

### Tetrahedron Letters Vol. 47, No. 6, 2006

### **Contents**

#### **COMMUNICATIONS**

### New synthesis of 3-arylpyrrolines

pp 855-859

Meng-Yang Chang,\* Chun-Li Pai and Yung-Hua Kung

$$\overset{\mathsf{Ar}}{\underset{\mathsf{Ts}}{\longleftarrow}} \overset{\mathsf{Ar}}{\underset{\mathsf{N}}{\longleftarrow}} \overset{\mathsf{Ar}}{\underset{\mathsf{N}}{\longleftarrow}} \overset{\mathsf{OH}}{\underset{\mathsf{N}}{\longleftarrow}} \overset{\mathsf{a}, \, \mathsf{Ar} = \mathsf{C}_6\mathsf{H}_5; \, \mathsf{b}, \, \mathsf{Ar} = \mathsf{4} - \mathsf{FC}_6\mathsf{H}_4; \\ \mathsf{c}, \, \mathsf{Ar} = \mathsf{4} - \mathsf{CIC}_6\mathsf{H}_4; \, \mathsf{d}, \, \mathsf{Ar} = \mathsf{4} - \mathsf{MeoC}_6\mathsf{H}_4; \\ \mathsf{e}, \, \mathsf{Ar} = \mathsf{3} - \mathsf{MeoC}_6\mathsf{H}_4; \, \mathsf{f}, \, \mathsf{Ar} = \mathsf{4} - \mathsf{C}_6\mathsf{H}_5\mathsf{C}_6\mathsf{H}_4 \\ \end{aligned}$$



Synthesis of alicyclic esters via an intramolecular conjugate addition reaction. New method for generating (Z)-vinylcopper species from 1,1-dibromoalkenes

pp 861–864

Keiji Tanino,\* Keisuke Arakawa, Mikiya Satoh, Yasuhiro Iwata and Masaaki Miyashita\*

$$\begin{array}{c|c} EtO_2C \\ \hline \\ R \end{array} \begin{array}{c|c} Br \\ \hline \\ ether \end{array} \begin{array}{c|c} EtO_2C \\ \hline \\ \\ R \end{array} \begin{array}{c|c} Cu \\ \hline \\ \\ R \end{array} \begin{array}{c|c} Me \\ \hline \\ \\ R \end{array}$$

#### Metalations in hydrocarbon solvents; media effects on n-BuLi reactivity

pp 865-868

D. W. Slocum,\* Angela Carroll, Paul Dietzel, Sally Eilerman, John P. Culver, Ben McClure, Scott Brown and R. W. Holman

## Consecutive nucleophilic substitution and aza Diels-Alder reaction—an efficient strategy to functionalized 2,2'-bipyridines

pp 869-872

Dmitry N. Kozhevnikov,\* Valery N. Kozhevnikov, Anton M. Prokhorov, Maria M. Ustinova, Vladimir L. Rusinov, Oleg N. Chupakhin, Grigory G. Aleksandrov and Burkhard König

## **(i)**+

## Design of chiral tin(IV) aryloxide as a mild Lewis acid catalyst for enantioselective Diels-Alder reaction

pp 873-875

Taichi Kano, Teppei Konishi, Shunsuke Konishi and Keiji Maruoka\*

A novel Sn(IV) aryloxide Lewis acid has been designed and prepared from SnCl<sub>4</sub> and (S)-3,3'-bis(3,5-bis(trifluoromethyl)-phenyl)-1,1'-bi-2-naphthol. The chiral Sn(IV) Lewis acid has been successfully applied to the enantioselective Diels–Alder reaction.

## Catalytic aldol-type reaction of aldehydes with ethyl diazoacetate using quarternary ammonium hydroxide as the base

pp 877–880

Ravi Varala, Ramu Enugala, Sreelatha Nuvula and Srinivas R. Adapa\*

# Catalysis by ionic liquids: cyclopropyl carbinyl rearrangements catalyzed by [pmim]Br under organic solvent free conditions

pp 881-884

Brindaban C. Ranu,\* Subhash Banerjee and Arijit Das

$$\begin{array}{c|c}
\text{OH} & & \\
\text{Ar} & & \\
\text{R} & & \\
\hline
\text{Sonication} & \\
\end{array}$$

## Design, synthesis, and structural aspects of chalcogen-substituted pyridine dicarboxamide donors and their reactions

pp 885-889

Naveen Kumar, Marilyn Daisy Milton, Jai Deo Singh,\* Shailesh Upreti and Raymond J. Butcher

The design and synthesis of a new family of potentially pentadentate,  $N_3Se_2/N_3Te_2$  type donors, bearing a central [-NH-C(=O)-pyridine-C(=O)-NH-] fragment with selenium or tellurium as additional donors in their appended arms, and their reactivity toward  $d^8$  and  $d^{10}$  metal ions, are discussed.

Rh(I)-catalyzed mild intramolecular [4+2] cycloaddition reactions of ester-tethered diene-yne compounds pp 891–895 Akio Saito,\* Takamitsu Ono, Arata Takahashi, Takeo Taguchi\* and Yuji Hanzawa\*

Enantioselective turnover in glyoxylate-ene reactions catalyzed by chiral copper complexes Manoj K. Pandey, Alakesh Bisai and Vinod K. Singh\*

pp 897-900

#### Two approaches for efficient synthesis of (-)-colletol

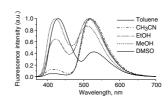
pp 901-904

Samir BouzBouz\* and Janine Cossy

### Synthesis and fluorescence properties of 2-aryl-3-hydroxyquinolones, a new class of dyes displaying dual pp 905-908 fluorescence

Dmytro A. Yushchenko,\* Mykhailo D. Bilokin', Oleksandr V. Pyvovarenko, Guy Duportail, Yves Mély and Vasyl G. Pivovarenko

OH Ar = 
$$X$$
  $X = H, F, CH_3, OCH_3, NAIk_2$ 





pp 909-911

#### Total synthesis of bioactive frustulosin and frustulosinol

Mary-Lorène Goddard and Raffaele Tabacchi\*

### An expedient approach to allenes and polycyclic structures using propargyl radicals

pp 913-916

Celia Alameda-Angulo, Béatrice Quiclet-Sire and Samir Z. Zard\*

# Sterically encumbered regioselective cycloaddition of a calixarene derived bis(spirodienone) with 1,2-benzoquinones

pp 917-921

R. Luxmi Varma,\* V. B. Ganga, E. Suresh and C. H. Suresh\*

A calix[4]arene derived bis(spirodienone) acts as the  $2\pi$  component in a cycloaddition reaction with two molecules of 3,5-di-*tert*-butyl-1,2-benzoquinone in the [2+4] manner leading to macrocycles with a benzodioxin moiety. A theoretical rationalization of the results suggested a sterically encumbered regioselective pathway, which gives sterically crowded products.

# Copper(II) catalyzed selective oxidation of primary alcohols to aldehydes with atmospheric oxygen Subbarayan Velusamy, Arumugam Srinivasan and T. Punniyamurthy\*

pp 923-926

#### Palladium(0)-catalyzed cascade one-pot synthesis of isoxazolidines

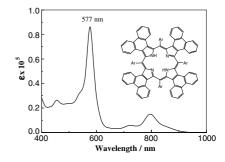
Krishna Gopal Dongol\* and Boon Ying Tay

pp 927-930

A highly diastereoselective cascade reaction protocol has been developed for the synthesis of isoxazolidine derivatives utilizing aryl halides, O-homoallyl hydroxylamine and palladium(0) in a one-pot reaction.

Synthesis and spectroscopic characterization of *meso*-tetraarylporphyrins with fused phenanthrene rings pp 931–934 Hai-Jun Xu, Zhen Shen,\* Tetsuo Okujima, Noboru Ono and Xiao-Zeng You\*

A series of *meso*-tetraaryl porphyrins with fused phenanthrene rings are reported which exhibit remarkable bathochromic-shifted Soret bands at wavelength around 577 nm and Q-bands into the near-infrared region.



# Addition of chalcogenolate anions to terminal alkynes using microwave and solvent-free conditions: easy access to bis-organochalcogen alkenes

pp 935-938

Gelson Perin,\* Raquel G. Jacob, Luiz G. Dutra, Francisco de Azambuja, Greice F. F. dos Santos and Eder J. Lenardão\*

## An efficient synthesis of the $C_1$ – $C_{14}$ subunit of (–)-lasonolide A via a target oriented $\beta$ -C-glycoside formation sequence

pp 939-942

Kailas B. Sawant, Fei Ding and Michael P. Jennings\*

The  $C_1$ - $C_{14}$  subunit of (-)-lasonolide A was synthesized utilizing an expanded Kishi-type  $\beta$ -C-glycoside formation sequence.

## Chemical synthesis and structural elucidation of a new serotonin metabolite: (4R)-2-[(5'-hydroxy-1'H-indol-3'-yl)methyl]thiazolidine-4-carboxylic acid

pp 943-946

Chunyang Jin,\* Jason P. Burgess, Madathil B. Gopinathan and George A. Brine

A new serotonin metabolite, 4(R)-2-[(5'-hydroxy-1'H-indol-3'-yl)methyl]thiazolidine-4-carboxylic acid (5'-HITCA), was synthesized in 30% overall yield.

# Multi-component reactions between 2-aminopyrimidine, aldehydes and isonitriles: the use of a nonpolar solvent suppresses formation of multiple products

pp 947-951

Vladislav Z. Parchinsky, Olga Shuvalova, Olga Ushakova, Dmitry V. Kravchenko and Mikhail Krasavin\*

## Regioselective Re(I)-catalyzed coupling of terminal alkynes, $Et_2NH$ , and $CO_2$ leading to anti-Markovnikov adducts

pp 953-955

Jia-Li Jiang and Ruimao Hua\*

$$R = + Et_2NH + CO_2 \xrightarrow{cat. ReBr(CO)_5} R \xrightarrow{NEt_2} O \xrightarrow{NEt_2} O$$

The ReBr(CO)<sub>5</sub>-catalyzed addition reaction of Et<sub>2</sub>NH and CO<sub>2</sub> to terminal alkyne, affords regioselectively anti-Markovnikov adducts of alkenyl carbamates in good to excellent yield.

### Ionic-liquid supported oxidation reactions in a silicon-based microreactor

pp 957-961

Chanbasha Basheer, Muthalagu Vetrichelvan, Valiyaveettil Suresh\* and Hian Kee Lee\*

## The cycloaddition reactions of 2-ethoxy-3-phenylvinylketene iron(0) with alkynes to yield catechol derivatives

pp 963-966

Nicholas D. Darbasie, Wayne F. K. Schnatter,\* Kirstin F. Warner and Nicolae Manolache



#### Carbamates from alcohol diversity: a simple solution phase library method

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Gregory L. Hamilton and Bradley J. Backes\*



## Highly chemoselective reduction using a Rh/C-Fe(OAc)<sub>2</sub> system: practical synthesis of functionalized indoles

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Atsushi Akao,\* Kimihiko Sato, Nobuaki Nonoyama, Toshiaki Mase and Nobuyoshi Yasuda

#### The Birch reduction-dialkylation reaction. Scope and limitations

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Ricardo Castanedo, Adrián Covarrubias-Zúñiga and Luis A. Maldonado\*

#### Regioselective synthesis of 1-arylnaphthalenes from N-tosylaziridine derivatives

pp 977–980

Ka Young Lee, Seung Chan Kim and Jae Nyoung Kim\*

### Synthesis of a bicyclo[5.3.1]undecene by a facile domino enyne cross-metathesis/IMDA

pp 981-984

Krishna P. Kaliappan,\* Velayutham Ravikumar and Sandip A. Pujari

# Reductive cyclisation of Morita-Baylis-Hillman adducts. A simple approach towards substituted hydrindanones and decalones

pp 985-989

Pierre Wasnaire, Marianne Wiaux, Roland Touillaux and István E. Markó\*

## A green approach for efficient $\alpha$ -halogenation of $\beta$ -dicarbonyl compounds and cyclic ketones using N-halosuccinimides in ionic liquids

pp 991-995

H. M. Meshram,\* P. N. Reddy, P. Vishnu, K. Sadashiv and J. S. Yadav

$$R^{1}$$
 +  $N-X$   $[Bmim]PF_{6}$   $R^{1}$   $X$ 

### Pyrinadine A, a novel pyridine alkaloid with an azoxy moiety from sponge Cribrochalina sp.

pp 997-998

Yuuko Kariya, Takaaki Kubota, Jane Fromont and Jun'ichi Kobayashi\*

# Tetrahydropyridine (THP) ring expansion under the action of activated terminal alkynes. The first synthesis and X-ray crystal structure of tetrahydropyrimido[4,5-d]azocines

pp 999-1001

Leonid G. Voskressensky,\* Tatiana N. Borisova, Innokenti S. Kostenev, Larisa N. Kulikova and Alexey V. Varlamov

#### An efficient two-step synthesis of 3-allylindoles

pp 1003-1005

Mukund G. Kulkarni, Saryu I. Davawala,\* Attrimuni P. Dhondge, Dnyaneshwar D. Gaikwad, Ajit S. Borhade and Sanjay W. Chavhan

$$R'$$
 $NO_2$ 
 $R'$ 
 $NO_2$ 
 $R'$ 

A two-step synthetic sequence for an efficient synthesis of 3-allylindoles is described.

#### Chiral bicyclic guanidines: a concise and efficient aziridine-based synthesis

pp 1007-1010

Weiping Ye, Dasheng Leow, Serena Li Min Goh, Chin-Tong Tan, Chee-Hoe Chian and Choon-Hong Tan\*

A series of chiral bicyclic guanidines, either symmetrical or non-symmetrical, were synthesized using a concise and efficient aziridine-based synthetic methodology. Starting from commercial amino alcohols, five synthetic steps were performed, with only three requiring chromatographic purification, giving the desired guanidines in 43–71% overall yield. Preliminary studies using these guanidines showed moderate enantioselectivity for several Michael reactions.



### Microwave-assisted coupling with DIC/HOBt for the synthesis of difficult peptoids and fluorescently labelled peptides—a gentle heat goes a long way

pp 1011-1014

Mario A. Fara, Juan José Díaz-Mochón and Mark Bradley\*

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pp 1015-1018

Jérémie Fournier Dit Chabert, Grégory Chatelain, Stéphane Pellet-Rostaing, Denis Bouchu and Marc Lemaire\*

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Alex Schneider, Oscar E. D. Rodrigues, Márcio W. Paixão, Helmoz R. Appelt, Antonio L. Braga and Ludger A. Wessjohann\*

# Synthesis of protected peptides from the human IgG1 hinge region on PEG support using disulfide bond synthons and alkaline or enzymatic detachment

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Petr Niederhafner, Martin Šafařík, Jaroslav Šebestík, Vladimír Gut, Petr Maloň and Jan Hlaváček\*

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\*\* Supplementary data available via ScienceDirect



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