Synthesis of novel N,O-planar chiral [2,2]paracyclophane ligands and their application as catalysts in the addition of diethylzinc to aldehydes

Tetrahedron: Asymmetry 12 (2001) 529

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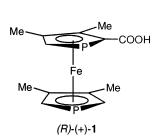
ArCHO
$$\begin{array}{c} \text{Et}_2\text{Zn}(2.2\text{eq.}) & \text{OH} \\ \hline \\ \text{Ligand}(5\%) & \text{Ar} & \text{Et} \\ \\ 81-95\% \text{ e.e.} \end{array}$$

Resolution and determination of the absolute configuration of 3,3'4,4'-tetramethyl-1,1'-diphosphaferrocene-2-carboxylic acid

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Racemic 3,3'4,4'-tetramethyl-1,1'-diphosphaferrocene-2-carboxylic acid 1 was resolved via diastereomeric salts with brucine. The (R)-absolute configuration of (+)-1 was determined by X-ray crystallography.



Asymmetric electrophilic amination of enolates by a chiral N-alkoxycarbonyloxaziridine

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A new chiral 3-aryl-N-alkoxycarbonyloxaziridine, derived from menthol, was prepared and tested as a reagent for asymmetric electrophilic amination of enolates.

Pd(II)-mediated synthesis of 2-deoxy- and rare-C-glycosides

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The synthesis of 2-deoxy-C-methyl glycoside 1, 2-deoxy-C-vinyl glycoside 2 and rare-C-methyl glycoside 3 is described

Tetrahedron: Asymmetry 12 (2001) 533

Tetrahedron: Asymmetry 12 (2001) 535

Tetrahedron: Asymmetry 12 (2001) 539

Mapping the substrate selectivity of new hydrolases using colorimetric screening: lipases from *Bacillus thermocatenulatus* and *Ophiostoma piliferum*, esterases from *Pseudomonas fluorescens* and *Streptomyces diastatochromogenes*

Tetrahedron: Asymmetry 12 (2001) 545

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R' COOMe

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BTL2, E > 100 BTL2 PFE, E = 12 PFE, E > 100 E = 5-7 SDE, E = 6

^bClariant Corporation, Biotechnology Research Division, 128 Spring St., Suite 1, Lexington, MA 02421, USA ^cStuttgart University, Institute for Technical Biochemistry, Allmandring 31, D-70569 Stuttgart, Germany

We rapidly screened a library of 23 chiral and 29 achiral esters to map the substrate selectivity of the hydrolases in the title. We identified several highly or moderately enantioselective reactions.

An efficient synthesis of enantiopure (+)- and (-)-3-exo-amino-7,7-dimethoxynorbornan-2-exo-ols

Tetrahedron: Asymmetry 12 (2001) 557

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MeO OMe

Cl Cl H

OH

OH

$$NH_2$$
 e.e.>98%

 $(+)$ -7

Asymmetric synthesis of 5-isopropyl-oxazoline-4-imide as *syn*-hydroxyleucine precursor

Tetrahedron: Asymmetry 12 (2001) 563

Giuliana Cardillo,* Luca Gentilucci, Massimo Gianotti and Alessandra Tolomelli

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Asymmetric acyloin condensation catalysed by phenylpyruvate decarboxylase. Part 2: Substrate specificity and purification of the enzyme

Tetrahedron: Asymmetry 12 (2001) 571

Zhiwei Guo, Animesh Goswami, Venkata B. Nanduri and Ramesh N. Patel*

Process Research & Development, Bristol-Myers Squibb Pharmaceutical Research Institute, New Brunswick, NJ 08903, USA

A practical and efficient preparation of (-)-(4aS,5R)-4.4a,5.6,7.8-hexahvdro-4a,5-dimethyl-2(3H)-

naphthalenone: a key intermediate in the synthesis of (-)-dehydrofukinone

Rossana A. Schenato,^b Éverton M. dos Santos,^a Beatriz S. M. Tenius,^{a,*} Paulo R. R. Costa,^b Ignez Caracelli^c and Julio Zukerman-Schpector^c

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^cDepartamento de Química, Universidade Federal de São Carlos, SP and Instituto de Química, USP, SP, Brazil

The effect of vinyl esters on the enantioselectivity of the lipase-catalysed transesterification of alcohols

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OH
$$\frac{0}{3}$$
 $\frac{1}{PCL, Cyclohexane}$ $\frac{0}{(S)-2}$ $\frac{1}{(R)-1}$

Intramolecular amidomercurations under allylic control: a stereoselective synthesis of (+)-pseudohygroline and (+)-3-hydroxypyrrolizidine

Tetrahedron: Asymmetry 12 (2001) 597

Tetrahedron: Asymmetry 12 (2001) 605

Tetrahedron: Asymmetry 12 (2001) 579

Tetrahedron: Asymmetry 12 (2001) 585

Gina Enierga,^a Maria Espiritu,^a Patrick Perlmutter,^{a,*} Ngoc Pham,^a Mark Rose,^a Stefan Sjöberg,^b Neeranat Thienthong^a and Katie Wong^a

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Synthesis of chiral non-racemic azetidines by lipase-catalysed acetylations and their transformation into amino alcohols: precursors of chiral catalysts

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The synthesis of optically active azetidines, by lipase-catalysed asymmetrisation in the case of 1 or by double sequential kinetic resolution in the cases of 3 and 4, is reported. The transformation of 1 into chiral amino alcohol 2, a precursor of oxazaborolidine homogeneous catalysts, was also investigated.

ix

Synthesis of enantiopure bis-isoxazolines from (4R)-(+)-4-acetoxycyclopent-2-enone

Tetrahedron: Asymmetry 12 (2001) 619

Giorgio Adembri,^a M. Laura Paoli,^a Patrizia Rossi^b and Alessandro Sega^{a,*}

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^bDipartimento di Energetica, Via di Santa Marta 3, 50139 Florence, Italy

AcO
$$(+)-11$$
 $(+)-14$
 $(+)-14$
 $(+)-14$
 $(+)-14$
 $(+)-14$
 $(+)-14$
 $(+)-15$
 $(+)-15$
 $(+)-15$

Enzymatic resolution of bicyclic 1,3-amino alcohols in organic media

Tetrahedron: Asymmetry 12 (2001) 625

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^cDepartment of Inorganic and Analytical Chemistry, University of Szeged, H-6701 Szeged, Dóm tér 7, Hungary

N-Protected racemic di-exo- and di-endo-3-aminobicyclo[2.2.1]heptane-2-methanols and di-exo- and di-endo-3-aminobicyclo[2.2.1]hept-5-ene-2-methanols were resolved through lipase-catalysed O-acylation.

Monodentate phosphites with carbohydrate substituents and their application in rhodium catalysed asymmetric hydrosilylation reactions

Tetrahedron: Asymmetry 12 (2001) 633

Andrés Suárez, a Antonio Pizzano, a.* Inmaculada Fernández and Noureddine Khiara

^aInstituto de Investigaciones Químicas, Consejo Superior de Investigaciones Científicas-Universidad de Sevilla, 41092 Seville, Spain ^bDpto Química Orgánica y Farmacéutica, Facultad de Farmacia, Universidad de Sevilla, 41071 Seville, Spain

Preparation of (1R,8S)- and (1S,8R)-9-azabicyclo[6.2.0]dec-4-en-10-one: potential starting compounds for the synthesis of anatoxin-a

Tetrahedron: Asymmetry 12 (2001) 643

Enikő Forró, Judit Árva and Ferenc Fülöp*

Institute of Pharmaceutical Chemistry, University of Szeged, H-6701 Szeged, POB 121, Hungary

Enantiomers of 9-azabicyclo[6.2.0]-dec-4-en-10-one and valuable β -amino acids were prepared through lipase PS-catalysed asymmetric acylation of 9-hydroxymethyl-9-azabicyclo[6.2.0]-dec-4-en-10-one.

Х

Furanoside diphosphines derived from D-(+)-xylose and D-(+)-glucose as ligands in rhodium-catalysed asymmetric hydroformylation reactions

Tetrahedron: Asymmetry 12 (2001) 651

Tetrahedron: Asymmetry 12 (2001) 657

Tetrahedron: Asymmetry 12 (2001) 669

Montserrat Diéguez,* Oscar Pàmies, Gemma Net, Aurora Ruiz* and Carmen Claver

Departament de Química Física i Inorgànica, Universitat Rovira i Virgili, Pl. Imperial Tàrraco 1, 43005 Tarragona, Spain

Rh cat. / 1-3 R
$$\stackrel{CHO}{\longrightarrow}$$
 R $\stackrel{R}{\longrightarrow}$ R

A new enantioselective synthesis of β-amino acids

Dilek Saylik,^a Eva M. Campi,^a Andrew C. Donohue,^a W. Roy Jackson^{a,b,*} and Andrea J. Robinson^a

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^bCentre for Green Chemistry, PO Box 23, Monash University, Victoria 3800, Australia

Enantioselective synthesis of allenecarboxylates from phenyl acetates through C-C bond forming reactions

Jiro Yamazaki, Toshiyuki Watanabe and Kiyoshi Tanaka*

School of Pharmaceutical Sciences, University of Shizuoka, Yada 52-1, Shizuoka 422-8526, Japan

Several 4,4-disubstituted methyl allenecarboxylates were prepared from phenyl esters with high enantioselectivity in one-flask procedure. The transformation involved the successive in situ generation of a ketene and asymmetric Horner–Wadsworth–Emmons reaction.

Isolation, structural assignment and insecticidal activity of (-)-(1S,2R,3R,4S)-1,2-epoxy-1-methyl-4-(1-methylethyl)-cyclohex-3-yl acetate, a natural product from *Minthostachys tomentosa*

Ángel Cantín, Cristina Lull, Jaime Primo, Miguel A. Miranda and Eduardo Primo-Yúfera*

Instituto de Tecnología Química UPV-CSIC and Departamento de Química, Universidad Politécnica de Valencia, 46022 Valencia, Spain Tetrahedron: Asymmetry 12 (2001) 677

(-)-(1*S*,2*R*,3*R*,4*S*) Natural active compound (+)-(1*R*,2*S*,3*S*,4*R*) Synthetic inactive compound

A novel and effective chiral phosphoramide catalyst for the borane-mediated asymmetric reduction of prochiral α -halo ketones

Tetrahedron: Asymmetry 12 (2001) 685

Deevi Basavaiah,* Gone Jayapal Reddy and Vanampally Chandrashekar

School of Chemistry, University of Hyderabad, Hyderabad 500 046, India

$$\begin{array}{c} \text{1.0 eq. BH}_3.\text{SMe}_2 \\ \text{Ar} \\ \text{X} \\ \text{X= Br, Cl} \\ \text{X= phenyl, 4-methylphenyl, 4-ethylphenyl, 4-chlorophenyl, 4-bromophenyl} \\ \end{array} \begin{array}{c} \text{OH} \\ \text{X= SMe}_2 \\ \text{Ar} \\ \text{X= SMe}_2 \\ \text{X= SMe}_2 \\ \text{Y= SMe}_2 \\ \text{$$