









 $[\alpha]_{D}^{25} = +71 \ (c \ 1, \ CH_{2}Cl_{2})$

C₂₉H₃₂O₁₂ D-3,6-Di-*O*-[(*S*)-*O*-acetylmandeloyl]-1,2-*O*-isopropylidene-*myo*-inositol

ÕAc

Ôн

AcQ

HO



Mario Ordóñez,* Angelina González-Morales, César Ruíz, Ricardo De la Cruz-Cordero and Mario Fernández-Zertuche Tetrahedron: Asymmetry 14 (2003) 1775

E.e. = 100%[α]_D = -31.7 (*c* 1.42, CHCl₃) Source of chirality: chemical resolution Absolute configuration: (*S*)

 $\label{eq:c19} C_{19}H_{26}NO_4P$ Dimethyl (S)-(–)-3-(N,N-dibenzylamino)-2-hydroxypropylphosphonate

Bn₂N

Mario Ordóñez,* Angelina González-Morales, César Ruíz, Ricardo De la Cruz-Cordero and Mario Fernández-Zertuche Tetrahedron: Asymmetry 14 (2003) 1775

E.e. = 100%[α]_D = +10.8 (*c* 2.04, H₂O) Source of chirality: chemical resolution Absolute configuration: (*R*)

. ₽(OH)₂ H_2N

 $C_3H_{10}NO_4P$ (*R*)-(+)-3-Amino-2-hydroxypropylphosphonic acid

Jiaxi Xu,* Xianbin Su and Qihan Zhang

Tetrahedron: Asymmetry 14 (2003) 1781

Ee = 91% $[\alpha]_{D}^{20}$ = +28.4 (*c* 2.3, MeOH) Source of chirality: asymmetric synthesis Absolute configuration: (*R*)

Jiaxi Xu,* Xianbin Su and Qihan Zhang

Jiaxi Xu,* Xianbin Su and Qihan Zhang

Tetrahedron: Asymmetry 14 (2003) 1781

Ee = 85% $[\alpha]_{D}^{20} = +27.6 \ (c \ 2.1, \text{ MeOH})$ Source of chirality: asymmetric synthesis Absolute configuration: (R)

 $C_{15}H_{24}O$ (*R*)-1-(4-Pentylphenyl)butanol

 $C_{14}H_{22}O$ (*R*)-1-(4-Pentylphenyl)propanol

Tetrahedron: Asymmetry 14 (2003) 1781

Ee = 89% $[\alpha]_D^{20}$ = +29.9 (*c* 2.2, MeOH) Source of chirality: asymmetric synthesis Absolute configuration: (*R*)

_____ОН С₁₃Н₂₀О₂

(R)-1-(4-Butoxylphenyl)propanol

Tetrahedron: Asymmetry 14 (2003) 1781 Jiaxi Xu,* Xianbin Su and Qihan Zhang Ee = 86% $[\alpha]_{D}^{20} = +26.6 \ (c \ 2.0, \ MeOH)$ Source of chirality: asymmetric synthesis Absolute configuration: (R) $C_{15}H_{24}O_2$ (R)-1-(4-Butoxylphenyl)pentanol Tetrahedron: Asymmetry 14 (2003) 1781

> Ee = 86% $[\alpha]_{D}^{20} = +26.8 \ (c \ 1.7, \text{ MeOH})$ Source of chirality: asymmetric synthesis Absolute configuration: (R)

Jiaxi Xu,* Xianbin Su and Qihan Zhang C16H26O2

Jiaxi Xu,* Xianbin Su and Qihan Zhang

Jiaxi Xu,* Xianbin Su and Qihan Zhang

Tetrahedron: Asymmetry 14 (2003) 1781

Tetrahedron: Asymmetry 14 (2003) 1781

Ee = 85% $[\alpha]_{D}^{20} = +23.6 \ (c \ 2.2, \ MeOH)$ Source of chirality: asymmetric synthesis Absolute configuration: (R)

Ee = 83% $[\alpha]_{D}^{20} = +24.5 \ (c \ 1.9, \ MeOH)$ Source of chirality: asymmetric synthesis Absolute configuration: (R)

C14H22O2 (R)-1-(4-Pentoxylphenyl)propanol

(R)-1-(4-Pentoxylphenyl)pentanol

Jiaxi Xu,* Xianbin Su and Qihan Zhang Ee = 81% $[\alpha]_D^{20} = +19.6 (c \ 1.9, MeOH)$ Source of chirality: asymmetric synthesis Absolute configuration: (R) (R)-1-(4-Hexoxylphenyl)pentanol

Jiaxi Xu,* Xianbin Su and Qihan Zhang

C₁₃H₂₀OS (*R*)-1-(4-Butylthiophenyl)propanol

TBDPSO

Tetrahedron: Asymmetry 14 (2003) 1781

Ee = 83%[α]_D²⁰ = +18.5 (*c* 1.0, MeOH) Source of chirality: asymmetric synthesis Absolute configuration: (*R*)

Angela Zampella, Valentina Sepe, Rosa D'Orsi, Giuseppe Bifulco, Carla Bassarello and Maria Valeria D'Auria*

Tetrahedron: Asymmetry 14 (2003) 1787

Ee = 100% $[\alpha]_D = -25.3$ (c 16, CHCl₃) Source of chirality: asymmetric synthesis Absolute configuration: (4R,2'R,3'S,4'S)

 $\label{eq:c33} C_{33}H_{42}NO_5Si \\ (4R,2'R,3'S,4'S)-4-Benzyl-3-(5'-tert-butyldiphenylsilyloxy-3'-hydroxy-2',4'-dimethylpentanoyl)-2-oxazolidinone \\ (4R,2'R,3'S)-4-Benzyl-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-(5'-tert-butyldiphenylsilyloxy-3-($

Angela Zampella, Valentina Sepe, Rosa D'Orsi, Giuseppe Bifulco, Carla Bassarello and Maria Valeria D'Auria* $Ee = 100\% \\ [\alpha]_D^{24} = -4.1 (c \ 7, CHCl_3) \\ Source \ of \ chirality: \ asymmetric \ synthesis \\ Absolute \ configuration: \ (3S,4S,5S,6S,7S) \\ C_{33}H_{55}NO_5Si_2$

 $(3S,\!4S,\!5S,\!6S,\!7S)\text{-}6\text{-}(\textit{tert}\text{-}\text{Butyldimethylsilyloxy})\text{-}8\text{-}(\textit{tert}\text{-}\text{butyldiphenylsilyloxy})\text{-}3,\!5,\!7\text{-}\text{trimethyl}\text{-}1\text{-}\text{octen}\text{-}4\text{-}\text{ol}$













Source of chirality: asymmetric synthesis Ee: 97% by HPLC

 $\label{eq:c18} C_{18}H_{30}O_3$ 13-Hydroxy-(6Z,9Z,11E,13S)-6,9,11-octa
decatrienoic acid

ΟН

C₅H















Tetrahedron: Asymmetry 14 (2003) 1829 Mihaela Gulea, Friedrich Hammerschmidt,* Patrice Marchand, Serge Masson,* Violeta Pisljagic and Frank Wuggenig $[\alpha]_{D}^{20}$ -36.8 (c 1.0, acetone) Source of chirality: (S)-diisopropyl 1-hydroxybenzylphosphonate (iPrO)₂ Absolute configuration: (S) **│** OSO₂-C₆H₄-p-NO₂ Ee = 98%C19H24NO8PS (S)-Diisopropyl 1-(p-nitrobenzenesulfonyloxy)benzylphosphonate Tetrahedron: Asymmetry 14 (2003) 1829 Mihaela Gulea, Friedrich Hammerschmidt,* Patrice Marchand, Serge Masson,* Violeta Pisljagic and Frank Wuggenig $[\alpha]_{\rm D}^{20}$ +10 (c 0.8, acetone) Source of chirality: (S)-diisopropyl 1-hydroxypropylphosphonate (iPrO)₂ Absolute configuration: (S) Ee = 96%ŌSO₂-C₆H₄-p-NO₂ C15H24NO8PS (S)-Diisopropyl 1-(p-nitrobenzenesulfonyloxy)propylphosphonate Tetrahedron: Asymmetry 14 (2003) 1829

Mihaela Gulea, Friedrich Hammerschmidt,* Patrice Marchand, Serge Masson,* Violeta Pisljagic and Frank Wuggenig $[\alpha]_{\rm D}^{20}$ +111.6 (*c* 0.9, acetone) Source of chirality: (S)-diisopropyl (iPrO)₂P Ph 1-hydroxybenzylphosphonate Absolute configuration: (S) Ee=97% $C_{14}H_{20}NO_3PS$ (S)-Diisopropyl 1-thiocyanatobenzylphosphonate











 $[\alpha]_{D}^{28.3} = +8.2$ (c 1.0, water) Source of chirality: asymmetric synthesis Absolute configuration: $1S_{2}S_{3}S$

 $C_6H_{16}NO_4P$ (1*S*,2*S*,3*S*)-(2-Amino-1-hydroxy-3-methyl)pentyl phosphonic acid

Р∽он

Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu and Sergio Castillón*

E.e. = 100% $[\alpha]_D^{25} = -2.5 \ (c \ 1.1, \ CH_2Cl_2)$ Source of chirality: (*R*)-glycidol Absolute configuration: (*S*)

 $C_{23}H_{22}O_2$

(*S*)-1-*O*-Trityl-but-3-en-1,2-diol

Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu and Sergio Castillón*

Tetrahedron: Asymmetry 14 (2003) 1847

E.e. = 100% $[\alpha]_D^{25} = -0.4$ (*c* 1.0, CH₂Cl₂) Source of chirality: (*R*)-glycidol Absolute configuration: (*S*)

 $C_{11}H_{14}O_2$

(S)-1-O-Benzyl-but-3-en-1,2-diol

Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu and Sargio Castillón*	Tetrahedron: Asymmetry 14 (2003) 1847
and Sergio Castinon.	
E.c	e. = 100%
[\$\alpha]	$_{\rm D}^{25} = -6.6 \ (c \ 1.2, \ {\rm CH}_2{\rm Cl}_2)$
So	urce of chirality: (R)-glycidol
At	solute configuration: (S)
TrO	

 $C_{26}H_{26}O_2$ (S)-2-O-Allyl-1-O-trityl-but-3-en-1,2-diol

Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu and Sergio Castillón* E.e. = 100% $[\alpha]_D^{25} = +1.1 (c \ 1.3, CH_2Cl_2)$ Source of chirality: (*R*)-glycidol Absolute configuration: (*S*) (*S*)-2-*O*-Allyl-1-*O*-benzyl-but-3-en-1,2-diol Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu and Sergio Castillón*

E.e. = 100% $[\alpha]_D^{25} = -7.8$ (*c* 0.9, CH₂Cl₂) Source of chirality: (*R*)-glycidol Absolute configuration: (*S*)

TrO

 $C_{24}H_{22}O_2$ (S)-2-Trityloxymethyl-2,5-dihydrofuran

Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu *Tetrahea* and Sergio Castillón*

Tetrahedron: Asymmetry 14 (2003) 1847

$$\begin{split} \text{E.e.} &= 100\% \\ [\alpha]_{\text{D}}^{25} &= -98.1 \ (c \ 1.4, \ \text{CH}_2\text{Cl}_2) \\ \text{Source of chirality: } (R)\text{-glycidol} \\ \text{Absolute configuration: } (S) \end{split}$$

BnO

C₁₂H₁₄O₂ (S)-2-Benzyloxymethyl-2,5-dihydrofuran

Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu *Tetrahedron:* Asymmetry 14 (2003) 1847 and Sergio Castillón*

E.e. = 100% $[\alpha]_D^{25} = +4.83 \ (c \ 0.8, \ CH_2Cl_2)$ Source of chirality: (*R*)-glycidol Absolute configuration: (2*R*,3*S*,4*S*)

 $C_{24}H_{22}O_3 \label{eq:C24} (2R,3S,4S)\mbox{-}3,4\mbox{-}Epoxy\mbox{-}2\mbox{-}trityloxymethyl-tetrahydrofuran$

Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu and Sergio Castillón* E.e. = 100% $[\alpha]_{D}^{25} = -20.4 (c \ 1.4, CH_2Cl_2)$ Source of chirality: (*R*)-glycidol Absolute configuration: (2*R*,3*R*,4*R*)

(2R,3R,4R)-3,4-Epoxy-2-trityloxymethyl-tetrahydrofuran

Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu
and Sergio Castillón*
$$E.e. = 100\%$$
$$[\alpha]_D^{25} = -2.3 (c \ 0.7, CH_2Cl_2)$$
Source of chirality: (R)-glycidol
Absolute configuration: (2R,3S,4R)
$$C_{24}H_{23}N_3O_3$$

(2R,3S,4R)-4-Azido-2-trityloxymethyl-tetrahydrofuran-3-ol



Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu	Tetrahedron: Asymmetry 14 (2003) 1847	
and sergio Castinon		
	1000/	
E.¢	.=100%	
[\alpha]	$=+32.6 (c 1.1, CH_2Cl_2)$	
TrOJOH Sou	urce of chirality: (R)-glycidol	
	solute configuration: $(2R, 3R, 4S)$	
N ₃		
$C_{24}H_{23}N_3O_3$		
(2R,3R,4S)-4-Azido-2-trityloxymethyl-tetrahydrofuran-3-ol		

Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu and Sergio Castillón* E.e. = 100% $[\alpha]_{D}^{25} = +21.8 (c \ 0.8, \ CH_2Cl_2)$ Source of chirality: (R)-glycidol Absolute configuration: (2S,3S,4S) $C_{24}H_{23}N_3O_3$ (2S,3S,4S)-3-Azido-2-trityloxymethyl-tetrahydrofuran-4-ol Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu and Sergio Castillón*

E.e. = 100% $[\alpha]_{D}^{25} = +11.5 \ (c \ 1.2, \ CH_2Cl_2)$ Source of chirality: (*R*)-glycidol Absolute configuration: (2*R*,3*S*,4*R*)

 $C_{24}H_{25}NO_3$ (2*R*,3*S*,4*R*)-4-Amino-2-trityloxymethyl-tetrahydrofuran-2-ol

Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu and Sergio Castillón*

E.e. = 100% $[\alpha]_D^{25} = +2.8$ (*c* 1.2, CH₂Cl₂) Source of chirality: (*R*)-glycidol Absolute configuration: (*S*)

BnO $C_{12}H_{16}O_2$ (S)-1-O-Benzyl-pent-4-en-1,2-diol

OH

Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu and Sergio Castillón* E.e. = 100% $[\alpha]_D^{25} = -1.4 (c \ 1.3, CH_2Cl_2)$ Source of chirality: (R)-glycidol Absolute configuration: (S) (S)-2-O-Allyl-1-O-benzyl-pent-4-en-1,2-diol

Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Matheu and Sergio Castillón* E.e. = 100% $[\alpha]_{D}^{25} = -67.5 (c \ 1.1, CH_2Cl_2)$ Source of chirality: (R)-glycidol Absolute configuration: (S)

TrO $\cap \vdash$





Sílvia Aragonès, Fernando Bravo,* Yolanda Díaz, Mª Isabel Mathe	u Tetrahedron: Asymmetry 14 (2003) 1847	
	E.e. = 100%	
	$[\alpha]_{\rm D}^{25} = -33.5 \ (c \ 1.1, \ {\rm CH}_2{\rm Cl}_2)$	
	urce of chirality: (R)-glycidol	
	Absolute configuration: $(2S, 4S, 5R)$	
$C_{25}H_{24}O_3$		
(2S,4S,5R)-4,5-Epoxy-2-trityloxymethyl-tetrahydropyran		







Fumiki Nomoto,* Yoshihiko Hirayama, Masaya Ikunaka,* Toru Inoue and Koutaro Otsuka		Tetrahedron: Asymmetry 14 (2003) 1871
C ₇ H ₁₃ NO	Ee = 9 $[\alpha]_D^{25}$ Sourc Absol	96% -44.9 (c 2.0, 1 M HCl) ce of chirality: enzymatic hydrolysis lute configuration: (<i>R</i>)
(R)-Quinuclidin-3-ol		

Jean-Paul Mazaleyrat, Karen Wright, Anne Gaucher, Michel Wakselman, Simona Oancea, Fernando Formaggio, Claudio Toniolo,* Vladimir Setnička, Josef Kapitán and Timothy A. Keiderling $\begin{bmatrix} \alpha \end{bmatrix}_{436}^{25} -66 (c \ 0.2; MeOH)$ Absolute configuration (S) (assigned by comparison) $C_6H_5CH_2OOC-HN$ COOCH₃

C₃₃H₂₇NO₄ (S)-Methyl 2',1':1,2;1'',2'':3,4-dinaphthcyclohepta-1,3-diene-6-benzyloxycarbonylamino-6-carboxylate [Z-(S)-Bin-OMe]

Tetrahedron: Asymmetry 14 (2003) 1879 Jean-Paul Mazaleyrat, Karen Wright, Anne Gaucher, Michel Wakselman, Simona Oancea, Fernando Formaggio, Claudio Toniolo,* Vladimir Setnička, Josef Kapitán and Timothy A. Keiderling $[\alpha]_{436}^{25}$ +4 (c 0.5; MeOH) Absolute configuration (S) (assigned by comparison) COOCH, (CH₂)₂COOC-HN C30H29NO4 (S)-Methyl 2',1':1,2;1'',2'':3,4-dinaphthcyclohepta-1,3-diene-6-tert-butyloxycarbonylamino-6-carboxylate [Boc-(S)-Bin-OMe] Tetrahedron: Asymmetry 14 (2003) 1879 Jean-Paul Mazaleyrat, Karen Wright, Anne Gaucher, Michel Wakselman, Simona Oancea, Fernando Formaggio, Claudio Toniolo,* Vladimir Setnička, Josef Kapitán and Timothy A. Keiderling $[\alpha]^{25}_{436}$ +132 (c 0.2; CH₂Cl₂) Absolute configuration (S) (assigned by comparison) C₁₃H₉CH₂OOC-HN соон C39H29NO4 (S)-2',1':1,2;1",2":3,4-dinaphthcyclohepta-1,3-diene-6-(9-fluorenylmethyloxycarbonyl-amino)-6-carboxylic acid [Fmoc-(S)-Bin-OH] Jean-Paul Mazaleyrat, Karen Wright, Anne Gaucher, Tetrahedron: Asymmetry 14 (2003) 1879 Michel Wakselman, Simona Oancea, Fernando Formaggio,

Claudio Toniolo,* Vladimir Setnička, Josef Kapitán and Timothy A. Keiderling $[\alpha]_{436}^{25}$ -76 (c 0.1; MeOH) Absolute configuration (SS) (assigned by comparison) $C_6H_5CH_2OOC-HN$ $C_{57}H_{44}N_2O_5$ Z-[(S)-Bin]₂-OMe



Jean-Paul Mazaleyrat, Karen Wright, Anne Gaucher, Michel Wakselman, Simona Oancea, Fernando, Formaggio	Tetrahedron: Asymmetry 14 (2003) 1879	
Claudio Toniolo * Vladimir Setnička, Josef Kapitán and Timothy A. Keiderling		
\bigcirc		
	₆ -534 (c 0.1; CH ₂ Cl ₂)	
Abs	blute configuration (SSS) (assigned by comparison)	
$C_{73}H_{55}N_{3}O_{4}$		
$H-[(S)-Bin]_3-OMe$		

Tetrahedron: Asymmetry 14 (2003) 1895 Csaba Paizs, Petri Tähtinen, Katri Lundell, László Poppe, Florin-Dan Irimie and Liisa T. Kanerva* $[\alpha]_{D}^{25} = +4.4$ (c 1.00, CHCl₃); ee = 80% [by HPLC on CHIRACEL OD column] Source of chirality: lipase PS catalysed enantioselective acylation Absolute configuration: R C19H19NO5 (R)-[5-(4-Carboxyethylphenyl)-furan-2-yl]-cyanomethyl butanoate

COOCH₃

Csaba Paizs, Petri Tähtinen, Katri Lundell, László Poppe, Florin-Dan Irimie and Liisa T. Kanerva*

C13H9CH2OOC-HN

C121H89N5O6 $H-[(S)-Bin]_5-OMe$

Tetrahedron: Asymmetry 14 (2003) 1895

 $[\alpha]_{D}^{25} = +9.0$ (c 1.00, CHCl₃); ee = 97% [by HPLC on CHIRACEL OD column] Source of chirality: lipase PS catalysed enantioselective acylation Absolute configuration: R

C₁₆H₁₄ClNO₃ (R)-[5-(2-Chlorophenyl)furan-2-yl]-cyanomethyl butanoate

 $C_{40}H_{24}O_5P_2 \label{eq:c40}$ Bis(1,1'-binaphthyl-2,2'-ene)-pyrophosphite

A360

Andrei Korostylev,* Detlef Selent, Axel Monsees, Cornelia Borgmann	Tetrahedron: Asymmetry 14 (2003) 1905
and Armin Borner*	
Ee [a] Sou Ab	= 100% $_{3}^{3} = -198.8$ (c 0.5, CH ₂ Cl ₂) wrece of chirality: (<i>R</i>)-BINOL solute configuration: <i>R</i> , <i>R</i>
$C_{40}H_{40}O_5P_2 \\ Bis[5,5',6,6',7,7',8,8'-octahydro-(1,1')-binaphthyl-2,2'-ene]-pyrophosphite$	

Tibor Bakó, Péter Bakó,* György Keglevich, Nikoletta Báthori, Mátyás Czugler, János Tatai, Tibor Novák, Gyula Parlagh and László Tőke

O H₃C CH₃O₂ C₂₂H₂₃NO₃ Tetrahedron: Asymmetry 14 (2003) 1917

E.e. 32% (¹H NMR with Eu(hfc)₃) [α]_D²² +84.1 (*c* 1, CH₂Cl₂) Source of chirality: asymmetric synthesis by chiral catalyst

4-Methyl-3-naphthalen-2-yl-4-nitro-1-phenyl-pentan-1-one

Tibor Bakó, Péter Bakó,* György Keglevich, Nikoletta Báthori, Mátyás Czugler, János Tatai, Tibor Novák, Gyula Parlagh and László Tőke

O O H₃C CH₃O CH₃O

 $C_{19}H_{19}NO_5 \label{eq:c19}$ 3-Benzo[1,3]dioxol-5-yl-4-methyl-4-nitro-1-phenyl-pentan-1-one

Tetrahedron: Asymmetry 14 (2003) 1917

E.e. 100% (¹H NMR with Eu(hfc)₃) [α]_D²² +79.3 (*c* 1, CH₂Cl₂) Source of chirality: asymmetric synthesis by chiral catalyst

Tibor Bakó, Péter Bakó,* György Keglevich, Nikoletta Báthori, Mátyás Czugler, János Tatai, Tibor Novák, Gyula Parlagh and László Tőke

 $\begin{array}{c} & & & \\$

Tetrahedron: Asymmetry 14 (2003) 1917

E.e. 100% (¹H NMR with Eu(hfc)₃) $[\alpha]_D^{22}$ +62.8 (*c* 1, CH₂Cl₂) Source of chirality: asymmetric synthesis by chiral catalyst Absolute configuration: *S* (assigned by X-ray analysis)

Tibor Bakó, Péter Bakó,* György Keglevich, Nikoletta Báthori, Mátyás Czugler, János Tatai, Tibor Novák, Gyula Parlagh and László Tőke Tetrahedron: Asymmetry 14 (2003) 1917

E.e. 100% (¹H NMR with Eu(hfc)₃) [α]_D²² +110.6 (*c* 1, CH₂Cl₂) Source of chirality: asymmetric synthesis by chiral catalyst

 G_{H_3C} H_3C C_{H_3O} $C_{H_17}NO_3S$ 4-Methyl-4-nitro-1-phenyl-3-thiophen-2-yl-pentan-1-one

Tetrahedron: Asymmetry 14 (2003) 1917 Tibor Bakó, Péter Bakó,* György Keglevich, Nikoletta Báthori, Mátyás Czugler, János Tatai, Tibor Novák, Gyula Parlagh and László Tőke E.e. 12% (¹H NMR with Eu(hfc)₃) $[\alpha]_{D}^{22}$ +23.0 (c 1, CH₂Cl₂) Source of chirality: asymmetric synthesis by chiral catalyst H_3C CH₃ $C_{16}H_{18}N_2O_5$ 4-Methyl-4-nitro-1-phenyl-3-(1H-pyrrol-2-yl)-pentan-1-one

Tibor Bakó, Péter Bakó,* György Keglevich, Nikoletta Báthori, Mátyás Czugler, János Tatai, Tibor Novák, Gyula Parlagh and László Tőke

Tetrahedron: Asymmetry 14 (2003) 1917

E.e. 100% (¹H NMR with Eu(hfc)₃) $[\alpha]_{D}^{22}$ +150.1 (c 1, CH₂Cl₂) Source of chirality: asymmetric synthesis by chiral catalyst

Tetrahedron: Asymmetry 14 (2003) 1917 Tibor Bakó, Péter Bakó,* György Keglevich, Nikoletta Báthori, Mátyás Czugler, János Tatai, Tibor Novák, Gyula Parlagh and László Tőke E.e. 4% (¹H NMR with Eu(hfc)₃) $[\alpha]_{\rm D}^{22}$ +6.2 (c 1, CH₂Cl₂)

H₃C $C_{20}H_{20}N_2O_5$ 3-(1H-Indol-5-yl) 4-methyl-4-nitro-1-phenyl-pentan-1-one

Angéla Magyar, Bruno Schönecker,* János Wölfling, Gyula Schneider,

Source of chirality: asymmetric synthesis by chiral catalyst

 $[\alpha]_{\rm D}^{20} = +73$ Source of chirality: 3-methoxy-17a-aza-D-homoestra-1,3,5(10)-trien-17-one

Tetrahedron: Asymmetry 14 (2003) 1925

C₁₉H₂₇NO 3-Methoxy-17a-aza-D-homoestra-1,3,5(10)-triene

MeO

Wolfgang Günther and Helmar Görls

A363

 H_3C

C17H18N2O3 4-Methyl-4-nitro-1-phenyl-3-pyridin-2-yl-pentan-1-one

Esther Vaz, Miryam Fernandez-Suarez and Luis Muñoz*

$$Tetrahedron: Asymmetry 14 (2003) 1935$$

$$[\alpha]_D^{20} = +11.9 (c \ 0.04, CHCl_3)$$
Source of chirality: (R)-N-phenylethylamine and asymmetric nucleophilic addition
Absolute configuration: 3R,1R
Methyl (3R)-3-{benzyl[(1R)-1-phenylethyl]amino}dodecanoate

-. 1

Esther Vaz, Miryam Fernandez-Suarez and Luis Muñoz*

$$Tetrahedron: Asymmetry 14 (2003) 1935$$

$$[\alpha]_D^{25} = -10.4 (c \ 0.20, CHCl_3)$$
Source of chirality: asymmetric nucleophilic addition
Absolute configuration: R

$$(3R)-3-Aminododecanoic acid methyl ester$$

Esther Vaz, Miryam Fernandez-Suarez and Luis Muñoz*

Tetrahedron: Asymmetry 14 (2003) 1935

 $[\alpha]_{20}^{20} = +14.0$ (*c* 0.06, CHCl₃) Source of chirality: L-phenylalanine and asymmetric nucleophilic addition Absolute configuration: 3R, 1S

 $C_{25}H_{40}N_2O_5 \label{eq:c25}$ Methyl (3R)-3-[(2-{[(1S)-1-benzyl-2-methoxy-2-oxoethyl]amino}-2-oxoethyl)amino]dodecanoate

 $[\alpha]_D^{25} = -37.6$ (*c* 0.71, CHCl₃) Source of chirality: L-phenylalanine and asymmetric nucleophilic addition Absolute configuration: 3R, 3S

 \ddot{O} $C_{24}H_{36}N_2O_4$ Methyl (3*R*)-3-[(3*S*)-3-benzyl-2,5-dioxopiperazinyl]dodecanoate

Esther Vaz, Miryam Fernandez-Suarez and Luis Muñoz*

Tetrahedron: Asymmetry 14 (2003) 1935

 $[\alpha]_{D}^{20} = -68.8$ (*c* 0.43, CHCl₃) Source of chirality: L-phenylalanine and asymmetric nucleophilic addition Absolute configuration: 3S, 3S

 $C_{24}H_{36}N_2O_4 \label{eq:c24}$ Methyl (3S)-3-[(3S)-3-benzyl-2,5-dioxopiperazinyl]dodecanoate

Esther Vaz, Miryam Fernandez-Suarez and Luis Muñoz*

Tetrahedron: Asymmetry 14 (2003) 1935

 $[\alpha]_{21}^{21} = -53.1$ (*c* 0.06, CHCl₃) Source of chirality: L-phenylalanine and asymmetric nucleophilic addition Absolute configuration: 3R, 3S

 $C_{28}H_{44}N_4O_4$ Methyl 3-({(3*R*)-3-[(3*S*)-3-benzyl-2,5-dioxopiperazinyl]dodecanoyl}amino)propylcarbamate

OH C₁₀H₁₀O₂

(1S)-1-(Benzofuran-2-yl)ethanol

Ee=98.6% [by GC on HP Chiral column, after derivatization with acetylchloride] $[\alpha]_D^{20} = -16.6$ (c 1.0, CHCl₃) Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: S

Csaba Paizs, Monica Toşa, Viktória Bódai, György Szakács, Ildikó Kmecz, Béla Simándi, Cornelia Majdik, Lajos Novák, Florin-Dan Irimie* and László Poppe*

B OH

C₁₀H₉BrO₂ (1*S*)-1-(5-Bromobenzofuran-2-yl)ethanol

Tetrahedron: Asymmetry 14 (2003) 1943

Ee=97.5% [by GC on HP Chiral column, after derivatisation with acetylchloride] $[\alpha]_{D}^{20} = -14.5$ (*c* 1.0, CHCl₃) Source of chirality: lipase-catalyzed kinetic resolution Absolute configuration: *S*

Csaba Paizs, Monica Toşa, Viktória Bódai, György Szakács, Ildikó Kmecz, Béla Simándi, Cornelia Majdik, Lajos Novák, Florin-Dan Irimie* and László Poppe*

 O_2N

C₁₀H₉NO₄ (1*S*)-1-(5-Nitrobenzofuran-2-yl)ethanol

O⊦

(1S)-1-(7-Methoxybenzofuran-2-yl)ethanol

ŻМе

C11H12O3

Ee=81.0% [by GC on HP Chiral column, after derivatisation with acetylchloride] $[\alpha]_{D}^{20} = -15.5$ (c 1.0, CHCl₃) Source of chirality: lipase-catalyzed kinetic resolution Absolute configuration: S

Csaba Paizs, Monica Toşa, Viktória Bódai, György Szakács, Ildikó Kmecz, Béla Simándi, Cornelia Majdik, Lajos Novák, Florin-Dan Irimie* and László Poppe* Tetrahedron: Asymmetry 14 (2003) 1943

Ee = 81.0% [by GC on HP Chiral column, after derivatisation with acetylchloride] $[\alpha]_{D}^{20} = -12.1$ (*c* 1.0, CHCl₃) Source of chirality: lipase-catalyzed kinetic resolution Absolute configuration: *S*

Csaba Paizs, Monica Toşa, Viktória Bódai, György Szakács, Ildikó Kmecz, Béla Simándi, Cornelia Majdik, Lajos Novák, Florin-Dan Irimie* and László Poppe* Tetrahedron: Asymmetry 14 (2003) 1943

Ee=99.1% [by GC on HP Chiral column] $[\alpha]_{D}^{20}$ =198.2 (*c* 1.0, CHCl₃) Source of chirality: lipase-catalyzed kinetic resolution Absolute configuration: *R*

C₁₂H₁₂O₃ (1R)-1-Acetoxy-1-(benzofuran-2-yl)ethane

OAc

Tetrahedron: Asymmetry 14 (2003) 1943

Ee = 98.6% [by GC on HP Chiral column] $[\alpha]_D^{20}$ = 144.1 (*c* 1.0, CHCl₃) Source of chirality: lipase-catalyzed kinetic resolution Absolute configuration: *R*

Florin-Dan Irimie* and László Poppe*

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B OAc

C₁₂H₁₁BrO₃ (1*R*)-1-Acetoxy-1-(5-bromobenzofuran-2-yl)ethane

Csaba Paizs, Monica Toşa, Viktória Bódai, György Szakács, Ildikó Kmecz, Béla Simándi, Cornelia Majdik, Lajos Novák, Florin-Dan Irimie* and László Poppe*

 O_2N OAc

C₁₂H₁₁NO₅ (1*R*)-1-Acetoxy-1-(5-nitrobenzofuran-2-yl)ethane

OAc

OH

 $C_{10}H_{10}O_2$ (1*R*)-1-(Benzofuran-2-yl)ethanol

(1R)-1-Acetoxy-1-(7-methoxybenzofuran-2-yl)ethane

ÓМе

C13H13O4

Ee >99.8% [by GC on HP Chiral column] $[\alpha]_D^{20} = 139.2$ (*c* 1.0, CHCl₃) Source of chirality: lipase-catalyzed kinetic resolution Absolute configuration: *R*

Tetrahedron: Asymmetry 14 (2003) 1943

Csaba Paizs, Monica Toşa, Viktória Bódai, György Szakács, Ildikó Kmecz, Béla Simándi, Cornelia Majdik, Lajos Novák, Florin-Dan Irimie* and László Poppe*

> Ee = 99.1% [by GC on HP Chiral column] $[\alpha]_{D}^{20} = 156.0 \ (c \ 1.0, \ CHCl_3)$ Source of chirality: lipase-catalyzed kinetic resolution Absolute configuration: *R*

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Tetrahedron: Asymmetry 14 (2003) 1943

Ee >99% [by GC of its acetate on HP Chiral column] $[\alpha]_{D}^{20} = 16.6 \ (c \ 1.0, \ CHCl_{3})$ Source of chirality: lipase-catalyzed kinetic resolution Absolute configuration: *R*

Csaba Paizs, Monica Toşa, Viktória Bódai, György Szakács, Ildikó Kmecz, Béla Simándi, Cornelia Majdik, Lajos Novák, Florin-Dan Irimie* and László Poppe*

OH

C₁₀H₉BrO₂ (1*R*)-1-(5-Bromobenzofuran-2-yl)ethanol

Tetrahedron: Asymmetry 14 (2003) 1943

Ee=99% [by GC of its acetate on HP Chiral column] $[\alpha]_D^{20} = 14.5 \ (c \ 1.0, \ CHCl_3)$ Source of chirality: lipase-catalyzed kinetic resolution Absolute configuration: *R*

Csaba Paizs, Monica Toşa, Viktória Bódai, György Szakács, Ildikó Kmecz, Béla Simándi, Cornelia Majdik, Lajos Novák, Florin-Dan Irimie* and László Poppe*

 O_2N OH

C₁₀H₉NO₄ (1*R*)-1-(5-Nitrobenzofuran-2-yl)ethanol

Ee >99% [by GC of its acetate on HP Chiral column] $[\alpha]_D^{20} = 18.9 \ (c \ 1.0, \ CHCl_3)$ Source of chirality: lipase-catalyzed kinetic resolution Absolute configuration: *R*

Csaba Paizs, Monica Toşa, Viktória Bódai, György Szakács, Ildikó Kmecz, Béla Simándi, Cornelia Majdik, Lajos Novák, Florin-Dan Irimie* and László Poppe* Tetrahedron: Asymmetry 14 (2003) 1943

Ee >99% [by GC of its acetate on HP Chiral column] $[\alpha]_{D}^{20} = 14.8 \ (c \ 1.0, \ CHCl_{3})$ Source of chirality: lipase-catalyzed kinetic resolution Absolute configuration: *R*

ÓMe C13H13O4 (1R)-1-(7-Methoxybenzofuran-2-yl)ethanol

Taeho Lee and Sanghee Kim*

OH

QAcBu₃Sn C₁₀H₃₆O₃Sn Tetrahedron: Asymmetry 14 (2003) 1951

Ee >99% $[\alpha]_D^{20} = +51.65$ (c 0.95, CH₂Cl₂) Source of chirality: enzymatic resolution Absolute configuration: 2R

 $C_{18}H_{36}O_2Sn$ (*R*)-(*E*)-4-(Tributylstannanyl)but-3-en-2-yl acetate

Taeho Lee and Sanghee Kim*

Tetrahedron: Asymmetry 14 (2003) 1951

Ee >99%

 $[\alpha]_{D}^{20} = -3.65$ (*c* 1.23, CH₃OH) Source of chirality: enzymatic resolution Absolute configuration: 2*S*

OH Bu₃Sn

 $\label{eq:c16} \begin{array}{l} {\rm C_{16}H_{34}OSn} \\ (S)\mbox{-}(E)\mbox{-}4\mbox{-}(Tributylstannanyl)\mbox{but-}3\mbox{-}en\mbox{-}2\mbox{-}ol \end{array}$

Taeho Lee and Sanghee Kim*

Tetrahedron: Asymmetry 14 (2003) 1951

Ee >99% $[\alpha]_{D}^{20} = +3.5$ (*c* 0.91, CH₃OH) Source of chirality: enzymatic resolution Absolute configuration: 2*R*

ŌН Bu₃Sn´ $C_{16}H_{34}OSn$

(R)-(E)-4-(Tributylstannanyl)but-3-en-2-ol