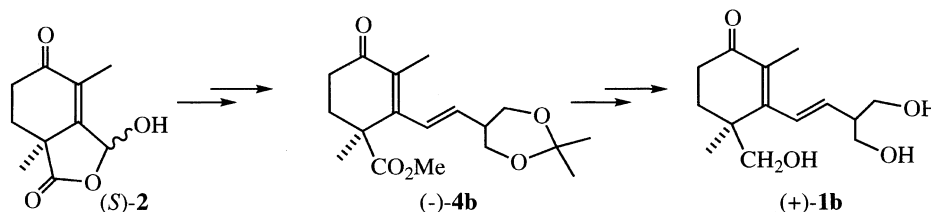


**A concise synthesis of (+)-cassiol**

María I. Colombo, Juan Zinzuk, Mirta P. Mischne and Edmundo A. Rúveda\*

*Instituto de Química Orgánica de Síntesis (CONICET-UNR), Facultad de Ciencias Bioquímicas y Farmacéuticas, Casilla de Correo 991, 2000 Rosario, Argentina*

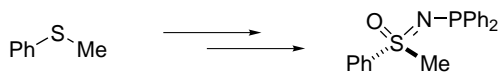
*Tetrahedron: Asymmetry 12 (2001) 1251*

**Synthesis of (*S*)-*N*-(diphenylphosphinyl)-*S*-methyl-*S*-phenyl sulfoximide: a new ligand for asymmetric catalysis**

Taryn C. Kinahan and Heather Tye\*

*School of Chemistry, The University of Birmingham, Edgbaston, Birmingham B15 2TT, UK*

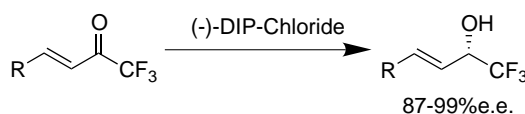
*Tetrahedron: Asymmetry 12 (2001) 1255*

**Enantioselective reduction of  $\alpha,\beta$ -unsaturated ketones bearing the trifluoromethyl group**

Valentine G. Nenajdenko,\* Konstantin I. Smolko and Elizabeth S. Balenkova

*Department of Chemistry, Moscow State University, Moscow 119899, Russia*

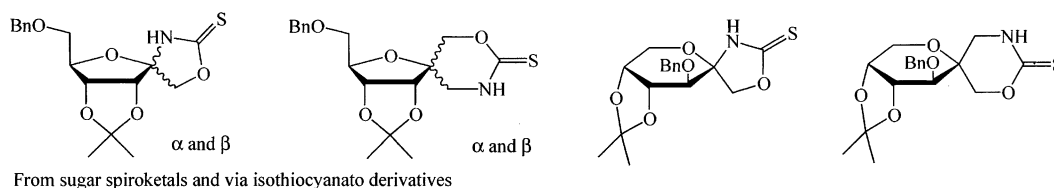
*Tetrahedron: Asymmetry 12 (2001) 1259*

**Isothiocyanato derivatives of sugars in the stereoselective synthesis of spironucleosides and spiro-*C*-glycosides**

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh, José L. Molina and José Fuentes\*

*Departamento de Química Orgánica, Facultad de Química, Universidad de Sevilla, Apartado 553, E-41071 Sevilla, Spain*

*Tetrahedron: Asymmetry 12 (2001) 1267*



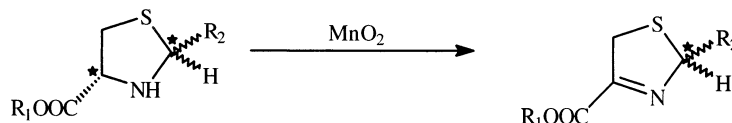
**Asymmetric synthesis of 2-alkyl-3-thiazoline carboxylates: stereochemistry of the MnO<sub>2</sub>-mediated oxidation of *cis*- and *trans*-2-alkyl-thiazolidine-(4*R*)-carboxylates**

*Tetrahedron: Asymmetry 12 (2001) 1279*

Xavier Fernandez and Elisabet Duñach\*

*Laboratoire Arômes, Synthèses et Interactions, Université de Nice-Sophia Antipolis, Parc Valrose, 06108 Nice Cedex 2, France*

The MnO<sub>2</sub>-mediated oxidation of substituted thiazolidines to 3-thiazolidines occurs with enantiomeric excesses in the range 40–100%.



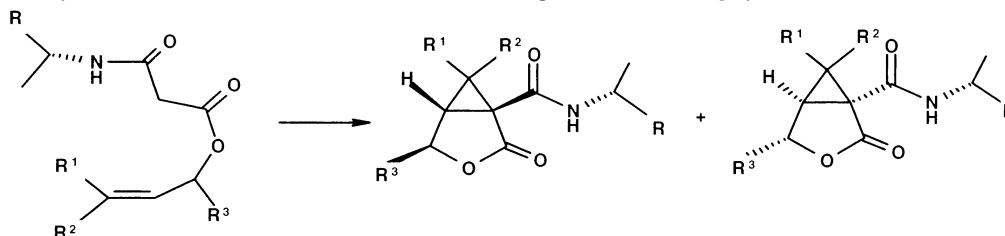
**Synthesis and separation of substituted cyclopropane carboxylic acid amide isomers**

*Tetrahedron: Asymmetry 12 (2001) 1287*

Zoltán Finta,<sup>a</sup> Zoltán Hell,<sup>a,\*</sup> József Bálint,<sup>a</sup> Adrienn Takács,<sup>a</sup> László Párkányi<sup>b</sup> and László Tőke<sup>a</sup>

<sup>a</sup>Department of Organic Chemical Technology, Budapest University of Technology and Economics, H-1521 Budapest, POB 91, Hungary

<sup>b</sup>Institute of Chemistry, Chemical Research Center, H.A.S., H-1525 Budapest, POB 17, Hungary

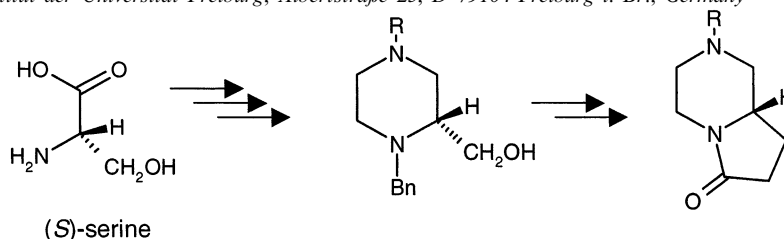


**(1-Benzylpiperazin-2-yl)methanols: novel EPC synthesis from (*S*)-serine and transformation into ligands for central nervous system receptors**

*Tetrahedron: Asymmetry 12 (2001) 1293*

Stephan Bedürftig, Manuela Weigl and Bernhard Wunsch\*

*Pharmazeutisches Institut der Universität Freiburg, Albertstraße 25, D-79104 Freiburg i. Br., Germany*



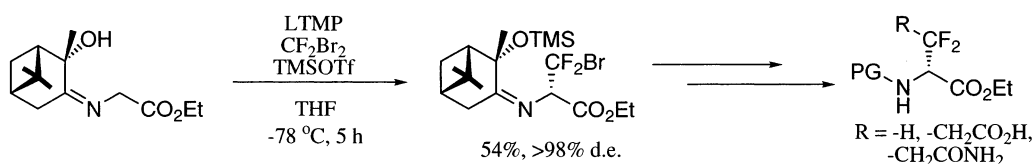
**Efficient synthesis of an optically pure  $\beta$ -bromo- $\beta,\beta$ -difluoroalanine derivative, a general precursor for  $\beta,\beta$ -difluoroamino acids**

*Tetrahedron: Asymmetry 12 (2001) 1303*

Toshimasa Katagiri,<sup>a</sup> Michiharu Handa,<sup>a</sup> Yasuhisa Matsukawa,<sup>b</sup> J. S. Dileep Kumar<sup>b</sup> and Kenji Uneyama<sup>a,\*</sup>

<sup>a</sup>Department of Applied Chemistry, Faculty of Engineering, Okayama University, Tsushima-naka 3-1-1, Okayama 700-8530, Japan

<sup>b</sup>Venture Business Laboratory, Graduate School of Natural Science and Technology, Okayama University, Tsushima-naka 3-1-1, Okayama 700-8530, Japan



### Chiral aminoalcohols with a menthane skeleton as catalysts for the enantioselective addition of diethylzinc to benzaldehyde

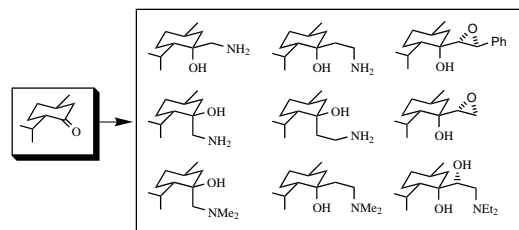
*Tetrahedron: Asymmetry 12 (2001) 1313*

Stefan Panev,<sup>a</sup> Anthony Linden<sup>b</sup> and Vladimir Dimitrov<sup>a,\*</sup>

<sup>a</sup>*Institute of Organic Chemistry, Bulgarian Academy of Sciences, BG-1113 Sofia, Bulgaria*

<sup>b</sup>*Institute of Organic Chemistry, University of Zurich, Winterthurerstrasse 190, CH-8057 Zurich, Switzerland*

New enantiopure cyanhydrins, hydroxyepoxides and aminoalcohols derived from (–)-menthone were synthesized. The configuration of the newly formed epoxidic stereogenic center in the phenyl substituted hydroxy epoxide was determined by X-ray crystallography. The aminoalcohols provided up to 77% e.e. when used as catalysts in the enantioselective addition of Et<sub>2</sub>Zn to benzaldehyde.



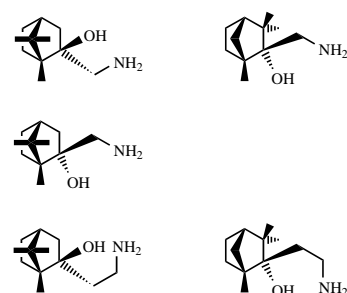
### Chiral β- and γ-aminoalcohols derived from (+)-camphor and (–)-fenchone as catalysts for the enantioselective addition of diethylzinc to benzaldehyde

*Tetrahedron: Asymmetry 12 (2001) 1323*

Vladimir Dimitrov,<sup>\*</sup> Georgi Dobrikov and Miroslav Genov

*Institute of Organic Chemistry, Bulgarian Academy of Sciences, BG-1113 Sofia, Bulgaria*

New chiral β- and γ-aminoalcohols were synthesized by diastereoselective addition of Me<sub>3</sub>SiCN and LiCH<sub>2</sub>CN to (+)-camphor and (–)-fenchone followed by LiAlH<sub>4</sub> reduction. The enantioselectivities achieved by using these aminoalcohols as ligands in the addition of Et<sub>2</sub>Zn to benzaldehyde are lower than those obtained with the corresponding δ-aminoalcohols.



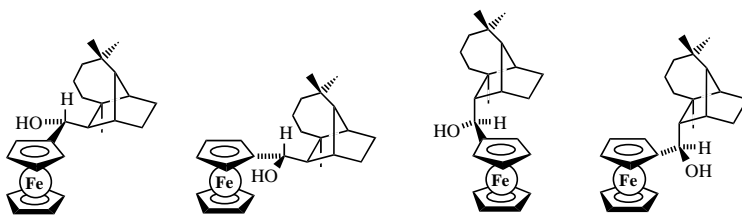
### Chiral ferrocenes derived from (+)-longifolene—determination of the configuration by NMR spectroscopy and X-ray crystallography

*Tetrahedron: Asymmetry 12 (2001) 1331*

Vladimir Dimitrov,<sup>\*</sup> Anthony Linden and Manfred Hesse<sup>\*</sup>

*Institute of Organic Chemistry, University of Zurich, Winterthurerstrasse 190, CH-8057 Zurich, Switzerland*

The addition of monolithium ferrocene to *exo*-longifolyl aldehyde and *endo*-longifolyl aldehyde, respectively, leads to four diastereoisomeric α-hydroxyalkyl ferrocenes, which were isolated in pure form. The configurations of the newly formed stereogenic centers were determined by means of NMR spectroscopy and X-ray crystallography.

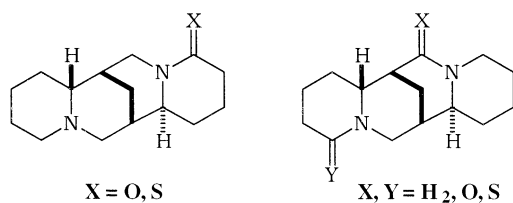


### Contrasting chiroptical properties of sparteine lactams and thiolactams

*Tetrahedron: Asymmetry 12 (2001) 1337*

Renata Kolanoś, Waleria Wysocka,<sup>\*</sup> Marcin Kwit and Jacek Gawroński<sup>\*</sup>

*Department of Chemistry, Adam Mickiewicz University, 60-780 Poznan, Poland*

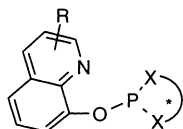


## Design of a new class of chiral quinoline–phosphine ligands.

### Synthesis and application in asymmetric catalysis

Guillaume Delapierre, Jean Michel Brunel, Thierry Constantieux and Gérard Buono\*

*Ecole Nationale Supérieure de Synthèses, de Procédés et d'Ingénierie Chimiques d'Aix Marseille, UMR CNRS 6516, Faculté de St Jérôme, Av. Escadrille Normandie Niemen, 13397 Marseille Cedex 20, France*



X = N, O

R = Alkyl, Aryl ...

QUIPHOS ligand derivatives

Pd Catalyzed Allylic Alkylation : **up to 74% e.e.**

Pd Catalyzed Allylic Amination : **up to 78% e.e.**

Copper Catalyzed Addition of Et<sub>2</sub>Zn to Enones : **up to 55% e.e.**

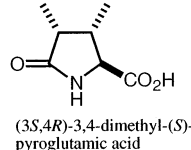
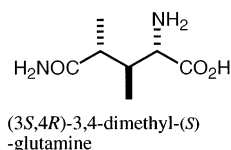
*Tetrahedron: Asymmetry 12 (2001) 1345*

## Stereoselective synthesis of (3*S*,4*R*)-3,4-dimethyl-(*S*)-glutamine and the absolute stereochemistry of the natural product from papuamides and callipeltin

Naoki Okamoto, Osamu Hara, Kazuishi Makino and Yasumasa Hamada\*

*Graduate School of Pharmaceutical Sciences, Chiba University, Yayoi-cho, Inage-ku, Chiba 263-8522, Japan*

(3*S*,4*R*)-3,4-Dimethyl-(*S*)-glutamine was stereoselectively prepared from (*S*)-pyroglutamic acid. The stereostructure of natural dimethylglutamine was unambiguously confirmed to be (2*S*,3*S*,4*R*) by comparison of the CD and NMR spectra of the synthetic 3,4-dimethylpyroglutamic acid with the hydrolysate of callipeltin A.



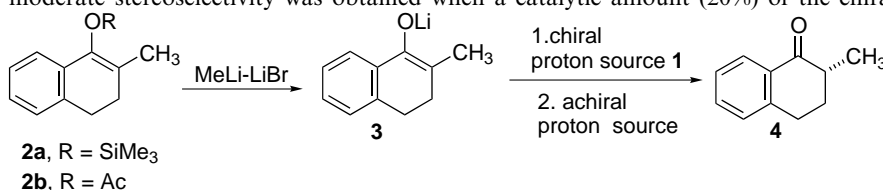
*Tetrahedron: Asymmetry 12 (2001) 1353*

## An improved method for the asymmetric protonation of enolates with chiral $\alpha$ -sulfinyl alcohols/trifluoroethanol

Gregorio Asensio,\* Jesús Gil, Pedro Alemán and Mercedes Medio-Simón

*Departamento de Química Orgánica, Universidad de Valencia, Avda Vicent Andrés Estelles s/n, 46100-Burjassot, Valencia, Spain*

A high level of selectivity was obtained in the enantioselective protonation reaction of the lithium enolate of 2-methyl tetralone using a stoichiometric amount of chiral 2-sulfinyl alcohol in combination with an achiral proton source. In contrast, only moderate stereoselectivity was obtained when a catalytic amount (20%) of the chiral proton source was used.

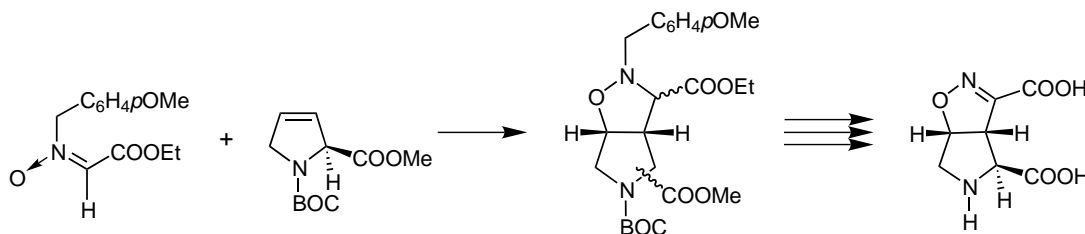


*Tetrahedron: Asymmetry 12 (2001) 1359*

## An improved synthesis of enantiomerically pure CIP-AS, a potent and selective AMPA-kainate receptor agonist

Paola Conti,\* Gabriella Roda and Federico F. Barberis Negra

*Istituto di Chimica Farmaceutica e Tossicologica, Università di Milano, v. le Abruzzi, 42-20131 Milan, Italy*



*Tetrahedron: Asymmetry 12 (2001) 1363*

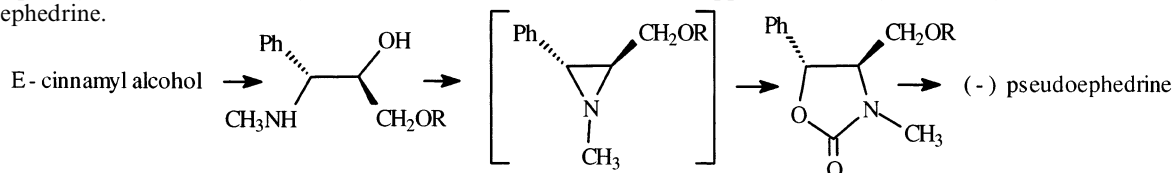
### Asymmetric synthesis of (-)-pseudoephedrine from (2*S*,3*S*)-3-phenyloxiran-2-ylmethanol. Stereospecific interchange of amino and alcohol functions

*Tetrahedron: Asymmetry 12 (2001) 1369*

M<sup>a</sup> Luisa Testa, Chakib Hajji, Elena Zaballos-García, Ana Belén García-Segovia and José Sepúlveda-Arques\*

*Departamento Química Orgánica, Facultad de Farmacia, Universidad de Valencia, 46100 Burjassot, Valencia, Spain*

A ring-opening reaction of *N*-methylaziridines with Boc<sub>2</sub>O/NaI has been applied to the asymmetric synthesis of pseudoephedrine.



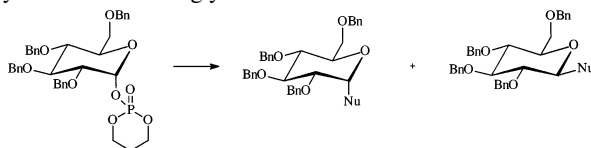
### Stereoselective *O*-glycosylation reactions using glycosyl donors with diphenylphosphinate and propane-1,3-diyl phosphate leaving groups

*Tetrahedron: Asymmetry 12 (2001) 1373*

Hari Prasad Vankayalapati, Gurdial Singh\* and Isabelle Tranoy

*Department of Chemistry, University of Sunderland, Sunderland SR1 3SD, UK*

Activation of the anomeric centre of 2,3,4,6-tetra-*O*-benzyl-1-*O*-diphenylphosphinyl and propane-1,3-diyl  $\alpha,\beta$ -D-glucopyranosyl phosphinate and phosphates, in the presence of trimethylsilyl triflate (TMSOTf), allowed the preparation of  $\alpha$ - or  $\beta$ -glucopyranose-linked *O*-glycosides.



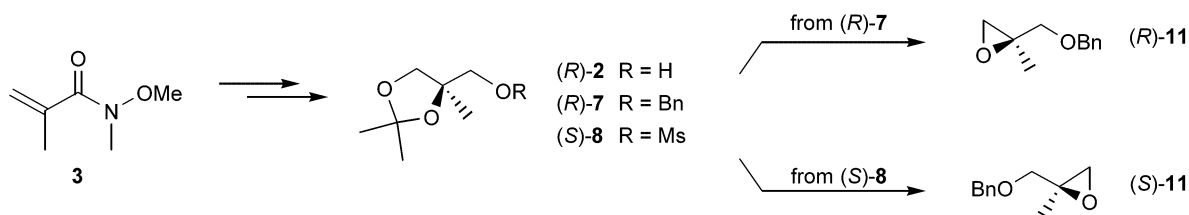
### An alternative approach to (*S*)- and (*R*)-2-methylglycidol *O*-benzyl ether derivatives

*Tetrahedron: Asymmetry 12 (2001) 1383*

Alberto Avenoza,<sup>a,\*</sup> Carlos Cativiela,<sup>b</sup> Jesús M. Peregrina,<sup>a,\*</sup> David Sucunza<sup>a</sup> and María M. Zurbano<sup>a</sup>

<sup>a</sup>*Departamento de Química, Universidad de La Rioja, Grupo de Síntesis Química de La Rioja, UA-CSIC, 26006 Logroño, Spain*

<sup>b</sup>*Departamento de Química Orgánica, Instituto de Ciencia de Materiales de Aragón, Universidad de Zaragoza-CSIC, 50009 Zaragoza, Spain*



### Diastereoselective photodeconjugation of chiral $\alpha,\beta$ -unsaturated esters

*Tetrahedron: Asymmetry 12 (2001) 1389*

Frédéric Bargiggia and Olivier Piva\*

*Laboratoire de Chimie Organique, Photochimie et Synthèse, UMR CNRS 5622, Université Claude Bernard, Lyon I, 43, Bd du 11 novembre 1918, 69622 Villeurbanne, France*

Of the different chiral alkoxy groups tested in diastereoselective deconjugation reactions, pantolactone, readily available in both enantiomeric forms, was most suitable for the preparation of both (2*R*)- and (2*S*)- $\beta,\gamma$ -unsaturated esters in good yields and with selectivities of up to 88%.

