

#### Tetrahedron Letters Vol. 46, No. 38, 2005

#### **Contents**

#### **COMMUNICATIONS**

Indium tribromide-catalyzed deacetoxylation of propargylic acetate with triethylsilane Norio Sakai,\* Maki Hirasawa and Takeo Konakahara\*

pp 6407-6409

OAc 
$$R^2$$
 InBr<sub>3</sub> (0.05 equiv)  $Et_3SiH$  (2 equiv)  $R^2$   $CH_2Cl_2$ , rt  $R^1$   $\sim 99\%$ 

Diastereoselective conjugate addition of 1-(α,β-unsaturated acyl)hydantoin with nucleophiles Jun-ichi Yamaguchi,\* Masakazu Harada, Takao Narushima, Asumi Saitoh, Kanako Nozaki and Takayuki Suyama\*

pp 6411-6415

Synthetic studies on thiostrepton family of peptide antibiotics: synthesis of the dihydroquinoline portion of thiostrepton, the siomycins, and the thiopeptins

pp 6417-6422

Tomonori Mori, Yukiko Satouchi, Hiraku Tohmiya, Shuhei Higashibayashi, Kimiko Hashimoto\* and Masaya Nakata\*

# Synthetic studies on thiostrepton family of peptide antibiotics: synthesis of the cyclic core portion containing the dehydropiperidine, dihydroquinoline, L-valine, and masked dehydroalanine segments

pp 6423-6427

Tomonori Mori, Hiraku Tohmiya, Yukiko Satouchi, Shuhei Higashibayashi,

Kimiko Hashimoto\* and Masaya Nakata\*

Reaction of  $\delta$ -silyl- $\gamma$ , $\delta$ -epoxy- $\alpha$ , $\beta$ -unsaturated acylsilanes with cyanide ion: possibility of the formation of silicate intermediate in anion-induced ring opening of epoxysilanes

pp 6429–6432

Koudai Tanaka, Hyuma Masu, Kentaro Yamaguchi and Kei Takeda\*



Efficient formation of novel and versatile building blocks from mucohalic acids: new substitute for tetronic acid and  $\gamma$ -alkylidenebutenolide

pp 6433-6436



Regioselective ring-opening of aziridines with potassium thiocyanate in the presence of  $\beta\text{-cyclodextrin}$  in water

pp 6437-6439

M. Somi Reddy, M. Narender, Y. V. D. Nageswar and K. Rama Rao\*

#### Mono-benzyl substituted cis, cis-1,3,5-triaminocyclohexanes

pp 6441-6443

Stephen J. Archibald, Alison K. Nairn, Phillipa Timmins and Paul H. Walton\*

$$H_2N$$
  $NH_2$   $H_2N$   $H_2N$   $H_2N$   $H_2N$   $H_2N$   $H_2N$   $H_2N$   $H_3N$   $H_4N$   $H_2N$   $H_2N$   $H_2N$   $H_2N$   $H_2N$   $H_3N$   $H_4N$   $H_4N$   $H_4N$   $H_5N$   $H_5N$ 

A general route is reported for the preparation of monoamine-diimine-derivatives of cis, cis-1,3,5-triaminocyclohexane



#### Two novel glucosyl-fused compounds from Curculigo crassifolia (Hypoxidaceae)

pp 6445-6447

Ning Li, Kai-Jin Wang, Ji-Jun Chen and Jun Zhou\*

#### Efficient synthesis of 8,11-dimethylene-bicyclo[5.3.1]undecan-2-one

pp 6449-6451

Haining Gu,\* Wei Ming Xu and Thomas H. Kinstle\*

### Uncatalysed Knoevenagel condensation in aqueous medium at room temperature

pp 6453-6456

Mohit L. Deb and Pulak J. Bhuyan\*

RCHO + 
$$\begin{pmatrix} R^1 \\ R^2 \end{pmatrix}$$
  $\begin{pmatrix} H_2O \\ r.t. \end{pmatrix}$   $\begin{pmatrix} R \\ H_2O \\ r.t. \end{pmatrix}$   $\begin{pmatrix} R^1 \\ R^2 \\ V \\ Z \end{pmatrix}$   $\begin{pmatrix} R^1 \\ R^2 \\ V \\ Z \end{pmatrix}$   $\begin{pmatrix} R^1 \\ R^2 \\ V \\ Z \end{pmatrix}$   $\begin{pmatrix} R^1 \\ R^2 \\ V \\ Z \end{pmatrix}$   $\begin{pmatrix} R^1 \\ R^2 \\ V \\ Z \end{pmatrix}$   $\begin{pmatrix} R^1 \\ R^2 \\ V \\ Z \end{pmatrix}$   $\begin{pmatrix} R^1 \\ R^2 \\ V \\ Z \end{pmatrix}$   $\begin{pmatrix} R^1 \\ R^2 \\ V \\ Z \end{pmatrix}$ 

Knoevenagel condensation of various aromatic and heteroaromatic aldehydes with active methylene compounds like malononitrile, ethyl cyanoacetamide, ethyl cyanoacetate, barbituric acids, Meldrum's acid, dimedone and pyrazolone proceeds smoothly with stirring in aqueous medium. The reactions occur at room temperature giving excellent yields of the products. The work-up procedure is very simple and the products do not require further purification.

### Remarkable Chichibabin-type cyclotrimerisation of 3-nitrotyrosine, tyrosine and phenylalanine to 3,5-diphenylpyridine derivatives induced by hypochlorous acid

pp 6457-6460

L. Panzella, P. Di Donato, S. Comes, A. Napolitano, A. Palumbo and M. d'Ischia\*

### An expeditious convergent synthesis of a dibromotyrosine alkaloid inhibitor of mycothiol-S-conjugate amidase

pp 6461-6463

Bhanu M. Chanda\* and Rohidas S. Sulake

### Stereoselective acid-catalyzed homoallylic rearrangement of cyclopropylsilylmethanols: an efficient route to Z-homoallyl derivatives

pp 6465-6468

Mitsunori Honda,\* Yuichi Yamamoto, Hideki Tsuchida, Masahito Segi and Tadashi Nakajima

$$\begin{array}{c} R^3 \\ R^2 \\ R^1 \\ \end{array} \begin{array}{c} \text{SiMe}_2 \text{Ph} \\ R^1 \\ \end{array} \begin{array}{c} R^3 \\ \text{SiMe}_2 \text{Ph} \\ \end{array} \begin{array}{c} R^1 \\ \text{R}^2 \\ \end{array} \begin{array}{c} \text{SiMe}_2 \text{Ph} \\ \end{array} \begin{array}{c} R^1 \\ R^2 \\ \end{array} \begin{array}{c} R^2 \\ \end{array} \begin{array}{c} \text{SiMe}_2 \text{Ph} \\ \end{array} \begin{array}{c} R^1 \\ R^3 \\ \end{array} \begin{array}{c} R^2 \\ \end{array} \begin{array}{c} \text{SiMe}_2 \text{Ph} \\ \end{array} \begin{array}{c} R^1 \\ R^3 \\ \end{array} \begin{array}{c} R^2 \\ \end{array} \begin{array}{c} R^3 \\ R^3 \\ \end{array} \begin{array}{c} R^3 \\ \end{array} \begin{array}{c$$

#### Stereoselective synthesis of a novel carbamoyl oxybiotin

pp 6469-6471

Christina S. Stauffer and Apurba Datta\*

### One-pot conversion of activated alcohols into terminal alkynes using manganese dioxide in combination with the Bestmann-Ohira reagent

pp 6473-6476

Ernesto Quesada and Richard J. K. Taylor\*

### Enantioselective synthesis of 2-ethyl-2,3-dihydrobenzofuran carboxylic acid, direct precursor of (+)-efaroxan, from a Baylis-Hillman adduct

pp 6477-6481

Gabriel P. de Carvalho e Silveira and Fernando Coelho\*

A new approach for the asymmetric synthesis of a dihydrobenzofuran derivative, used as key intermediate for the synthesis of the drug (+)-efaroxan, is described.

### Syntheses of vinylindoles via a Brønsted acid catalyzed highly regio- and stereoselective cis-hydroarylation of ynamides

pp 6483-6486

Yanshi Zhang



#### A hydrogen atom sandwiched by cyclopropanes

pp 6487-6489

Robert S. Walters, Douglas M. Ho and Robert A. Pascal, Jr.\*

Compound 1 was synthesized in four steps from 1,3-dibromobenzene. The X-ray crystal structure of 1 shows that  $H_9$  is located approximately 2.6 Å from the centroids of each of the flanking cyclopropane rings, and its proton NMR resonance falls 0.84 ppm upfield from the resonance of the otherwise chemically similar  $H_{10}$ .

#### Hydrogen-bond directed palladium-catalyzed allylic substitution of cyclic substrates

pp 6491-6494

Gregory R. Cook\* and Manjusha Saraswathiamma

A Baylis-Hillman/ozonolysis route towards (±) 4,5-dihydroxy-2,3-pentanedione (DPD) and analogues pp 6495-6498 Marine Frezza, Laurent Soulère, Yves Queneau and Alain Doutheau\*

### Weak $C-H\cdots O$ hydrogen bonds between diacylamidopyridine and thymine derivatives in solution and its influence on the binding constants

pp 6499–6502

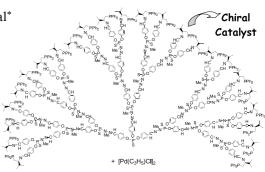
Zhao Li, Jianfu Ding,\* Gilles Robertson, Michael Day and Ye Tao

### A third generation chiral phosphorus-containing dendrimer as ligand in Pd-catalyzed asymmetric allylic alkylation

pp 6503-6506

Régis Laurent, Anne-Marie Caminade\* and Jean-Pierre Majoral\*

In situ complexation of a dendrimer possessing 24 chiral iminophosphine end groups affords a [Pd]-catalyst usable for asymmetric allylic alkylations. This dendritic catalyst gives very good ee and can be easily recovered and reused twice with almost the same efficiency.

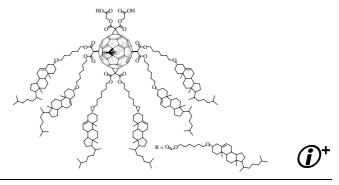


#### Interfacial behavior and film-forming properties of an amphiphilic hexasubstituted [60]fullerene

pp 6507-6510

Delphine Felder-Flesch,\* Cyril Bourgogne, Jean-Louis Gallani and Daniel Guillon

A new amphiphilic hexasubstituted [60]fullerene bearing 10 cholesterol units has the prerequisite qualities for its incorporation into the cellular membranes of living organisms.



#### Toward a novel series of furanopyrimidine nucleoside analogues

pp 6511-6514

Verónica Valdivia, Angélica Hernandez, Aida Rivera, Fernando Sartillo, Ali Loukaci, Jean-Louis Fourrey\* and Leticia Quintero\*

Based on an unusual furanose ring opening of 1,2-O-isopropylidene pentofuranoside derivatives, a preparation scheme of a new series of furanopyrimidine nucleoside analogues has been devised.

### Synthesis of $\alpha$ -trifluoromethyl- $\alpha$ -amino- $\beta$ -sulfone hydroxamates: novel nanomolar inhibitors of matrix metalloproteinases

pp 6515-6518

Roberta Sinisi, Monica Sani, Gabriele Candiani, Rachele Parente, Françoise Pecker, Stefano Bellosta and Matteo Zanda\*

$$CF_3$$
 $O_2$ 
 $O_2$ 
 $O_3$ 
 $O_4$ 
 $O_2$ 
 $O_3$ 
 $O_4$ 
 $O_5$ 
 $O_5$ 

 $IC_{50}/MMP-3 (nM) = 14$ 

 $IC_{50}/MMP-1 (nM) = >5000$ 

The synthesis of new potent and selective trifluoromethylated hydroxamates as MMP-3 and MMP-9 inhibitors is reported.

### A new 3-methylidenepentane-1,5-dianion synthon: synthesis of perhydropyrano[2,3-*b*]pyrans and 1,7-dioxaspiro[4.5]decanes

iv, H<sub>2</sub>O<sub>2</sub>, 3M NaOH; v, PCC, CH<sub>2</sub>Cl<sub>2</sub>; vi, I<sub>2</sub>, AgOTf, Na<sub>2</sub>CO<sub>3</sub>, THF.

pp 6519-6524

Francisco Alonso, Jaisiel Meléndez and Miguel Yus\*

# One-pot carbanionic access to methylenebis(phosphonate) analogues of natural $P^1, P^2$ -glycosyl-disubstituted pyrophosphates

pp 6525-6528

Claude Grison,\* Christophe Letondor, Hicham Chibli and Philippe Coutrot

#### Efficient, protection-free Suzuki-Miyaura synthesis of ortho-biphenyltetrazoles

pp 6529-6532

Nicolas Cousaert, Patrick Toto, Nicolas Willand\* and Benoît Deprez

We describe an efficient protocol for the Suzuki-Miyaura synthesis of *ortho*-biphenyltetrazoles from non-protected 2-bromophenyltetrazole and arylboronic acids.

A pair of new atropisomeric cupressuflavone glucosides isolated from *Juniperus communis* var. *depressa* pp 6533–6535 Yuka Inatomi, Naoki Iida, Hiroko Murata, Akira Inada, Jin Murata, Frank A. Lang, Munekazu Iinuma, Toshiyuki Tanaka and Tsutomu Nakanishi\*

A pair of new atropisomers, (M)- and (P)-cupressuflavone 4'-O- $\beta$ -D-glucoside were isolated from *Juniperus Communis* var. *depressa*. Absolute structures and axial configurations were determined using 2D NMR and circular dichroism.

### Studies towards the total synthesis of Sch 56036; isoquinolinone synthesis and the synthesis of phenanthrenes

pp 6537-6540

Edward R. Walker, Shing Y. Leung and Anthony G. M. Barrett\*

Sch 56036 isoquinolinone unit

The isoquinolinone hemisphere of Sch 56036 has been prepared using a modified Pomeranz–Fritsch reaction and the synthesis of the phenanthrene core has been modelled via a Suzuki coupling and subsequent ring closing metathesis.

### $Stere ospecific isomerization \ of \ 2\hbox{-}(1\hbox{-}bromoalkyl)\hbox{-}1\hbox{-}sulfonylaziridines \ using \ magnesium \ bromide$

pp 6541-6544

Michinori Karikomi,\* Takeshi Takayama, Kazuo Haga and Kazuhisa Hiratani

$$\begin{array}{c|c}
Br \\
R & MgBr_2
\end{array}
\qquad
\begin{bmatrix}
Br \\
R & Br \\
-MgBr_2
\end{bmatrix}
\xrightarrow{-MgBr_2}
\begin{bmatrix}
R & Br \\
-MgBr_2
\end{bmatrix}$$

# Reactions between isocyanides and dialkyl acetylenedicarboxylates in the presence of 1,2-diacylhydrazines. One-pot synthesis of highly functionalized pyrazoles

pp 6545-6547

Mehdi Adib,\* Mohammad Hosein Sayahi and Sahar Rahbari

$$R - \stackrel{+}{N} = \stackrel{-}{C} + R'O_2C - C = C - CO_2R' + R'' \xrightarrow{NHNH} R'' \xrightarrow{acetone} R'' \xrightarrow{N-N} R''$$

$$CO_2R'$$

$$68-85\%$$

### A novel TFA-mediated *cyclo*-dimerization of 1-substituted 3-alkenylindole derivatives to cyclopent[b]indoles

pp 6549-6553

Ikuo Kawasaki, Masami Terano, Ai Kurume, Satoko Hara, Masayuki Yamashita and Shunsaku Ohta\*

$$R^{2}$$

$$R^{3}$$

$$R^{4}$$

$$R^{1}$$

$$R^{1}$$

### Efficient synthesis of $\beta$ -C-glucosides via radical cyclization with a silicon tether based on the conformational restriction strategy

pp 6555-6558

Masaru Terauchi, Akira Matsuda and Satoshi Shuto\*

R R 
$$C_4$$
-restricted R  $S_1$  OH

O SePh Bu<sub>3</sub>SnH

TBSO OAc

TBSO OAc

TBSO OAc

TBSO OAc

TBSO OAc

TBSO OAc

### Ionic liquids/ $H_2O$ systems for the reaction of epoxides with $NaN_3$ : a new protocol for the synthesis of 2-azidoalcohols

pp 6559-6562

J. S. Yadav,\* B. V. S. Reddy, B. Jyothirmai and M. S. R. Murty

NaN<sub>3</sub> OH  
[bmim]BF<sub>4</sub>/H<sub>2</sub>O (2:1) 
$$n = 1, 2, 4$$
  $n = 1, 2, 4$ 

#### Solid base-catalyzed synthesis of 5-substituted 4,5-dihydroisoxazoles

pp 6563-6566

Agnieszka Cwik, Zoltán Hell,\* Aliz Fuchs and Dóra Halmai

A new, synthetic method for the preparation of 5-substituted 4,5-dihydroisoxazoles starting from ethyl nitroacetate and alkenes in the presence of hydrotalcite is described.

#### Chelation-controlled reduction: an enantioselective synthesis of (-)-tarchonanthuslactone

pp 6567-6570

Gowravaram Sabitha,\* K. Sudhakar, N. Mallikarjuna Reddy, M. Rajkumar and J. S. Yadav

### Enantioselective synthesis of tarchonanthuslactone via iterative hydrolytic kinetic resolution

pp 6571-6573

Priti Gupta, S. Vasudeva Naidu and Pradeep Kumar\*

### A simple approach to azirines containing an aldehyde functionality and their stabilization as palladium(II) complexes

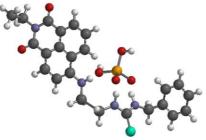
pp 6575-6578

Sulagna Brahma and Jayanta K. Ray\*

### 4-Amino-1,8-naphthalimide-based anion receptors: employing the naphthalimide N-H moiety in the cooperative binding of dihydrogenphosphate

pp 6579-6584

Frederick M. Pfeffer,\* Alisha M. Buschgens, Neil W. Barnett, Thorfinnur Gunnlaugsson and Paul E. Kruger



# Fluorous 2-chloropyridinium salt (Mukaiyama condensation reagent) for amide formation reactions Tadamichi Nagashima,\* Yimin Lu, Michael J. Petro and Wei Zhang

pp 6585-6588

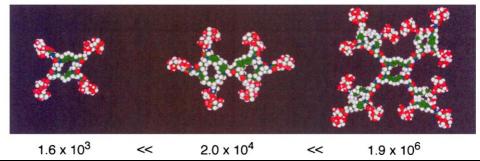
A new fluorous 2-chloropyridinium salt was prepared, and was applied in amide formation reactions.

#### Synthesis and guest-binding study of polytopic multi(cyclophane) hosts

pp 6589-6592

Osamu Hayashida,\* Yousuke Takaoka and Itaru Hamachi

Distinct multivalent effects on guest binding in water



K/M<sup>-1</sup> toward TNS

#### **OTHER CONTENTS**

**Contributors to this issue Instructions to contributors** 

p I pp III–VI

\*Corresponding author

\*\* Supplementary data available via ScienceDirect



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