

#### Tetrahedron Letters Vol. 45, No. 28, 2004

#### **Contents**

#### **COMMUNICATIONS**

#### A novel synthesis of amino acid derivatives of phospholene oxides

pp 5339-5341

Buchammagari Haritha, Valluru Krishna Reddy, Masaki Takahashi and Mitsuji Yamashita\*

Several novel P-amino acid derivatives of phospholene oxides were prepared in good to high yields for the first time.

#### Enantioselective allylation of alkyl glyoxylates catalyzed by (salen)chromium(III) complexes

pp 5343-5346

Piotr Kwiatkowski, Wojciech Chaładaj and Janusz Jurczak\*

#### Studies on the [2,3]-Stevens rearrangement of aziridinium ions

pp 5347-5350

Gareth J. Rowlands\* and William Kentish Barnes

# A novel salicylaldehyde based mineral supported expedient synthesis of benzoxazinone nucleosides Lal Dhar S. Yadav,\* Beerendra S. Yadav and Vijai K. Rai

pp 5351-5353

HO HO R HO R 
$$\frac{R^1}{N}$$
  $\frac{MW}{2 \text{ steps}}$   $\frac{R^2}{N}$   $\frac{R^3}{N}$   $\frac{R^3}$ 

#### Enantioselective synthesis of 1-deoxy-D-gulonojirimycin from a phenylglycinol-derived lactam

pp 5355-5358

Mercedes Amat,\* Marta Huguet, Núria Llor, Oriol Bassas, Antonia M. Gómez, Joan Bosch,\* Josefa Badia, Laura Baldoma and Juan Aguilar

$$RO_2C$$
 OProt OProt OProt OProt Deoxy-D-gulonojirimycin

### Diastereoselectivity in the epoxidation of $\gamma$ -hydroxy $\alpha,\beta$ -unsaturated esters: temperature and solvent effect

pp 5359-5361

Santiago Rodríguez, Alberto Vidal, Juan J. Monroig and Florenci V. González\*



#### Nitrone in L-lyxose series: cycloaddition way for the synthesis of new C-α-fucosides

pp 5363–5366

Carine Chevrier, Didier LeNouen, Markus Neuburger, Albert Defoin\* and Céline Tarnus\*

Nitrone 2 was prepared from D-ribose and led to potent fucosidase inhibitors 1 and 3 by reduction with  $SO_2$  or by 1,3-dipolar cycloaddition.

#### A convenient synthetic approach to bis-functionalised quaterfluorenes

pp 5367-5370

Roberto Grisorio, Piero Mastrorilli, Cosimo Francesco Nobile, Giuseppe Romanazzi, Gian Paolo Suranna\* and E. W. Meijer

### Structure and enantioselective synthesis of polyamine toxin MG30 from the venom of the spider *Macrothele gigas*

pp 5371-5373

Nahoko Yamaji,\* Manabu Horikawa, Gerardo Corzo, Hideo Naoki, Joachim Haupt, Terumi Nakajima and Takashi Iwashita

A novel polyamine toxin, named MG30, was isolated from the venom of the spider, *Macrothele gigas*, and its structure was elucidated by two-dimensional NMR and mass analysis. The absolute stereostructure of MG30 was confirmed by comparison with synthesized enantiomers.

#### Acylmethanesulfonamides as new acylating agents for primary amines

pp 5375-5378

Silvia Coniglio,\* Andrea Aramini, M. Candida Cesta, Sandro Colagioia, Roberto Curti, Fabrizio D'Alessandro, Gaetano D'Anniballe, Valerio D'Elia, Giuseppe Nano, Valerie Orlando and Marcello Allegretti\*

A new procedure for the preparation of secondary amides through internal condensation of acylmethanesulfonamides ammonium salts is described.

#### Stereoselective titanium-mediated syn-aldol reaction from a lactate-derived chiral ethyl ketone

pp 5379-5382

Joan G. Solsona, Pedro Romea\* and Fèlix Urpí\*

#### Synthesis and actin-depolymerizing activity of mycalolide analogs

pp 5383-5386

Kiyotake Suenaga, Saori Miya, Takeshi Kuroda, Tomohisa Handa, Kengo Kanematsu, Akira Sakakura and Hideo Kigoshi\*

Mycalolide analog 4, consisting only of the side chain of mycalolide B (2), was stereoselectively synthesized and was found to have strong actin-depolymerizing activity.

# Stereoselectivity in the intermolecular Pauson–Khand reaction of electron-deficient terminal alkynes pp 5387–5390 Jordi Solà, Antoni Riera,\* Miquel A. Pericàs, Xavier Verdaguer\* and Miguel A. Maestro

# Reaction of a stable aminoarylcarbene with 2-chloroacrylonitrile: dearomatizing cyclization rather than cyclopropanation

pp 5391–5393

Stéphane Solé, Xavier Cattoën, Heinz Gornitzka, Didier Bourissou\* and Guy Bertrand\*

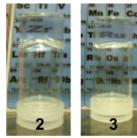
### Mild and facile procedure for clay-catalyzed acetonide protection and deprotection of N(Boc)-amino pp 5395–5398 alcohols and protection of 1,2-diols

Nadim S. Shaikh, Santosh S. Bhor, Anil S. Gajare, Vishnu H. Deshpande and Radhika D. Wakharkar\*

#### New L-valine-based hydrogelators: formation of supramolecular hydrogels

pp 5399-5402

Masahiro Suzuki,\* Sanae Owa, Mariko Yumoto, Mutsumi Kimura, Hirofusa Shirai and Kenji Hanabusa



Hydrogels

### Lewis acid promoted aldol reaction of fluorinated silyl enol ethers from new fluoroacetylsilane derivatives

pp 5403-5406

Woo Jin Chung, Silvana C. Ngo, Seiichiro Higashiya and John T. Welch\*

OSiR'<sub>3</sub> 
$$R^1$$
  $H$  OH O  $R^1$   $R^2$   $R^3$   $R^4$   $R^4$ 



Inter- and intramolecular carbene reactions of diazoketones tethered to tricarbonyliron coordinated acyclic dienes. New tricarbonyliron complexes of cyclohexa-2,4-dienone and cyclopent-2-enone Michel Franck-Neumann,\* Philippe Geoffroy, Dominique Gassmann and Alain Winling

pp 5407-5410

Synthesis of substituted carbazoles and  $\beta$ -carbolines by cyclization of diketoindole derivatives Eric Duval and Gregory D. Cuny\*

pp 5411-5413

$$R_1$$
  $R_2$   $R_3$   $N_4OH$  or  $R_1$   $R_2$   $R_3$   $N_4OAc$   $N_1$   $N_4$   $N_$ 



### Copper-catalyzed asymmetric hydrosilylation of ketones using air and moisture stable precatalyst Cu(OAc)<sub>2</sub>·H<sub>2</sub>O

pp 5415-5417

Dong-won Lee and Jaesook Yun\*

#### Studies on oxidations with IBX: oxidation of alcohols and aldehydes under solvent-free conditions

pp 5419-5424

Jarugu Narasimha Moorthy,\* Nidhi Singhal and P. Venkatakrishnan

### Synthesis of benzyl- and benzhydrylferrocenes via Friedel-Crafts alkylation of ferrocene. Access to ferrocenyl bisphenols with high affinities for estrogen receptors

pp 5425-5427

Damian Plażuk, Anne Vessières, Franck Le Bideau, Gérard Jaouen and Janusz Zakrzewski\*

### *syn*-2,3-Disubstituted-2,3-dihydro-1,4-benzoxathiin rings: preparation from quinone ketals and 2-mercaptoethanols

pp 5429-5432

Peter G. Dormer,\* Amude M. Kassim,\* Johnnie L. Leazer, Jr., Fengrui Lang, Feng Xu, Kimberly A. Savary, Edward G. Corley, Lisa DiMichele, Jimmy O. DaSilva, Anthony O. King, David M. Tschaen and Robert D. Larsen

OMe + 
$$Ar_1$$
 OH O S  $Ar_1$  HO S  $Ar_1$  O  $Ar_2$  R O  $A$ 

 $(i)^+$ 

### Dye-sensitized intrazeolite photooxygenation of 4-substituted cyclohexenes. Remote substituent effects in regioselectivity and diastereoselectivity

pp 5433-5436

Manolis Stratakis,\* Nikoletta Sofikiti, Constantinos Baskakis and Christos Raptis

### Facile synthesis of acyclic azanucleosides from N-pivaloyloxymethyl amides and sulfonamides: synthesis of aza-analogues of Ganciclovir

pp 5437-5440

Mariola Koszytkowska-Stawińska and Wojciech Sas\*

#### The synthesis of symmetrical bis-1,2,5-thiadiazole ligands

pp 5441-5444

Dean M. Philipp, Rick Muller, William A. Goddard, Khalil A. Abboud, Michael J. Mullins, R. Vernon Snelgrove and Phillip S. Athey\*



Convenient route to centro-substituted triquinacene skeletons via the interrupted Nazarov reaction Ashantai Yungai and F. G. West\*

pp 5445-5448

[4+3]-Cycloaddition of simple 1,4-diene-3-ones with dimethylbutadiene, followed by ozonolysis and treatment with base furnishes 10-hydroxytetrahydrotriquinacen-2-ones in good overall yield.

### A synthetic route to anandamide analogues carrying a substituent at the terminal carbon and an acetylene group in the end pentyl chain

pp 5449-5451

Ramazan Altundas, Anu Mahadevan and Raj K. Razdan\*

#### Synthesis of peptide conjugated chelator oligomers for endoradiotherapy and MRT imaging

pp 5453-5455

Overall Yield: 3-13%

Walter Mier,\* Keith A. N. Graham, Qin Wang, Susanne Krämer, Johannes Hoffend, Michael Eisenhut and Uwe Haberkorn

# Benzylic oxygenation of alkylarenes with molecular oxygen in the presence of activated carbon Hirotoshi Kawabata and Masahiko Hayashi\*

pp 5457-5459

alkylarenes: fluorenes, xanthenes, anthrone activated carbon: Shirasagi KL, Darco® KB

A variety of alkylarenes such as fluorenes, xanthenes and anthrone were effectively oxygenated to the corresponding carbonyl compounds with molecular oxygen as oxidant in the presence of activated carbon.

### An efficient synthesis of conjugation-expanded carba- and azuliporphyrins using a bicyclo[2.2.2]octadiene-fused tripyrrane

pp 5461-5464

Tetsuo Okujima,\* Naoki Komobuchi, Yusuke Shimizu, Hidemitsu Uno and Noboru Ono\*

The novel bicyclo[2.2.2]octadiene-fused tripyrrane was synthesized by the montmorillonite K-10 clay catalyzed condensation. The [3+1] porphyrin synthesis, followed by retro Diels–Alder reaction afforded  $\pi$ -expanded porphyrinoid systems with one modified subunit.

### Achiral phenolic N-oxides as additives: an alternative strategy for asymmetric cyanosilylation of ketones

pp 5465-5467

Bin He, Fu-Xue Chen, Yan Li, Xiaoming Feng\* and Guolin Zhang

OHO Provide 
$$\mathbf{P}_{\mathbf{R}_{1}}$$
 TMSCN  $\frac{1 \text{ mol}\% \text{ } N\text{-}\text{oxide } \mathbf{2a} \text{ as additive}}{10 \text{ mol}\% \text{ Salen-Ti}(O^{i}\text{Pr})_{4}}$   $\mathbf{R}_{1}$   $\mathbf{R}_{2}$   $\mathbf{R}_{2}$   $\mathbf{R}_{1}$   $\mathbf{R}_{2}$ 

#### The first total synthesis of SB87-Cl and pestalone, novel bioactive benzophenone natural products

pp 5469-5471

Daisuke Iijima, Daisuke Tanaka, Motoko Hamada, Takahisa Ogamino, Yuichi Ishikawa and Shigeru Nishiyama\*

A new insight into the Pfitzinger reaction. A facile synthesis of 6-sulfamoylquinoline-4-carboxylic acids pp 5473–5476 Alexandre V. Ivachtchenko,\* Alexander V. Khvat, Vladimir V. Kobak, Volodymir M. Kysil and Caroline T. Williams

# Application of the asymmetric aminohydroxylation reaction for the syntheses of HIV-protease inhibitor, hydroxyethylene dipeptide isostere and $\gamma$ -amino acid derivative

pp 5477-5479

Nagendra B. Kondekar, Subba Rao V. Kandula and Pradeep Kumar\*

### Asymmetric alkylation of diarylmethane derivatives. Improved results using methoxyethoxy substituent

pp 5481-5483

James A. Wilkinson,\* Steven B. Rossington, John Leonard and Nigel Hussain

$$\begin{array}{c} \text{OCH}_2\text{CH}_2\text{OMe} \\ \\ \hline \text{i. sec-BuLi, (-)-sparteine, Et}_2\text{O} \\ \hline \\ \text{ii. R-X} \\ \end{array} \\ \begin{array}{c} \text{OCH}_2\text{CH}_2\text{OMe} \\ \\ \text{NR} \\ \text{R = Me, Et, Bn, TMS, allyl} \\ \\ \text{Ph} \\ \end{array}$$

# N,N,N',N'-Tetramethyl-1,3-propanediamine as the catalyst of choice for the Baylis-Hillman reaction of cycloalkenone: rate acceleration by stabilizing the zwitterionic intermediate via the ion-dipole interaction

pp 5485-5488

Ka Young Lee, Saravanan GowriSankar and Jae Nyoung Kim\*

R-CHO + 
$$(CH_2)_n$$
  $(CH_2)_n$   $(CH_2)_n$   $(CH_2)_n$ 

### A selective synthesis of 2-([2,2]paracyclophan-5-yl)pyrrole from 5-acetyl[2,2]paracyclophane via the Trofimov reaction

pp 5489-5491

Elena Yu. Schmidt, Nadezhda V. Zorina, Alexey B. Zaitsev, Al'bina I. Mikhaleva,\* Alexander M. Vasil'tsov, Pierre Audebert, Gilles Clavier, Rachel Méallet-Renault and Robert B. Pansu

$$\begin{array}{c}
Me \\
N-O
\end{array}$$

$$\begin{array}{c}
\Delta \\
DMSO
\end{array}$$

### A formal asymmetric synthesis of both enantiomers of the $\it Erythrina$ alkaloid 3-demethoxyerythratidinone

pp 5493-5496

Steven M. Allin,\* Guy B. Streetley, Martin Slater, Stella L. James and William P. Martin

### Reductive etherification of carbonyl compounds with alkyl trimethylsilylethers using polymethylhydrosiloxane (PMHS) and catalytic $B(C_6F_5)_3$

pp 5497-5499

S. Chandrasekhar, \* G. Chandrashekar, B. Nagendra Babu, K. Vijeender and K. Venkatram Reddy

A facile synthesis of symmetrical and unsymmetrical ethers is achieved by reductive coupling of carbonyl compounds with alkoxysilanes. This reaction is performed using inert polymethylhydrosiloxane as the hydride source and  $B(C_6F_5)_3$  as the catalytic activator of the PMHS.

### Lingshuiols A and B, two new polyhydroxy compounds from the Chinese marine dinoflagellate *Amphidinium* sp.

pp 5501-5504

Xiao-Chun Huang, Di Zhao, Yue-Wei Guo,\* Hou-Ming Wu, Enrico Trivellone and Guido Cimino

Lingshuiols A and B, two new polyhydroxyl compounds with linear carbon-chains, were isolated from the cultured Chinese marine dinoflagellate *Amphidinium* sp. Their structures were elucidated by extensive analysis of 2D NMR spectral data.

### Ketal-tethered ring-closing metathesis. An unconventional approach to constructing spiroketals and total synthesis of an insect pheromone

pp 5505-5510

Sunil K. Ghosh, Richard P. Hsung\* and Jiashi Wang

An unconventional approach to constructing spiroketals via ring-closing metathesis of cyclic ketals is described here. This method possesses good generality with no loss of stereochemical integrity at the spiro center under standard RCM conditions. This approach has been applied to the synthesis of an insect pheromone to demonstrate its synthetic potential.

#### Formal total synthesis of shikonin via Dötz benzannulation

pp 5511-5514

Shon R. Pulley and Barbara Czakó\*

The Dötz benzannulation reaction provides mild conditions for the construction of highly functionalized aromatic compounds. We have utilized this method for the formal total synthesis of shikonin. The key step in our approach is the application of the Dötz benzannulation reaction between a Fischer chromium carbene complex 5 and alkyne 6 for the construction of the aromatic skeleton. This is followed by protecting group manipulation and the stereoselective formation of the epoxide moiety using the Sharpless procedure.



#### Convenient palladium-catalyzed homocoupling of iodoarenes in an ionic liquid

pp 5515-5517

Soon Bong Park and Howard Alper\*

$$R \xrightarrow{\text{[[bmim]PF}_6} PdCl_2/TDAE$$

The homocoupling reaction of several iodoarenes has been performed in the ionic liquid, [bmim]PF<sub>6</sub>, using palladium catalysts. The catalyst could be recycled and reused four times in this reaction..



# New and efficient conditions for the Z-selective synthesis of unsaturated esters by the Horner-Wadsworth-Emmons olefination

pp 5519-5523

François P. Touchard\*

The preparation of  $\alpha,\beta$ -unsaturated esters with Z-selectivities up to 99% is reported.

#### SnCl<sub>2</sub>/PdCl<sub>2</sub>-mediated aldehyde allylation in fully aqueous media

pp 5525-5528

Xiang-Hui Tan, Yong-Quan Hou, Bo Shen, Lei Liu\* and Qing-Xiang Guo\*

#### A convenient synthesis of 1,4-disubstituted imidazoles

pp 5529-5532

Yong He, Yingzhong Chen, Hongwang Du, Lesley A. Schmid and Carl J. Lovely\*

An expedient method for the selective protection of a number of 4-substituted imidazoles has been developed.

### Gymnorrhizol, an unusual macrocyclic polydisulfide from the Chinese mangrove *Bruguiera gymnorrhiza* pp 5533–5535 Yan-Qiu Sun and Yue-Wei Guo\*

1 R =H 1a R = Ac

A novel macrocyclic polydisulfide, gymnorrhizol (1), was isolated from the mangrove *Bruguiera gymnorrhiza* and its structure was determined by extensive spectroscopic studies. A suggestion is made as to its biogenetic origin.

### Organometallic reactions in aqueous media: the allylations of carbonyl compounds mediated in $Zn/CdSO_4$ and $Zn/SnCl_2$ bimetal systems

pp 5537-5540

Cunliu Zhou, Yuqing Zhou, Jiaoyang Jiang, Zhen Xie, Zhiyong Wang,\* Jiahai Zhang, Jihui Wu and Hao Yin

$$R = \text{aryl or alkyl}$$

$$R' = \text{H or alkyl}$$

Zn/CdSO<sub>4</sub> and Zn/SnCl<sub>2</sub> bimetal systems were employed in the allylations of aldehydes or ketones in distilled water to produce the corresponding homoallylic alcohols in good yield.

#### Novel route to carboxylic acids via the DCME reaction

pp 5541-5543

John A. Soderquist,\* Judith Martinez, Yatsandra Oyola and Iveliz Kock

Brown's DCME reaction was successfully performed employing *B*-alkyl-9-oxa-10-borabicyclo[3.3.2]decanes (1) to provide carboxylic acids (2) in good to excellent yields with complete retention of configuration.

#### **OTHER CONTENTS**

Calendar Contributors to this issue Instructions to contributors pp I–VII p IX–X pp XI–XIV

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\*\* Supplementary data available via ScienceDirect



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