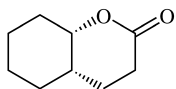


Stereochemistry abstracts

József Schindler,* Ferenc Faigl, László Hegedűs, Emese Pálovics and Elemér Fogassy*

Tetrahedron: Asymmetry 19 (2008) 773



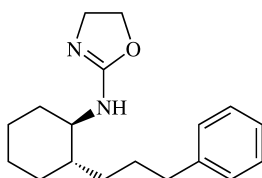
$C_9H_{14}O_2$

cis-Octahydrocoumarine

Ee >99.5% by chiral HPLC
 $[\alpha]_D^{20} = -40.3$ (c 1, $CHCl_3$)
 Absolute configuration: (*S,S*)

József Schindler,* Ferenc Faigl, László Hegedűs, Emese Pálovics and Elemér Fogassy*

Tetrahedron: Asymmetry 19 (2008) 773



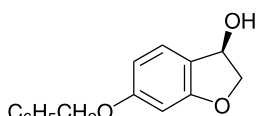
$C_{18}H_{26}N_2O$

2-(3-Phenylprop-1-yl)cyclohexylamino-2-oxazoline

Ee >99.5% by chiral HPLC
 $[\alpha]_D^{20} = +30.5$ (c 1, $CHCl_3$)
 Prepared from optically active material
 Absolute configuration: (*R,S*)

Krzysztof Z. Łączkowski, Marcin M. Pakulski, Marek P. Krzemiński, Parasuraman Jaisankar and Marek Zaidlewicz*

Tetrahedron: Asymmetry 19 (2008) 788



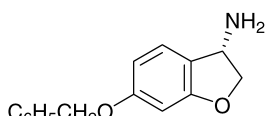
$C_{15}H_{14}O_3$

(*R*)-6-Benzyloxy-2,3-dihydrobenzofuran-3-ol

Ee = 87%
 $[\alpha]_D^{20} = -48.9$ (c 1.5, $CHCl_3$)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (*R*), chemical correlation

Krzysztof Z. Łączkowski, Marcin M. Pakulski, Marek P. Krzemiński, Parasuraman Jaisankar and Marek Zaidlewicz*

Tetrahedron: Asymmetry 19 (2008) 788



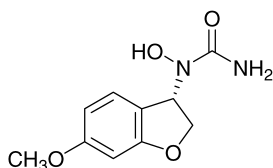
$C_{15}H_{15}NO_2$

(*S*)-3-Amino-6-benzyloxy-2,3-dihydrobenzofuran

Ee = 62%
 $[\alpha]_D^{20} = +22.0$ (c 1.5, $CHCl_3$)
 Absolute configuration: (*S*), chemical correlation

Krzysztof Z. Łączkowski, Marcin M. Pakulski, Marek P. Krzemiński,
Parasuraman Jaisankar and Marek Zaidlewicz*

Tetrahedron: Asymmetry 19 (2008) 788



C₁₀H₁₂N₂O₄

(*S*)-*N*-(6-Methoxy-2,3-dihydrobenzofuran-3-yl)-*N*-hydroxyurea

Ee = 57%

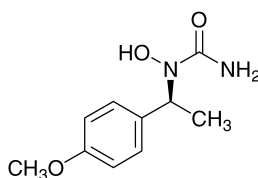
[α]_D²⁰ = +72.6 (*c* 1.5, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*), chemical correlation

Krzysztof Z. Łączkowski, Marcin M. Pakulski, Marek P. Krzemiński,
Parasuraman Jaisankar and Marek Zaidlewicz*

Tetrahedron: Asymmetry 19 (2008) 788



C₁₀H₁₄NO₃

(*S*)-*N*-1-(4-Methoxyphenyl)ethyl-*N*-hydroxyurea

Ee = 98%

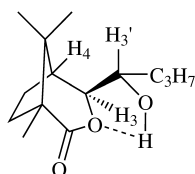
[α]_D²⁰ = -41.1 (*c* 1.2, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*), chemical correlation

Miguel Zárraga,* Victor Salas, Alberto Miranda, Patricia Arroyo and
Cristian Paz

Tetrahedron: Asymmetry 19 (2008) 796



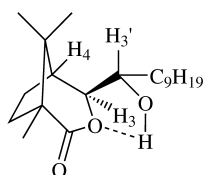
C₁₄H₂₇O₃

4-(1-Hydroxy-2-methylpropyl)-1,8,8-trimethyl-3-oxabicyclo[3.2.1]octan-2-one

[α]_D = +53.5 (*c* 2.2, EtOH)

Miguel Zárraga,* Victor Salas, Alberto Miranda, Patricia Arroyo and
Cristian Paz

Tetrahedron: Asymmetry 19 (2008) 796



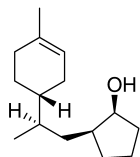
C₂₀H₃₉O₃

4-(1-Hydroxydecyl)-1,8,8-trimethyl-3-oxabicyclo[3.2.1] octan-2-one

[α]_D = +17.5 (*c* 1.9, EtOH)

Elisabetta Brenna, Claudio Fuganti, Francesco G. Gatti,*
Luciana Malpezzi and Stefano Serra

Tetrahedron: Asymmetry 19 (2008) 800



C₁₅H₂₆O

(1*S*,2*S*)-2-[(*R*)-2-[(*R*)-4-Methylcyclohex-3-enyl]propyl]cyclopentanol

De = 84%

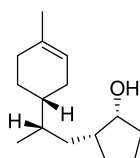
[α]_D²⁰ = +82.8 (c 0.9, CHCl₃)

Source of chirality: enzymatic resolution and prepared from (+)-limonene

Absolute configuration: (1*S*,2*S*,2'*R*,1''*R*)

Elisabetta Brenna, Claudio Fuganti, Francesco G. Gatti,*
Luciana Malpezzi and Stefano Serra

Tetrahedron: Asymmetry 19 (2008) 800



C₁₅H₂₆O

(1*R*,2*R*)-2-[(*S*)-2-[(*R*)-4-Methylcyclohex-3-enyl]propyl]cyclopentanol

De = 92%

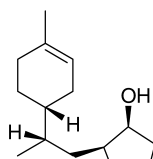
[α]_D²⁰ = +42.2 (c 1.1, CHCl₃)

Source of chirality: enzymatic resolution and prepared from (+)-limonene

Absolute configuration: (1*R*,2*R*,2'*S*,1''*R*)

Elisabetta Brenna, Claudio Fuganti, Francesco G. Gatti,*
Luciana Malpezzi and Stefano Serra

Tetrahedron: Asymmetry 19 (2008) 800



C₁₅H₂₆O

(1*S*,2*S*)-2-[(*S*)-2-[(*R*)-4-Methylcyclohex-3-enyl]propyl]cyclopentanol

De = 82%

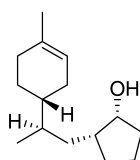
[α]_D²⁰ = +62.9 (c 1.1, CHCl₃)

Source of chirality: enzymatic resolution and prepared from (+)-limonene

Absolute configuration: (1*S*,2*S*,2'*S*,1''*R*)

Elisabetta Brenna, Claudio Fuganti, Francesco G. Gatti,*
Luciana Malpezzi and Stefano Serra

Tetrahedron: Asymmetry 19 (2008) 800



C₁₅H₂₆O

(1*R*,2*R*)-2-[(*R*)-2-[(*R*)-4-Methylcyclohex-3-enyl]propyl]cyclopentanol

De = 88%

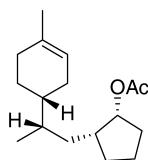
[α]_D²⁰ = +69.8 (c 1.1, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: (1*R*,2*R*,2'*R*,1''*R*)

Elisabetta Brenna, Claudio Fuganti, Francesco G. Gatti,*
Luciana Malpezzi and Stefano Serra

Tetrahedron: Asymmetry 19 (2008) 800



$C_{17}H_{28}O_2$

(1*R*,2*R*)-2-[(*S*)-2-[(*R*)-4-Methylcyclohex-3-enyl]propyl]cyclopentyl acetate

De = 92%

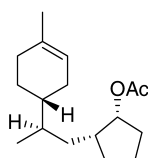
$[\alpha]_D^{20} = +43.2$ (*c* 1.1, $CHCl_3$)

Source of chirality: enzymatic resolution and prepared from (+)-limonene

Absolute configuration: (1*R*,2*R*,2'*S*,1''*R*)

Elisabetta Brenna, Claudio Fuganti, Francesco G. Gatti,*
Luciana Malpezzi and Stefano Serra

Tetrahedron: Asymmetry 19 (2008) 800



$C_{17}H_{28}O_2$

(1*R*,2*R*)-2-[(*R*)-2-[(*R*)-4-Methylcyclohex-3-enyl]propyl]cyclopentanol

De = 88%

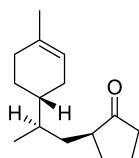
$[\alpha]_D^{20} = +52.1$ (*c* 1.3, $CHCl_3$)

Source of chirality: enzymatic resolution and prepared from (+)-limonene

Absolute configuration: 1*R*,2*R*,2'*R*,1''*R*

Elisabetta Brenna, Claudio Fuganti, Francesco G. Gatti,*
Luciana Malpezzi and Stefano Serra

Tetrahedron: Asymmetry 19 (2008) 800



$C_{15}H_{24}O$

(*S*)-2-[(*R*)-2-[(*R*)-4-Methylcyclohex-3-enyl]propyl]cyclopentanone

De = 80%

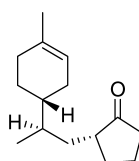
$[\alpha]_D^{20} = -31.4$ (*c* 1.3, $CHCl_3$)

Source of chirality: enzymatic resolution and prepared from (+)-limonene

Absolute configuration: (2*S*,2'*R*,1''*R*)

Elisabetta Brenna, Claudio Fuganti, Francesco G. Gatti,*
Luciana Malpezzi and Stefano Serra

Tetrahedron: Asymmetry 19 (2008) 800



$C_{15}H_{24}O$

(*R*)-2-[(*R*)-2-[(*R*)-4-Methylcyclohex-3-enyl]propyl]cyclopentanone

De = 86%

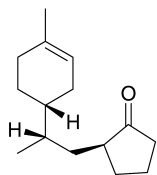
$[\alpha]_D^{20} = +238.2$ (*c* 1.1, $CHCl_3$)

Source of chirality: enzymatic resolution and prepared from (+)-limonene

Absolute configuration: (2*R*,2'*R*,1''*R*)

Elisabetta Brenna, Claudio Fuganti, Francesco G. Gatti,*
Luciana Malpezzi and Stefano Serra

Tetrahedron: Asymmetry 19 (2008) 800



$C_{15}H_{24}O$

(S)-2-[(S)-2-[(R)-4-Methylcyclohex-3-enyl]propyl]cyclopentanone

De = 80%

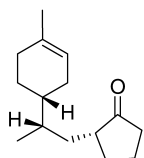
$[\alpha]_D^{20} = -71.7$ (c 1.4, $CHCl_3$)

Source of chirality: enzymatic resolution and prepared from (+)-limonene

Absolute configuration: (2*S*,2'*S*,1''*R*)

Elisabetta Brenna, Claudio Fuganti, Francesco G. Gatti,*
Luciana Malpezzi and Stefano Serra

Tetrahedron: Asymmetry 19 (2008) 800



$C_{15}H_{24}O$

(R)-2-[(S)-2-[(R)-4-Methylcyclohex-3-enyl]propyl]cyclopentanone

De = 89%

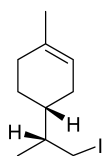
$[\alpha]_D^{20} = +197.4$ (c 0.8, $CHCl_3$)

Source of chirality: enzymatic resolution and prepared from (+)-limonene

Absolute configuration: (2*R*,2'*S*,1''*R*)

Elisabetta Brenna, Claudio Fuganti, Francesco G. Gatti,*
Luciana Malpezzi and Stefano Serra

Tetrahedron: Asymmetry 19 (2008) 800



$C_{10}H_{17}I$

(R)-4-[(R)-1-Iodopropan-2-yl]-1-methylcyclohex-1-ene

De = 93%

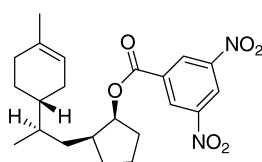
$[\alpha]_D^{20} = +37.5$ (c 2.0, $CHCl_3$)

Source of chirality: beaker yeast reduction

Absolute configuration: (2*R*,4'*R*)

Elisabetta Brenna, Claudio Fuganti, Francesco G. Gatti,*
Luciana Malpezzi and Stefano Serra

Tetrahedron: Asymmetry 19 (2008) 800



$C_{22}H_{28}N_2O_6$

(1*S*,2*S*)-2-[(R)-2-[(R)-4-Methylcyclohex-3-enyl]propyl]cyclopentyl 3,5-dinitrobenzoate

De \geq 99%

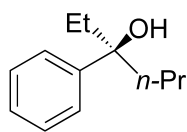
$[\alpha]_D^{20} = -53.0$ (c 1.0, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: (2*S*,2*S*,2'*R*,1'*R*)

Tou-Gen Liao, Jie Ren, Hua-Fang Fan, Ming-Jin Xie and Hua-Jie Zhu*

Tetrahedron: Asymmetry 19 (2008) 808



$C_{12}H_{18}O$

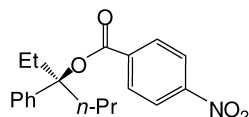
(*S*)-3-Phenylhexan-3-ol

$[\alpha]_D = +11.6$ (*c* 0.00805, $CHCl_3$)

Absolute configuration: (*S*)

Tou-Gen Liao, Jie Ren, Hua-Fang Fan, Ming-Jin Xie and Hua-Jie Zhu*

Tetrahedron: Asymmetry 19 (2008) 808



$C_{19}H_{21}NO_4$

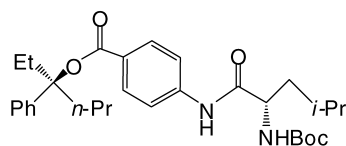
(*S*)-3-Phenylhexan-3-yl-4-nitrobenzoate

$[\alpha]_D = +1.6$ (*c* 0.026, $CHCl_3$)

Absolute configuration: (*S*)

Tou-Gen Liao, Jie Ren, Hua-Fang Fan, Ming-Jin Xie and Hua-Jie Zhu*

Tetrahedron: Asymmetry 19 (2008) 808



$C_{30}H_{42}N_2O_5$

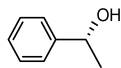
(*S*)-3-Phenylhexan-3-yl 4-((*S*)-2-(*tert*-butoxycarbonylamino)-4-methylpentanamido)benzoate

$[\alpha]_D = -33.3$ (*c* 0.01485, $CHCl_3$)

Absolute configuration: (*S*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



$C_8H_{10}O$

(*R*)-1-Phenyl-ethanol

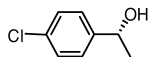
$[\alpha]_D^{20} = +38.2$ (*c* 1.0, CH_2Cl_2)

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



(*R*)-1-(4-Chlorophenyl)-ethanol

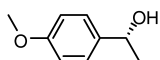
$$[\alpha]_D^{20} = +45.8 (c 1.1, CH_2Cl_2)$$

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



(*R*)-1-(4-Methoxyphenyl)-ethanol

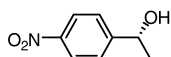
$$[\alpha]_D^{20} = +46.5 (c 1.0, CH_2Cl_2)$$

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



(*R*)-1-(4-Nitrophenyl)-ethanol

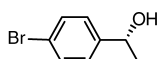
$$[\alpha]_D^{20} = +26.5 (c 1.5, CH_2Cl_2)$$

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



(*R*)-1-(4-Bromophenyl)-ethanol

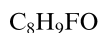
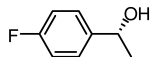
$$[\alpha]_D^{20} = +31.5 (c 1.0, CH_2Cl_2)$$

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



(*R*)-1-(4-Fluorophenyl)-ethanol

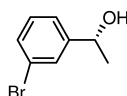
$$[\alpha]_D^{20} = +34.5 \text{ (} c \text{ 2.0, CH}_2\text{Cl}_2\text{)}$$

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



(*R*)-1-(3-Bromophenyl)-ethanol

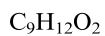
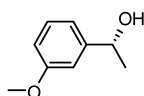
$$[\alpha]_D^{20} = +37.5 \text{ (} c \text{ 1.5, CH}_2\text{Cl}_2\text{)}$$

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



(*R*)-1-(3-Methoxyphenyl)-ethanol

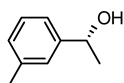
$$[\alpha]_D^{20} = +32.8 \text{ (} c \text{ 1.0, CH}_2\text{Cl}_2\text{)}$$

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



(*R*)-1-(3-Methylphenyl)-ethanol

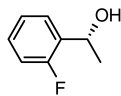
$$[\alpha]_D^{20} = +45.8 \text{ (} c \text{ 1.0, CH}_2\text{Cl}_2\text{)}$$

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



C_8H_9FO

(*R*)-1-(2-Fluorophenyl)-ethanol

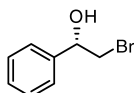
$[\alpha]_D^{20} = +34.1$ (*c* 2.0, CH_2Cl_2)

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



C_8H_9BrO

(*S*)-2-Bromo-1-phenylethanol

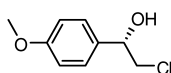
$[\alpha]_D^{20} = +34.9$ (*c* 1.7, CH_2Cl_2)

Source of chirality: chiral catalysis

Absolute configuration: (*S*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



$C_9H_{11}ClO_2$

(*S*)-2-Chloro-1-(4-methoxyphenyl)-ethanol

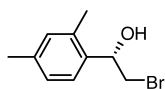
$[\alpha]_D^{20} = +32.5$ (*c* 1.0, CH_2Cl_2)

Source of chirality: chiral catalysis

Absolute configuration: (*S*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



$C_{10}H_{13}BrO$

(*S*)-2-Bromo-1-(2,4-dimethylphenyl)-ethanol

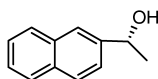
$[\alpha]_D^{20} = +37.4$ (*c* 1.0, CH_2Cl_2)

Source of chirality: chiral catalysis

Absolute configuration: (*S*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



C₁₂H₁₂O

(*R*)-1-(2-Naphthyl)-ethanol

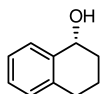
$$[\alpha]_D^{20} = +36.5 \text{ (} c \text{ 2.0, CH}_2\text{Cl}_2\text{)}$$

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



C₁₀H₁₂O

(*R*)-1,2,3,4-Tetrahydronaphthalen-1-ol

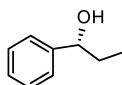
$$[\alpha]_D^{20} = -21.3 \text{ (} c \text{ 1.5, CH}_2\text{Cl}_2\text{)}$$

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



C₉H₁₂O

(*R*)-1-Phenyl-propanol

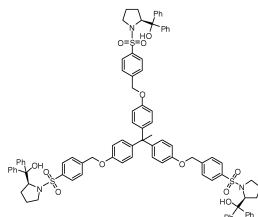
$$[\alpha]_D^{20} = +24.6 \text{ (} c \text{ 1.0, CH}_2\text{Cl}_2\text{)}$$

Source of chirality: chiral catalysis

Absolute configuration: (*R*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



C₉₇H₈₇N₃O₁₂S₃

(*S*)-[1-(4-{4-[1,1-Bis-(4-{4-[2-(hydroxy-diphenyl-methyl)-pyrrolidine-1-sulfonyl]-benzyloxy}-phenyl)-ethyl]-phenoxy-methyl}-benzenesulfonyl)-pyrrolidin-2-yl]-diphenyl-methanol

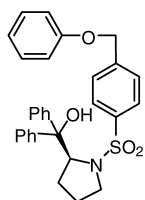
$$[\alpha]_D^{20} = -54.8 \text{ (} c \text{ 2.0, CH}_2\text{Cl}_2\text{)}$$

Source of chirality: L-proline

Absolute configuration: (*S*)

Gao-Qiang Li, Ze-Yi Yan, Yan-Ning Niu, Lu-Yong Wu,
Hai-Long Wei and Yong-Min Liang*

Tetrahedron: Asymmetry 19 (2008) 816



$C_{30}H_{29}NO_4S$

(*S*)-1-(4-(Phenoxy)methyl)phenylsulfonylpyrrolidin-2-yl)diphenylmethanol

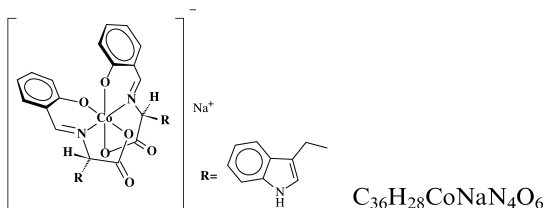
$[\alpha]_D^{20} = -66.5$ (*c* 2.0, CH_2Cl_2)

Source of chirality: L-proline

Absolute configuration: (*S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
Ivan A. Godovikov and Michael North

Tetrahedron: Asymmetry 19 (2008) 822



Sodium Δ -bis[*N*-salicylidene-(*S*)-tryptophanato]cobaltate

Ee > 99%

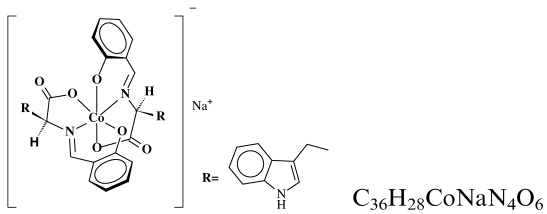
$[\alpha]_D^{25} = -4856.2$ (*c* 0.029, MeOH)

Source of chirality: synthesis from (*S*)-tryptophan

Absolute configuration: (Δ , *S,S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
Ivan A. Godovikov and Michael North

Tetrahedron: Asymmetry 19 (2008) 822



Sodium Δ -bis[*N*-salicylidene-(*S*)-tryptophanato]cobaltate

Ee > 99%

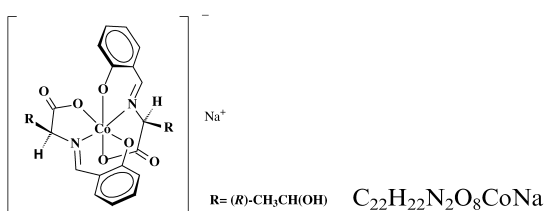
$[\alpha]_D^{25} = -5586$ (*c* 0.032, MeOH)

Source of chirality: synthesis from (*S*)-tryptophan

Absolute configuration: (Δ , *S,S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
Ivan A. Godovikov and Michael North

Tetrahedron: Asymmetry 19 (2008) 822



Sodium Δ -bis-[*N*-salicylidene-(*S*)-threoninato]-cobaltate

Ee > 99%

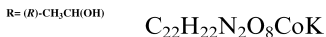
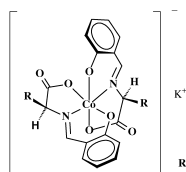
$[\alpha]_D^{25} = -6406.6$ (*c* 0.025, MeOH)

Source of chirality: synthesis from (*S*)-threonine

Absolute configuration: (Δ , *S,S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
Ivan A. Godovikov and Michael North

Tetrahedron: Asymmetry 19 (2008) 822



Potassium Δ -bis-[*N*-salicylidene-(*S*)-threoninato]-cobaltate

$E_e > 99\%$

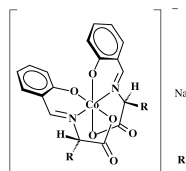
$[\alpha]_D^{25} = -5995.2$ (c 0.022, MeOH)

Source of chirality: synthesis from (*S*)-threonine

Absolute configuration: (Δ , *S,S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
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Tetrahedron: Asymmetry 19 (2008) 822



Sodium Λ -bis-[*N*-salicylidene-(*S*)-valinato]-cobaltate

$E_e > 99\%$

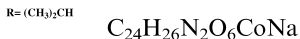
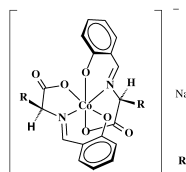
$[\alpha]_D^{25} = -6184.6$ (c 0.031, MeOH)

Source of chirality: synthesis from (*S*)-valine

Absolute configuration: (Λ , *S,S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
Ivan A. Godovikov and Michael North

Tetrahedron: Asymmetry 19 (2008) 822



Sodium Δ -bis-[*N*-salicylidene-(*S*)-valinato]-cobaltate

$E_e > 99\%$

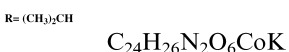
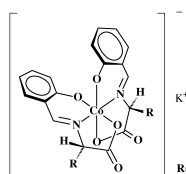
$[\alpha]_D^{25} = -3658.8$ (c 0.034, MeOH)

Source of chirality: synthesis from (*S*)-valine

Absolute configuration: (Δ , *S,S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
Ivan A. Godovikov and Michael North

Tetrahedron: Asymmetry 19 (2008) 822



Potassium Λ -bis-[*N*-salicylidene-(*S*)-valinato]-cobaltate

$E_e > 99\%$

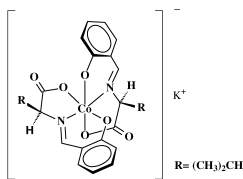
$[\alpha]_D^{25} = -5965.3$ (c 0.031, MeOH)

Source of chirality: synthesis from (*S*)-valine

Absolute configuration: (Λ , *S,S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
Ivan A. Godovikov and Michael North

Tetrahedron: Asymmetry 19 (2008) 822



Potassium Δ -bis-[*N*-salicylidene-(*S*)-valinato]-cobaltate

Ee > 99%

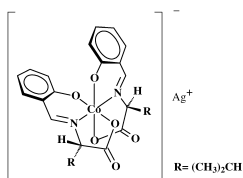
$[\alpha]_D^{25} = -3628.6$ (*c* 0.030, MeOH)

Source of chirality: synthesis from (*S*)-valine

Absolute configuration: (Δ , *S,S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
Ivan A. Godovikov and Michael North

Tetrahedron: Asymmetry 19 (2008) 822



Silver Δ -bis-[*N*-salicylidene-(*S*)-valinato]-cobaltate

Ee > 99%

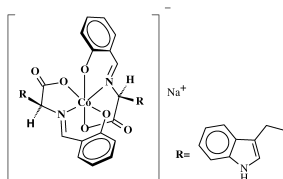
$[\alpha]_D^{25} = -5600$ (*c* 0.029, MeOH)

Source of chirality: synthesis from (*S*)-valine

Absolute configuration: (Δ , *S,S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
Ivan A. Godovikov and Michael North

Tetrahedron: Asymmetry 19 (2008) 822



Sodium Δ -bis[*N*-salicylidene-(*S*)-tryptophanato]cobaltate

Ee > 99%

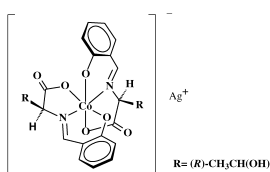
$[\alpha]_D^{25} = -5586$ (*c* 0.032, MeOH)

Source of chirality: synthesis from (*S*)-tryptophan

Absolute configuration: (Δ , *S,S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
Ivan A. Godovikov and Michael North

Tetrahedron: Asymmetry 19 (2008) 822



Silver Δ -bis-[*N*-salicylidene-(*S*)-threoninato]-cobaltate

Ee > 99%

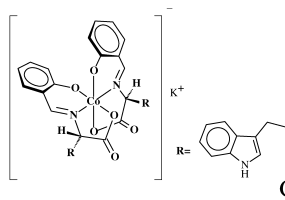
$[\alpha]_D^{25} = -5978$ (*c* 0.031, MeOH)

Source of chirality: synthesis from (*S*)-threonine

Absolute configuration: (Δ , *S,S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
Ivan A. Godovikov and Michael North

Tetrahedron: Asymmetry 19 (2008) 822



Potassium Δ -bis[*N*-salicylidene-(*S*)-tryptophanato]cobaltate

Ee > 99%

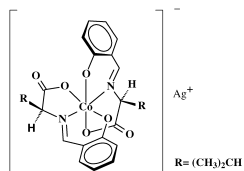
$[\alpha]_{\text{D}}^{25} = -4062.5$ (*c* 0.032, MeOH)

Source of chirality: synthesis from (*S*)-tryptophan

Absolute configuration: (Δ , *S*, *S*)

Yuri N. Belokon,* Viktor I. Maleev, Dimitri A. Kataev,
Ilya. L. Mal'fanov, Alexander G. Bulychev, Margarita A. Moskalenko,
Tat'yana F. Saveleva, Tat'yana V. Skrupskaya, Konstantin A. Lyssenko,
Ivan A. Godovikov and Michael North

Tetrahedron: Asymmetry 19 (2008) 822



Silver Δ -bis-[*N*-salicylidene-(*S*)-valinato]-cobaltate

Ee > 99%

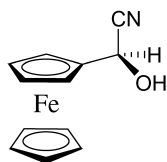
$[\alpha]_{\text{D}}^{25} = -2769.2$ (*c* 0.026, MeOH)

Source of chirality: synthesis from (*S*)-valine

Absolute configuration: (Δ , *S*, *S*)

Bernhard J. Ueberbacher,* Herfried Griengl and Hansjörg Weber

Tetrahedron: Asymmetry 19 (2008) 838



(*R*)-(Cyanohydroxymethyl)ferrocene

Ee = 99%

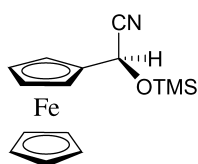
$[\alpha]_{\text{D}}^{22} = +150$ (*c* 0.30, CH₃CN)

Source of chirality: biocatalysis

Absolute configuration: (*R*)

Bernhard J. Ueberbacher,* Herfried Griengl and Hansjörg Weber

Tetrahedron: Asymmetry 19 (2008) 838



(*R*)-[Cyan(trimethylsilyloxy)methyl]ferrocene

Ee = 99%

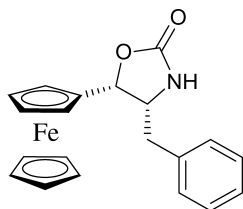
$[\alpha]_{\text{D}}^{22} = +153$ (*c* 0.25, CH₂Cl₂)

Source of chirality: biocatalysis

Absolute configuration: (*R*)

Bernhard J. Ueberbacher,* Herfried Griengl and Hansjörg Weber

Tetrahedron: Asymmetry 19 (2008) 838



$C_{20}H_{19}FeNO_2$

(4*R*,5*R*)-4-Benzyl-5-ferrocenyl-oxazolidin-2-one

Ee = 99%

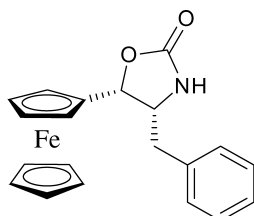
$[\alpha]_D^{22} = -114$ (c 1.0, CH_2Cl_2)

Source of chirality: biocatalysis

Absolute configuration: (4*R*,5*R*)

Bernhard J. Ueberbacher,* Herfried Griengl and Hansjörg Weber

Tetrahedron: Asymmetry 19 (2008) 838



$C_{20}H_{19}FeNO_2$

(4*S*,5*R*)-4-Benzyl-5-ferrocenyl-oxazolidin-2-one

Ee = 99%

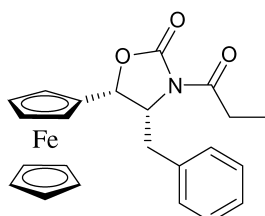
$[\alpha]_D^{22} = -37.8$ (c 1.0, CH_2Cl_2)

Source of chirality: biocatalysis

Absolute configuration: (4*S*,5*R*)

Bernhard J. Ueberbacher,* Herfried Griengl and Hansjörg Weber

Tetrahedron: Asymmetry 19 (2008) 838



$C_{23}H_{23}FeNO_3$

(4*R*,5*R*)-4-Benzyl-3-propionyl-5-ferrocenyl-oxazolidin-2-one

Ee = 99%

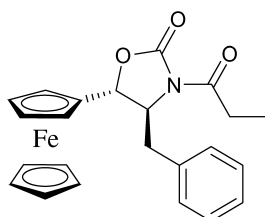
$[\alpha]_D^{22} = -116$ (c 1.0, CH_2Cl_2)

Source of chirality: biocatalysis

Absolute configuration: (4*R*,5*R*)

Bernhard J. Ueberbacher,* Herfried Griengl and Hansjörg Weber

Tetrahedron: Asymmetry 19 (2008) 838



$C_{23}H_{23}FeNO_3$

(4*S*,5*R*)-4-Benzyl-3-propionyl-5-ferrocenyl-oxazolidin-2-one

Ee = 99%

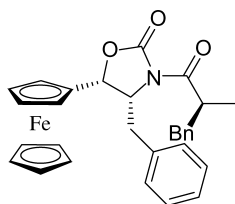
$[\alpha]_D^{22} = +42$ (c 1.0, CH_2Cl_2)

Source of chirality: biocatalysis

Absolute configuration: (4*S*,5*R*)

Bernhard J. Ueberbacher,* Herfried Griengl and Hansjörg Weber

Tetrahedron: Asymmetry 19 (2008) 838



$C_{30}H_{29}FeNO_3$

(4*R*,5*R*)-4-Benzyl-3-((2*S*)-2-methyl-3-phenylpropanoyl)-5-ferrocenyl-oxazolidin-2-one

Ee = 99%

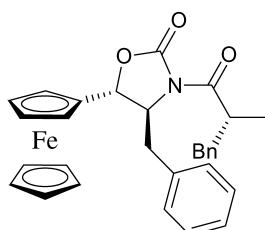
$[\alpha]_D^{22} = -62$ (c 1.0, CH_2Cl_2)

Source of chirality: diastereoselective alkylation

Absolute configuration: (4*R*,5*R*,2*S*)

Bernhard J. Ueberbacher,* Herfried Griengl and Hansjörg Weber

Tetrahedron: Asymmetry 19 (2008) 838



$C_{30}H_{29}FeNO_3$

(4*S*,5*R*)-4-Benzyl-3-((2*R*)-2-methyl-3-phenylpropanoyl)-5-ferrocenyl-oxazolidin-2-one

Ee = 99%

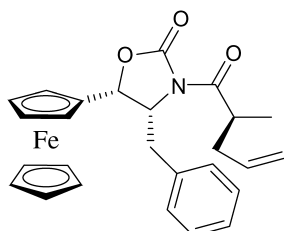
$[\alpha]_D^{22} = +25$ (c 1.0, CH_2Cl_2)

Source of chirality: diastereoselective alkylation

Absolute configuration: (4*S*,5*R*,2*R*)

Bernhard J. Ueberbacher,* Herfried Griengl and Hansjörg Weber

Tetrahedron: Asymmetry 19 (2008) 838



$C_{26}H_{27}FeNO_3$

(4*R*,5*R*)-4-Benzyl-3-((2*S*)-2-methyl-pent-4-enoyl)-5-ferrocenyl-oxazolidin-2-one

Ee = 99%

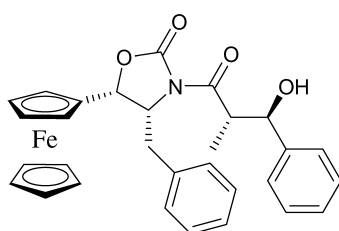
$[\alpha]_D^{22} = -104$ (c 1.0, CH_2Cl_2)

Source of chirality: diastereoselective alkylation

Absolute configuration: (4*R*,5*R*,2*S*)

Bernhard J. Ueberbacher,* Herfried Griengl and Hansjörg Weber

Tetrahedron: Asymmetry 19 (2008) 838



$C_{30}H_{29}FeNO_4$

(4*R*,5*R*)-4-Benzyl-5-ferrocenyl-3-((2*S*,3*R*)-3-hydroxy-2-methyl-3-phenylpropanoyl)oxazolidin-2-one

Ee = 95%

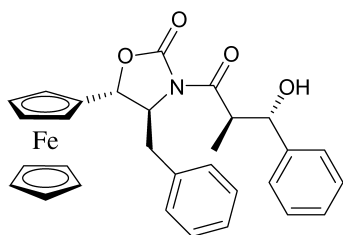
$[\alpha]_D^{22} = -58$ (c 1.0, CH_2Cl_2)

Source of chirality: diastereoselective aldol reaction

Absolute configuration: (4*R*,5*R*,2*S*,3*R*)

Bernhard J. Ueberbacher,* Herfried Griengl and Hansjörg Weber

Tetrahedron: Asymmetry 19 (2008) 838



$C_{30}H_{29}FeNO_4$

(4*S*,5*R*)-4-Benzyl-5-ferrocenyl-3-((2*R*,3*S*)-3-hydroxy-2-methyl-3-phenylpropanoyl)oxazolidin-2-one

Ee = 65%

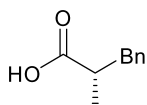
$[\alpha]_D^{22} = +53$ (c 1.0, CH_2Cl_2)

Source of chirality: diastereoselective aldol reaction

Absolute configuration: (4*S*,5*R*,2*R*,3*S*)

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Tetrahedron: Asymmetry 19 (2008) 838



$C_{10}H_{12}O_2$

(*S*)-2-Methyl-3-phenylpropionic acid

Ee = 95%

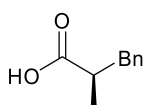
$[\alpha]_D^{22} = +26.3$ (c 1.0, $CHCl_3$)

Source of chirality: diastereoselective aldol reaction

Absolute configuration: (*S*)

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Tetrahedron: Asymmetry 19 (2008) 838



$C_{10}H_{12}O_2$

(*R*)-2-Methyl-3-phenylpropionic acid

Ee = 70%

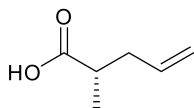
$[\alpha]_D^{22} = -18$ (c 1.0, $CHCl_3$)

Source of chirality: diastereoselective aldol reaction

Absolute configuration: (*R*)

Bernhard J. Ueberbacher,* Herfried Griengl and Hansjörg Weber

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$C_6H_{10}O_2$

(*S*)-2-Methyl-pent-4-enoic acid

Ee > 95%

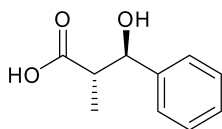
$[\alpha]_D^{22} = +10.1$ (c 1.0, $CHCl_3$)

Source of chirality: diastereoselective alkylation

Absolute configuration: (*S*)

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C₁₀H₁₂O₃

(2*S*,3*R*)-3-Hydroxy-2-methyl-3-phenylpropionic acid

Ee = 95%

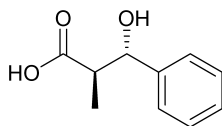
[α]_D²² = +38 (c 0.66, CHCl₃)

Source of chirality: diastereoselective adolreaction

Absolute configuration: (2*S*,3*R*)

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C₁₀H₁₂O₃

(2*R*,3*S*)-3-Hydroxy-2-methyl-3-phenylpropionic acid

Ee = 65%

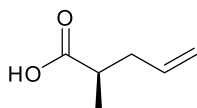
[α]_D²² = -26 (c 0.66, CHCl₃)

Source of chirality: diastereoselective adolreaction

Absolute configuration: (2*R*,3*S*)

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C₆H₁₀O₂

(*R*)-2-Methyl-pent-4-enoic acid

Ee = 75%

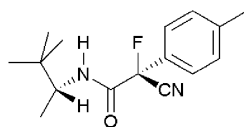
[α]_D²² = -8.1 (c 1.0, CHCl₃)

Source of chirality: diastereoselective alkylation

Absolute configuration: (*R*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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C₁₆H₂₁FN₂O

N-[(*R*)-2-(3,3-Dimethyl)butyl]-(*S*)-2-cyano-2-fluoro-*p*-tolylacetamide

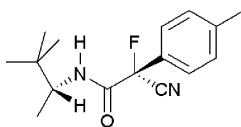
[α]_D²⁹ = -2.6 (c 1.5, MeOH)

Source of chirality: (*R*)-2-(3,3-dimethyl)butylamine and (*S*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*S*,2'*R*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai,
Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto,
Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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$C_{16}H_{21}FN_2O$

N-[(*R*)-2-(3,3-Dimethyl)butyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

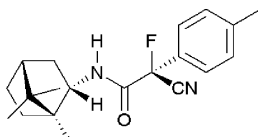
$$[\alpha]_D^{27} = -21.7 (c 2.0, \text{MeOH})$$

Source of chirality: (*R*)-2-(3,3-dimethyl)butylamine
and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,2'*R*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai,
Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto,
Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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$C_{20}H_{25}FN_2O$

N-[(1*R*,2*S*,4*R*)-Bornyl]-(*S*)-2-cyano-2-fluoro-*p*-tolylacetamide

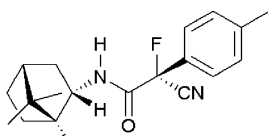
$$[\alpha]_D^{29} = -14.8 (c 1.1, \text{MeOH})$$

Source of chirality: (1*R*,2*S*,4*R*)-bornylamine and (*S*)-
2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*S*,1'*R*,2'*S*,4'*R*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai,
Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto,
Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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$C_{20}H_{25}FN_2O$

N-[(1*R*,2*S*,4*R*)-Bornyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

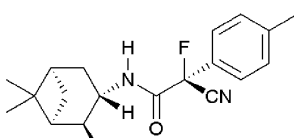
$$[\alpha]_D^{28} = -24.3 (c 1.1, \text{MeOH})$$

Source of chirality: (1*R*,2*S*,4*R*)-bornylamine and (*R*)-
2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*R*,2'*S*,4'*R*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai,
Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto,
Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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$C_{20}H_{25}FN_2O$

N-[(1*R*,2*S*,3*S*)-Isopinocampheyl]-(*S*)-2-cyano-2-fluoro-*p*-tolylacetamide

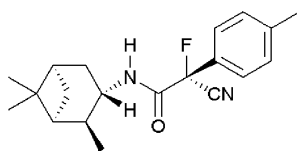
$$[\alpha]_D^{28} = +24.5 (c 1.1, \text{MeOH})$$

Source of chirality: (1*R*,2*S*,3*S*)-isopinocampheylamine
and (*S*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*S*,1'*R*,2'*S*,3'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai,
Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto,
Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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N-[(1*R*,2*S*,3*S*)-Isopinocampheyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

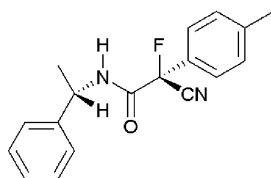
$$[\alpha]_D^{28} = +19.0 (c 1.0, \text{MeOH})$$

Source of chirality: (1*R*,2*S*,3*S*)-isopinocampheylamine
and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*R*,2'*S*,3'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai,
Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto,
Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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N-[(*S*)-1-Phenylethyl]-(*S*)-2-cyano-2-fluoro-*p*-tolylacetamide

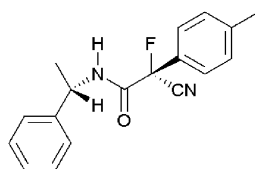
$$[\alpha]_D^{27} = -88.9 (c 1.2, \text{MeOH})$$

Source of chirality: (*S*)-1-phenylethylamine and (*S*)-2-
cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*S*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai,
Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto,
Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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N-[(*S*)-1-Phenylethyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

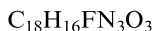
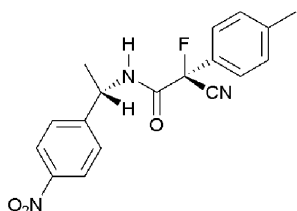
$$[\alpha]_D^{26} = -89.6 (c 1.6, \text{MeOH})$$

Source of chirality: (*S*)-1-phenylethylamine and (*R*)-2-
cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai,
Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto,
Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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N-[(*S*)-1-(*p*-Nitrophenyl)ethyl]-(*S*)-2-cyano-2-fluoro-*p*-tolylacetamide

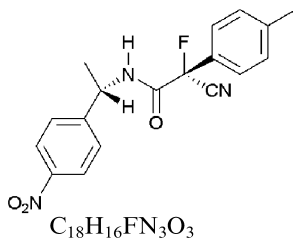
$$[\alpha]_D^{28} = -77.5 (c 1.1, \text{MeOH})$$

Source of chirality: (*S*)-1-(*p*-nitrophenyl)ethylamine
and (*S*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*S*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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N-[*(S)*-1-(*p*-Nitrophenyl)ethyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

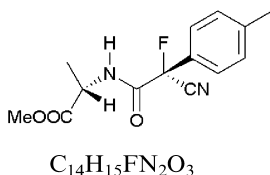
$$[\alpha]_D^{27} = -118.9 (c 1.4, \text{MeOH})$$

Source of chirality: (*S*)-1-(*p*-nitrophenyl)ethylamine and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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N-[*(S)*-1-Methoxycarbonyl-ethyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

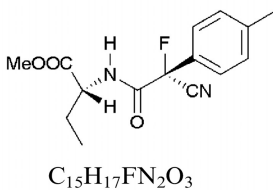
$$[\alpha]_D^{25} = +1.2 (c 1.0, \text{CHCl}_3)$$

Source of chirality: (*S*)-1-methoxycarbonyl-ethylamine and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

Tetrahedron: Asymmetry 19 (2008) 847



N-[*(R)*-1-Methoxycarbonyl-propyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

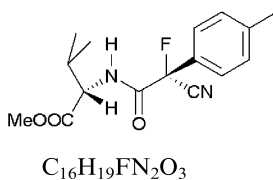
$$[\alpha]_D^{25} = +0.8 (c 1.0, \text{CHCl}_3)$$

Source of chirality: (*R*)-1-methoxycarbonyl-propylamine and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*R*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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N-[*(S)*-1-Methoxycarbonyl-2-methylpropyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

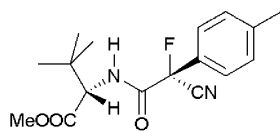
$$[\alpha]_D^{25} = +2.8 (c 1.0, \text{CHCl}_3)$$

Source of chirality: (*S*)-1-methoxycarbonyl-2-methyl-propylamine and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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$C_{17}H_{21}FN_2O_3$

N-[(*S*)-1-Methoxycarbonyl-2,2-dimethylpropyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

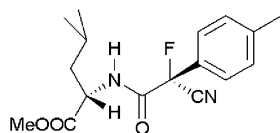
$[\alpha]_D^{25} = -15.4$ (*c* 1.0, $CHCl_3$)

Source of chirality: (*S*)-1-methoxycarbonyl-2,2-dimethylpropylamine and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

Tetrahedron: Asymmetry 19 (2008) 847



$C_{17}H_{21}FN_2O_3$

N-[(*S*)-1-Methoxycarbonyl-3-methylbutyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

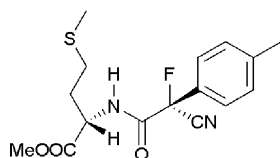
$[\alpha]_D^{25} = -1.1$ (*c* 1.0, $CHCl_3$)

Source of chirality: (*S*)-1-methoxycarbonyl-3-methylbutylamine and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

Tetrahedron: Asymmetry 19 (2008) 847



$C_{16}H_{19}FN_2O_3S$

N-[(*S*)-1-Methoxycarbonyl-4-thiapentyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

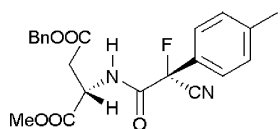
$[\alpha]_D^{25} = +21.7$ (*c* 1.0, $CHCl_3$)

Source of chirality: (*S*)-1-methoxycarbonyl-4-thiapentylamine and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

Tetrahedron: Asymmetry 19 (2008) 847



$C_{22}H_{21}FN_2O_5$

N-[(*S*)-2-Benzyloxycarbonyl-1-methoxycarbonyl-ethyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

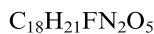
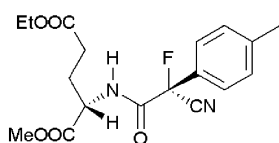
$[\alpha]_D^{25} = +48.1$ (*c* 1.0, $CHCl_3$)

Source of chirality: (*S*)-2-benzyloxycarbonyl-1-methoxycarbonyl-ethylamine and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

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N-[(*S*)-3-Ethoxycarbonyl-1-methoxycarbonylpropyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

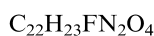
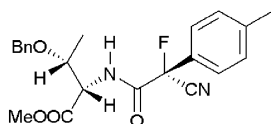
$$[\alpha]_D^{25} = +2.7 (c 1.0, CHCl_3)$$

Source of chirality: (*S*)-3-ethoxycarbonyl-1-methoxycarbonylpropylamine and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

Tetrahedron: Asymmetry 19 (2008) 847



N-[(1*S*,2*R*)-1-Methoxycarbonyl-2-benzyloxypropyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

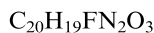
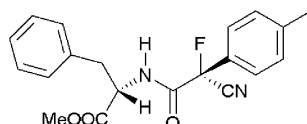
$$[\alpha]_D^{25} = +9.3 (c 1.0, CHCl_3)$$

Source of chirality: (1*S*,2*R*)-1-methoxycarbonyl-2-benzyloxypropylamine and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*S*,2'*R*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

Tetrahedron: Asymmetry 19 (2008) 847



N-[(*S*)-1-Methoxycarbonyl-2-phenylethyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

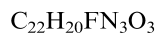
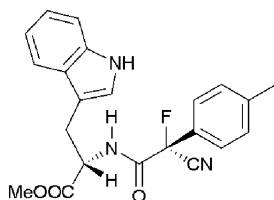
$$[\alpha]_D^{25} = -41.2 (c 1.0, CHCl_3)$$

Source of chirality: (*S*)-1-methoxycarbonyl-2-phenylethylamine and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai, Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto, Siegfried N. Lodwig, Clifford J. Unkefer and Yoshio Takeuchi*

Tetrahedron: Asymmetry 19 (2008) 847



N-[(*S*)-1-Methoxycarbonyl-2-(3-indolyl)ethyl]-(*R*)-2-cyano-2-fluoro-*p*-tolylacetamide

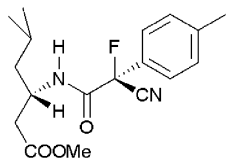
$$[\alpha]_D^{25} = +51.8 (c 1.0, CHCl_3)$$

Source of chirality: (*S*)-1-methoxycarbonyl-2-(3-indolyl)ethylamine and (*R*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*R*,1'*S*)

Tomoya Fujiwara, Masaru Segawa, Hidehito Fujisawa, Taiki Murai,
Tamiko Takahashi, Kenji Omata, Kuninobu Kabuto,
Siegfried N. Ludwig, Clifford J. Unkefer and Yoshio Takeuchi*

Tetrahedron: Asymmetry 19 (2008) 847



$C_{18}H_{23}FN_2O_3$

N-[(*S*)-1-Methoxycarbonyl-4-methylpentyl]-(*S*)-2-cyano-2-fluoro-*p*-tolylacetamide

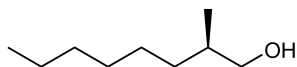
$[\alpha]_D^{27} = -42.2$ (*c* 0.91, $CHCl_3$)

Source of chirality: (*S*)-1-methoxycarbonyl-4-methylpentylamine and (*S*)-2-cyano-2-fluoro-*p*-tolylacetic acid

Absolute configuration: (2*S*,2'*S*)

Kenji Mori

Tetrahedron: Asymmetry 19 (2008) 857



$C_9H_{20}O$

(*R*)-2-Methyl-1-octanol

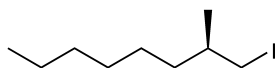
$[\alpha]_D^{24} = +12.1$ (*c* 2.43, EtOH)

Source of chirality: (*R*)-3-methyl-4-butanolide

Absolute configuration: (*R*)

Kenji Mori

Tetrahedron: Asymmetry 19 (2008) 857



$C_9H_{19}I$

(*R*)-2-Methyloctyl iodide

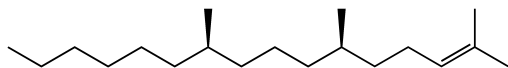
$[\alpha]_D^{21} = -2.3$ (*c* 4.75, hexane)

Source of chirality: (*R*)-3-methyl-4-butanolide

Absolute configuration: (*R*)

Kenji Mori

Tetrahedron: Asymmetry 19 (2008) 857



$C_{19}H_{38}$

(6*S*,10*R*)-2,6,10-Trimethyl-2-hexadecene

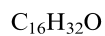
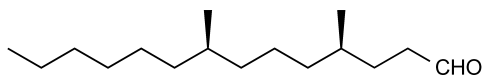
$[\alpha]_D^{16} = +1.85$ (*c* 3.23, hexane)

Source of chirality: (*R*)-3-methyl-4-butanolide and (*S*)-citronellal

Absolute configuration: (6*S*,10*R*)

Kenji Mori

Tetrahedron: Asymmetry 19 (2008) 857



(4*R*,8*R*)-4,8-Dimethyltetradecanal

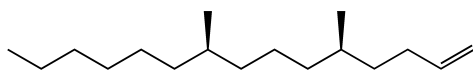
$$[\alpha]_D^{22} = +1.3 \text{ (} c \text{ 3.41, hexane)}$$

Source of chirality: (*R*)-3-methyl-4-butanolide and (*S*)-citronellal

Absolute configuration: (4*R*,8*R*)

Kenji Mori

Tetrahedron: Asymmetry 19 (2008) 857



(5*R*,9*R*)-5,9-Dimethyl-1-pentadecene

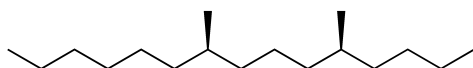
$$[\alpha]_D^{21} = +2.3 \text{ (} c \text{ 2.89, hexane)}$$

Source of chirality: (*R*)-3-methyl-4-butanolide and (*S*)-citronellal

Absolute configuration: (5*R*,9*R*)

Kenji Mori

Tetrahedron: Asymmetry 19 (2008) 857



(5*S*,9*R*)-5,9-Dimethylpentadecane

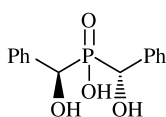
$$[\alpha]_D^{23} = +1.0 \text{ (} c \text{ 2.23, hexane)}$$

Source of chirality: (*R*)-3-methyl-4-butanolide and (*S*)-citronellal

Absolute configuration: (5*S*,9*R*)

Babak Kaboudin,* Hamideh Haghghat and Tsutomu Yokomatsu

Tetrahedron: Asymmetry 19 (2008) 862



(*S*)-Hydroxy(phenyl)methyl[(*S*)-hydroxy(phenyl)methyl]phosphinic acid

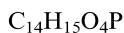
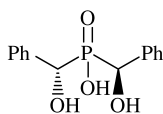
$$[\alpha]_D^{20} = -62.5 \text{ (} c \text{ 1.80, CH}_3\text{OH)}$$

Source of chirality: (*R*)-1-phenylethylamine

Absolute configuration: (*S*,*S*)

Babak Kaboudin,* Hamideh Haghghat and Tsutomu Yokomatsu

Tetrahedron: Asymmetry 19 (2008) 862



(*R*)-Hydroxy(phenyl)methyl[(*R*)-hydroxy(phenyl)methyl]phosphinic acid

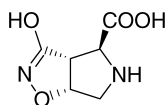
$$[\alpha]_D^{20} = +62.5 \text{ (} c \text{ 1.80, CH}_3\text{OH)}$$

Source of chirality: (*S*)-1-phenylethylamine

Absolute configuration: (*R,R*)

Andrea Pinto, Paola Conti,* Marco De Amici, Lucia Tamborini, Giovanni Grazioso, Simona Colleoni, Tiziana Mennini, Marco Gobbi and Carlo De Micheli

Tetrahedron: Asymmetry 19 (2008) 867



(-)-(3*aR*,4*S*,6*aR*)-3-Hydroxy-3*a*,4,6,6*a*-tetrahydro-pyrrolo[3,4-*d*]isoxazole-4-carboxylic acid

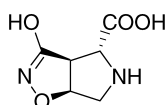
Ee >99.5%

$$[\alpha]_D^{20} = -9.0 \text{ (} c \text{ 0.14, H}_2\text{O)}$$

Source of chirality: (-)-(*S*)-*N*-Boc-3,4-didehydroproline methyl ester

Andrea Pinto, Paola Conti,* Marco De Amici, Lucia Tamborini, Giovanni Grazioso, Simona Colleoni, Tiziana Mennini, Marco Gobbi and Carlo De Micheli

Tetrahedron: Asymmetry 19 (2008) 867



(+)-(3*aS*,4*R*,6*aS*)-3-Hydroxy-3*a*,4,6,6*a*-tetrahydro-pyrrolo[3,4-*d*]isoxazole-4-carboxylic acid

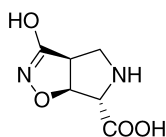
Ee >99.5%

$$[\alpha]_D^{20} = +8.0 \text{ (} c \text{ 0.1, H}_2\text{O)}$$

Source of chirality: (+)-(*R*)-*N*-Boc-3,4-didehydroproline methyl ester

Andrea Pinto, Paola Conti,* Marco De Amici, Lucia Tamborini, Giovanni Grazioso, Simona Colleoni, Tiziana Mennini, Marco Gobbi and Carlo De Micheli

Tetrahedron: Asymmetry 19 (2008) 867



(+)-(3*aS*,6*S*,6*aS*)-3-Hydroxy-3*a*,4,6,6*a*-tetrahydro-pyrrolo[3,4-*d*]isoxazole-6-carboxylic acid

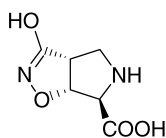
Ee >99.5%

$$[\alpha]_D^{20} = +66.6 \text{ (} c \text{ 0.105, H}_2\text{O)}$$

Source of chirality: (-)-(*S*)-*N*-Boc-3,4-didehydroproline methyl ester

Andrea Pinto, Paola Conti,* Marco De Amici, Lucia Tamborini,
Giovanni Grazioso, Simona Colleoni, Tiziana Mennini, Marco Gobbi
and Carlo De Micheli

Tetrahedron: Asymmetry 19 (2008) 867



$C_6H_8N_2O_4$

(-)-(3a*R*,6*R*,6a*R*)-3-Hydroxy-3a,4,6,6a-tetrahydro-pyrrolo[3,4-*d*]isoxazole-6-carboxylic acid

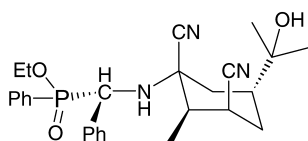
Ee >99.5%

$[\alpha]_D^{20} = -73.0$ (*c* 0.112, H₂O)

Source of chirality: (+)-(*R*)-*N*-Boc-3,4-didehydroproline methyl ester

Jean-Christophe Rossi,* Marc Marull, Nicolas Larcher,
Jacques Taillades, Robert Pascal, Arie van der Lee and Phillipe Gerbier

Tetrahedron: Asymmetry 19 (2008) 876



$C_{27}H_{34}N_3O_3P$

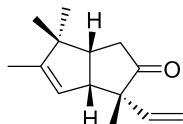
Ethyl[[(1*R*,2*R*,3*R*,5*R*)-1,3-dicyano-5-(1-hydroxy-1-methylethyl)-2-methylcyclohexylamino]-phenyl-(*S*)-methyl]-(*R*)-phenylphosphinate

$[\alpha]_D^{20} = -30.6$ (*c* 0.01, CH₃OH)

Absolute configuration: (1*R*,2*R*,3*R*,5*R*)

Adusumilli Srikrishna* and Baire Beeraiah

Tetrahedron: Asymmetry 19 (2008) 884



$C_{14}H_{20}O$

(1*R*,4*R*,5*R*)-4,7,8,8-Tetramethyl-4-vinylbicyclo[3.3.0]oct-6-en-3-one

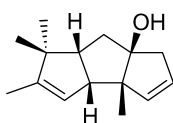
$[\alpha]_D^{27} = -30.0$ (*c* 0.6, CHCl₃)

Source of chirality: campholenaldehyde

Absolute configuration: (1*R*,4*R*,5*R*)

Adusumilli Srikrishna* and Baire Beeraiah

Tetrahedron: Asymmetry 19 (2008) 884



$C_{15}H_{22}O$

(1*R*,2*R*,6*R*,8*R*)-2,9,9,10-Tetramethyltricyclo[6.3.0.0^{2,6}]undeca-3,10-dien-6-ol

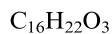
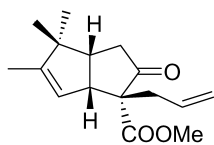
$[\alpha]_D^{23} = -24.0$ (*c* 0.5, CHCl₃)

Source of chirality: campholenaldehyde

Absolute configuration: (1*R*,2*R*,6*R*,8*R*)

Adusumilli Srikrishna* and Baire Beeraiah

Tetrahedron: Asymmetry 19 (2008) 884



Methyl (1*R*,2*R*,5*R*)-2-(prop-2-enyl)-6,6,7-trimethylbicyclo[3.3.0]oct-7-ene-2-carboxylate

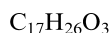
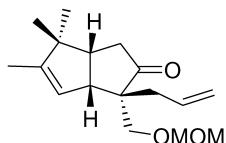
$$[\alpha]_D^{24} = +186.1 (c 6.1, CHCl_3)$$

Source of chirality: campholenaldehyde

Absolute configuration: (1*R*,2*R*,5*R*)

Adusumilli Srikrishna* and Baire Beeraiah

Tetrahedron: Asymmetry 19 (2008) 884



(1*R*,4*S*,5*R*)-6,6,7-Trimethyl-2-(methoxymethoxymethyl)-2-(prop-2-enyl)bicyclo[3.3.0]oct-7-en-3-one

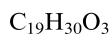
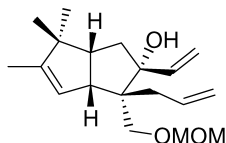
$$[\alpha]_D^{22} = +133.0 (c 3.6, CHCl_3)$$

Source of chirality: campholenaldehyde

Absolute configuration: (1*R*,4*S*,5*R*)

Adusumilli Srikrishna* and Baire Beeraiah

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(1*R*,3*S*,4*S*,5*R*)-7,8,8-Trimethyl-4-(methoxymethoxymethyl)-4-(prop-2-enyl)-3-vinylbicyclo[3.3.0]oct-6-en-3-ol

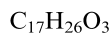
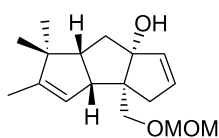
$$[\alpha]_D^{23} = +87.6 (c 1, CHCl_3)$$

Source of chirality: campholenaldehyde

Absolute configuration: (1*R*,3*S*,4*S*,5*R*)

Adusumilli Srikrishna* and Baire Beeraiah

Tetrahedron: Asymmetry 19 (2008) 884

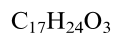
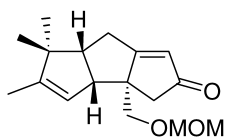


(1*R*,2*S*,6*R*,8*R*)-9,9,10-Trimethyl-2-(methoxymethoxymethyl)tricyclo[6.3.0.0^{2,6}]undeca-4,10-dien-6-ol

$$[\alpha]_D^{23} = +108.9 (c 1.4, CHCl_3)$$

Source of chirality: campholenaldehyde

Absolute configuration: (1*R*,2*S*,6*R*,8*R*)



(1*R*,2*R*,8*R*)-9,9,10-Trimethyl-2-(methoxymethoxymethyl)tricyclo[6.3.0.0^{2,6}]undeca-5,10-dien-4-one

$[\alpha]_D^{23} = +52.6$ (*c* 0.7, $CHCl_3$)

Source of chirality: campholenaldehyde

Absolute configuration: (1*R*,2*R*,8*R*)