

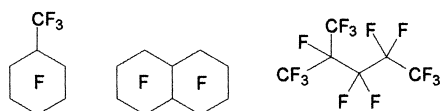
## Graphical abstracts

### Perfluoroalkanes

Graham Sandford

Department of Chemistry, University of Durham, South Road, Durham DH1 3LE, UK

*Tetrahedron* 59 (2003) 437



**Synthesis**  
Carbon-Fluorine Bond Activation  
Inert Media  
Fluorous Biphasic Chemistry

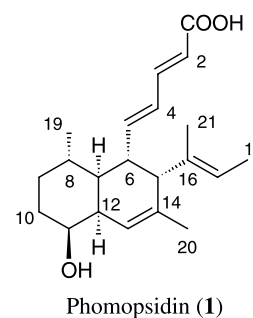
### Absolute structure, biosynthesis, and anti-microtubule activity of phomopsidin, isolated from a marine-derived fungus *Phomopsis* sp.

Hisayoshi Kobayashi,<sup>a,\*</sup> Shiori Meguro,<sup>b</sup> Takeshi Yoshimoto<sup>b</sup> and Michio Namikoshi<sup>b,\*</sup>

<sup>a</sup>Institute of Molecular and Cellular Biosciences, The University of Tokyo, Bunkyo-ku, Tokyo 113-0032, Japan

<sup>b</sup>Department of Ocean Sciences, Tokyo University of Fisheries, Minato-ku, Tokyo 108-8477, Japan

The absolute configuration of phomopsidin (**1**) was determined by the Exciton Chirality method. Carbon atoms at the 19, 20 and 21 methyl groups were from L-methionine and the chain of 1–18 was built by nine acetates. Phomopsidin (**1**) inhibited microtubule assembly at 5  $\mu$ M (IC<sub>50</sub>), while its Me ester was not active. Bioactivity of the structurally related compounds was also examined.

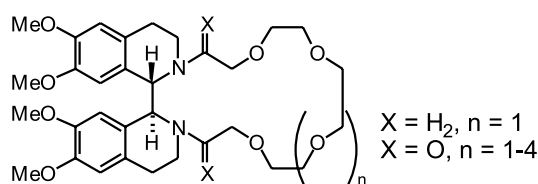
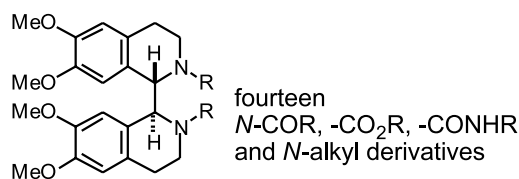


*Tetrahedron* 59 (2003) 455

### New *N*-acyl, *N*-alkyl, and *N*-bridged derivatives of *rac*-6,6',7,7'-tetramethoxy-1,1',2,2',3,3',4,4'-octahydro-1,1'-bisisoquinoline

Stephan Busato, Donald C. Craig, Zaher M. A. Judeh and Roger W. Read\*

School of Chemical Sciences, The University of New South Wales, UNSW Sydney, NSW 2052, Australia

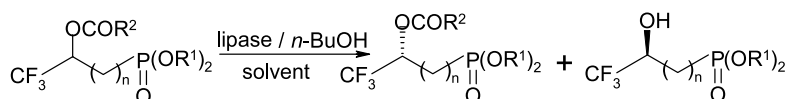


*Tetrahedron* 59 (2003) 461

### Enzymatic synthesis of optically active trifluoromethylated 1- and 2-hydroxyalkanephosphonates

Yonghui Zhang, Jin-feng Li and Cheng-ye Yuan\*

Shanghai Institute of Organic Chemistry, Chinese Academy of Science, 345 Lingling Lu, Shanghai 200032, People's Republic of China



R<sup>1</sup>=Me, Et, *n*-Pr, *i*-Pr; R<sup>2</sup>=ClCH<sub>2</sub>, *n*-Pr; n=0, 1; E up to > 100

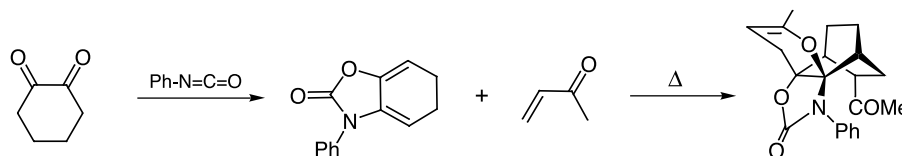
*Tetrahedron* 59 (2003) 473

## Synthesis and highly selective Diels–Alder cycloadditions of the new dienes *N*-substituted 2,3,5,6-tetrahydro-benzoxazol-2-ones

*Tetrahedron* 59 (2003) 481

Rafael Martínez, Hugo A. Jiménez-Vázquez, Francisco Delgado and Joaquín Tamariz\*

*Departamento de Química Orgánica, Escuela Nacional de Ciencias Biológicas, Instituto Politécnico Nacional, Prol. Carpio y Plan de Ayala, 11340 México, D.F., Mexico*



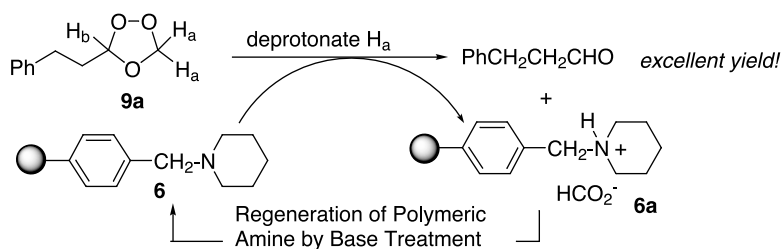
## Polymer-supported tertiary amine in organic synthesis: a useful reagent in the conversion of alkenes to carbonyl compounds via the corresponding ozonides

*Tetrahedron* 59 (2003) 493

Yung-Son Hon<sup>a,b,\*</sup> and Kun-Chan Wu<sup>a</sup>

<sup>a</sup>*Department of Chemistry and Biochemistry, National Chung Cheng University, Chia-Yi 621, Taiwan, ROC*

<sup>b</sup>*Institute of Chemistry, Academia Sinica, Nankang, Taipei 115, Taiwan, ROC*



## Pyrazolinyl and cyclopropyl derivatives of protoporphyrin IX and chlorins related to chlorophyll *a*

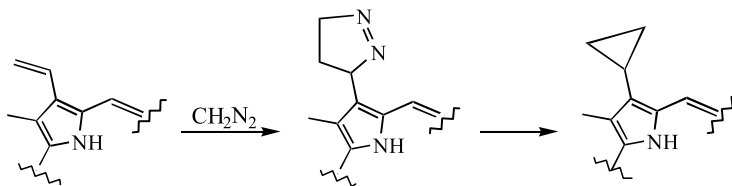
*Tetrahedron* 59 (2003) 499

Andrei N. Kozyrev,<sup>a,\*</sup> James L. Alderfer<sup>b</sup> and Byron C. Robinson<sup>a</sup>

<sup>a</sup>*Department of Chemistry R&D, Miravant Pharmaceuticals, Inc., 336 Bollay Dr., Santa Barbara, CA 93117, USA*

<sup>b</sup>*Department of Molecular and Cellular Biophysics, Roswell Park Cancer Institute, Buffalo, NY 14226, USA*

Diazomethane reacts regioselectively with peripheral vinyl substituents of porphyrins and chlorins to produce corresponding 1'-pyrazolinyl derivatives, which on thermolysis generate cyclopropyl-substituted analogs.



## A facile preparation, the crystal structure, the chemical and electrochemical properties of [4-(dimethylamino)-phenyl]-3-guaiazulenylmethyl cation tetrafluoroborate

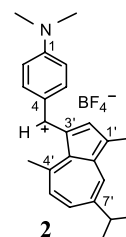
*Tetrahedron* 59 (2003) 505

Masato Sasaki,<sup>a</sup> Masaru Nakamura,<sup>a</sup> Takayuki Uriu,<sup>a</sup> Hideko Takekuma,<sup>a</sup> Toshie Minematsu,<sup>b</sup> Masakuni Yoshihara<sup>a</sup> and Shin-ichi Takekuma<sup>a,\*</sup>

<sup>a</sup>*Department of Applied Chemistry, Faculty of Science and Engineering, Kinki University, 3-4-1 Kowakae, Higashi-Osaka-shi, Osaka 577-8502, Japan*

<sup>b</sup>*School of Pharmaceutical Sciences, Kinki University, 3-4-1 Kowakae, Higashi-Osaka-shi, Osaka 577-8502, Japan*

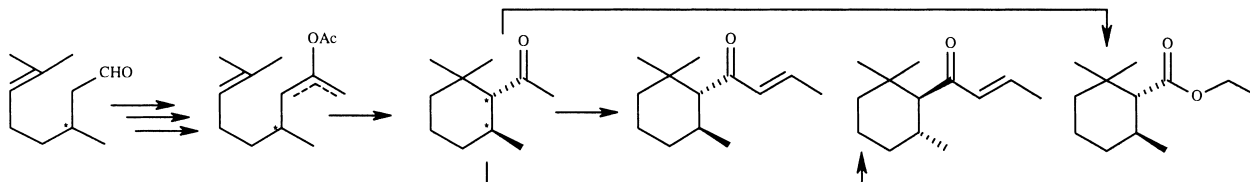
The title studies of compound **2** compared with those of two other monocationic species stabilized by a 3-guaiazulenyl group (i.e. phenyl-3-guaiazulenylmethyl and [4-(isopropyl)phenyl]-3-guaiazulenylmethyl cations) are reported.



### Synthesis and odor of optically active *trans*-2,2,6-trimethylcyclohexyl methyl ketones and their related compounds

*Tetrahedron* 59 (2003) 517

Takeshi Yamamoto,\* Hideo Ujihara, Shinya Watanabe, Makoto Harada Hiroyuki Matsuda and Toshimitsu Hagiwara  
Central Research Laboratory, Takasago International Corporation, Nishi-Yawata 1-4-11, Hiratsuka, Kanagawa 254-0073, Japan



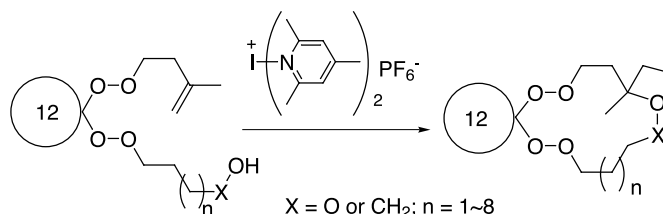
### Synthesis of novel macrocyclic peroxides by bis(sym-collidine)iodine (I) hexafluorophosphate-mediated cyclization of unsaturated hydroperoxides and unsaturated alcohols

*Tetrahedron* 59 (2003) 525

Toyonari Ito,<sup>a</sup> Takahiro Tokuyasu,<sup>a</sup> Araki Masuyama,<sup>a</sup> Masatomo Nojima<sup>a,\*</sup> and Kevin J. McCullough<sup>b,\*</sup>

<sup>a</sup>Department of Materials Chemistry and Frontier Research Center, Graduate School of Engineering, Osaka University, Suita, Osaka 565-0871, Japan

<sup>b</sup>Department of Chemistry, Heriot-Watt University, Edinburgh EH14 4AS, Scotland, UK

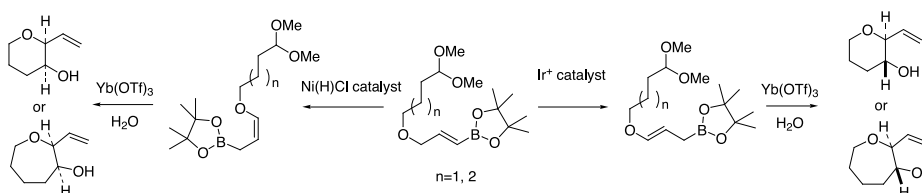


### Intramolecular allylboration of $\gamma$ -( $\omega$ -formylalkoxy)-allylboronates for syntheses of *trans*- or *cis*-2-(ethenyl)tetrahydropyran-3-ol and 2-(ethenyl)oxepan-3-ol

*Tetrahedron* 59 (2003) 537

Yasunori Yamamoto,\* Kazunori Kurihara, Akihiko Yamada, Miki Takahashi, Youichi Takahashi and Norio Miyaura\*

Division of Molecular Chemistry, Faculty of Engineering, Graduate School of Engineering, Hokkaido University, Sapporo 060-8628, Japan



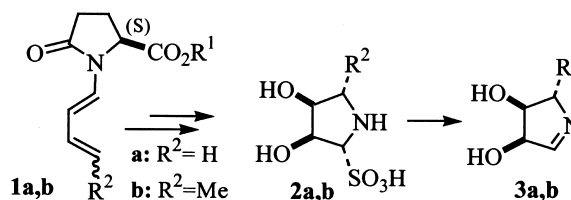
### Asymmetric synthesis of potent glycosidase and very potent $\alpha$ -mannosidase inhibitors: 4-amino-4-deoxy-L-erythrose and 4-amino-4,5-dideoxy-L-ribose

*Tetrahedron* 59 (2003) 543

Jean-Bernard Behr, Carine Chevrier, Albert Defoin,\* Céline Tarnus\* and Jacques Streith

Laboratoire de Chimie Organique et Bioorganique, Ecole Nationale Supérieure de Chimie de Mulhouse, Université de Haute-Alsace, 3, rue Alfred Werner, F-68093 Mulhouse Cédex, France

Chiral amino-sugars **3a,b** and their sulfite adducts **2a,b** are synthesised from dienes **1a,b**. Potent glycosidase inhibitory properties of **2a,b** and **3a,b** are reported and discussed.



**The structure of the agrochemical fungicidal 4-chloro-3-(3,5-dichlorophenyl)-1H-pyrazole (RPA 406194) and related compounds**

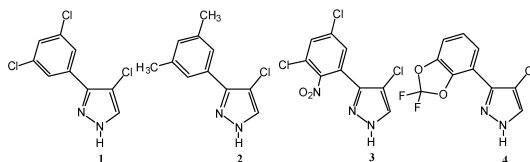
*Tetrahedron 59 (2003) 555*

Jean-Pierre Vors,<sup>a,\*</sup> Vincent Gerbaud,<sup>b</sup> Nadine Gabas,<sup>b</sup> Jean Paul Canselier,<sup>b,\*</sup> Nadine Jagerovic,<sup>c</sup> María Luisa Jimeno<sup>c</sup> and José Elguero<sup>c,\*</sup>

<sup>a</sup>Bayer CropScience, Centre de Recherche de La Dargoire, 14-20, Rue Pierre Baizet, B.P. 9163, F-69263 Lyon Cédex 09, France

<sup>b</sup>Laboratoire de Génie Chimique, ENSIACET, Institut National Polytechnique de Toulouse (INPT), BP 1301, F-31106 Toulouse Cedex 01, France

<sup>c</sup>Instituto de Química Médica, C.S.I.C., Juan de la Cierva, 3, E-28006 Madrid, Spain

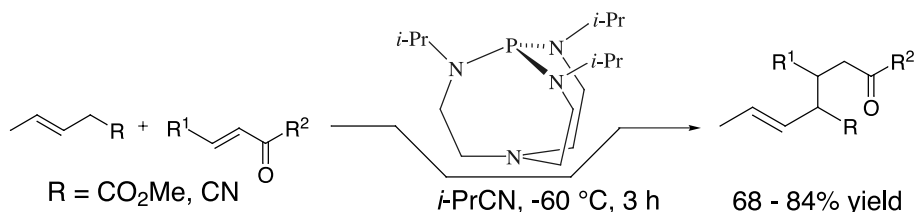


**P(*i*-PrNCH<sub>2</sub>CH<sub>2</sub>)<sub>3</sub>N: An efficient nonionic catalyst for the regioselective Michael addition of a  $\beta,\gamma$ -unsaturated ester and a nitrile**

*Tetrahedron 59 (2003) 561*

A. E. Wroblewski, V. Bansal, P. Kisanga and J. G. Verkade\*

Department of Chemistry, Iowa State University, 1275 Gilman Hall, Ames, IA 50011, USA



**A study of 1,5-hydrogen shift and cyclization reactions of an alkali isomerized methyl linoleoate**

*Tetrahedron 59 (2003) 567*

Jorma Matikainen,<sup>\*</sup> Seppo Kaltia, Maija Ala-Peijari, Ninna Petit-Gras, Kirsi Harju, Jaakko Heikkilä, Raija Yksjärvi and Tapio Hase  
Laboratory of Organic Chemistry, Department of Chemistry, University of Helsinki, P.O. Box. 55, 00014 University, Finland

