#### **GRAPHICAL ABSTRACTS**

SYNTHESIS AND RESOLUTION OF A NEW CHIRAL C2-SYMMETRIC BISPHENOL:

TRANS-1,2-BIS(2-HYDROXYPHENYL)CYCLOPENTANE

James K. Whitesell\* and Richard Apodaca

University of Texas at Austin, Austin, TX 78712 USA

Tetrahedron Letters, 1997, 38, 2593

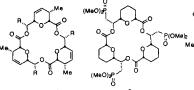
Tetrahedron Letters, 1997, 38, 2589

Synthesis of Cyclic Hydropyran Oligolides with Convergent Amine, Amide,

Phosphonate and Furan Appendages. Steven D. Burke, \* Christopher J. O'Donnell, Jeremy J. Hans, Choong Woon Moon, Raymond A. Ng, Thomas W. Adkins, and

Garrick K. Packard, Department of Chemistry, University of Wisconsin-Madison, Madison, WI 53706.

The syntheses of C3-symmetric macrocycles with pendant amino, phosphono and furanyl groups are described.



 $R = CH_0NH_0+HCI$   $R = CH_0NHC(O)-p-NO_2C_6H_4$ 

Tetrahedron Letters, 1997, 38, 2597

### DIPHENYL METHYLPHOSPHONATE AS A PHOSPHONYLATION

REAGENT WITH HIGH DIASTEREOSELECTIVITY AT PHOSPHORUS Robert M.Moriarty\*\*, Anping Tao\*, Cristian Condeiu\*, and Richard Gilardi.b

\*Department of Chemistry, University of Illinois at Chicago, Chicago, Illinois 60607.

LSM, Code 6030, Naval Research Laboratory, 4555 Overlook Ave, SW, Washington, D.C. 20375. Reaction of diphenyl methylphosphonate with lithium alkoxides resulted in diastereoselective formation of methylphosphonate diesters.

Application of the Grubbs Ring-Closing Metathesis for the Construction of a Macrocyclic Ansa-Bridge. Synthesis of the Tricyclic Core of Roseophilin.

Seong Heon Kim, Israel Figueroa (in part), and P. L. Fuchs\* Department of Chemistry, Purdue University, West Lafayette, IN 47907

Tetrahedron Letters, 1997, 38, 2601

# STEREOSPECIFIC REARRANGEMENTS OF OPTICALLY ACTIVE 2-ARYL-3-ETHENYLOXIRANES TO GIVE OPTICALLY ACTIVE $\beta$ -ETHENYLBENZENEETHANOLS: BENZYL VS. ALLYL CATIONS AND AN EFFICIENT SYNTHESIS OF (S)-IBUPROFEN

Michael E. Jung\* & Karen L. Anderson, Department of Chernistry, University of California, Los Angeles, CA, USA 90095-1569 Substituted oxiranes rearrange in the presence of triethylsilane and BF<sub>3</sub> to give optically active alcohols, a reaction we have used in a synthesis of (S)-ibuprofen 1. A vinyl group migrates to a benzylic cation faster than a phenyl group migrates to an allyllic cation.

### SUPRAMOLECULAR CONTROL OF PHOTOCHEMICAL ENANTIOMERIC

Tetrahedron Letters, 1997, 38, 2609

INDUCTION AND RADICAL PAIR RECOMBINATION IN ZEOLITES.
Nikolas A. Kaprinidis, Margaret S. Landis and Nicholas J.Turro, Department of Chemistry, Columbia University, New York, NY 10027.

The control of both photochemical enantiomeric induction and radical pair recombination produced from the  $\alpha$ -cleavage reaction of ketones is possible in supramolecular systems which are consisted of chirally modified zeolites and guest ketones.

### TRANSMEMBRANE ION TRANSPORT MEDIATED BY AMPHIPHILIC POLYAMINE DENDRIMERS.

Tetrahedron Letters, 1997, 38, 2613

Naomi Sakai and Stefan Matile\*, Department of Chemistry, Georgetown University, Washington, DC 20057-1227

Dendritic amphiphiles such as 1 were synthesized and their ion transport activities through lipid bilayer were examined.

$$^{+}H_{3}N$$
 $^{+}H_{3}N$ 
 $^{+}H_{3}N$ 

### DIPROTECTION OF PRIMARY AMINES AS N-SUBSTITUTED-2,5-BIS[(TRIISOPROPYLSILYL)OXY]PYRROLES (BIPSOP)

Tetrahedron Letters, 1997, 38, 2617

Stephen F. Martin\* and Chris Limberakis
Department of Chemistry and Biochemistry, University of Texas at Austin
Austin, Texas 78712 USA

Primary amines are diprotected as their 2,5-bis(triisopropylsilyloxy)pyrrole derivatives. This protecting group is stable to strong bases such as organolithiums, and it may be removed in a mild two step sequence.

### HYPERVALENT IODINE OXIDATION OF PHENOLIC SCHIFF'S BASES: SYNTHESIS OF 2-ARYLBENZOXAZOLES

Rajender S. Varma,\* Rajesh K Saini and Om Prakash†

Department of Chemistry and Texas Regional Institute for Environmental Studies (TRIES), Sam Houston State University, Huntsville, Texas 77341-2117, U.S.A. †Department of Chemistry, Kurukshetra University, Kurukshetra-132 119, Haryana, INDIA.

2-Arylbenzoxazoles are synthesized, rapidly and in high yields, via the oxidative intramolecular cyclization of phenolic Schiff's bases using iodobenzene diacetate (IBD) as an oxidant in acetonitrile or methanol at room temperature.

$$\begin{array}{c|c}
R^2 & PhI(OAc)_2 \\
OH & CH^2
\end{array}$$

 $R^{1} = H, CH_{3}, OCH_{3}, CI, NO_{2}; R^{2} = H, CH_{3}$ 

#### SOLID STATE DETHIOACETALIZATION USING CLAYFEN

Rajender S. Varma\* and Rajesh K Saini

Department of Chemistry and Texas Regional Institute for Environmental Studies (TRIES), Sam Houston State University, Huntsville, Texas 77341-2117, U.S.A.

Thio acetals and ketals derived from aldehydes and ketones are readily deprotected by clayfen within seconds under solvent-free conditions. This rapid and environmentally benign method avoids the use of excess solvents and toxic oxidants usually employed in the dethioacetalization process.

$$R_1$$
 $S - R_3$ 
 $S - R_3$ 
 $Clayfen$ 
 $R_2$ 
 $R_1$ 
 $C = 0$ 

## Novel Stereoselective Addition of Some Nucleophiles to 2,3-Bis(methylsulfanyl)norbornenobenzoquinone

Blanka Wladislaw\*\*, Claudio Di Vitta\*\*, Liliana Marzorati\*,

Ivan P. de Arruda Campos<sup>a,b</sup>, and Vittorio Lucchini<sup>c</sup>

<sup>a</sup>Instituto de Química, Universidade de São Paulo, C.P. 26077, 05599-970, São Paulo, S. P., Brazil

bInstituto de Ciências Exatas e Tecnológicas (ICET), Universidade Paulista (UNIP) Av. Alphaville, 3500, Santana de Parnaíba, S. P., 06500-970

Color Av. Alphavine, 3300, Santana de Farnatoa, 5, F., 00300-370

Coloratimento di Scienze Ambientali, Università di Venezia, Dorsoduro 2137, 30123 Venezia, Italy

Tetrahedron Letters, 1997, 38, 2625

Tetrahedron Letters, 1997, 38, 2629

### SOLID-PHASE SYNTHESIS VIA N-TERMINAL ATTACHMENT TO THE 2-CHLOROTRITYL RESIN

W. J. Hoekstra,\* M. N. Greco, S. C. Yabut, B. L. Hulshizer, and B. E. Maryanoff

The R. W. Johnson Pharmaceutical Research Institute, Spring House, Pennsylvania 19477 U.S.A.

Connection of a secondary amine to the 2-chlorotrityl resin followed by iterative saponification/coupling sequences provided a basis for generating focused peptidomimetic mini-libraries.

### STEREOSELECTIVE [2,3]-WITTIG REARRANGEMENT OF (1S,2R)-1-AMINO-INDAN-2-OL DERIVED AMIDE ENOLATES

Michael H. Kress\*, Chunhua Yang, Nobuyoshi Yasuda, E. J. J. Grabowski

Department of Process Research , Merck Research Laboratories, Merck & Co., Inc., P. O. Box 2000, Rahway, NJ 07065 USA

A stereoselective [2,3]-Wittig rearrangement of has been developed using (1S,2R)-1-amino-indan-2-ol as a chiral auxiliary.

### Competitive Ortho Metalation Effects: The Kinetic and Thermodynamic Lithiation of 3-(tert-Butoxycarbonyl)amino-4-carbomethoxythiophene

Tetrahedron Letters, 1997, 38, 2637

William A. Carroll\*\* and Xiaolin Zhang<sup>†</sup> Abbott Laboratories, \*Neuroscience Research, Department 47C, and <sup>†</sup>Department of Structural Chemistry D418, Pharmaceutical Products Division, Abbott Park, Illinois 60064

The regiocontrolled lithiation of thiophene 1 leads to the selective formation of substituted thiophenes 2a or 3a.

## A Convenient and Economical Method for the Preparation of DIP-Chloride<sup>™</sup> and Its Application in the Asymmetric

Tetrahedron Letters, 1997, 38, 2641

Reduction of Aralkyl Ketones. Mangzhu Zhao\*, Anthony O. King, Robert D. Larsen, Thomas R. Verhoeven and Paul J. Reider. Process Research Department, Merck Research Laboratories, Merck & Co. Inc., P.O. Box 2000, Rahway, NJ 07065, USA

A convenient and economical preparation of DIP-Chloride<sup>TM</sup> from NaBH<sub>4</sub>, BCl<sub>3</sub> and  $\alpha$ -pinene is described. Its application in the asymmetric reduction of representative aralkyl ketones is presented.

NaBH<sub>4</sub> + (R)-(+)-α-pinene (85% ee) 
$$\frac{BCl_3}{DME}$$
 Ipc<sub>2</sub>BCl  $\frac{Ar}{R}$   $\frac{OH}{Ar}$  87-97% ee

## Magnesium Trifluoromethanesulfonimide(triflimide) Promoted Substitution Reactions of Allylic and Benzylic

Tetrahedron Letters, 1997, 38, 2645

Acetates. Magnesium Triflimide as a Substitute for Magnesium Perchlorate.

Paul A. Grieco\* and Scott T. Handy, Department of Chemistry, Indiana University, Bloomington, Indiana 47405

Mg(NTf<sub>2</sub>)<sub>2</sub> is a convenient catalyst for the nucleophilic substitution of allylic and benzylic acetates, and constitutes a useful alternative to Mg(ClO<sub>4</sub>)<sub>2</sub>.

Tetrahedron Letters, 1997, 38, 2653

Tetrahedron Letters, 1997, 38, 2657

Tetrahedron Letters, 1997, 38, 2661

### Sialic Acid Aldolase-Catalyzed Condensation of Pyruvate and N-Substituted Mannosamine: A Useful Method for The Synthesis of N-Substituted Sialic Acids

Chun-Cheng Lin, Chun-Hung Lin, and Chi-Huey Wong\*

Department of Chemistry and The Skaggs Institute of Chemical Biology, The Scripps Research Institute, 10550 N. Torrey Pines Road, La Jolla, CA 92037, USA

Several *N*-substituted sialic acids were synthesized based on the sialic acid aldolase-catalyzed aldol condensation of *N*-substituted mannosamines and pyruvate.

#### Enantiopure Purpurosamine C Type Glycosyl Donors An Improved Access from rac-Acrolein Dimer - Biocatalytic Resolution

Silke Erbeck and Horst Prinzbach, Chemisches Laboratorium der Universität Freiburg, Germany

An improved synthetic access to suitably "protected" purpurosamine C type glycosyl donors starting from racemic acrolein dimer implies an "indirect aziridination protocol" and a biocatalytic resolution. The absolute configurations are determined by an  $\alpha$ -selective glycosylation.

### Synthesis of 4'-C-Phenylselenated Deoxyribonucleosides by Radical Epimerization

by Radical Epimerization
Felix Wackernagel, Urs Schwitter, Bernd Giese\*.

Department of Chemistry, University of Basel, St. Johanns-Ring 19, CH-4056 Basel, Switzerland.

The 4'-selenated deoxyribonucleoside 3 can be synthesized from its epimer 1 by a photoinduced isomerization through radical 2.

### ENANTIOSELECTIVE RADICAL ALLYLATION OF $\alpha\textsc{-10DO-AMIDES}$ USING CHIRAL ALUMINUM BASED LEWIS ACIDS

Anna-Reine Fhal and Philippe Renaud,\* Institut de Chimie Organique, Université de Fribourg, Pérolles, CH-1700 Fribourg

Enantioselective radical allylation reactions directed by chiral Lewis acids generated from Me<sub>3</sub>Al and chiral diols/diamides are reported

Tetrahedron Letters, 1997, 38, 2669

A NEW EXAMPLE OF SMALL MOLECULAR NON-HYDROGEN BONDING GELATORS FOR ORGANIC SOLVENTS. Frédéric Placin, Michel Colomès and Jean-Pierre Desvergne\*, Laboratoire de Photochimie Organique, associé au CNRS, Université Bordeaux 1, 33405 Talence, France

Preparation and properties of new small molecular gelators (1 and 2) are described.

1

2

#### THE NON PROTONABLE REDUCED AZA-PEPTIDE FRAGMENT.

Régis Vanderesse\*, Laurent David, Vincent Grand and Michel Marraud, CNRS-URA-494, ENSIC-INPL, BP 451, 54001 Nancy, France. Jean paul Mangeot and André Aubry, CNRS-URA-809, University Henri Poincaré, BP 239, 54506 Vandœuvre, France

The semicarbazide, a peptide mimic, non-protonated at the physiological pH, has the same structural properties as the protonable aminomethylene link in reduced peptides.



## A One-Pot, Efficient Synthesis of the Potent Cytotoxic Podophyllotoxin Derivative NPF

Laurent Daley, Philippe Meresse, Emmanuel Bertounesque and Claude Monneret\*

Institut Curie, CNRS, 26 rue d'Ulm, 75248 Paris Cedex 05, France, Fax 01 42 34 66 31, E-mail cmonneret@curie.fr.

One-pot syntheses of 4'-demethylepipodophyllotoxin 7 and NPF 2 (4'-O-demethyl-4 $\beta$ -(4"-fluoroanilino)-4-deoxypodophyllotoxin) are described from podophyllotoxin 3 *via* TMSI protocol in 72% and 52% overall yields, respectively.

H<sub>3</sub>CO OCH

Tetrahedron Letters, 1997, 38, 2673

Tetrahedron Letters, 1997, 38, 2677

7 R = OH 2 R = HNC<sub>6</sub>H<sub>4</sub>F

## CYCLIZATION OF δ,ε-ACETYLENIC AMINES AND AMINOACIDS INTO CYCLIC ENAMINES. A VERY EFFICIENT AND SIMPLE ACCESS TO POLYSUBSTITUTED PYRROLIDINES.

J. Cossy', D. Belotti, V. Bellosta, C. Boggio

Laboratoire de Chimie Organique, Associé au CNRS, ESPCI, 10 rue Vauquelin - 75231 Paris Cedex 05 - France.

The thermolysis of  $\omega$ -phenylacetylenic amines in the presence of acetic acid produced cyclic enamines which after reduction with NaBH(OAc)<sub>3</sub> were transformed into polysubstituted pyrrolidines with excellent yield.

#### Novel Axial Chiral Catalyst Derived from

Biphenyl Ligand Bearing only Two ortho-Substituents

Yoshitane Imai, Wanbin Zhang, Toshiyuki Kida, Yohji Nakatsuji, and Isao Ikeda\*

Department of Applied Chemistry, Faculty of Engineering, Osaka University, Suita, Osaka 565, Japan

## EFFICIENT METHOD FOR PREPARATION OF N-METHOXY-N-METHYL AMIDES BY REACTION OF LACTONES OR ESTERS WITH Me<sub>2</sub>AlCI-

Tetrahedron Letters, 1997, 38, 2685

MeONHMe·HCl Takeshi Shimizu,\* Katsuhisa Osako, and Tadashi Nakata\*

The Institute of Physical and Chemical Research (RIKEN), Wako-shi, Saitama 351-01, Japan

The reaction of a lactone or an ester with dimethylaluminum chloride and N,O-dimethylhydroxylamine hydrochloride provided an efficient method for preparation of N-methoxy-N-methyl amide.

### SYNTHESIS AND CHEMILUMINESCENT PROPERTIES OF THE PEROXY ACID COMPOUND AS AN INTERMEDIATE

Tetrahedron Letters, 1997, 38, 2689

Tetrahedron Letters, 1997, 38, 2693

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OF COELENTERATE LUCIFERIN LUMINESCENCE.

Katsunori Teranishi,\* Makoto Hisamatsu, and Tetsuya Yamada, Faculty of Bioresources, Mie University, Tsu, Mie 514, Japan This study shows that the peroxy acid compound, which has been postulated as one of the possible intermediates of chemiluminescent reactions, generates the amide accompanied by light with the variations in luminescence.

#### HEXAARYL[3]RADIALENES

Tetsuya Enomoto, Takeshi Kawase, Hiroyuki Kurata, and Masaji Oda\* Department of Chemistry, Graduate School of Science, Osaka University, Toyonaka, Osaka 560, Japan

Hexaphenyl[3]radialenes 1a-e and hexakis(2-thienyl)-[3]radialene 2 were synthesized for the first time, and X-ray analysis of 1e revealed a double three-bladed conformation.

Biosynthesis of 20-Hydroxyecdysone in Ajuga Hairy Roots: Hydrogen Migration from C-6 to C-5 during cis-A/B Ring Formation

Yoshinori Fujimoto,\* Tetsuo Kushiro and Kinya Nakamura Department of Chemistry, Tokyo Institute of Technology, Meguro, Tokyo 152, Japan

Feeding studies of deuterium labeled cholesterols to hairy roots of Ajuga reptans var. atropurpurea followed by <sup>2</sup>H-NMR analysis of the biosynthesized 20-hydroxyecdysone revealed that most of H-6 of cholesterol migrates to the C-5 position of 20-hydroxyecdysone.

Biosynthesis of 20-Hydroxyecdysone in Ajuga Hairy Roots: Stereochemistry of C-25 Hydroxylation

Takayoshi Nakagawa, Noriyuki Hara and Yoshinori Fujimoto\* Department of Chemistry, Tokyo Institute of Technology, O-okayama, Meguro-ku, Tokyo 152, Japan

Feeding of [26-<sup>13</sup>C]- and [27-<sup>13</sup>C]-cholesterols to hairy roots of *Ajuga reptans* var. *atropurpurea* followed by <sup>13</sup>C-NMR analysis of the biosynthesized 20-hydroxyecdysone revealed that C-25 hydroxylation proceeds both in retention (75%) and inversion (25%) mechanisms.

Tetrahedron Letters, 1997, 38, 2705

Cyclopropanation by Tandem Radical [2 + 1] Cycloaddition Conducted by Nickel Complexes Catalyzed Electroreduction

Shigeko Ozaki, \* Eiki Matsui, Junya Waku and Hidenobu Ohmori, Faculty of Pharmaceutical Sciences, Osaka University, 1-6, Yamadaoka, Suita, Osaka-fu, 565 Japan

Nickel complexes catalyzed electroreduction of 2-halo-1,6-dienes lead to bicyclo[3. 1. 0]skeletons.

### $\mathbf{SmI}_{\mathbf{T}}\mathbf{MEDIATED}$ REDUCTIVE ENOLIZATION OF $\alpha\textsc{-}\mathbf{HeTERO}\textsc{-}\mathbf{SUBSTITUTED}$ KETONES AND ENANTIONELECTIVE PROTONATION

Tetrahedron Letters, 1997, 38, 2709

Yutaka Nakamura, <sup>a</sup> Sejji Takeuchi, <sup>a</sup> Yoshiaki Ohgo, <sup>a</sup> Makoto Yamaoka, <sup>b</sup> Akihiro Yoshida, <sup>b</sup> and Koichi Mikami <sup>\*b</sup>

<sup>a</sup> Niigata College of Pharmacy, 5-13-2-Kamishin' ei cho, Niigata 950-21, Japan, <sup>b</sup> Department of Chemical Technology, Tokyo Institute of Technology, Meguro-ku, Tokyo 152, Japan

#### FIVE NOVEL MACROCYCLIC SPERMINE ALKALOIDS

FROM INCARVILLINE SINENSIS. Yu-Ming Chi, Fumio

Hashimoto, Wen-Mei Yan† and Toshihiro Nohara\*, Faculty of Pharmaceutical Sciences, Kumamoto University, Oe-honmachi 5-1. Kumamoto 862, Japan: †Beijing University of Traditional Chinese Medicine and Pharmacy, Beijing 100029, China

Five novel macrocyclic spermine alkaloids named incasines A. A', B, B' and C have been isolated from Incarvillea sinensis, and their structures have been elucidated on the basis of chemical and spectroscopic evidence.

Incasine A (1) H -CH=NH cis Incasine A' (2) H -CH=NH trans Incasine B (3) cis Incasine B' (4) trans S Incasine C (5) cis

#### ENANTIOSELECTIVE SYNTHESIS OF α-HYDROXY PHOSPHONATES USING THE LaLi3TRIS(BINAPHTHOXIDE) CATALYST (LLB), PREPARED BY AN IMPROVED METHOD

Hiroaki Sasai, Masahiro Bougauchi, Takayoshi Arai, and Masakatsu Shibasaki\*

Faculty of Pharmaceutical Sciences, University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113, Japan

LLB, prepared by an improved method, is effective for the catalytic asymmetric hydrophosphonylation of various aldehydes to give desired \alpha-hydroxy phosphonates in up to 95\% ee (88% yield).

RCHO + HP(OCH<sub>3</sub>)<sub>2</sub> LaLi<sub>3</sub>tris(binaphthoxide) (10 mol %)

up to 95% ee

Tetrahedron Letters, 1997, 38, 2721

Tetrahedron Letters, 1997, 38, 2725

Tetrahedron Letters, 1997, 38, 2717

### SELECTIVE MICROBIAL HYDROXYLATION AND

BIOLOGICAL REARRANGEMENT OF TAXOIDS

Shanghui Hu,\* Di-an Sun, Xufang Tian, and Qicheng Fang Institute of Materia Medica, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing 100050, China

 $5\alpha$ ,  $7\beta$ ,  $9\alpha$ ,  $10\beta$ ,  $13\alpha$ -pentaacetoxy-4(20), 11-taxadiene 1 was selectively transformed into its 1β-, 14β-hydroxylated derivatives 2, 3, and 11(15→1)abeotaxane 4 by filamentous fungi.

#### SYNTHESIS OF ENANTIOMERICALLY PURE DESMETHYL C,D-RING DERIVATIVE OF PACLITAXEL (TAXOL<sup>TM</sup>) VIA

ASYMMETRIC DIELS-ALDER REACTION OF 2-SILOXYFURAN. Chin-Kang Sha,\* Shin-Jen Lee and Wei-Hong Tseng. Department of Chemistry, National Tsing Hua University, Hsinchu 300, Taiwan, R. O. C.

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### A NOVEL CYCLODIMERIZATION OF $\ \alpha$ , $\beta$ -UNSATURATED KETONES INDUCED BY LOW-VALENT TITANIUM

Long-hu Zhou\*1, Da-qing Shi1, Yuan Gao1, Wen-bin Shen2, Gui-yuan Dai1 and Wei-xing Chen3

- 1. Department of Chemistry, Normal University, Xuzhou, 221009, China
- 2. Physical & Chemistry Center of Jiansu Province, Nanjing, 210008, China
- 3. Department of Chemistry, Nanjing University, Nanjing, 210008, China

The intermolecular and intramolecular coupling reaction of  $\alpha$ ,  $\beta$ -unsaturated ketones induced by TiCl<sub>4</sub>-Zn was studied. A possible reaction mechanism was proposed.

#### Tetrahedron Letters, 1997, 38, 2733

### A NOVEL ONE-POT REFORMATSKY TYPE REACTION VIA BISMUTH SALT IN AQUEOUS MEDIA

Zhen Shen, Jinqi Zhang \*, Huixian Zou , Minmin Yang, Department of Chemistry, Nanjing University,

Nanjing 210093, China; Department of Environmental Science and Engineering, Nanjing University,

Nanjing 210093, China.

BiCl<sub>3</sub>-Al(0) Mediated Synthesis of β-Hydroxy Carbonyl Compounds in Aqueous Media.

PhCHO + 
$$\frac{O}{H_2O, 60^{\circ}C}$$
  $\frac{O}{O}$   $\frac{O}{Ph}$   $\frac{O}{Ph}$   $\frac{O}{Ph}$   $\frac{O}{Ph}$ 

#### Stereoselective Intermolecular Oxymercurations of

Tetrahedron Letters, 1997, 38, 2737

Allylic Ethers. Richard Cormick, a Joakim Löfstedt, a.b Patrick Perlmutter a\* and Gunnar Westman, a Department Of Chemistry, Monash University, Clayton, Victoria 3168 Australia; b Department of Organic Chemistry, Uppsala University, Uppsala, Sweden.

The influence of alkene geometry and allylic substitution on the stereochemical outcome of intermolecular oxymercurations of allylic ethers is described.

### 1,6-Epithio- and 1,6-Episeleno- $\beta$ -D-glucopyranose: Useful Adjuncts in the Synthesis of 6-Deoxy- $\beta$ -D-glucopyranosides

Tetrahedron Letters, 1997, 38, 2741

Robert V Stick, \* D Matthew G Tilbrook and Spencer J Williams, Department of Chemistry, The University of Western Australia, Nedlands, Western Australia 6907

The treatment of derivatives of 1,6-epithio- and 1,6-episeleno- $\beta$ -D-glucopyranose with carbohydrate alcohols in the presence of NIS/TfOH, followed by reduction, gives rise to 6-deoxy- $\beta$ -D-glucopyranosides.

$$X = S$$
, Se  $OBz$  + R'OH  $\frac{1. \text{ NIS/TfOH}}{2. \text{ reduction}}$   $\frac{BzO}{BzO}$  OR

### RADICAL CYCLISATION ONTO C-3 OF

1,6-ANHYDRO-β-D-MANNOPYRANOSE DERIVATIVES.

APPLICATION TO THE FORMATION OF THE C8a CENTRE OF (-)-TETRODOTOXIN.

Beatriz Noya and Ricardo Alonso\* Departamento de Química Orgánica y Unidad Asociada al CSIC, Universidad de Santiago de Compostela, 15706 Santiago, La Coruña, Spain. E-mail: qoraa@correo.usc.es

#### FACILE SYNTHESIS OF 2-NITROALKANOLS BY TETRAMETHYL-GUANIDINE (TMG)-CATALYZED ADDITION OF PRIMARY NITROALKANES TO ALDEHYDES AND ALICYCLIC KETONES

Tetrahedron Letters, 1997, 38, 2749

Daniele Simoni,\*\* Francesco Paolo Invidiata, \* Stefano Manfredini, \* Roberto Ferroni, \* Ilaria Lampronti, \* Marinella Roberti \* and Gian Piero Pollini.\* \*

<sup>a</sup> Istituto Farmacochimico, Via Archrafi 32, Università di Palermo, I-90123 Palermo, <sup>b</sup>Dipartimento di Scienze Farmaceutiche, Università di Ferrara, Via Fossato di Mortara 17-19, I-44100 Ferrara, Italy.

The TMG-catalyzed addition of primary nitroalkanes to carbonyl compounds is shown to afford a pratical means for achieving 2-nitroalcohols.

### AN EFFICIENT APPROACH TO THE SYNTHESIS OF TETRAHYDROQUINAZOLINE AND CYCLOOCTAPYRIMIDINE

Tetrahedron Letters, 1997, 38, 2753

DERIVATIVES OF MESO-TETRAPHENYLPORPHYRINS João P. C. Tomé, Augusto C. Tomé, Maria G. P. M. S. Neves, and José A. S. Cavaleiro,\* Department of Chemistry, University of Aveiro, 3810 Aveiro, Portugal

Reaction of  $\beta$ -Amino-meso-Tetraphenylporphyrin with  $\alpha,\beta$ -Unsaturated Carbonyl Compounds: An approach to fused pyridinoporphyrins

Cristina M. A. Alonso, Maria G. P. M. S. Neves, Artur M. S. Silva, José A. S. Cavaleiro Arand Hermann K. Hombrecher Branch and Hermann And Herma

Novel fused pyridinoporphyrins 3 have been prepared from reactions of the nickel (II) complex of β-amino-meso-tetraphenylporphyrin with propenal or methyl vinyl ketone.

Tetrahedron Letters, 1997, 38, 2757

# SYNTHESIS OF BICYCLO[9.3.1]PENTADECANE DERIVATIVES, INTERESTING INTERMEDIATES FOR THE PREPARATION OF TAXUSPINE U AND RELATED DITERPENOIDS. Federico Corelli.\*

Donata Dei, Maria Menichincheri, James P. Snyder, and Maurizio Botta\* Dept. Farmaco Chimico Tecnologico, Università di Siena, Siena, Italy.

The synthesis of regioisomeric bicyclo[9.3.1]pentadecane derivatives 1 and 2 has been performed through an approach entailing the formation of a twelve-membered ring by an unprecedented Dieckmann cyclisation.

$$CO_2Me$$
 $CO_2Me$ 
 $CO_2Me$ 

### 5-EXO VERSUS 6-ENDO INTRAMOLECULAR CARBOLITHIATION OF N-ALLYL-N-(2-LITHIOALLYL)AMINES

Tetrahedron Letters, 1997, 38, 2763

José Barluenga,\* Roberto Sanz, and Francisco J. Fañanás. Instituto Universitario de Química Organometálica "Enrique Moles", Unidad Asociada al C.S.I.C.Julián Clavería, 8, Universidad de Oviedo, 33071 Oviedo, Spain

The ring mode closure in the carbolithiation of N-allyl-N-(2-lithioallyl)amines depends on the nature of the susbtituents bound to the nitrogen atom.

$$RN \longrightarrow Li \xrightarrow{5-exo} RN \longrightarrow Li \xrightarrow{6-endo} \begin{bmatrix} RN \\ Li \end{bmatrix} \xrightarrow{R} N$$

## $^1\mathrm{H}$ NMR SPECTROSCOPIC SIGNATURES OF AN INTRARESIDUE HYDROGEN BONDED C $_5$ – STRUCTURE

Tetrahedron Letters, 1997, 38, 2767

#### Ashish and R. Kishore\*

Institute of Microbial Technology, Sector 39 - A, Chandigarh - 160 036, INDIA



Identification, characterization and distinctive <sup>1</sup>H NMR parameters of a smallest intramolecularly hydrogen bonded structure across a chiral proteinogenic residue are described

#### A BIOMIMETIC SYNTHESIS OF STIZOLOBINIC ACID

Tetrahedron Letters, 1997, 38, 2771

Jack E. Baldwin\*, Mark R. Spyvee and Roger C. Whitehead The Dyson Perrins Laboratory, South Parks Road, Oxford, OX1 3QY, U.K.

An iron(III) catalysed oxidative cleavage of L-DOPA analogue (1) as the key step in a synthesis of stizolobinic acid (2).

### CYCLIC DIPEPTIDES. 2. A SIMPLE SYNTHESIS OF METHYL (6R)-tert-BUTOXYCARBONYLAMINO-4,5,6,7-TETRAHYDRO-2-

METHYL-5-OXO-1,4-THIAZEPINE-3-CARBOXYLATE, A USEFUL INTERMEDIATE FOR THE PREPARATION OF POTENTIAL ANTIHYPERTENSIVE AGENTS.

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BOCHN S Me
CO<sub>2</sub>Me
CO<sub>2</sub>Me
CO<sub>2</sub>Me
CO<sub>2</sub>Me

A stereoselective synthesis of the title compound 2, interesting intermediate for the preparation of potential antihypertensive agents, is described.

The absolute stereochemistry of 2 was deduced through X-ray crystallographic analysis of 14.

#### Tetrahedron Letters, 1997, 38, 2779

#### SYNTHESIS OF [2-(DIMETHYLPHOSPHINO)ETHYL]-BIS(TRIFLUOROMETHYL)PHOSPHINE, (CH,),PCH,CH,P(CF,),

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(CH<sub>3</sub>),PCH<sub>2</sub>CH<sub>2</sub>P(CF<sub>3</sub>), was synthesised in four steps from the unsymmetrical bisphosphine (CH<sub>3</sub>),PCH<sub>2</sub>CH<sub>2</sub>PH<sub>3</sub> using CF<sub>3</sub>Br/hexaethylphosphorus triamide as a reagent for trifluoromethylation at phosphorus.