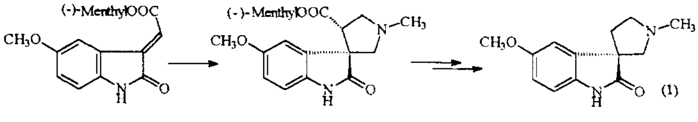
GRAPHICAL ABSTRACTS

Tetrahedron: Asymmetry **1996,** *7,* 1

OXINDOLE ALKALOIDS. A NOVEL NON-BIOMIMETIC ENTRY TO (-) HORSFILINE

G.Palmisano*[a], R. Annunziata[b], G. Papeo[b] and M.Sisti[b].
[a] Dipartimento di Scienza e Tecnologia del Farmaco, Università di Torino, Torino (Italy), [b] Dipartimento di Chimica Organica ed Industriale, Università di Milano, Milano (Italy).

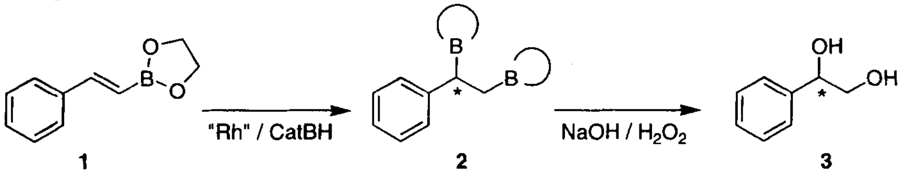
A novel non-biomimetic synthesis of (-)-Horsfiline (1) that takes advantage of a [3+2] cycloaddition to set the pyrrolidine unit is described.



Tetrahedron: Asymmetry **1996,** *7,* 5

RHODIUM CATALYSED ENANTIOSELECTIVE HYDROBORATION OF ALKENYLBORONIC ESTERS WITH CATECHOLBORANE

Christian Wiesauer and Walter Weissensteiner*
Institut für Organische Chemie, Universität Wien,
Währingerstraße 38, A-1090 Wien, Austria



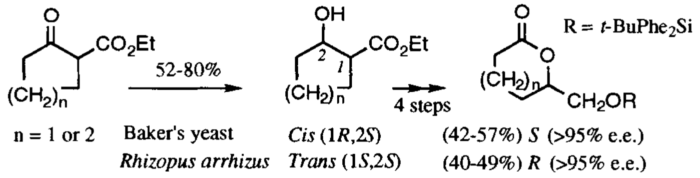
Catalytic additon of catecholborane to the α-position of vinylboronic esters was achieved by various rhodium-diphosphine systems resulting in optically active diol 3 after oxidative workup.

Tetrahedron: Asymmetry **1996,** *7,* 9

A Chemoenzymatic Preparation of Both Enantiomers of ω-Hydroxymethyl-Substituted Lactones

Didier Buisson and Robert Azerad
Laboratoire de Chimie et Biochimie Pharmacologiques et Toxicologiques, URA 400 CNRS, Université René Descartes-Paris V, 45 rue des Saints-Pères, 75270-Paris Cedex 06, France

t-Butyl-diphenylsilyl derivatives of (*R*)- and (*S*)-δ-hydroxymethyl valerolactone and ε-hydroxymethyl caprolactone were prepared in 5 steps, starting with a microbial stereospecific reduction of the corresponding ethyl 2-oxocycloalkane carboxylate.



Tetrahedron: Asymmetry **1996,** *7,* 13

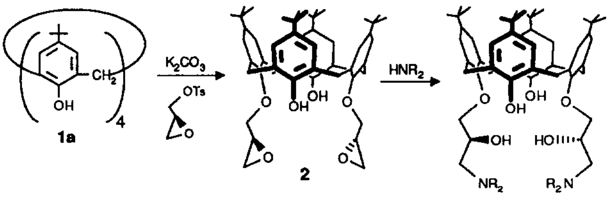
ENANTIOSELECTIVE SYNTHESIS OF (1R,2R)- AND (1S,2S)-2-NITROXYCYCLOHEXAN-1-OLS

Deevi Basavaiah,* Subramanian Pandiaraju and Kannan Muthukumaran
School of Chemistry, University of Hyderabad, Hyderabad-500 046, India

Tetrahedron: Asymmetry **1996,** *7,* 17

SYNTHESIS OF GLYCIDYL CALIXARENES, VERSATILE SUBSTRATES FOR THE PREPARATION OF CHIRAL CALIXARENE-BASED LIGANDS

Placido Neri,* Alessandra Bottino, Corrada Geraci and Mario Piattelli
Istituto per lo Studio delle Sostanze Naturali, C.N.R., Via del Santuario 110, I-95028 Valverde (CT), Italy



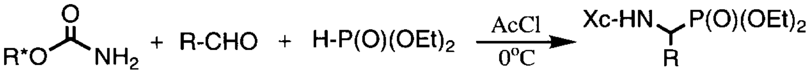
Tetrahedron: Asymmetry **1996,** *7,* 21

ASYMMETRIC SYNTHESIS OF α-AMINOPHOSPHONATES VIA DIASTEREOSELECTIVE ADDITION OF PHOSPHITE TO CHIRAL IMINE DERIVATIVES

Sung-Kee Chung* and Dong-Ho Kang

Department of Chemistry, Pohang University of Science and Science and Technology, Pohang 790-784, Korea

Asymmetric synthesis of α-aminophosphonates via one pot three component reaction is described.



$$R^*OC(O)NH_2 + R\text{-}CHO + H\text{-}P(O)(OEt)_2 \xrightarrow[0^\circ C]{AcCl} Xc\text{-}HNCH(R)P(O)(OEt)_2$$

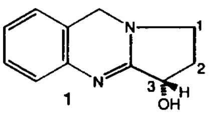
% de 56-99

Tetrahedron: Asymmetry **1996,** *7,* 25

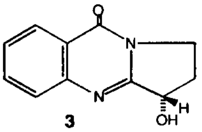
Reversal of absolute stereochemistry of the pyrrolo [2,1b] quinazoline alkaloids vasicine, vasicinone, vasicinol and vasicinolone

Balawant S. Joshi,[a] M. Gary Newton,[b,c] Doowon Lee,[b,c] Angela D. Barber,[a] and S. William Pelletier[a,c]. [a]Institute for Natural Products Research, [b]X-ray defraction Laboratory; [c]Department of Chemistry, The University of Georgia, Athens, Georgia 30602-2556

The absolute stereochemistry of (-)-vasicine (1) and (-)-vasicinone (3) have been shown to have the 3 *S* configuration on the basis of x-ray analysis of the alkaloid hydrobromides. Vasicinol and vasicinolone which have been interrelated should also have the 3 *S* configuration.



1



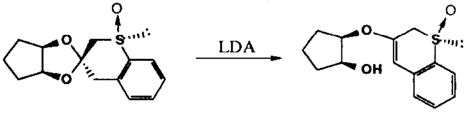
3

Tetrahedron: Asymmetry **1996,** *7,* 29

Asymmetric Desymmetrization of the σ-Symmetrical Diols: The Role of Chelation in the Diastereoselective Acetal Cleavage Induced by the Chiral α-Sulfinyl Carbanion

Naoyoshi Maezaki,[a] Motohiro Soejima,[a] Atsunobu Sakamoto,[a] Ikuyo Sakamoto,[a] Yûki Matsumori,[a] Tetsuaki Tanaka,[a] Toshimasa Ishida,[b] Yasuko In,[b] and Chuzo Iwata[a]* *a) Faculty of Pharmaceutical Sciences, Osaka University, 1-6 Yamadaoka, Suita, Osaka 565, Japan, b) Osaka University of Pharmaceutical Sciences, 2-10-65 Kawai, Matsubara, Osaka 580, Japan*

Diastereoselective β-elimination of **1 a** and the diastereomeric isomer was examined. The results show that these reactions are kinetically controlled rather than thermodynamically controlled and the C—O bond *syn* to the sulfinyl oxygen is selectively eliminated.



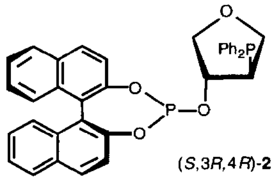
1a **3a** (100% d.e.)

Tetrahedron: Asymmetry **1996,** *7,* 33

Chiral Phosphinephosphites Having Axial and Central Chirality in Asymmetric Hydroformylations

Achim Kless, Jens Holz, Detlef Heller, Renat Kadyrov,
Rüdiger Selke, Christine Fischer, Armin Börner*
Max-Planck-Gesellschaft, Arbeitsgruppe "Asymmetrische Katalyse" an der Universität Rostock, Buchbinderstr. 5/6, D-18055 Rostock, Germany.

Chiral phosphinephosphite ligands such as (*S*,3*R*,4*R*)-**2** were prepared by the reaction of the corresponding hydroxy phosphines with atropisomeric chlorophosphites. The ligands were tested in the rhodium catalyzed hydroformylation in order to investigate the importance of axial and central chirality to this reaction.

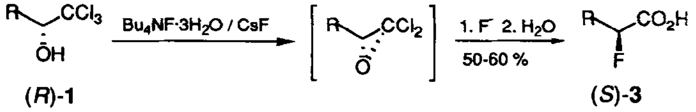


Tetrahedron: Asymmetry **1996,** *7,* 37

Enantioselective Synthesis of 2-Fluoro Carboxylic Acids from Trichloromethyl Carbinols: an Efficient Approach to Chiral Fluorine Introduction into Insect Sex Pheromones.

Achot P. Khrimian,*† James E. Oliver,‡ Rolland M. Waters,‡ Sini Panicker,† Jesse M. Nicholson,† and Jerome A. Klun‡
†Department of Chemistry, Howard University, Washington, D.C. 20059. *Mailing address: B.007, ICEL, BARC-W, Beltsville, MD 20705-2350. ‡USDA-ARS, Insect Chemical Ecology Laboratory, Beltsville, MD 20705;

Conversion of trichloromethyl alcohols to 2-fluoro caboxylic acids with inversion of configuration

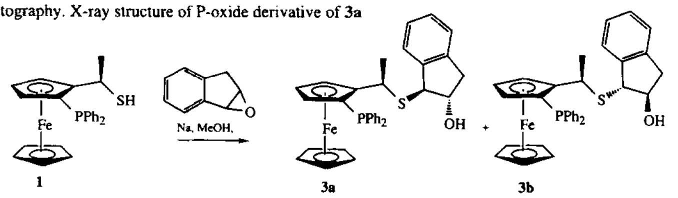


Tetrahedron: Asymmetry **1996,** *7,* 41

Synthesis of P,S,O Ligands Incorporating a Planar Chiral Ferrocenyl Motif

John Spencer,§ Volker Gramlich,‡ Robert Häusel,≠ and Antonio Togni§,*
§Laboratory of Inorganic Chemistry, Swiss Federal Institute of Technology, ETH-Zentrum, CH-8092, Zürich; ‡Institute of Crystallography and Petrography, ETH-Zentrum, CH-8092, Zürich, and ≠ Central Research Services, FD 6, CIBA-GEIGY Ltd. P.O. Box, CH-4002, Basel, Switzerland.

Diastereomers of **3** separated by column chromatography. X-ray structure of P-oxide derivative of **3a** and of its Pd allyl complex determined.

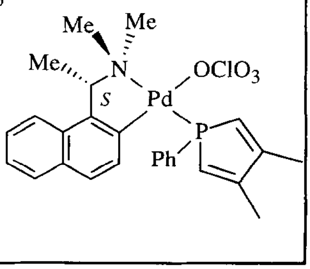


Tetrahedron: Asymmetry **1996,** *7,* 45

Isolation and Structural Characterisation of a Reactive Chiral Palladium(II) Complex Containing a ClO_4 Ligand

Soh-Kheang Loh,[a] K. F. Mok,[a] P. H. Leung,[a]* Andrew J. P. White[b] and D. J. Williams[b]
[a] Department of Chemistry, National University of Singapore, Singapore 0511
[b] Department of Chemistry, Imperial College, London, SW7 2AY, UK

An X-ray structural analysis and conductivity measurements reveal that the highly reactive chiral Pd(II) complex adopts an unexpected Pd–$OClO_3$ bonding in both the solid state and in solution.

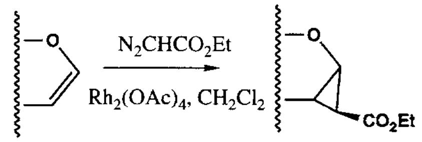


Tetrahedron: Asymmetry **1996,** *7,* 49

Rhodium(II) Catalyzed Asymmetric Cyclopropanation of Glycals with Ethyl Diazoacetate

C.M. Timmers, M.A. Leeuwenburgh, J.C. Verheijen, G.A. van der Marel and J.H. van Boom*
Leiden Institute of Chemistry, Gorlaeus Laboratories, P.O. Box 9502, 2300 RA Leiden, The Netherlands.

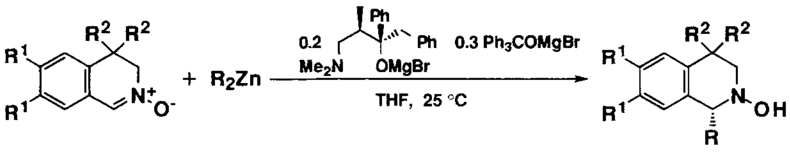
Carbenoid species generated from ethyl diazoacetate and catalytic $Rh_2(OAc)_4$ react smoothly and with a high degree of stereoselectivity with glycals resulting in the predominant formation of doubly branched adducts containing an α-*exo*-oriented ethyl cyclopropanecarboxylate moiety.



Tetrahedron: Asymmetry **1996,** *7,* 53

Asymmetric Addition Reaction of Organozinc Reagents to Nitrones Using a Catalytic Amount of External Chiral Auxiliary

Yutaka Ukaji,* Yuuichi Kenmoku, and Katsuhiko Inomata,*
Department of Chemistry, Faculty of Science, Kanazawa University, Kakuma, Kanazawa, Ishikawa 920-11, Japan

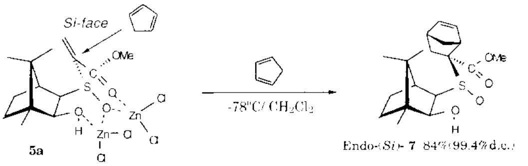


Tetrahedron: Asymmetry **1996,** *7,* 57

Highly Enantioselective Asymmetric Diels-Alder Reaction of α-Sulfinylacrylate Derived from (1*R*, 2*S*, 3*R*)-3-Mercaptocamphan-2-ol

Teng-Kuei Yang,*[a] Ching-Jung Chen,[a] Dong-Sheng Lee.[a,b] Ting-Ting Jong,[a] Yao-Zhong Jiang.[b] Ai-Qiao Mi[b]
[a]Department of Chemistry, National Chung-Hsing University, Taichung, Taiwan 40227, R.O.C.
[b]The Union Laboratory of Asymmetric Synthesis. Academia Sinica. Chengdu 610015. China

The Diels-Alder reaction of cyclopentadiene with a new chiral α-sulfinylacrylate. which wasprepared from MerCO [(1*R*, 2*S*, 3*R*)-3-mercaptocamphan-2-ol] at -78°C in the presence of $ZnCl_2$ produced an endo-cycloadduct with 99.4% d.e. in 84% yield.

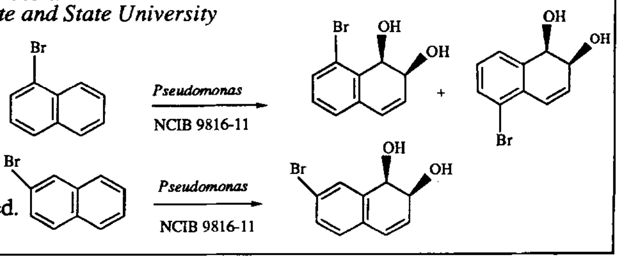


Tetrahedron: Asymmetry **1996,** *7,* 61

New Chiral Synthons from the Microbial Oxidation of Bromonaphthalenes

Tomas Hudlicky,* Mary Ann A. Endoma, and Gabor Butora
Department of Chemistry, Virginia Polytechnic Institute and State University
Blacksburg, VA 24061-0212, U. S. A.

1-Bromo- and 2-bromonaphthalene were subjected to bio-oxidation with whole cells of *Pseudomonas putida* NCIB 9816-11. The major metabolites were isolated and their absolute stereochemistry determined.

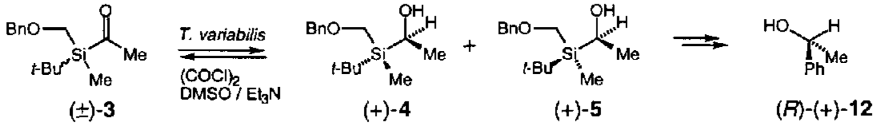


Tetrahedron: Asymmetry **1996,** *7,* 69

CHIRAL SILICON GROUPS AS AUXILIARIES FOR ENANTIOSELECTIVE SYNTHESIS: ACCESS TO OPTICALLY ACTIVE SILANES BY BIOTRANSFORMATION AND THE ENANTIOSPECIFIC PREPARATION OF (*R*)-(+)-1-PHENYLETHANOL

Priska Huber, Svetoslav Bratovanov, Stefan Bienz,* Christoph Syldatk, and Markus Pietzsch, Org.-chem. Inst. der Universität Zürich, Winterthurerstrasse 190, CH–8057 Zürich and Inst. f. Bioverfahrenstechnik der Universität Stuttgart, Allmandring 31, D–70569 Stuttgart.

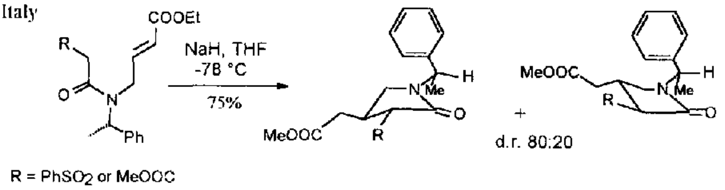
Silane (±)-**3** was reduced by *Trigonopsis variabilis* (DSM 70714) to (+)-**4** and (+)-**5**, which were separated and oxidized to (*R*)-(–)-**3** and (*S*)-(+)-**3**. (*R*)-(–)-**3** was finally converted to (*R*)-(+)-1-phenylethanol [(*R*)-(+)-**12**].



Tetrahedron: Asymmetry **1996,** *7,* 79

Diastereomerically Pure Pyrrolidin-2-ones by Intramolecular Michael Reaction. Synthesis of Both (S)- and (R)-3-Pyrrolidineacetic Acid

Roberta Galeazzi, Silvano Geremia, Giovanna Mobbili, Mario Orena *
Dipartimento di Scienze dei Materiali e della Terra - Università di Ancona - Via Brecce Bianche, 60131 Ancona, Italy



The major isomer can be converted into (*S*)-3-pyrrolidineacetic acid

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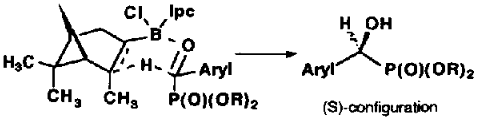
Asymmetric Synthesis of Chiral, Nonracemic Dialkyl-α-Hydroxy*alkyl*-phosphonates via (-)-Chlorodiisopinocampheylborane (Ipc$_2$B-Cl) Reduction

Chris Meier and Wolfgang H. G. Laux, Institut für Organische Chemie, J.-W.-Goethe-Universität, Marie-Curie-Str. 11, D-60439 Frankfurt; Germany

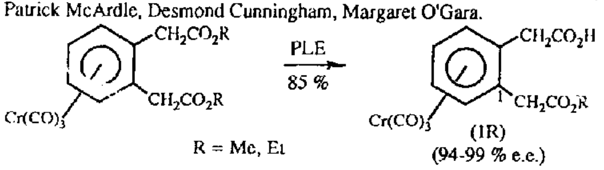
The enantioselective synthesis of dialkyl α-hydroxybenzylphosphonates is described using the (-)-Ipc$_2$B-Cl reduction method. The results are compared to the catecholborane reduction method.



Tetrahedron: Asymmetry **1996,** *7,* 95

ENZYMATIC GENERATION OF PLANAR CHIRALITY IN THE (ARENE)CR(CO)$_3$ SERIES: EXPERIMENTAL RESULTS AND MODELLING STUDIES

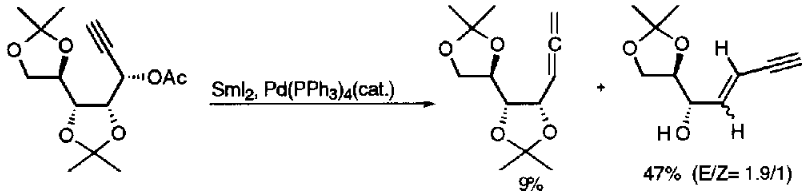
James A.S. Howell, Michael G. Palin, Gérard Jaouen, Bernard Malezieux, Siden Top, Jean Michel Cense, Jacques Salaün, Patrick McArdle, Desmond Cunningham, Margaret O'Gara.



Tetrahedron: Asymmetry **1996,** *7,* 105

Palladium-Catalyzed Reduction of a Propargylic Acetate Derived from a Sugar with SmI$_2$. Some Unexpected Results.

J. Marco-Contelles,* C. Destabel and J. L. Chiara. Instituto de Química Orgánica General, Juan de la Cierva, 3, 28006-Madrid, Spain.

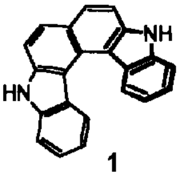


Tetrahedron: Asymmetry **1996,** *7,* 109

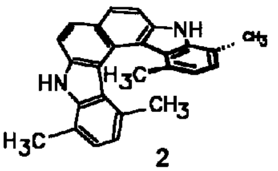
A Configurationally Stable Pyrrolohelicene: Experimental and Theoretical Structure-Chiroptic Relationships

Ivo Pischel, Stefan Grimme*, Sirpa Kotila, Martin Nieger and Fritz Vögtle*. Department of Chemistry, University of Bonn, Germany, and University of Jyväskylä, Finland.

Synthesis, ab initio and X-ray Structure, Enantiomeric Separation, CD Calculations and Absolute Configuration of the new optical stable derivative **2** of the longest known hexahelicene **1**.



1



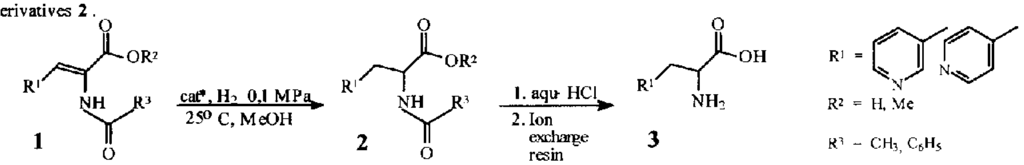
2

Tetrahedron: Asymmetry **1996,** *7,* 117

ASYMMETRIC SYNTHESIS OF PYRIDYLALANINES

Chr. Döbler, H.-J. Kreuzfeld, M. Michalik and H.W. Krause
Institut für Organische Katalyseforschung, D-18055 Rostock, Buchbinderstr. 5-6, Germany

Synthesis of 3-and 4-pyridylalanines **3** (up to > 99% ee) by homogeneous catalytic hydrogenation of the unsaturated precursors **1** using [Rh-PROPRAPHOS]$^+$ and [Rh-norbornane-aminophosphinephosphinite]$^+$ complexes (ee 70-90%) followed by recrystallisation and deacylation of *N*-acyl-derivatives **2** .

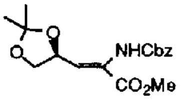


Tetrahedron: Asymmetry **1996,** *7,* 127

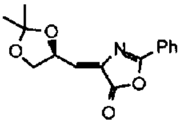
HIGH-PRESSURE AND THERMALLY INDUCED ASYMMETRIC DIELS-ALDER CYCLOADDITIONS OF HETEROSUBSTITUTED DIENES TO CHIRAL α,β-DIDEHYDRO AMINO ACID DERIVATIVES

R. M. Ortuño,[1a*] J. Ibarzo,[1a] J. d'Angelo,[2]F. Dumas,[2] A. Alvarez-Larena,[1b] J. F. Piniella.[1b]
1: Universitat Autònoma de Barcelona, 08193 Bellaterra, Barcelona, Spain, (a) Departament de Química, (b) Servei de Difracció de Raigs X. 2: Unité de Chimie Organique Associée au CNRS, Université de Paris Sud, 92296 Chatenay-Malabry, France.

The title reactions were investigated by using **1** and **2** as dienophiles



1



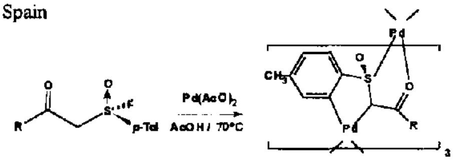
2

Tetrahedron: Asymmetry **1996,** *7,* 139

Enantiomerically Pure Palladacycles with one Stereogenic Csp^3 Center Directly Bonded to the Metal.

José L. García-Ruano,*[a] Ana M. González,[b] Ana I. Bárcena,[b] María J. Camazón,[b] Carmen Navarro-Ranninger.*[b]

[a] Departamento de Química Orgánica, [b]Departamento de Química Inorgánica, Universidad Autónoma, Cantoblanco 28049-Madrid. Spain



Enantiomerically pure palladium C-enolates were obtained from (*R*)-homochiral β–ketosulfoxides.

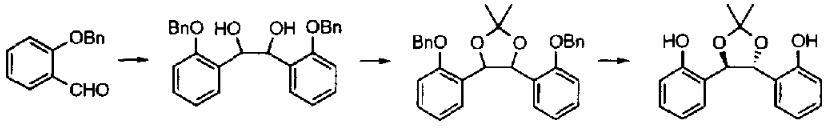
R=Me, Et, Ph

Tetrahedron: Asymmetry **1996,** *7,* 149

Synthesis of Pure Enantiomers of a New Diol Ligand, *trans*-4,5-Bis(2-hydroxyphenyl)-2,2-dimethyl-1,3-dioxolane

Hidetoshi Yamamoto, Shigeru Kobayashi, and Shuji Kanemasa,* Institute of Advanced Material Study and Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Kasugakoen, Kasuga 816, Japan

A new chiral diol ligand, *trans*-4,5-bis(2-hydroxyphenyl)-2,2-dimethyl-1,3-diol was synthesized in an enantiomerically pure form from *O*-benzylated salicylaldehyde.



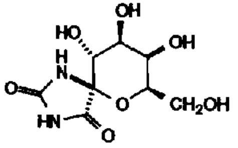
Tetrahedron: Asymmetry **1996,** *7,* 157

A GALACTOPYRANOSE ANALOGUE OF HYDANTOCIDIN

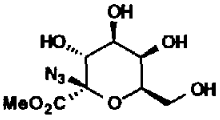
T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Dyson Perrins Laboratory, Oxford Centre for Molecular Sciences, South Parks Road, Oxford OX1 3QY UK
Glycobiology Institute, Biochemistry Department, Oxford University, South Parks Road, Oxford OX1 3QU UK
The National Hellenic Research Foundation, 48, Vas, Constantinou Avenue, Athens 11635, Greece

The synthesis of the galactopyranose analogue 1 of hydantocidin is reported. The azidoester 2 may be a useful intermediate for the generation of libraries of compounds of galactose mimics.



1

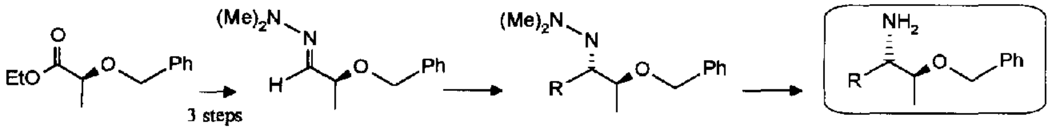


2

Tetrahedron: Asymmetry **1996,** *7,* 171

Synthesis of Enantiomerically Pure Threo 1-Alkyl-2-benzyloxy-propylamines.

Arlette Solladié-Cavallo and Frédérique Bonne ; Laboratoire de Stéréochimie Organométallique associé au CNRS ; EHICS ; 1 rue B. Pascal ; 67008 Strasbourg, France.



1-*S*

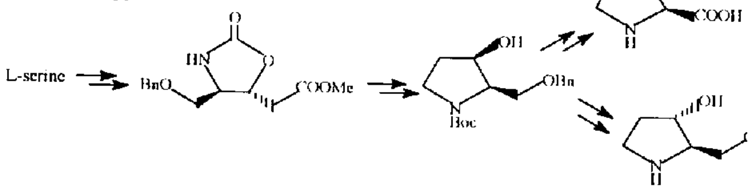
4-*S*

R = i-Bu	**5aI**- 1*S*,2*S* (88%)	**6aI**- 1*S*,2*S* (87%)
R = Bu	**5bI**- 1*S*,2*S* (86%)	**6bI**- 1*S*,2*S* (89%)

Tetrahedron: Asymmetry **1996**, *7*, 181

A Straightforward Synthesis of (2*S*,3*R*)-3-Hydroxyproline and *trans*-(2*R*,3*S*)-2-Hydroxymethyl-3-hydroxypyrrolidine

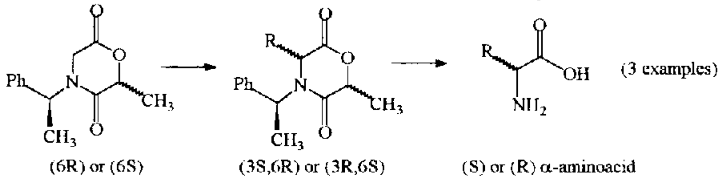
N. Dell'Uomo,[a] M. C. Di Giovanni,[a] D. Misiti,[a] G. Zappia,[a] G. Delle Monache[b]
[a] Dip. Studi di Chimica e Tecnol. Sost.
Biol. Attive, P.le A. Moro 5, 00185 Roma
(Italy); [b] Centro di Studio Chimica dei
Recettori e Molecole Biologicamente
Attive , Univ. Cattolica del S. Cuore,
Largo F. Vito 1, 00168 Roma (Italy)



Tetrahedron: Asymmetry **1996**, *7*, 189

ENANTIOSELECTIVE SYNTHESIS OF (R)-AND (S)-α-AMINOACIDS USING (3R,6S)-AND (3S,6R)-3-ALKYL,6-METHYL-MORPHOLINE-2,5-DIONES

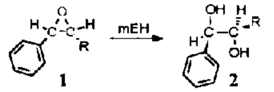
Gianni PORZI and Sergio SANDRI
Dipartimento di Chimica "G.Ciamician", Via Selmi 2, Università di BOLOGNA (Italy)



Tetrahedron: Asymmetry **1996**, *7*, 197

Enantioconvergent Transformation of Racemic *cis-β-* Alkyl Substituted Styrene Oxides to (R,R) Threo Diols by Microsomal Epoxide Hydrolase Catalysed Hydrolysis.

Giuseppe Bellucci, Cinzia Chiappe, Antonio Cordoni
Dipartimento di Chimica Bioorganica, via Bonanno 33, 56126 Pisa, Italy



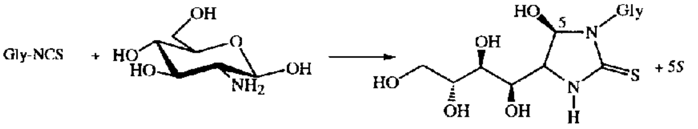
Both enantiomers of epoxides **1b-e** are hydrated by the microsomal epoxide hydrolase to give the (R,R) *threo* diols **2** in a >90% e.e. Epoxides **1a** and **1b** also undergo a complete kinetic resolution.

a: $R = CH_3$, **b**: $R = CH_2CH_3$, **c**: $R = CH_2CH_2CH_3$ **d**: $R = CH_2(CH_2)_2CH_3$, **e**: $R = CH_2(CH_2)_4CH_3$

Tetrahedron: Asymmetry **1996**, *7*, 203

STEREOSELECTIVE SYNTHESIS OF NUCLEOSIDE ANALOGUES OF CHIRAL IMIDAZOLIDINES FROM SUGAR ISOTHIOCYANATES.

José Fuentes, José L. Molina, David Olano, and M. Angeles Pradera. Dpto. de Química Orgánica, Universidad de Sevilla, Apdo. 553, E-41071 Sevilla, Spain.



The 5R:5S ratio depends on the anomeric configuration of Gly-NCS

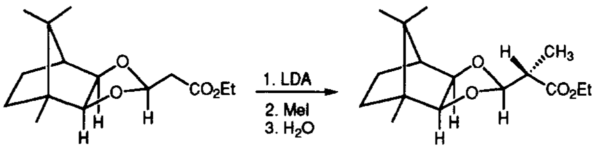
Gly = per-OAc-β-D-Glc*p*; per-OBz-β-D-Rib*p*; per-OBz-α-D-Rib*p*; per-OAc-β-D-Glc*p*-(1-6)-β-D-Glc*p*; per-OAc-α-D-Glc*p*-(1-4)-β-D-Glc*p*-(1-6)-β-D-Glc*p*

Tetrahedron: Asymmetry **1996**, *7*, 219

ELIMINATION VERSUS DIASTEREOSELECTIVE ALKYLATION IN HOMOCHIRAL 2-(β-ETHOXY CARBONYL) ACETALS

Mercedes Caballero, María García-Valverde, Rafael Pedrosa, and Martina Vicente.
Departamento de Química Orgánica, Facultad de Ciencias, Universidad de Valladolid. Doctor Mergelina s/n, 47011-Valladolid, Spain

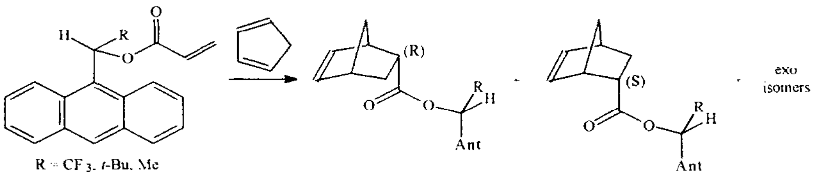
The reaction of the chiral 2-(β-ethoxycarbonyl) dioxolane derived from (-)-*exo*-camphanediol with methyl iodide in the presence of one equivalent of LDA lead to the alkylated product in very good chemical yield and poor diastereomeric excess.



Tetrahedron: Asymmetry **1996**, *7*, 227

Use of 9-anthrylcarbinol Derivatives as Chiral Auxiliaries in Asymmetric Diels-Alder Reaction

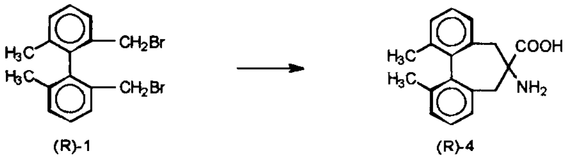
Anne Carrière, Albert Virgili
Departament de Química Orgànica, Universitat Autònoma de Barcelona,
08193 Bellaterra, Barcelona, Spain



Tetrahedron: Asymmetry **1996**, *7*, 231

6-Amino-1,11-dimethyl-6,7-dihydro-5H-dibenzo[a,c]cycloheptene-6-carboxylic Acid: The First Chiral α-Amino Acid without Asymmetric Carbon Atom.

Luděk Ridvan, Nevine Abdallah, Roman Holakovský, Miloš Tichý and Jiří Závada
Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic, 166 10 Prague, CZ.

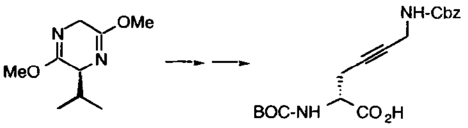


Tetrahedron: Asymmetry **1996**, *7*, 237

Stereoselective Synthesis of (2*R*)-6-Benzyloxycarbonylamino-2-*tert*-butoxycarbonylamino-hex-4-ynoic Acid.

Dirk Heerding*[a], Pradip Bhatnagar[a], Michael Hartmann[b], Peter Kremminger[b] and Stephen LoCastro[a]. [a] Medicinal Chemistry, SmithKline Beecham, 709 Swedeland Road, P.O. Box 1539, King of Prussia, PA 19406, U.S.A. [b] Hafslund Nycomed Pharma, St. Peter-Strasse 25, P.O. Box 120, A-4021 Linz, Austria

A stereoselective synthesis of a constrained analog of D-lysine is presented.

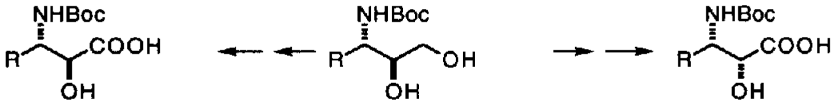


Tetrahedron: Asymmetry **1996**, *7*, 243

An Enantioselective, Stereodivergent Approach to *anti*- and *syn*-α-Hydroxy-β-amino acids from *anti*-3-Amino-1,2,diols. Synthesis of the Ready for Coupling Taxotere® Side Chain.

Mireia Pastó, Albert Moyano, Miquel A. Pericàs, Antoni Riera.
Departament de Química Orgànica, Universitat de Barcelona, c/Martí i Franquès 1-11. 08028-Barcelona, Spain.

Both *anti*- and *syn*-α-hydroxy-β-aminoacids are efficiently synthesized in protected form and high enantiomeric purity from readily available *anti*-3-amino-1,2-diols.

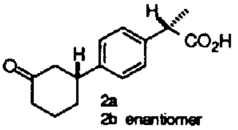


Tetrahedron: Asymmetry **1996**, *7*, 263

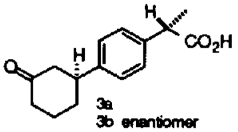
Enantioselective Synthesis of the Four Isomers of the Biologically Active Metabolite of the 2-Arylpropanoic acid NSAID, Ximoprofen, and Assessment of their Inhibitory Activity on Human Platelet Cyclo-oxygenase in vitro.

D.P.G. Hamon, P. J. Hayball+, R. A. Massy-Westropp*, J. L. Newton and J. G. Tamblyn+. Department of Chemistry, University of Adelaide, S. A., 5005, Australia and +Pharmacy Department, Repatriation General Hospital, Daw Park, S. A., 5041, Australia.

Asymmetric syntheses of the four stereoisomers **2a, 2b 3a** and **3b** of the parent keto acid of the oximino drug ximoprofen are reported.



2a
2b enantiomer



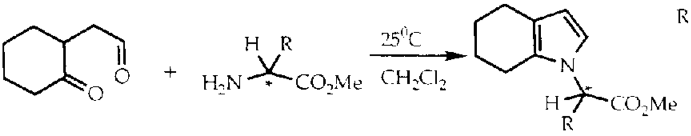
3a
3b enantiomer

Tetrahedron: Asymmetry **1996**, *7*, 273

Chiral N-Substituted 4,5,6,7-Tetrahydroindoles.

Ronald Grigg* and Gnanamoly Yoganathan.
School of Chemistry, Leeds University, Leeds LS2 9JT.

2-Formylmethylcyclohexanone reacts with α-amino esters at ambient temperature to give N-substituted 4,5,6,7-tetrahydroindole in good yield and 92-100%ee.



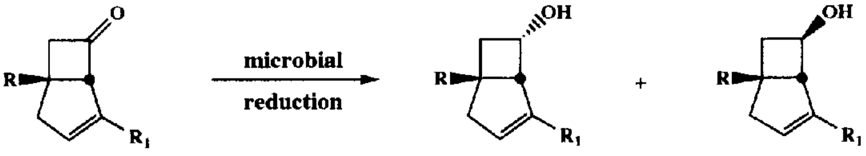
R = Me, CH_2Ph, Ph, CH_2CHMe_2,
3-indolylmethyl, 4-imidazoylmethyl

Tetrahedron: Asymmetry **1996**, *7*, 277

MICROBIAL REDUCTION OF METHYL-SUBSTITUTED BICYCLO[3.2.0]HEPT-3-EN-6-ONES: A SCREENING TO HOMOCHIRAL *endo*- AND *exo*-ALCOHOLS

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, E. Marotta, M. Monti, P. Righi, Dipartimento di Chimica, Università di Ferrara, Ferrara, Italy and Dipartimento di Chimica Organica "A. Mangini", Università di Bologna, Bologna, Italy

A screening to *endo*- and *exo*-alcohols is described.

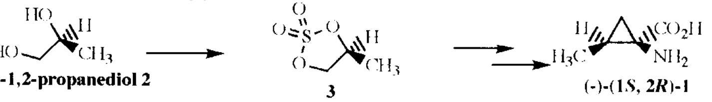


Tetrahedron: Asymmetry **1996,** *7,* 283

Expedient Synthesis of (-)-(1*S*, 2*R*)-Allonorcoronamic Acid

Alain Hercouet, Bernard Bessières and Maurice Le Corre
Laboratoire de Synthèse Organique, Université de Rennes I, France.

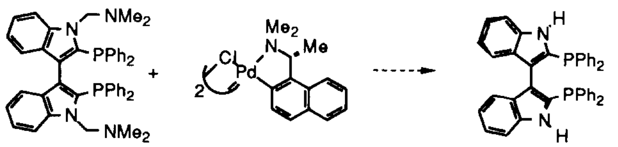
The title compound **1** was synthesized from (*S*)-(+)-1,2-propanediol **2** via condensation of cyclic sulfate **3** with methyl benzylideneglycinate anion.



Tetrahedron: Asymmetry **1996,** *7,* 285

Synthesis and Resolution of 2,2'-bis-diphenylphosphino [3,3']biindolyl ; a New Atropisomeric Ligand for Transition Metal Catalysis

Ulrich Berens[a,b], John M. Brown[a], James Long[a] and Rüdiger Selke[b] [a]Dyson Perrins Laboratory, South Parks Road, Oxford, U.K. [b] Max-Planck Group, Universität Rostock, Germany

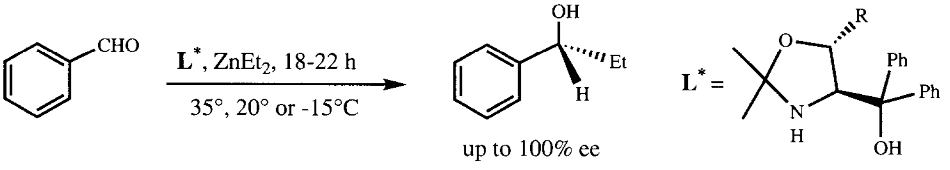


simultaneous
deprotection
and resolution

Tetrahedron: Asymmetry **1996,** *7,* 293

Chiral Ligands Containing Heteroatoms. 14.
1,3-Oxazolidinyl Methanols as Chiral Catalysts in the Enantioselective Addition of Diethylzinc to Aldehydes

Massimo Falorni* , Cristina Collu, Sandra Conti and Giampaolo Giacomelli
Dipartimento di Chimica dell'Universita', via Vienna 2, I-07100 Sassari, Italy



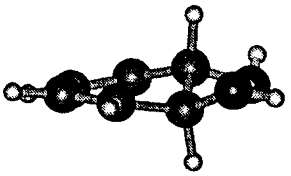
R = H, Me

Tetrahedron: Asymmetry **1996,** *7,* 301

Conformational Preference of *trans*-3,5-Cyclohexadiene-1,2-diol, a Benzene Metabolite, from Circular Dichroism, Molecular Mechanics and X-Ray Diffraction Study.

J. Gawronski*, K. Gawronska, G. Buczak, A. Katrusiak, P. Skowronek, and H. Suemune, Department of Chemistry, A. Mickiewicz University, 60-780 Poznań, Poland
and Faculty of Pharmaceutical Sciences, Kyushu University, Fukuoka 812, Japan

The title compound is more stable in the diequatorial form, $\Delta G^{\circ}_{ax\text{-}eq}$ = 0.71 kcal/mol (from variable temperature CD). The intermolecularly hydrogen-bonded diequatorial conformer is also found in the crystal.



Tetrahedron: Asymmetry **1996**, *7*, 307

DIASTEREOSELECTIVITY IN THE BAKERS YEAST REDUCTION OF [1-^{2}H](SORBALDEHYDE)Fe(CO)$_3$

James A.S. Howell, Paula J. O'Leary, Michael G. Palin, Chemistry Department, Keele University, Keele, Staffordshire ST5 5BG, Great Britain, Gérard Jaouen, Siden Top, Ecole Nationale Supérieure de Chimie de Paris, 11 Rue Pierre et Marie Curie, 75231 Paris, France.