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## **Tetrahedron Letters**

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### Tetrahedron Letters Vol. 49, No. 38, 2008

### Contents

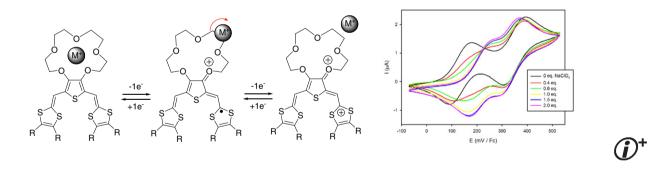
#### COMMUNICATIONS

**Bismuth triflate-catalyzed oxa- and thia-Pictet–Spengler reactions: access to iso- and isothio-chroman compounds** pp 5449–5451 Christian Lherbet <sup>\*</sup>, David Soupaya, Cécile Baudoin-Dehoux, Chantal André, Casimir Blonski, Pascal Hoffmann

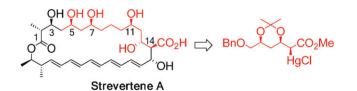
 $XH \xrightarrow{\text{RCHO, Bi(OTf)_3}}_{\text{Toluene, } \Delta}$ 

A new route to functionalized iso(thio)chromans is described. The compounds are accessible easily in a one pot-reaction by using different aldehydes and phenylethanethiol or phenylethanol in presence of bismuth triflate.

**An extended tetrathiafulvalene redox-ligand incorporating a thiophene spacer** Gaëlle Trippé, David Canevet, Franck Le Derf, Pierre Frère <sup>\*</sup>, Marc Sallé <sup>\*</sup>



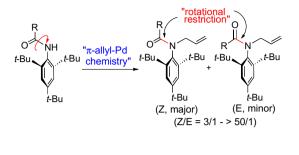
**A first convergent synthesis of the polyolic fragment of the antifungal pentaene macrolide strevertene A** Carlo Bonini <sup>\*</sup>, Lucia Chiummiento <sup>\*</sup>, Maria Funicello, Paolo Lupattelli, Valeria Videtta pp 5455-5457



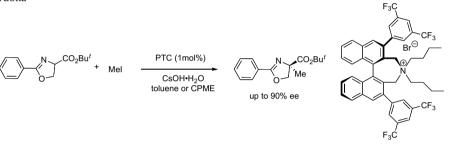


pp 5452-5454

Stereoselective synthesis of separable amide rotamers using  $\pi$ -allyl-Pd catalyst and their thermodynamic behavior pp 5458–5460 Nobutaka Ototake, Takeo Taguchi, Osamu Kitagawa \*



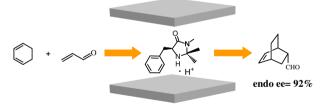
#### **Practical asymmetric synthesis of** α**-methylserine derivatives under mild phase-transfer conditions** Keiji Nakayama, Keiji Maruoka <sup>\*</sup>



The enantioselective methylation reaction of phenyloxazoline *tert*-butyl ester under mild phase-transfer conditions provides optically active  $\alpha$ -methylserine derivatives in moderate yields with high enantioselectivity.

#### **Reusable montmorillonite-entrapped organocatalyst for asymmetric Diels–Alder reaction** Takato Mitsudome, Kenta Nose, Tomoo Mizugaki, Koichiro Jitsukawa, Kiyotomi Kaneda \*

Silicate layer of Montmorillonite



A mont-entrapped chiral organocatalyst acted as a highly efficient and reusable heterogeneous catalyst for the asymmetric Diels-Alder reaction, without loss of its initial activity.

**Novel domino reactions in β-carbolines with triple bonded dienophiles** Álvaro González-Gómez, Gema Domínguez, Ulises Amador, Javier Pérez-Castells

Vinylpyrrolo-[2,1-*a*]-β-carbolines **1** give different products upon reaction with dienophiles.

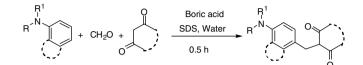
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pp 5467-5470

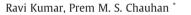
### An unusual Mannich type reaction of tertiary aromatic amines in aqueous micelles

Atul Kumar<sup>\*</sup>, Ram Awatar Maurya



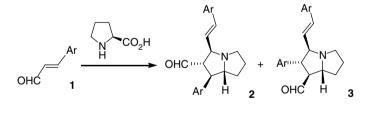
A one-pot chemoselective S-alkylation and acetylation of thiohydantoins using the alkyl orthoformate-ZnCl<sub>2</sub>-Ac<sub>2</sub>O pp 5475-5479 reagent system

ZnCl<sub>2</sub> + Ac<sub>2</sub>O

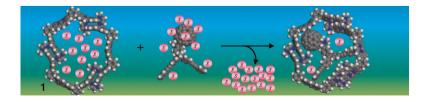


Proline-mediated dimerization of cinnamaldehydes via 1,3-dipolar cycloaddition reaction with azomethine ylides. pp 5480–5483 A rapid access to highly functionalized hexahydro-1*H*-pyrrolizine

Bor-Cherng Hong \*, Kwan-Liang Liu, Chih-Wei Tsai, Ju-Hsiou Liao



**Stable supramolecular complex of porphyrin macroring with pyridyl and fullerenyl ligands** Zafer Uyar, Akiharu Satake <sup>\*</sup>, Yoshiaki Kobuke <sup>\*</sup>, Shun Hirota <sup>\*</sup>



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pp 5484-5487

**Selective cleavage of sugar anomeric O-acyl groups using FeCl<sub>3</sub>·6H<sub>2</sub>O** Guohua Wei, Lei Zhang, Chao Cai, Shuihong Cheng, Yuguo Du \*

$$R^2$$
  $O$   $OR^1$   $HeCl_3-6H_2O$   $R^2$   $O$   $OH$   $R^2$   $O$   $OH$ 

 $R^1$  = Ac, Bz, NO<sub>2</sub>, Piv  $R^2$  = OAc, OBz, OLev, OPiv, OBn, OFmoc, COOMe, NHAc, N<sub>3</sub>, NHTroc, NPhth, or sugar units

N<sub>2</sub>

Na

Peptide 1

H<sub>2</sub>N

Fmoc-

Deprotection

Peptide 2

H<sub>2</sub>N

N<sub>c</sub>

NH:

Cul

Peptide 1

Peptide 2

NH

Peptide 2

**An efficient peptide ligation using azido-protected peptides via the thioester method** Hidekazu Katayama, Hironobu Hojo <sup>\*</sup>, Tsuyoshi Ohira, Yoshiaki Nakahara <sup>\*</sup>

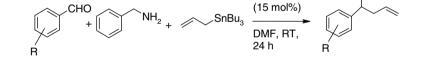
HOObt/DIEA

N<sub>3</sub> Peptide 1

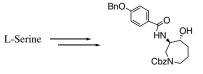
### A three-component synthesis of homoallylic amines catalyzed by Cul

Fmoc-

Pabitra Kumar Kalita, Prodeep Phukan \*



**Concise syntheses of stereoisomeric hexahydroazepine derivatives related to the protein kinase inhibitor balanol pp 5498–5501** Sankar P. Roy, Shital K. Chattopadhyay \*





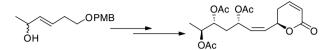
pp 5492-5494

D 5405 5405

### Total synthesis of hyptolide

Tushar Kanti Chakraborty<sup>\*</sup>, Subhas Purkait

pp 5502-5504



Pb(OAc)<sub>4</sub>, K<sub>2</sub>CO<sub>3</sub>

CH2Cl2, -78 °C to RT

#### *N*-Amino-*endo*-bicyclo[2.2.1]hept-5-ene-2,3-dicarboximide in reaction of oxidative aminoaziridination Mikhail Zibinsky, Alexey N. Butkevich <sup>\*</sup>, Mikhail A. Kuznetsov

 $R^1$ 

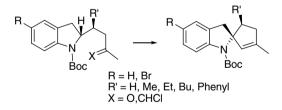
pp 5505-5507

R2 کر

 $R^1$ 

pp 5508-5510

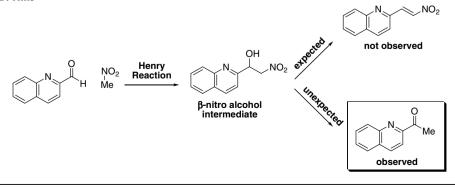
#### **Synthesis of spirocyclopentene-indolines by intramolecular alkylidine insertion reactions** Christopher J. Whipp, Felix Gonzalez-Lopez de Turiso <sup>\*</sup>



 $R^1$ ,  $R^2 = H$ , aryl, alkyl, acyl, NO<sub>2</sub>,

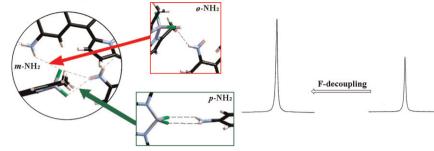
alkoxycarbonyl, carbimidoyl

**2-Quinolinecarboxaldehyde: an unusual partner in the Henry reaction and subsequent elimination** Ashley Nomland, Ivory D. Hills <sup>\*</sup>



pp 5511-5514

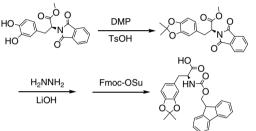
#### Self-assembly via intermolecular hydrogen-bonding between o-/m-/p-NH<sub>2</sub> and BF<sub>2</sub> groups on dipyrromethenes pp 5515-5518 Ji-Young Shin, Brian O. Patrick, David Dolphin



The inductive release of electron density into a dipyrromethene moiety, coordinated to a BF<sub>2</sub> group, from a phenyl group variously substituted by ortho- and para-amino groups resulted in relatively strong hydrogen-bonding, whereas the meta-analog formed only weak hydrogen-bonds.

#### Convenient synthesis of acetonide-protected 3,4-dihydroxyphenylalanine (DOPA) for Fmoc solid-phase peptide synthesis

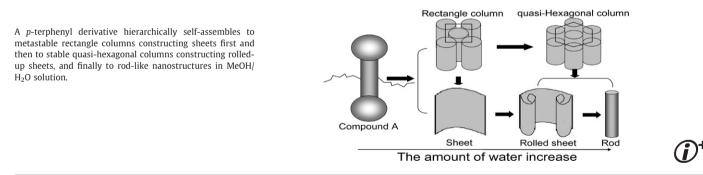
Zhongqiang Liu, Bi-Huang Hu, Phillip B. Messersmith \*



By protecting the amino group of DOPA with a phthaloyl group and the carboxyl group as a methyl ester, acetonide protection of the catechol of DOPA was realized.

#### Hierarchical self-assembly of *p*-terphenyl derivative with dumbbell-like amphiphilic and rod-coil characteristics

Qilong Zhou, Ting Chen, Jintao Zhang, Lijun Wan, Ping Xie, Charles C. Han, Shouke Yan \*, Rongben Zhang \*



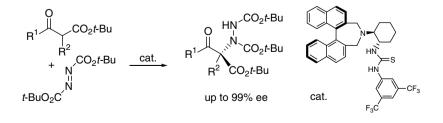
# Catalytic enantioselective electrophilic $\alpha$ -hydrazination of $\beta$ -ketoesters using bifunctional organocatalysts

pp 5527-5530

pp 5519-5521

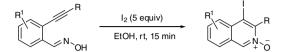
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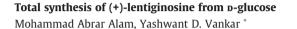
Sun Hee Jung, Dae Young Kim

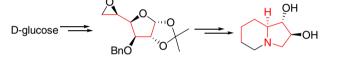


Iodine-mediated electrophilic cyclization of 2-alkynylbenzaldoximes leading to the formation of iodoisoquinoline pp 5531–5533 *N*-oxides

Zhibao Huo, Hisamitsu Tomeba, Yoshinori Yamamoto \*



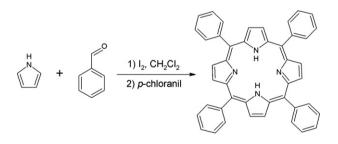




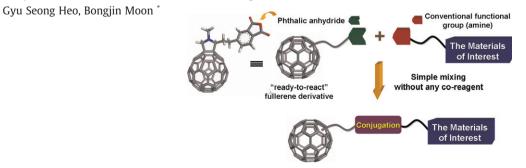
A total synthesis of (+)-lentiginosine, a potent and selective amyloglucosidase inhibitor, is reported from a p-glucose-derived epoxide in 38% overall yield. In this synthesis, ambient conditions and readily available starting materials and reagents are used.

#### A facile and rapid iodine-catalyzed meso-tetraphenylporphyrin synthesis using microwave activation

Romain Lucas, Julien Vergnaud, Karine Teste, Rachida Zerrouki<sup>\*</sup>, Vincent Sol, Pierre Krausz



Anhydride-functionalized fullerene: a versatile precursor for fullerene-based materials



Phthalic anhydride-functionalized fullerene was generated via simple pyrolysis of the corresponding di-*t*-butyl phthalate precursor. This non-chemical method for generating electrophilic fullerene may be advantageous for the preparation of various fullerene-containing materials.

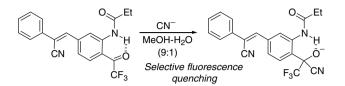
pp 5534-5536



pp 5540-5543

#### Selective fluorescence sensing of cyanide with an o-(carboxamido)trifluoroacetophenone fused with a cyano-1,2diphenylethylene fluorophore

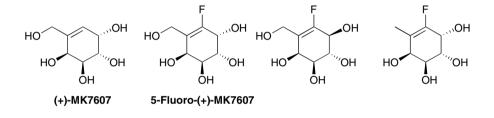
Hanna Lee, Yun Mi Chung, Kyo Han Ahn \*



A fluorescence probe based on an o-(carboxamido)trifluoroacetophenone binding motif shows selective fluorescence quenching toward cyanide among various anions examined. In particular, the probe responds only to cyanide in aqueous media.

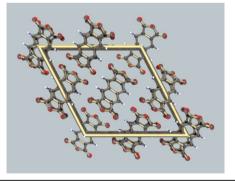
#### First synthesis of 5-fluoro-(+)-MK7607, its 1-epimer and 6-deoxy derivative

João Sardinha, Amelia Pilar Rauter, Matthieu Sollogoub \*



#### 2,3,6,7-Naphthalenetetracarboxylic dianhydride revisited

Claude Niebel, Vladimir Lokshin, Vladimir Khodorkovsky



#### A convenient CeCl<sub>3</sub>·7H<sub>2</sub>O/NaI-promoted synthesis of structurally novel and strained tricyclic β-lactams from hydrazines

Lal Dhar S. Yadav<sup>\*</sup>, Vijai K. Rai

$$Ar^{1} \xrightarrow{N} Ar^{2} + HS \xrightarrow{CO_{2}H} \xrightarrow{1. CeCl_{3}.7H_{2}O} Ar^{2} \xrightarrow{N} R^{1} \xrightarrow{N} R^{1} \xrightarrow{R^{2}} Ar^{2}$$

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\*Corresponding author ()<sup>+</sup> Supplementary data available via ScienceDirect

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