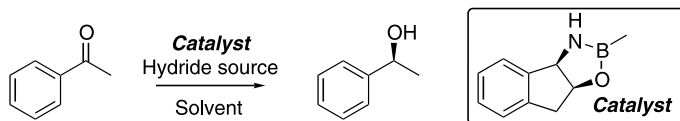


### Evaluating the role of solvent and borane on the enantioselectivity of the oxazaborolidine reduction of prochiral ketones using catalysts derived from *cis*-(1*R*,2*S*)-1-amino-indan-2-ol

Tetrahedron: Asymmetry 14 (2003) 2115

Nathan J. Gilmore and Simon Jones\*

School of Natural Sciences – Chemistry, University of Newcastle upon Tyne, Bedson Building, Newcastle upon Tyne NE1 7RU, UK

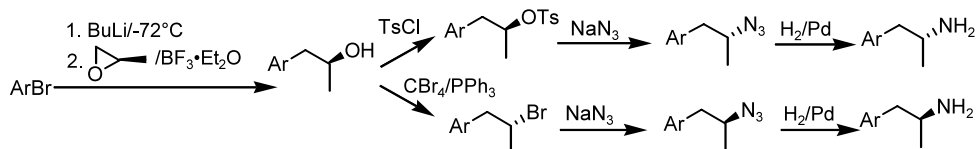


### Stereospecific synthesis of amphetamines

Tetrahedron: Asymmetry 14 (2003) 2119

Jared M. Wagner, Charles J. McElhinny, Jr., Anita H. Lewin\* and F. Ivy Carroll

Chemistry and Life Science Unit, Research Triangle Institute, PO Box 12194, Research Triangle Park, NC 27709-2194, USA

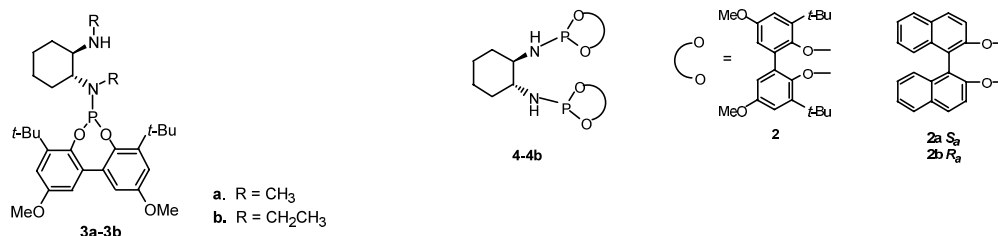


### New chiral amino-phosphoramidite and bisphosphoramidite ligands derived from (*R,R*)-1,2-diaminocyclohexane: application in Cu-catalyzed asymmetric conjugate addition of diethylzinc to 2-cyclohexenone

Tetrahedron: Asymmetry 14 (2003) 2127

Carmela G. Arena,\* Vincenzo Casilli and Felice Faraone

Dipartimento di Chimica Inorganica, Chimica Analitica e Chimica Fisica, Università di Messina, Salita Sperone, 31 Villaggio S. Agata 98166, Messina, Italy

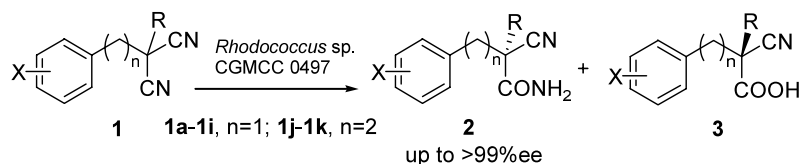


### Enantioselective biotransformation of $\alpha,\alpha$ -disubstituted dinitriles to the corresponding 2-cyanoacetamides using *Rhodococcus* sp. CGMCC 0497

Tetrahedron: Asymmetry 14 (2003) 2133

Zhong-Liu Wu and Zu-Yi Li\*

State Key Laboratory of Bioorganic &amp; Natural Products Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 354 Fenglin Road, Shanghai 200032, China



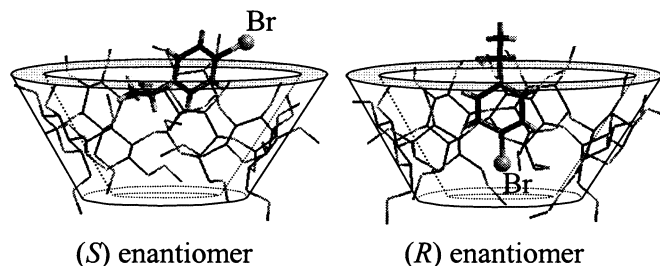
## Enantioseparation of 1-(*p*-bromophenyl)ethanol by crystallization of host-guest complexes with permethylated $\beta$ -cyclodextrin: crystal structures and mechanisms of chiral recognition

*Tetrahedron: Asymmetry* 14 (2003) 2143

Arnaud Grandeury,<sup>a</sup> Samuel Petit,<sup>a,\*</sup>  
Géraldine Gouhier,<sup>b</sup> Valérie Agasse<sup>a</sup> and  
Gérard Coquerel<sup>a</sup>

<sup>a</sup>Sciences et Méthodes Séparatives (SMS), UPRES EA 2659,  
IRCOF-Université de Rouen, F-76821 Mont Saint-Aignan Cedex,  
France

<sup>b</sup>Laboratoire des Fonctions Azotées et Oxygénées Complexes,  
UMR 6014, IRCOF-Université de Rouen,  
F-76821 Mont Saint-Aignan Cedex, France

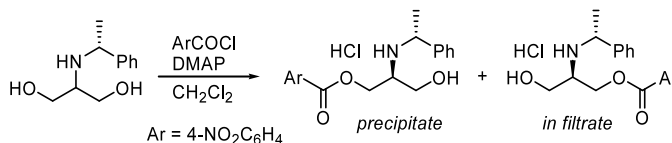


## One-pot acylation and fractional crystallization: preparation of optically active serinol monobenzoates

*Tetrahedron: Asymmetry* 14 (2003) 2153

Shigeo Sugiyama,\* Takayuki Inoue and Keitaro Ishii\*

Meiji Pharmaceutical University, 2-522-1, Noshio, Kiyose, Tokyo 204-8588, Japan



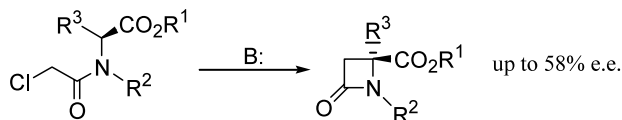
## Memory of chirality in the stereoselective synthesis of $\beta$ -lactams: importance of the starting amino acid derivative

*Tetrahedron: Asymmetry* 14 (2003) 2161

M<sup>a</sup> Angeles Bonache,<sup>a</sup> Guillermo Gerona-Navarro,<sup>a</sup> Carlos García-Aparicio,<sup>a</sup> Miriam Alías,<sup>b</sup>  
Mercedes Martín-Martínez,<sup>a</sup> M<sup>a</sup> Teresa García-López,<sup>a</sup> Pilar López,<sup>b</sup> Carlos Cativiela<sup>b</sup> and  
Rosario González-Muñiz<sup>a,\*</sup>

<sup>a</sup>Instituto de Química Médica (CSIC), Juan de la Cierva 3, 28006 Madrid, Spain

<sup>b</sup>Departamento de Química Orgánica, ICMA, Universidad de Zaragoza-CSIC, 50009 Zaragoza, Spain



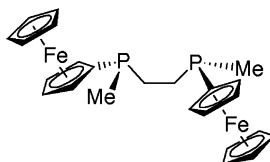
## A novel P-chirogenic phosphine ligand, (*S,S*)-1,2-bis-[(ferrocenyl)-methylphosphino]ethane: synthesis and use in rhodium-catalyzed asymmetric hydrogenation and palladium-catalyzed asymmetric allylic alkylation

*Tetrahedron: Asymmetry* 14 (2003) 2171

Nobuhiko Oohara,<sup>a</sup> Kosuke Katagiri<sup>b</sup> and Tsuneo Imamoto<sup>b,\*</sup>

<sup>a</sup>Research & Development Division, Nippon Chemical Co., Ltd., 9-11-1, Kameido, Koto-ku, Tokyo 136-8515, Japan

<sup>b</sup>Department of Chemistry, Faculty of Science, Chiba University, Yayoi-cho, Inage-ku, Chiba 263-8522, Japan



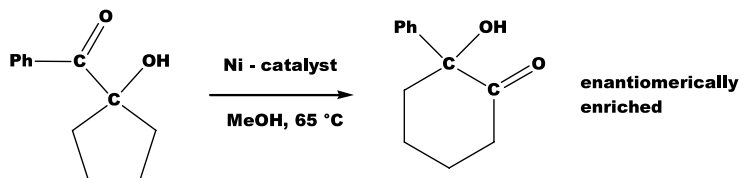
## Asymmetric catalysis. Part 153: Metal-catalysed enantioselective $\alpha$ -ketol rearrangement

*Tetrahedron: Asymmetry 14 (2003) 2177*

Henri Brunner,<sup>a,\*</sup> Henri B. Kagan<sup>b</sup> and Georg Kreutzer<sup>a</sup>

<sup>a</sup>Institut für Anorganische Chemie, Universität Regensburg, D-93040 Regensburg, Germany

<sup>b</sup>Institut de Chimie Moléculaire et des Matériaux d'Orsay, Université Paris Sud, F-91405 Orsay Cedex, France

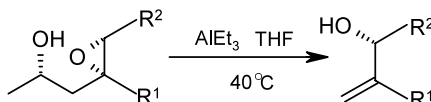


## AlEt<sub>3</sub>-promoted eliminative ring-opening of $\beta$ -hydroxy epoxides: highly stereoselective synthesis of terminal $\alpha$ -hydroxy olefins

*Tetrahedron: Asymmetry 14 (2003) 2189*

Fei Wang, Shao Hua Wang, Yong Qiang Tu\* and Shi Kuo Ren

Department of Chemistry & State Key Laboratory of Applied Organic Chemistry, Lanzhou University, Lanzhou 730000, PR China



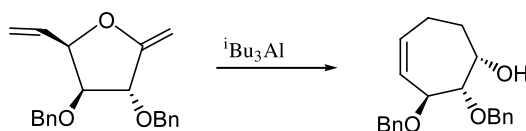
## Highly stereoselective synthesis of a seven-membered carbasugar via triisobutylaluminium promoted Claisen rearrangement

*Tetrahedron: Asymmetry 14 (2003) 2195*

Cai Jia,<sup>a</sup> Yongmin Zhang<sup>b</sup> and Lihe Zhang<sup>a,\*</sup>

<sup>a</sup>National Research Laboratory of Natural and Biomimetic Drugs, School of Pharmaceutical Sciences, Peking University, 38 Xueyuan Road, Beijing 100083, PR China

<sup>b</sup>Ecole Normale Supérieure, Département de Chimie, UMR CNRS 8642, 24 rue Lhomond, 75231 Paris, Cedex 05, France

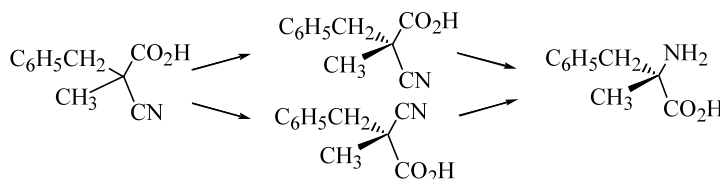


## Efficient resolution of *rac*-2-cyano-2-methyl-3-phenylpropanoic acid. An appropriate starting material for the enantioconvergent synthesis of (*S*)- $\alpha$ -methylphenylalanine on a large laboratory scale

*Tetrahedron: Asymmetry 14 (2003) 2201*

Ramón Badorrey, Carlos Cativiela, María D. Díaz-de-Villegas\* and José A. Gálvez\*

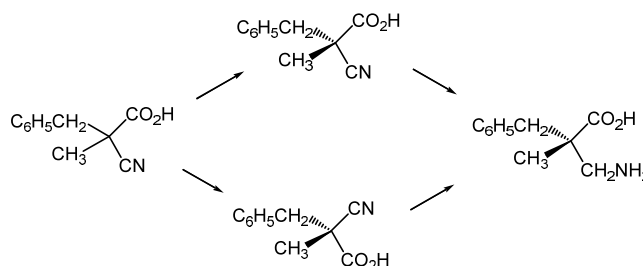
Departamento de Química Orgánica, Facultad de Ciencias-Instituto de Ciencia de Materiales de Aragón, Universidad de Zaragoza-CSIC, E-50009 Zaragoza, Spain



## Efficient enantioconvergent synthesis of (*S*)- $\alpha$ -benzyl- $\alpha$ -methyl- $\beta$ -alanine from (*R*)- and (*S*)-2-cyano-2-methyl-3-phenylpropanoic acid

Ramón Badorrey, Carlos Cativiela,  
María D. Díaz-de-Villegas,\* José A. Gálvez\* and  
Ana Gil

Departamento de Química Orgánica, Facultad de Ciencias-Instituto  
de Ciencia de Materiales de Aragón, Universidad de Zaragoza-CSIC,  
E-50009 Zaragoza, Spain

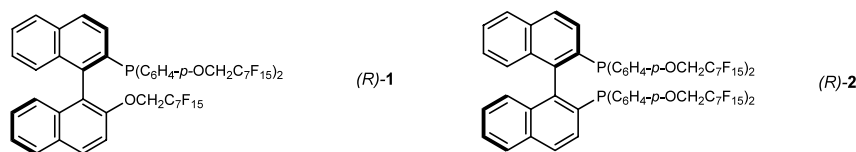


## Chiral fluororous phosphorus ligands based on the binaphthyl skeleton: synthesis and applications in asymmetric catalysis

Jerôme Bayardon,<sup>a</sup> Marco Cavazzini,<sup>b</sup> David Maillard,<sup>a</sup> Gianluca Pozzi,<sup>b,\*</sup> Silvio Quici<sup>b</sup> and Denis Sinou<sup>a,\*</sup>

<sup>a</sup>Laboratoire de Synthèse Asymétrique, associé au CNRS, CPE Lyon, Université Claude Bernard Lyon 1,  
43, boulevard du 11 novembre 1918, 69622 Villeurbanne Cedex, France

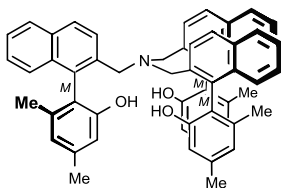
<sup>b</sup>CNR-Istituto di Scienze e Tecnologie Molecolari, via C. Golgi 19, 20133 Milano, Italy



## Atropo-enantioselective synthesis of a C<sub>3</sub>-symmetric tripodal ligand with three axially chiral biaryl subunits

Gerhard Bringmann,\* Matthias Breuning, Robert-Michael Pfeifer and Petra Schreiber

Institut für Organische Chemie, Universität Würzburg, Am Hubland, D-97074 Würzburg, Germany



Tetrahedron: Asymmetry 14 (2003) 2225

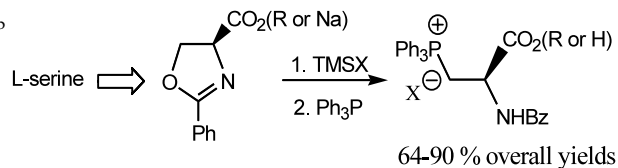
## Efficient synthesis of $\beta$ -halogeno protected L-alanines and their $\beta$ -phosphonium derivatives

Franck Meyer,<sup>a</sup> Abdelhamid Laaziri,<sup>a</sup> Anna Maria Papini,<sup>b</sup>  
Jacques Uziel<sup>a</sup> and Sylvain Jugé<sup>c,\*</sup>

<sup>a</sup>Université de Cergy Pontoise, 5 mail Gay Lussac, 95031 Cergy Pontoise,  
France

<sup>b</sup>Dipartimento di Chimica Organica, Università degli Studi di Firenze,  
via della Lastruccia 13, 50019 Sesto Fiorentino (FI), Italy

<sup>c</sup>Université de Bourgogne, LSEO associé CNRS, 6 boulevard Gabriel, 21000 Dijon, France



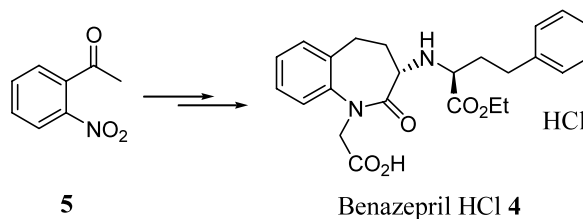
The stereospecific synthesis of  $\beta$ -halogeno amino acid derivatives bearing ester or acid functions by ring opening of the oxazoline derived from L-serine with trimethylsilyl halides is described. The iodo or bromo derivatives were easily quaternized with triphenylphosphine to give the corresponding phosphonium salts in overall yields of up to 90% from L-serinate hydrochloride.

### Asymmetric synthesis of ACE inhibitor-Benazepril HCl via a bioreductive reaction

*Tetrahedron: Asymmetry 14 (2003) 2239*

Ching-Yao Chang and Teng-Kuei Yang\*

Department of Chemistry, National Chung-Hsing University, Taichung 402, Taiwan, ROC



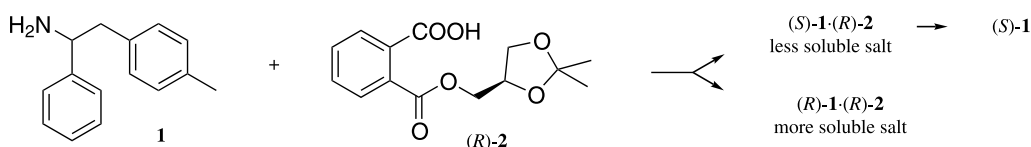
### Resolution of 1-phenyl-2-(*p*-tolyl)ethylamine via diastereomeric salt formation

*Tetrahedron: Asymmetry 14 (2003) 2247*

Marco Pallavicini,<sup>a,\*</sup> Cristiano Bolchi,<sup>a</sup> Barbara Moroni,<sup>a</sup> Ermanno Valoti<sup>a</sup> and Oreste Piccolo<sup>b</sup>

<sup>a</sup>Istituto di Chimica Farmaceutica e Tossicologica, Università di Milano, viale Abruzzi 42, I-20131 Milan, Italy

<sup>b</sup>Studio di Consulenza Scientifica, via Bornò 5, I-23896 Sirtori (LC), Italy



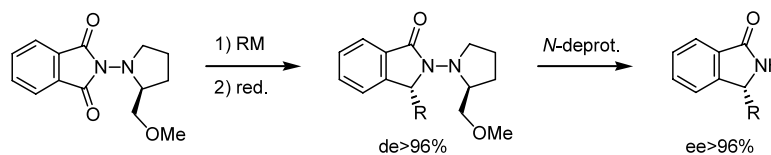
### A new synthetic route to highly enantioenriched 3-substituted-2,3-dihydro-1*H*-isoindol-1-ones

*Tetrahedron: Asymmetry 14 (2003) 2253*

Eric Deniau,<sup>a,\*</sup> Dieter Enders,<sup>b</sup> Axel Couture<sup>a</sup> and Pierre Grandclaudon<sup>a</sup>

<sup>a</sup>Laboratoire de Chimie Organique Physique, UMR 8009, Université des Sciences et Technologies de Lille, Bâtiment C3(2), F-59655 Villeneuve d'Ascq Cédex, France

<sup>b</sup>Institut für Organische Chemie, Rheinisch-Westfälische Technische Hochschule, Professor-Pirlet-Straße 1, 52074 Aachen, Germany



### Selective access and full characterization of mono-acidic permethylated $\beta$ -cyclodextrin derivatives and their methyl esters

*Tetrahedron: Asymmetry 14 (2003) 2259*

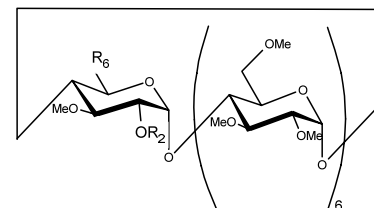
S. Tisse,<sup>a</sup> V. Peulon-Agasse,<sup>a</sup> H. Oulyadi,<sup>b</sup> F. Marsais<sup>c</sup> and J. C. Combret<sup>a,\*</sup>

<sup>a</sup>UPRES EA 2659, Sciences et Méthodes Séparatives, Université de Rouen-INSA de Rouen, F-76821 Mont Saint Aignan Cedex, France

<sup>b</sup>UMR 6014, Laboratoire de RMN, Université de Rouen-INSA de Rouen,

F-76821 Mont Saint Aignan Cedex, France

<sup>c</sup>UMR 6014, Equipe de Chimie Organique Fine et Hétérocyclique, Université de Rouen-INSA de Rouen, F-76821 Mont Saint Aignan Cedex, France



	R <sub>2</sub>	R <sub>6</sub>
2 <sup>I</sup> - <i>O</i> -carboxymethyl-2 <sup>II-VII</sup> , 3 <sup>I-VII</sup> , 6 <sup>I-VII</sup> -eicosa- <i>O</i> -methyl-CD	CH <sub>2</sub> COOH	OMe
6 <sup>I</sup> - <i>O</i> -carboxymethyl-2 <sup>I-VII</sup> , 3 <sup>I-VII</sup> , 6 <sup>II-VII</sup> -eicosa- <i>O</i> -methyl-CD	Me	CH <sub>2</sub> OCH <sub>2</sub> COOH
6 <sup>I</sup> -desoxy-6 <sup>I</sup> -carboxy-2 <sup>I-VII</sup> , 3 <sup>I-VII</sup> , 6 <sup>II-VII</sup> -eicosa- <i>O</i> -methyl-CD	Me	COOH

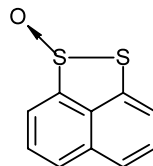
## Direct determination of the absolute configuration of a cyclic thiosulfinate by VCD spectroscopy

Tetrahedron: Asymmetry 14 (2003) 2267

Anders Holmén,<sup>a,\*</sup> Joakim Oxelbark<sup>b</sup> and Stig Allenmark<sup>b</sup>

<sup>a</sup>Physical and Computational Chemistry, DMPK & Bioanalytical Chemistry, AstraZeneca R&D, SE-43183 Mölndal, Sweden

<sup>b</sup>Department of Chemistry, Göteborg University, SE-41296 Göteborg, Sweden



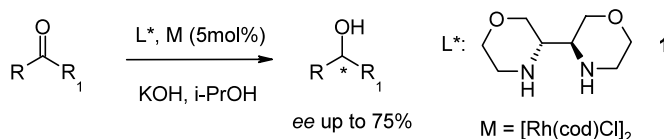
## C<sub>2</sub>-Symmetric bimorpholines as chiral ligands in the asymmetric hydrogenation of ketones

Tetrahedron: Asymmetry 14 (2003) 2271

Kadri Kriis, Tõnis Kanger,\* Aleksander-Mati Müürisepp and Margus Lopp

Department of Chemistry, Tallinn Technical University, Akadeemia tee 15, Tallinn 12618, Estonia

Bimorpholine **1** and Rh-complex catalyses hydride transfer reduction of prochiral aromatic ketones giving the corresponding alcohols with up to 75% ee.



## Lead tetraacetate mediated domino reactions on (*R*)-(-)-carvone-derived bicyclic unsaturated 1,2-diols and further rearrangements

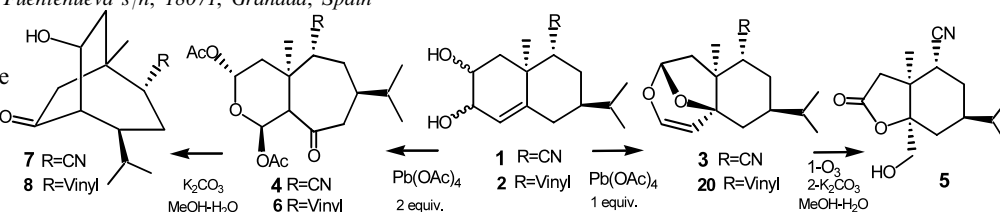
Tetrahedron: Asymmetry 14 (2003) 2277

Elena M. Sanchez Fernandez,<sup>a</sup> José I. Candela Lena,<sup>a</sup> Ertan Altinel,<sup>a</sup> Nicolas Birlirakis,<sup>a</sup> Alejandro F. Barrero<sup>b</sup> and Siméon Arseniyadis<sup>a,\*</sup>

<sup>a</sup>Institut de Chimie des Substances Naturelles, CNRS, F-91198 Gif-sur-Yvette, France

<sup>b</sup>Universidad de Granada, Avda. Fuentenueva s/n, 18071, Granada, Spain

The synthesis and oxidative cleavage reactions of carvone derived 1,2-unsaturated diols **1** and **2** are described.



## Asymmetric hydroesterification of styrene using catalysts with planar-chiral ferrocene oxazoline ligands

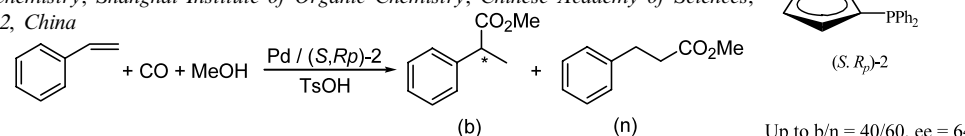
Tetrahedron: Asymmetry 14 (2003) 2291

Lailai Wang,<sup>a,b</sup> Wai Him Kwok, Albert S. C. Chan,<sup>a,\*</sup> Tao Tu,<sup>c</sup> Xuelong Hou<sup>c,\*</sup> and Lixin Dai<sup>c</sup>

<sup>a</sup>Open Laboratory of Chirtechnology of the Institute of Molecular Technology for Drug Discovery and Synthesis, and Department of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University, Hong Kong, China

<sup>b</sup>State Key Laboratory for Oxo Synthesis & Selective Oxidation, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, Lanzhou 730000, China

<sup>c</sup>Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 354 Fenglin Lu, Shanghai 200032, China



Up to b/n = 40/60, ee = 64%.