rodrigo B. Andrade\*





R = alkyl, aryl;  $R^1$  = H or Me;  $R^2$  = H or Me;  $R^3$  = H or Me;  $R^4$  Me or Et

An efficient and convenient protocol for the synthesis of quinoxalines and dihydropyrazines via pp 5371-5374 cyclization–oxidation processes using  $HClO_4 SiO_2$  as a heterogeneous recyclable catalyst Biswanath Das,\* Katta Venkateswarlu, Kanaparthy Suneel and Anjoy Majhi



Lewis acid catalyzed regioselective ring opening of azetidines with alcohols and thiols Sandeep K. Dwivedi, Shikha Gandhi, Namrata Rastogi and Vinod K. Singh\*

pp 5375-5377

pp 5379-5381



An efficient synthesis of amino ethers and amino thioethers were achieved via the ring cleavage of N-tosylazetidines with alcohols or thiols. The reactions were studied in the presence of various Lewis acids and BF<sub>3</sub>·OEt<sub>2</sub> was found to be the most efficient. The products were obtained in modest to good yields under very mild conditions in 5-15 min.

Electrogenerated base-promoted synthesis of tetrahydrobenzo[b]pyran derivatives Lida Fotouhi,\* Majid M. Heravi,\* Azadeh Fatehi and Khadijeh Bakhtiari

> CN  $NC - CH_2 - CN + ArCHO$ electrolysis 10 mA

pp 5367-5370

A bispyridyl compound in dimethyl sulfoxide is emitting blue light when excited with UV light.

Synthesis, optical, and thermal properties of conjugated, bispyridyl and tetrapyridyl compounds by



R—<u>—</u>−H

(R = Bu, Ph)

Pradip K. Bhowmik,\* Alexi K. Nedeltchev and Haesook Han

**Knoevenagel** reaction

A new and efficient one-pot synthesis of aromatic alkynyl ketones from aromatic esters Sang Jun Yim, Chan Ho Kwon and Duk Keun An\*









Θ

Et <sub>2</sub> N´			o <sup>-Me</sup>	NEt <sub>2</sub>	 e <sup>3+</sup> →	Et <sub>2</sub> N <sup>^</sup>			N N	P −Ó M NEt <sub>2</sub>	e <sup>3+</sup>	
	 2	21.0	2	21.0	 21.0		-	 				

Blank Fe<sup>3+</sup> Hg<sup>2+</sup> Fe<sup>2+</sup> Cu<sup>2+</sup> Pb<sup>2+</sup> Ca<sup>2+</sup> Zn<sup>2+</sup> Co<sup>2+</sup> Ni<sup>2+</sup> Cd<sup>2+</sup> Mn<sup>2+</sup> Ag<sup>+</sup> Mg<sup>2+</sup> Ba<sup>2+</sup> Na<sup>+</sup> K



NEt<sub>2</sub> 1 1 only With Mg(II) pp 5393-5395



5343



### The first approach to a new family of macrocycles: synthesis and characterization of thiacalix[2]thianthrenes

Roman Zieba, Cedric Desroches,\* Frederic Chaput, Catherine Sigala, Erwan Jeanneau and Stephane Parola\*



New thianthrene based macrocycles with basket shaped structures were prepared by thermal treatment of tetrakis-(N,N'-dimethylthiocarbamoyl)-tetra-*tert*-butyl-thiacalix[4]arene.

TaBr<sub>5</sub>-catalyzed Biginelli reaction: one-pot synthesis of 3,4-dihydropyrimidin-2-(1*H*)-ones/thiones under pp 5407–5409 solvent-free conditions

Naseem Ahmed and Johan E. van Lier\*





The synthesis of a chemical compound library using diversity-oriented synthesis (DOS) is discussed. The library is structurally inspired by the Amaryllidaceae alkaloids, a family of natural products which has been known to demonstrate potent antiviral and antineoplastic activity. Highlights of this work include the rapid, high-yielding construction of the octahydroindolinone core and the solid-phase diversification of the lactam using a neutral phosphazene base.

Two novel carbonic acid esters conjugated with oligophenyl glucosides from *Rhamnus nakaharai* Tzy-Ming Lu pp 5415-5419



Rhamnakoside A (1) and B (2) are two novel carbonic acid esters that could be phase II conjugation products of quinones in the form of oligophenyl glucosides.

*(***i**)<sup>+</sup>

pp 5401-5405

GaCl<sub>3</sub>-catalyzed [4+2] annulations of allyltrimethylsilane and trimethyl(propargyl)silane with aldimines pp 5421–5424 Tsunehisa Hirashita,\* Daisuke Kawai and Shuki Araki



#### Preparation and characterization of first optically active rigid phthalocyanine dimers Victor N. Nemykin,\* Alexey Y. Koposov, Roman I. Subbotin and Shaili Sharma



The first optically active rigid covalently linked by enantiomerically pure (R)- or (S)-BINOL metal-free phthalocyanine dimers have been prepared and characterized by spectroscopic and theoretical methods.

#### Chemistry of platensimycin

Sheo B. Singh,\* Kithsiri B. Herath, Jun Wang, Nancy Tsou and Richard G. Ball



Selective methylation of the phenolic groups, halogenation, reduction, epoxidation reactions and details of the conversion of dihydroplatensimycin to the cyclic enamino-amido forms have been described.

A new strategy for the synthesis of optically active benzylic fluorides and corresponding five-membered pp 5435–5438 heteroaromatic analogues

Danielle Grée\* and René Grée



pp 5429-5433

pp 5425-5428

### Regio- and diastereoselective synthesis of (3,4,8,9)-dibenzo-2,7-dioxa-5,10-diaza[4.4.4] propellanes from pp 5439–5442 4-substituted 1,2-cyclohexanediones and *o*-aminophenols, a computational approach to regioselectivity prediction

Joanna Nowicka-Scheibe,\* Jacek G. Sośnicki\* and Wanda Sawka-Dobrowolska



Jaspolides G and H, unique bisisomalabaricanes from the Chinese marine sponge *Jaspis* sp. Shengan Tang, Zhiwei Deng, Peter Proksch and Wenhan Lin\*



Two unique bisisomalabaricanes jaspolides, G (1) and H (2), were isolated from the marine sponge *Jaspis* sp. Their structures were elucidated on the basis of extensive spectroscopic data (IR, 1D and 2D NMR, MS) analyses.

### Pd-catalyzed aerobic oxidative coupling of anilides with olefins through regioselective C-H bond activation

Jia-Rui Wang, Chu-Ting Yang, Lei Liu\* and Qing-Xiang Guo\*



A new rhodamine-based fluorescent chemosensor for transition metal cations synthesized by one-step pp 5455–5459 facile condensation

Xuan Zhang, Yasuhiro Shiraishi\* and Takayuki Hirai



pp 5443-5447

#### Revised structure of deacetyl-1,10-didehydrosalvinorin G

Zhongze Ma and David Y. W. Lee\*



Studies toward the total synthesis of nakiterpiosin: construction of the CDE ring system by a transannular Diels-Alder strategy

Tomonori Ito, Masahiro Ito, Hirokazu Arimoto,\* Hiroyoshi Takamura\* and Daisuke Uemura



High-yielding metalloenzymatic dynamic kinetic resolution of fluorinated aryl alcohols Krisztián Bogár and Jan-E. Bäckvall\*



A simple and rapid synthesis of nucleotide analogues containing a phosphorothioate moiety at the pp 5475–5479 terminal position of the phosphate chain

Joanna Kowalska, Magdalena Lewdorowicz, Edward Darzynkiewicz and Jacek Jemielity\*



A straightforward method for the synthesis of nucleotide analogues bearing a phosphorothioate moiety at the terminal position of the polyphosphate chain is described.

5347

pp 5471-5474

pp 5465-5469

### Thermally induced reversible conformational changes in the host-guest adduct of *meso*-tetramethyltetrakis(ethyl)calix[4]pyrrole

Soumen Dey, Kuntal Pal and Sabyasachi Sarkar\*



Chemical immobilization of azido cellulose phenylcarbamate onto silica gel via Staudinger reaction and pp 5487–5490 its application as a chiral stationary phase for HPLC

Sheng Zhang, Teng-Teng Ong, Siu-Choon Ng\* and Hardy Sze On Chan



# The relative reactivities of various unsaturated compounds towards diisopropyloxy- $(\eta^2\mbox{-}cyclopentene)\mbox{titanium}$

Frédéric Cadoret and Yvan Six\*



In reactions of diisopropyloxy( $\eta^2$ -cyclopentene)titanium with unsaturated compounds, competition experiments revealed the following reactivity scale: RCHO > RCN > acetophenone > phenylacetylene > 1-phenyl-1-pentyne > styrene > ethyl carbonate.

## Sequential ring-opening of *trans*-1,4-cyclohexadiene dioxide for an expedient modular approach to 6,7-disubstituted (±)-hexahydro-benzo[1,4]oxazin-3-ones

Matthias Scheunemann,\* Dietlind Sorger, Elena Kouznetsova, Osama Sabri, Reinhard Schliebs, Barbara Wenzel and Jörg Steinbach



pp 5497-5501

#### Synthesis and self-assembly properties of para-acyl-calix[8]arenes

Saïd Jebors, Gennady S. Ananchenko, Anthony W. Coleman\* and John A. Ripmeester



The synthesis and interfacial assembly properties of a series of five *para*-acyl-calix[8]arenes are described, the products are obtained in good yields and all form stable monolayers at the air-water interface.

### Hydrogen atom transfer experiments provide chemical evidence for the conformational differences pp 5507–5511 between *C*- and *O*-glycosides

Angeles Martín, Luis M. Quintanal and Ernesto Suárez\*



Concise syntheses of immunostimulating glycolipids,  $\alpha$ -galactosyl ceramides Takashi Tsujimoto and Yukishige Ito<sup>\*</sup>



α-Galactosylceramides, potentially immunostimulating agents were synthesized in eight steps from a common intermediate.

# A flavin analogue with improved solubility in organic solventsppRonald L. Koder,\* Bruce R. Lichtenstein, Jose F. Cerda, Anne-Frances Miller and P. Leslie Dutton



5349



pp 5517-5520

 $(i)^{+}$ 

EPR investigation of the influence of side chain protecting groups on peptide-resin solvation of the Asx pp 5521-5524 and Glx model containing peptides

Eduardo M. Cilli,\* Eduardo F. Vicente, Edson Crusca, Jr. and Clovis R. Nakaie\*



A novel colorimetric and fluorescent chemosensor: synthesis and selective detection for  $Cu^{2+}$  and  $Hg^{2+}$  pp 5525–5529 Honglei Mu, Rui Gong, Qiao Ma, Yimin Sun and Enqin Fu<sup>\*</sup>

A novel chemosensor has been synthesized from macrocyclic dioxotetraamine with 1,8-naphthalimide derivative. In the presence of  $Cu^{2+}$  or  $Hg^{2+}$ , the color of the solution changed from both yellow-green to almost colorless or orange, respectively, which make naked-eyes detection of these two metal ions possible. At the same time, in the presence of  $Cu^{2+}$  or  $Hg^{2+}$ , its fluorescence has been quenched remarkably. It was found that 1 was a novel and unique colorimetric and fluorescent chemosensor for the optical detection of  $Cu^{2+}$  or  $Hg^{2+}$ .

### A catalytic, highly stereoselective aldehyde olefination reaction

pp 5531-5534

 $1+Cu^2$ 

 $1 + Hg^2$ 

Yun-Ming Lin,\* Zhongtao Li, Virginie Casarotto, Jessica Ehrmantraut and Annie N. Nguyen



#### Facile preparation of fused ring azolylureas

pp 5535-5538

Joseph E. Drumm,<sup>\*</sup> David D. Deininger, Arnaud LeTiran, Tiansheng Wang, Anne-Laure Grillot, Yusheng Liao, Steven M. Ronkin, Dean P. Stamos, Qing Tang, Shi-Kai Tian and Patricia Oliver-Shaffer



#### Synthesis of monofluorinated 1-(naphthalen-1-yl)piperazines

Joseph T. Repine,\* Douglas S. Johnson,\* Andrew D. White, David A. Favor, Michael A. Stier, Judy Yip, Trent Rankin, Qizhu Ding and Samarendra N. Maiti



A series of regioisomerically monofluorinated 1-(naphthalen-1-yl)piperazines is described.

Sphenalactones A–D, a new class of highly oxygenated trinortriterpenoids from *Schisandra sphenanthera* pp 5543–5546 Wei-Lie Xiao, Liu-Meng Yang, Li-Mei Li, Jian-Xin Pu, Sheng-Xiong Huang, Zhi-Ying Weng, Chun Lei, Jing-Ping Liu, Rui-Rui Wang, Yong-Tang Zheng, Rong-Tao Li and Han-Dong Sun\*

Four novel highly oxygenated trinortriterpenoids, sphenalactones A–D (1–4), were isolated from the leaves and stems of *Schisandra sphenanthera* and their structures were elucidated by extensive analysis of 1D and 2D NMR data. Compounds 1–4 featured a C<sub>27</sub> backbone and showed anti-HIV-1 activity with EC<sub>50</sub> values in the range of 35.5–89.1 µg/mL with a low cytotoxicity against C8166 cells (CC<sub>50</sub> > 200 µg/mL).

Synthesis and spectroscopic studies of *trans*-bis-(3,5-dimethyl-4-nitrosopyrazole) dimer Zeki A. Nasir Al-Shamkhani and Ali Hashem Essa\*



Bis-(3,5-dimethyl-4-nitrosopyrazole) dimer was prepared by reaction of acetyl acetone with nitrous acid and condensation with

 $\underbrace{\overset{O}{\underset{HCl}{\overset{}}}_{NaNO_2}}_{HCl} \underbrace{\overset{OH}{\underset{N}{\overset{}}}_{NH_2NH_2/H_2O}}_{NH_2NH_2/H_2O}$ 

### Presumptive evidence for an intermediate oxirane in the reaction of phenylfluorocarbene with cyclohexenone

Robert A. Moss,\* Lei Wang and Ronald R. Sauers\*



# pp 5547–5550

5351

**; )**+





Synthesis of new polyfunctional 2-pyrrolidinones from methyl 2-(carboethoxyhydroxymethyl)acrylate pp 5555-5559 Jean-François Morizur and Lon J. Mathias\*



Design and synthesis of a tridentate ligand for asymmetric bifunctional catalysis Virginie Casarotto, Zhongtao Li, Julie Boucau and Yun-Ming Lin\*



Enantioselective Mannich-type reaction of sulfonylimines having 2-pyridylsulfonyl group as a novel pp 5565-5568 stereocontroller

Shuichi Nakamura,\* Hideaki Sano, Hiroki Nakashima, Koji Kubo, Norio Shibata and Takeshi Toru\*



Stereoselective conjugate additions of Grignard reagents to cyclopentadienones Anthony J. Pearson,\* John D. Protasiewicz, James Updegraff and Ming Zhang pp 5569-5572

pp 5561-5564



# Sc(OTf)<sub>3</sub>-catalyzed alkylation of indoles with propargyl alcohols: an expeditious synthesis of 3-substituted indoles pp 5573–5576

J. S. Yadav,\* B. V. Subba Reddy, K. V. Raghavendra Rao and G. G. K. S. Narayana Kumar



\*Corresponding author

(*D*<sup>+</sup> Supplementary data available via ScienceDirect

Available online at www.sciencedirect.com



Abstracted/indexed in: AGRICOLA, Beilstein, BIOSIS Previews, CAB Abstracts, Chemical Abstracts, Chemical Engineering and Biotechnology Abstracts, Current Biotechnology 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<sup>®</sup>. Full text available on ScienceDirect<sup>®</sup>



ISSN 0040-4039