

#### Tetrahedron Letters Vol. 48, No. 21, 2007

### **Contents**

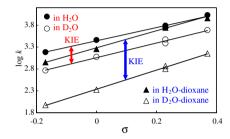
#### **COMMUNICATIONS**

PCET in the oxidation of ascorbate. Dramatic change of the kinetic isotope effect on the change in solvent polarity

pp 3633-3637

Daniela Vuina, Viktor Pilepić, Daniel Ljubas, Krešimir Sanković, Ivana Sajenko and Stanko Uršić\*

Oxidation of ascorbate with substituted nitrosobenzenes is a proton-coupled electron transfer (PCET) reaction and the observed kinetic isotope effects (KIE) in the reaction,  $k_{\rm H_2O}/k_{\rm D_2O}$ , change dramatically with a change in solvent polarity.



Oxidation of alcohols by transfer hydrogenation: driving the equilibrium with an intramolecular trap pp 3639–3641 Nicola J. Wise and Jonathan M. J. Williams\*

Methyl levulinate acts as a hydrogen acceptor in transfer hydrogenation reactions. A large excess is not needed due to the cyclisation of the alcohol into a lactone.

### (P<sub>2</sub>O<sub>5</sub>/SiO<sub>2</sub>): a useful heterogeneous alternative for the Ritter reaction

pp 3643-3646

Fatemeh Tamaddon,\* Mehdi Khoobi and Elham Keshavarz

Tertiary alcohols as well as primary and secondary benzylic alcohols react efficiently with nitriles to give the corresponding amides in good to excellent yields in the presence of  $P_2O_5/SiO_2$  (60% w/w).

### A general and efficient route to 3-amino-4-sulfanylcoumarins via substitution and palladium-catalyzed amination of 3-bromo-4-tosyloxycoumarins

pp 3647-3649

Weizi Wang, Qiuping Ding, Renhua Fan\* and Jie Wu\*

OTs 
$$R^{1} \xrightarrow{\parallel} O O O \xrightarrow{\text{Br}} \frac{1. \text{ R}^2\text{SH}, \text{ Et}_3\text{N}}{2. \text{ Pd}_2(\text{dba})_3, \text{ Xantphos}} R^{1} \xrightarrow{\parallel} O O O O O O PPh_2 PPh_2$$

### Direct oxidative conversion of aldehydes to nitriles using IBX in aqueous ammonia

pp 3651-3653

Nitin D. Arote, Dinesh S. Bhalerao and Krishnacharya G. Akamanchi\*



### A short route to the macrocyclic core of biaryl ether-based cyclopeptides

pp 3655-3659

Shital K. Chattopadhyay,\* Ayan Bandyopadhyay and Benoy K. Pal

$$\begin{array}{c|c}
CHO & K_2CO_3 \\
H & O & PO(OEt)_2 & \hline
 & K_2CO_3 \\
N & CO_2Me & \hline
 & O & R \\
\end{array}$$

### Synthesis, optical, electrochemical, and thermal properties of $\alpha,\alpha'$ -bis(9,9-bis-n-hexylfluorenyl)substituted oligothiophenes

pp 3661-3665

Vinich Promarak,\* Auradee Punkvuang, Siriporn Jungsuttiwong, Sayant Saengsuwan, Taweesak Sudyoadsuk and Tinnagon Keawin

A series of new α,α'-bis(9,9-bis-n-hexylfluorenyl)-substituted oligothiophenes with 2-, 4-, and 6-thiophene rings have been synthesized and their optical, thermal, and electrochemical properties investigated.

# Efficient synthesis of [1,3]oxazino[2,3-a]quinoline derivatives by a novel 1,4-dipolar cycloaddition involving a quinoline–DMAD zwitterion and carbonyl compounds

pp 3667-3670

Vijay Nair,\* S. Devipriya and Suresh Eringathodi

Stereoselective synthesis of unsymmetrical conjugated dienes and trienes utilizing silacyclobutenes Chung Keun Jin, Toshiaki Yamada, Shigeki Sano, Motoo Shiro and Yoshimitsu Nagao\* pp 3671-3675

The syntheses of sulfides by deoxygenation of sulfoxides using Woollins' reagent Guoxiong Hua and J. Derek Woollins\*

pp 3677-3679

An efficient deoxygenation of sulfoxides using a P-Se heterocycle is reported.



A mild and efficient method for the oxidation of benzylic alcohols by two-phase electrolysis

Thasan Raju,\* Sankar Manivasagan, Balachandran Revathy, Kumarasamy Kulangiappar and Arunachalam Muthukumaran

pp 3681-3684

R = alkyl, alkoxy, halo

74-90% yield

 $R^1$  = alkyl, H

# An efficient epimerization of biotin sulfone derivatives to 2-epi-biotin analogs Kyungsoo Oh

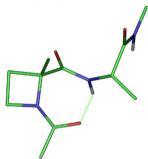
pp 3685-3688



### 2-Alkyl-2-carboxy-azetidines as scaffolds for the induction of $\gamma$ -turns

pp 3689-3693

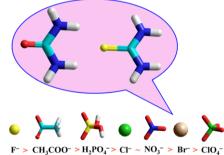
José Luis Baeza, Guillermo Gerona-Navarro, Mª Jesús Pérez de Vega, Mª Teresa García-López, Rosario González-Muñiz and Mercedes Martín-Martínez\*



#### A density functional study towards the preferential binding of anions to urea and thiourea

pp 3695-3698

D. Amilan Jose, Ajeet Singh, Amitava Das\* and Bishwajit Ganguly\*





A DFT study predicted the trend towards binding of anions with simple urea/thiourea molecules.

# Reactivity of 1-phenylsulfinyl-2-phenylsulfanylethylene (SOSE) with O-nucleophiles generated by potassium tert-butoxide

pp 3699-3703

Leonardo Pellizzaro, Elena Cabianca, Arnaud Tatibouët, Pierluigi Padovan, Fabrizio Fabris, Patrick Rollin\* and Ottorino De Lucchi\*

#### An asymmetric synthesis of sulfobacin A

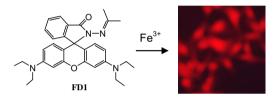
pp 3705-3707

Anubha Sharma, Sunita Gamre and Subrata Chattopadhyay\*

### A selective turn-on fluorescent sensor for Fe<sup>III</sup> and application to bioimaging

pp 3709-3712

Meng Zhang, Yanhong Gao, Manyu Li, Mengxiao Yu, Fuyou Li,\* Lei Li, Minwei Zhu, Jianping Zhang,\* Tao Yi and Chunhui Huang\*



Based on the spirolactam (nonfluorescence) to ring-open amide (fluorescence) equilibrium, a novel compound FD1 was demonstrated as a turn-on fluorescent sensor for  $Fe^{3+}$  over other metal ions. Moreover, fluorescent microscopy experiments further established that FD1 could be used for sensing  $Fe^{3+}$  within living cells.



## Iterative two-step strategy for C2-C4' linked poly-oxazole synthesis using Suzuki-Miyaura cross-coupling reaction

pp 3713-3717

Hiroshi Araki, Tadashi Katoh and Munenori Inoue\*

TBS 
$$(N)_{2}^{O}$$
 OTf  $(N)_{1}^{O}$  TBS  $(N)_{1}^{O}$   $(N)_{2}^{O}$  TBS  $(N)_{2}^$ 

An iterative method for the synthesis of C2–C4' linked poly-oxazoles has been developed.

Regioselectivity of Pictet-Spengler cyclization reactions to construct the pentacyclic frameworks of the pp 3719-3722 ecteinascidin-saframycin class of tetrahydroisoquinoline antitumor antibiotics

Guillaume Vincent, Jonathan W. Lane and Robert M. Williams\*



# Stereoselective nucleophilic substitution of 6-(*tert*-butyldimethylsilyloxy)-3,6-dihydro-2*H*-pyran-3-yl acetate: application to the synthesis of a NK<sub>1</sub> receptor antagonist

pp 3723-3726

Kazutoshi Sugawara\* and Tomiki Hashiyama

The reactions of 1b or 5b with various nucleophiles were investigated. Application to the synthesis of 12, a key intermediate for a  $NK_1$  antagonist, is also described.

# Facile synthesis of $\alpha$ -functionalized vinyl sulfides bearing $\beta$ -trifluoromethyl group: a highly potential $CF_3$ -containing building blocks

pp 3727-3730

Takeshi Hanamoto,\* Ryoko Anno, Kenji Yamada and Kousuke Ryu

$$\begin{array}{c} \text{F}_3\text{C} \\ \hline \\ \text{SAr} \end{array} \begin{array}{c} \text{i) } \text{$n$-BuLi/TMEDA} \\ \hline \\ \text{$ii$) $E^+$} \end{array} \begin{array}{c} \text{F}_3\text{C} \\ \hline \\ \text{SA} \end{array}$$

Macroporous polystyrene-supported IBX amide: the improved oxidative properties in various solvents pp 3731–3734 Hyung-Seok Jang, Woo-Jae Chung and Yoon-Sik Lee\*

In this study, macroporous polystyrene-supported IBX (MPS-IBX) amides were prepared in two simple steps, and the polymeric reagent was then evaluated for its efficiency in converting a range of alcohols to the corresponding carbonyl compounds in various solvents. The results indicated that MPS-IBX amides were compatible with a variety of solvents, and had a more efficient oxidation activity toward alkyl alcohols than the gel type polystyrene-supported IBX amide resin.

#### Efficient syntheses of streptocarpone and $(\pm)$ - $\alpha$ -dunnione

pp 3735-3738

Alice L. Perez,\* G. Lamoureux and Andrés Sánchez-Kopper

2:  $\alpha$ -dunnione

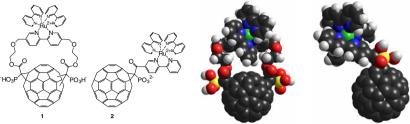
An efficient divergent synthesis of both streptocarpone and racemic α-dunnione from lawsone are described.



## Facile synthesis of new fullerene– $Ru(bpy)_3$ dyads bearing phosphonate groups for hybrid organic–inorganic materials

pp 3739-3743

Ernesto Brunet,\* Marina Alonso, Ma Carmen Quintana, Olga Juanes and Juan-Carlos Rodríguez-Ubis



Efficient photoinduced electron-transfer was detected by luminescence measurements in the title dyads either in solution or in the solid state (amorphous Zr matrix).

### The first total synthesis of telephiose A

pp 3745-3748

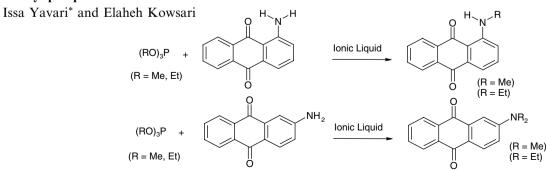
Ken-ichi Sato,\* Koudai Sakai, Keiko Tsushima and Shoji Akai

# Synthesis of dimethyl 1,2-dihydroisoquinolines through the reaction of isoquinoline and dimethyl acetylenedicarboxylate in the presence of amides

pp 3749-3751

Issa Yavari,\* Majid Ghazanfarpour-Darjani, Maryam Sabbaghan and Zinatossadat Hossaini

# Ionic liquids as novel and recyclable reaction media for N-alkylation of amino-9,10-anthraquinones by pp 3753-3756 trialkyl phosphites



\*Corresponding author

\*\*D+ Supplementary data available via ScienceDirect

#### **COVER**

Fullerene reacted with mono- and diphosphonate-bearing bipyridines by way of Bingel-type reactions to give adducts which were easily transformed in the corresponding dyads by forming Ru(bpy)<sub>3</sub> complexes. Electrochemical measurements and the observation of heavy quenching of the Ru(bpy)<sub>3</sub> luminescence manifested strong interactions between the active moieties. Attempts to include the dyads into inorganic matrices derived from zirconium phosphate are reported.

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