

#### Tetrahedron Letters Vol. 46, No. 49, 2005

#### **Contents**

#### **COMMUNICATIONS**

Direct regio- and stereoselective synthesis of squalene 2,3;22,23-dioxide using dioxiranes

pp 8459-8462

Lucia D'Accolti,\* Cosimo Annese and Caterina Fusco

2,3(S)-oxido squalene 
$$(1a: R = CH_3; 1b: R = CF_3)$$
3a

Dimethyldioxirane (DDO, 1a) and its trifluoro analog (TFDO, 1b) were employed to achieve selectively the *direct* transformation of squalene 2,3(S)-oxide and of squalene 2,3(R)-oxide into the corresponding 2,3(S);22(S),23-dioxide and 2,3(R);22(R),23-dioxide, respectively.

#### Synthesis of (±)-coerulescine and a formal synthesis of (±)-horsfiline

pp 8463-8465

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

$$\begin{array}{c} \text{R} \\ \text{NH} \\ \text{O} \end{array} \longrightarrow \begin{array}{c} \text{NH} \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{NH} \end{array} \longrightarrow \begin{array}{c} \text{OH} \\ \text{electrophilic} \\ \text{cyclization} \end{array} \longrightarrow \begin{array}{c} \text{CHO} \\ \text{rearrangement} \\ \text{N} \\ \text{Cbz} \end{array} \longrightarrow \begin{array}{c} \text{OH} \\ \text{N} \\ \text{N} \\ \text{H} \end{array}$$

R=H, coerulescine R=OMe, horsfiline



Regio- and stereoselective 12-O-demethylation of schizandrin into gomisin T, an important intermediate to gomisin A, by *Mortierella* sp. (TM-I1104)

pp 8467-8470

Hirotoshi Kanatani, Susumu Terabayashi, Shuichi Takeda, Wei Li, Kazuo Koike and Tamotsu Nikaido\*

#### Catalyst-free multicomponent Strecker reaction in acetonitrile

pp 8471-8474

Ricardo Martínez, Diego J. Ramón\* and Miguel Yus\*

$$\begin{array}{c} O \\ R^{1} \stackrel{\longleftarrow}{\longleftarrow} H + Me_{3}SiCN + R^{2}R^{3}NH & \underline{\qquad} \\ E^{1} \stackrel{\longleftarrow}{\longrightarrow} H & \underline{\qquad} \\ R^{1} \stackrel{\longleftarrow}{\longrightarrow} R^{2} \stackrel{\longleftarrow}{\longrightarrow} R^{3} \\ R^{3} = alkyl, aryl & R^{2} = H, alkyl \\ R^{3} = alkyl, aryl & (53 - >99\%) \end{array}$$

#### New synthetic methodology for 3-aminotropones

pp 8475-8478

Ángel M. Montaña\* and Juan A. Barcia

A new synthetic methodology of 3-aminotropones is described. Tropones and 3-aminotroponic building blocks could be prepared by a two steps synthetic pathway: a first step consisting in a [4+3] cycloaddition reaction between a conveniently substituted  $\alpha,\alpha'$ -dihaloketone and a furan derivative functionalized on C-2 by a protected amino group. The second step is based on a rearrangement of the cycloadduct, via the oxygen bridge cleavage, under basic conditions.

#### A novel traceless route to synthesize 3,5-disubstituted-1,2,4-triazoles on PEG6000

pp 8479-8481

Xi-Cun Wang,\* Jun-Ke Wang, Yu-Xia Da, Zheng-Jun Quan and Ying-Xiao Zong

# Photocatalytic oxidation of primary and secondary benzylic alcohols to carbonyl compounds catalyzed by $H_3PW_{12}O_{40}/SiO_2$ under an $O_2$ atmosphere

pp 8483-8486

Saeid Farhadi,\* Mozhgan Afshari, Mansoureh Maleki and Zaynab Babazadeh

$$Ar \xrightarrow{OH} R \xrightarrow{H_3PW_{12}O_{40}/SiO_2 / hv} Ar \xrightarrow{O} Ar$$

$$R=H. Alkyl. Aryl$$

# A vicarious synthesis of unsymmetrical *meta*- and *para*- terphenyls from 2*H*-pyran-2-ones Atul Goel,\* Deepti Verma and Fateh Veer Singh

pp 8487-8491

## Mild and efficient method for the cleavage of cyclic and acyclic ethers by iodine under solvent-free conditions

pp 8493-8495

J. S. Yaday, \* B. V. S. Reddy, P. Murali Krishna Reddy and Manoj K. Gupta

# Solid-phase synthesis development of a thymidinyl and 2'-deoxyuridinyl Ugi library for anti-bacterial agent screening

pp 8497-8501

Dianqing Sun and Richard E. Lee\*

PS-DES resin 
$$H_2N$$
  $H_2N$   $H_3NC$   $H$ 

A solid-phase synthesis has been developed to make a thymidinyl and 2'-deoxyuridinyl library starting from 5'-azidonucleosides using Ugi chemistry in 96-well filter plates. A 1344 member library was synthesized for anti-bacterial screening.

### A novel redox-sensitive protecting group for boronic acids, MPMP-diol

pp 8503-8505

Jun Yan, Shan Jin and Binghe Wang\*

A new boronic acid protecting group, 1-(4-methoxyphenyl)-2-methylpropane-1,2-diol (MPMP-diol), has been developed. Both protection and deprotection can be accomplished under mild conditions with quantitative conversions. The deprotection can be carried out using 2,3-dichloro-5,6-dicyano-1,4-benzoquinone (DDQ).



### A study of epoxyolefin cyclizations catalyzed by bismuth trifluoromethanesulfonate and other metal triflates

pp 8507-8511

Joshua R. Lacey, Peter W. Anzalone, Christopher M. Duncan, Matthew J. Hackert and Ram S. Mohan\*

$$M(OTf)_{x}$$
solvent
$$M = metal$$

**(i)**+

# Application of the thioimidate cyclopropane rearrangement to heterocyclic synthesis. Preparation of diaryl pyrrolines

pp 8513-8516

Ronald K. Chang,\* Robert M. DiPardo and Scott D. Kuduk

# Electrogenerated cyanomethyl anion in organic synthesis: a simple diastereoselective synthesis of *cis*-3-alkyl-1-benzyl-4-ethoxycarbonyl-β-lactams

pp 8517-8519

Marta Feroci,\* Jean Lessard, Monica Orsini and Achille Inesi\*



#### Novel steroid mimics directed towards the estradiol skeleton

pp 8521-8524

Eve Bridgeman, Julie L. Cavill, Daniel J. Schofield, Derek S. Wilkins and Nicholas C. O. Tomkinson\*

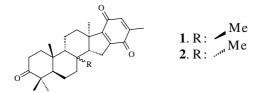
HO Estradiol 
$$R^1$$
 H, Me  $R^2$  H, OH, =0  $R^4$  H, OH

A series of non-symmetrical tri- and tetra-substituted ureas have been prepared to mimic the rigid tetracyclic core of estradiol.

### Atomarianones A and B: two cytotoxic meroditerpenes from the brown alga Taonia atomaria

pp 8525-8529

Dennis Abatis, Constantinos Vagias, Dimitrios Galanakis, James N. Norris, Dimitri Moreau, Christos Roussakis and Vassilios Roussis\*





#### Palladium-copper catalysed heteroannulation of acetylenic compounds: an expeditious synthesis of isoindoline fused with triazoles

pp 8531-8534

Chinmay Chowdhury,\* Sukhendu B. Mandal and Basudeb Achari

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$$

A convenient and general method for the synthesis of isoindoline fused with a triazole through palladium copper catalysis is described.

#### Practical enantioselective synthesis of lamivudine (3TC<sup>TM</sup>) via a dynamic kinetic resolution

pp 8535-8538

Michael D. Goodyear, Malcolm L. Hill, Jono P. West and Andrew J. Whitehead\*

A practical enantioselective synthesis of lamivudine is described, which utilises a dynamic kinetic resolution as the key step to prepare an enantiomerically pure 5-hydroxyoxathiolane.

#### S-Transalkylation/ring closing metathesis as a route to azathiamacrocycles incorporating 2,2'-bipyridine subunits

pp 8539-8541

Danuta Branowska, Izabela Buczek, Katarzyna Kalińska, Justyna Nowaczyk and Andrzej Rykowski\*

## Tandem one-pot intra- and inter-molecular McMurry coupling for the synthesis of bisindolostilbenophanes

pp 8543-8546

Perumal Rajakumar\* and Merikapudi Gayatri Swaroop

### Synthetic approach to enyne and enediyne analogues of anticancer agents

pp 8547-8550

Olivier Provot,\* Anne Giraud, Jean-François Peyrat, Mouâd Alami\* and Jean-Daniel Brion



### Synthesis and transformations of sulfur-substituted indolizidines and quinolizidines

pp 8551-8554

Shang-Shing P. Chou\* and Chung-Wen Ho

Convenient preparation of highly active phase-transfer catalyst for catalytic asymmetric synthesis of  $\alpha$ -alkyl- and  $\alpha$ , $\alpha$ -dialkyl- $\alpha$ -amino acids: application to the short asymmetric synthesis of BIRT-377

pp 8555-8558

Zhenfu Han, Yukako Yamaguchi, Masanori Kitamura and Keiji Maruoka\*

OMe 
$$MeO C_6H_2-3,4,5-F_3$$
  $Br^{\Theta} Bu MeO Bu MeO C_6H_2-3,4,5-F_3$   $OMe (S)-1$   $OOMe (S)-1$   $OO$ 

# A soluble 5-carbazolium-8-hydroxyquinoline Al(III) complex as a dipolar luminescent material Juntao Xie, Zhijun Ning and He Tian\*

pp 8559-8562

Novel 8-hydroxyquinoline derivative and its Al(III) complex were synthesized and their photophysical properties were measured. The complex might be used as an electron- and hole-transporter for OELD simultaneously.

Integration of electron- and hole-transporters

## Enantioselective three-component synthesis of 4-arylated dehydroprolines: [3+2] annulation of allenylstannane and $\alpha$ -imino ester

pp 8563-8566

Kohei Fuchibe, Rina Hatemata and Takahiko Akiyama\*

$$EtO_{2}C$$

$$NTs + Sn(n-Bu)_{3}$$

$$Cu[(MeCN)_{4}]CIO_{4}$$

$$(R)-TolBINAP$$

$$toluene, 80 °C, 1 h$$

$$Sn = Sn(n-Bu)_{3}$$

$$Up to 93% ee$$

# Preparation of enantiomerically pure 2-(1'-aminomethyl)furan derivatives and synthesis of an unnatural polyhydroxylated piperidine

pp 8567-8571

Xin Cong, Ke-Gang Liu, Qing-Jiang Liao and Zhu-Jun Yao\*

#### Regioselective palladium-catalyzed phenylation of ethyl 4-oxazolecarboxylate

pp 8573-8577

Christophe Hoarau,\* Alexis Du Fou de Kerdaniel, Nicolas Bracq, Pierre Grandclaudon, Axel Couture and Francis Marsais

The highly regioselective palladium-catalyzed C-2 phenylation of ethyl 4-oxazolecarboxylate with phenyl iodide is described.

#### Total synthesis of beauveriolide I

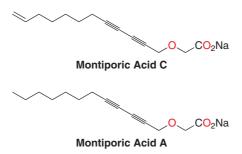
pp 8579-8581

Hua Tian, Xiaozhen Jiao, Ping Xie\* and Xiaotian Liang

#### Feeding attractants for the muricid gastropod Drupella cornus, a coral predator

pp 8583-8585

Masaki Kita, Makoto Kitamura, Tomoyuki Koyama, Toshiaki Teruya, Hiroshi Matsumoto, Yoshikatsu Nakano and Daisuke Uemura\*



#### A practical one-pot process for $\alpha$ -amino aryl ketone synthesis

pp 8587-8589

Karen Conrad,\* Yi Hsiao and Ross Miller

$$\begin{array}{c|c}
O & O \\
N &$$

An efficient, convenient, high-yielding synthesis of  $\alpha$ -amino ketones is described, involving the one-pot deprotonation-transmetallation-arylation of a Weinreb amide while retaining chirality of the original amide.



# Co-immobilized formate anion and palladium on a polymer surface: a novel heterogeneous combination for transfer hydrogenation

pp 8591-8593

Basudeb Basu,\* Sajal Das, Pralay Das and Ashish K. Nanda

A novel heterogeneous combination of a formate reagent and palladium catalyst immobilized on a resin support has been developed and shown to be highly efficient and recyclable for transfer hydrogenation of alkenes, imines, nitroarenes and 1,2-dicarbonyl compounds.

## Mildbraedin, a novel kaempferol tetraglycoside from the tropical forest legume *Mildbraediodendron excelsum*

pp 8595-8598

Nigel C. Veitch,\* Julie M. Bristow, Geoffrey C. Kite and Gwilym P. Lewis

Leaves of *Mildbraediodendron excelsum* (Leguminosae: tribe Swartzieae) yielded a novel flavonol glycoside characterized by an O-linked branched tetrasaccharide. The same compound was detected by LC-UV-MS as the major component of leaf material sourced from a historic collection of this species made in Cameroon in 1928.

Lewis acid catalyzed intramolecular halo-arylation of tethered alkenes using N-halosuccinimide (NXS) as the halogen source: a general method for the synthesis of chromanones, chromans, quinolones, tetrahydroquinolines and tetralins

pp 8599-8603

Saumen Hajra,\* Biswajit Maji and Ananta Karmakar

#### Synthesis of fluorous trialkyl phosphines with the complete exclusion of PH<sub>3</sub>

pp 8605-8608

Gábor Vlád, Frank U. Richter and István T. Horváth\*



A new simple route to deoxyamino sugars from non-sugar material: synthesis of D-tolyposamine and 4-epi-D-tolyposamine and formal synthesis of D-vicenisamine

pp 8609-8612

Yoshitaka Matsushima\* and Jun Kino

Ts NH 
$$\alpha$$
 Sharpless AD  $\alpha$  TBSO  $\alpha$  TB

## Omriolide A and B; two new rearranged spongian diterpenes from the marine sponge Dictyodendrilla aff. retiara

pp 8613-8616

Amira Rudi, Yuval Erez, Yehuda Benayahu and Yoel Kashman\*

Two new rearranged spongian diterpenes designated omriolide A and B were isolated from a marine sponge. Omriolide A possesses a new heterocyclic system.

# Deprotection of $\alpha$ -imidazole/benzimidazole ribonucleosides by catalytic carbon tetrabromide initiated photolysis

pp 8617-8619

Tilak Chandra and Kenneth L. Brown\*

Several protected benzimidazole and imidazole  $\alpha$ -ribonucleosides were deprotected in excellent yield at ambient temperature using CBr<sub>4</sub> initiated photolysis in methanol at ambient temperature. No selectivity was observed, and both trityl and isopropylidene groups were deprotected under the reaction conditions.

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\*Corresponding author

\*\*D+ Supplementary data available via ScienceDirect



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