Enantioselective perception of chiral odorants

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Enantiomers of chiral fragrances and flavours may show different odour quality and/or odour intensity. Great effort has been devoted by chemists to investigate the 'best enantiomer' of chiral odorants. This research has not only economic, but also social implications, related to the welfare of human beings and of their environment.

Highly efficient extractive biocatalysis in the asymmetric reduction of an acyclic enone by the yeast *Pichia stipitis*

Gelson J. Andrade Conceição, Paulo J. S. Moran and J. Augusto R. Rodrigues*

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First stereocontrolled synthesis and biological evaluation of 1,6-dideoxy-L-nojirimycin

Aymeric Bordier, a Philippe Compain, a Olivier R. Martin, a,* Kyoko Ikedab and Naoki Asanob

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L-xylose
$$\frac{6 \text{ steps}}{\text{H}}$$
 $\frac{\text{Bn}}{\text{N}}$ $\frac{3 \text{ steps}}{\text{H}}$ $\frac{\text{Me}}{\text{HO}}$ $\frac{\text{H}}{\text{N}}$ $\frac{\text{IC}_{50}}{\text{IC}_{50}} = 52 \text{ } \mu\text{M} \text{ } (\alpha\text{-L-rhamnosidase})$

Catalytic enantioselective coupling of 2-naphthols by new chiral oxovanadium complexes bearing a self accelerating functional group

Chang-Ying Chu and Biing-Jiun Uang*

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Lipase-catalyzed access to enantiomerically pure (R)- and (S)-trans-4-phenyl-3-butene-2-ol

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Ashraf Ghanem and Volker Schurig*

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The enzymatic kinetic resolution of (RS)-trans-4-phenyl-3-butene-2-ol was investigated by screening a range of lipases both for enantioselective transesterification and for enantioselective hydrolysis of its acetate.

Enzymatic synthesis of optically active δ-hydroxy-βketoalkanephosphonates

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

Shanghai Institute of Organic Chemistry, Chinese Academy of Science, 345 Lingling Lu, Shanghai 200032, China

Enzymatic desymmetrization of a centrosymmetric diacetate

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Tetrahedron: Asymmetry 14 (2003) 75

C. Böhm, W. F. Austin and D. Trauner*

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Total asymmetric synthesis of (7S,9R)-(+)-bisacumol

Anpai Li,^a Guoren Yue,^a Yang Li,^a Xinfu Pan^{a,*} and Teng-Kuei Yang^b

^aDepartment of Chemistry, National Laboratory of Applied Organic Chemistry, Lanzhou University, Lanzhou 730000, PR China

^bDepartment of Chemistry, National Chung-Hsing University, Taichung, Taiwan

3 (S) -(+)-
$$ar$$
-turmerone 2 (7S,9R)-(+)-bisacumol

(S) -(+)-ar-turmerone 2

(7S,9R)-(+)-bisacumol 1

Confirmation of the structure of a glucono-1,4-lactone derivative obtained from silvlation of glucono-1,5-lactone

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Paul V. Murphy, a.* Ciaran McDonnell, a Ludger Hämig, Duncan E. Paterson and Richard J. K. Taylor

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^bBruker AXS GmbH, Östliche Rheinbrückenstraße 49, D-76187 Karlsruhe, Germany

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Stereoselective synthesis of (+)-spectaline

Tetrahedron: Asymmetry 14 (2003) 87

Yiu-Suk Lee, a Yong-Ho Shin, Yong-Hyun Kim, Kee-Young Lee, a

Chang-Young Oh, a Sung-Jae Pyun, Hyun-Ju Park, Jin-Hyun Jeong and Won-Hun Hama,*

^aCollege of Pharmacy, SungKyunKwan University, Suwon 440-746, Korea

^bCollege of Pharmacy, Kyung Hee University, Seoul 130-701, Korea

$$\begin{array}{c} \text{TBSO} \\ \text{NHBz} \\ \end{array} \begin{array}{c} \text{TBSO} \\ \text{NHBz} \\ \end{array} \begin{array}{c} \text{HO} \\ \text{NHBz} \\ \end{array} \begin{array}{c} \text{NHBz} \\ \end{array} \begin{array}{c} \text{NHBz} \\ \text{NHBz} \\ \end{array} \begin{array}{c} \text{NHBz} \\ \end{array} \begin{array}{c} \text{NHBz} \\ \text{NHBz} \\ \end{array} \begin{array}{c} \text{N$$

Asymmetric carbonyl reduction with borane catalyzed by chiral phosphinamides derived from L-amino acid

Tetrahedron: Asymmetry 14 (2003) 95

Kangying Li,^a Zhenghong Zhou,^a Lixin Wang,^a Qifa Chen,^b Guofeng Zhao,^a Qilin Zhou^a and Chuchi Tang^a,*

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$$Y$$
 Cat. toluene Y ee up to 94%

The sulfinyl moiety as an intramolecular nucleophile. Part 3: Synthesis of (-)-muricatacin

Tetrahedron: Asymmetry 14 (2003) 101

Sadagopan Raghavan* and S. C. Joseph

Organic Division I, Indian Institute of Chemical Technology, Hyderabad 500 007, India

$$(1R_{S},2S)$$

$$(1R_{S},2S)$$

$$(4R,5R)$$

Novel planar chiral P,N-[2.2]paracyclophane ligands: synthesis and application in palladium-catalyzed allylic alkylation

Tetrahedron: Asymmetry 14 (2003) 107

Xun-Wei Wu, a Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Houa, **

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^bShanghai-Hong Kong Joint Laboratory in Chemical Synthesis, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 354 Fenglin Lu, Shanghai 200032, China

Novel heterobimetallic catalysts for asymmetric Michael reactions

Tetrahedron: Asymmetry 14 (2003) 113

S. Velmathi, a S. Swarnalakshmib and S. Narasimhana,*

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$$(R)-isomer$$

$$C O _{2}R$$

$$T H F, R T$$

Deracemization of thiol esters of α -arylpropionic acids

Tetrahedron: Asymmetry 14 (2003) 119

Marco Clericuzio,* Iacopo Degani,* Stefano Dughera and Rita Fochi

Dipartimento di Chimica Generale ed Organica Applicata, Università di Torino, Via Pietro Giuria 7, I-10125 Torino, Italy

The synthesis and use in asymmetric epoxidation of metal salen complexes derived from enantiopure *trans*-cyclopentane-and cyclobutane-1,2-diamine

Tetrahedron: Asymmetry 14 (2003) 127

Adrian M. Daly and Declan G. Gilheany*

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Synthesis and applications of the first polyfluorous proline derivative

Tetrahedron: Asymmetry 14 (2003) 139

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