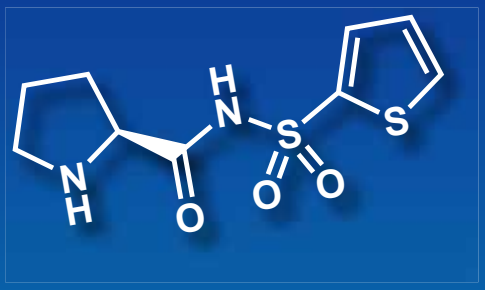
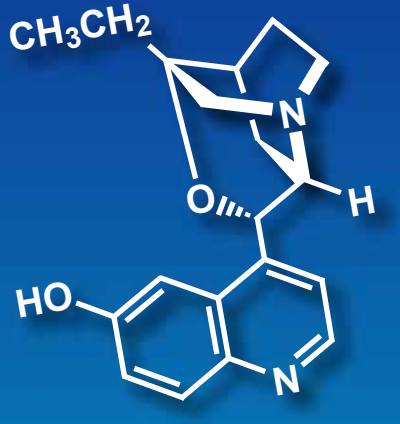
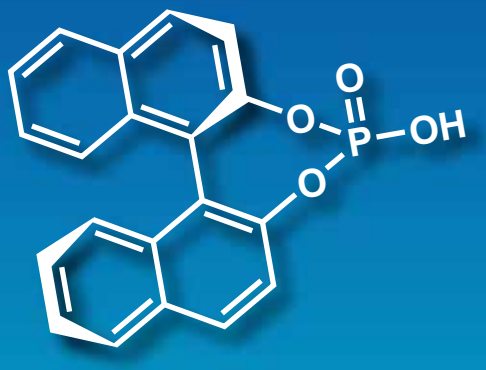
CHEMISTRY

不对称有机催化剂

Asymmetric Organocatalysts

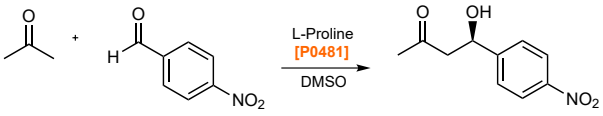




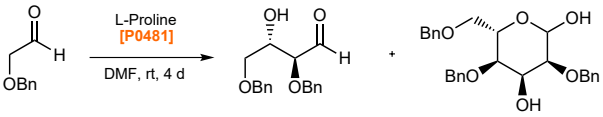


不对称有机催化剂

不对称有机催化是一种强大的合成工具，它的出现弥补了金属催化反应的不足。1970年代，Eder等以及Hajos等分别报道了L-脯氨酸[P0481]催化的分子内不对称Aldol反应[1),2)]，从而开创了这个领域的先河。不过该反应在当时被认为是个特例。之后在2000年，List等也报道了L-脯氨酸催化的分子内不对称Aldol反应[3)]。同一年，MacMillan等记录了首个高对映选择性胺催化Diels-Alder反应[4)]。这些报道引起了广泛的关注，对不对称催化剂领域的研究自此大量展开[5)]。

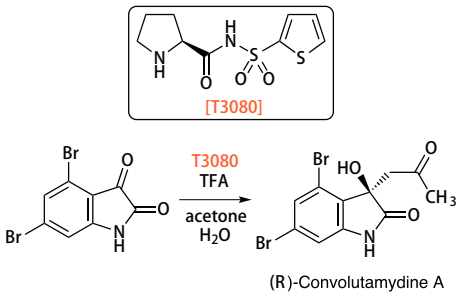


随后，MacMillan将L-脯氨酸催化反应用于糖类的合成，从而证明了这类反应的重要性[6)]。Córdova等则报道了在脯氨酸的催化作用下，受保护的羟基乙醛一步转化为己糖的不对称反应[7)]。

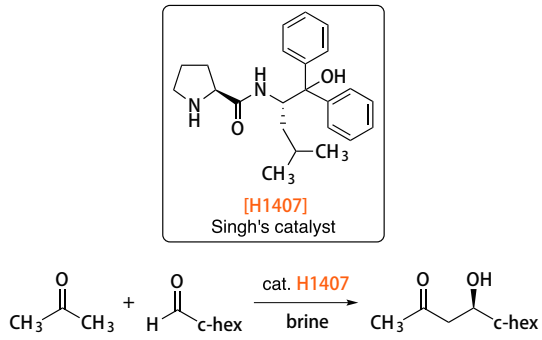


与传统的过渡金属络合物催化剂相比，不对称有机催化剂的优点包括操作简便，易得并且低毒，这对药物生产有直接的好处，对绿色化学也有贡献。

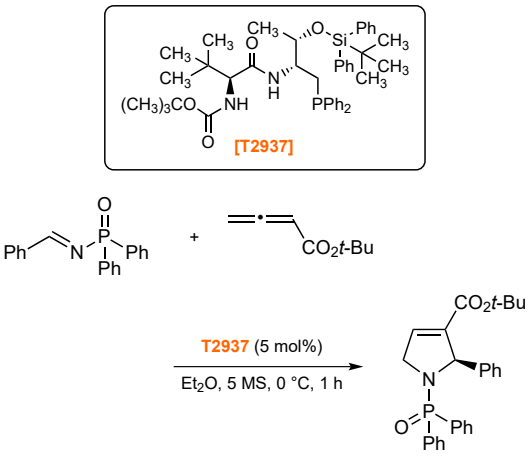
在不对称有机催化最初的巨大进展中，脯氨酸及其类似物发挥了主要的作用。通常，酮类作为受体的有机催化Aldol反应中，催化剂用量高，而该领域近期的发展则降低了催化剂的用量。Nakamura等报道了(*R*)-Convolutamydine的对映选择性合成，使用了5mol%的新型*N*-杂环芳基-磺酰基脯氨酰胺[T3080][8)]。该反应中，催化剂的用量可以降低到0.5 mol%，即可保留对映选择性，尽管反应需要更长时间才能完成。



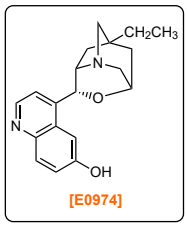
Singh等基于脯氨酸开发出一类新的有机催化剂，并将其用于不对称直接Aldol反应，得到了优异的对映选择性(>99%ee)。该反应对于多种酮和醛都适用，且催化剂[H1407]用量仅为0.5 mol% [9)]。

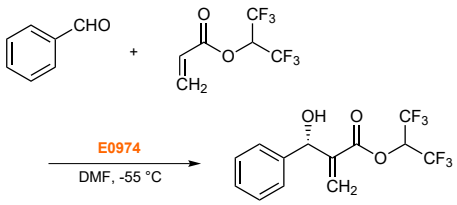


由于这类有机催化剂的简单易得性和多样性等诸多优点，利用其它氨基酸作为有机催化剂的不对称反应也得到了广泛的研究。近来，Lu的团队尝试基于氨基酸结构获取大量的新型多功能有机催化剂[10)]。二肽衍生的膦化合物[T2937]作为一种新的催化剂，已被证明可以促进丙二烯与丙烯酸酯或丙烯酰胺之间的对映选择性[3+2]环加成反应。

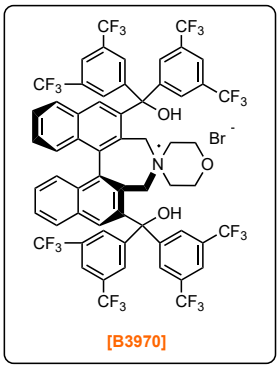


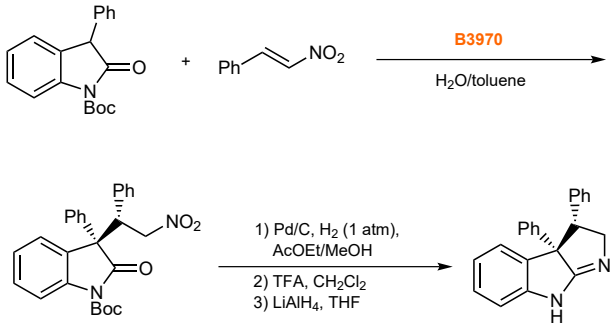
金鸡纳碱及其衍生物广泛用于金属催化的手性配体或作为有机催化剂，其与OsO_4形成金鸡纳碱复合物可用于Sharpless不对称双羟基化反应[11]。其奎宁环上的叔胺可以成为Brønsted碱催化，Lewis碱催化，以及亲核催化的活性中心。奎宁环上的氮经烷基化后，得到的铵盐则可以用作相转移催化剂，即另一类有机催化。Hatakeyama，Ishihara等开发出了α-异铜色树碱(a-ICPN)[E0974]，β-6'-羟基异辛可宁[I0728]的一种伪对映体，并将其应用于Morita-Baylis-Hillman (MBH)反应[12]。



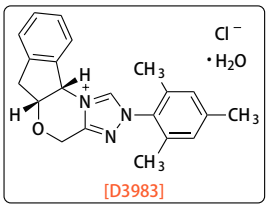


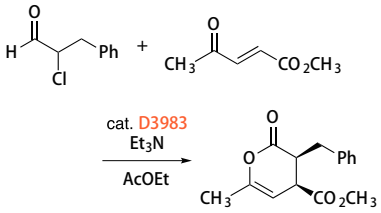
20世纪80年代，*N*-苄基辛可宁卤化物作为手性相转移催化剂被用于氨基酸的不对称合成以来[13]，大量由金鸡纳碱衍生的手性相转移催化剂被开发了出来[14]。90年代末期，出现了一种设计手性相转移催化剂的全新角度即基于C_2-对称手性联萘骨架[15]。对于简化催化剂持续不断的努力，可以在更加温和条件下获得优秀对映选择性的新型催化剂也被开发出来。Maruoka等报道了一种3-氧化羟吲哚对Michael受体的对映选择性共轭加成，该反应使用了一种新开发出的吗啉衍生物手性相转移催化剂[B3970]，不需要加碱，在中性条件下、富含水的溶剂中即可进行[16]。





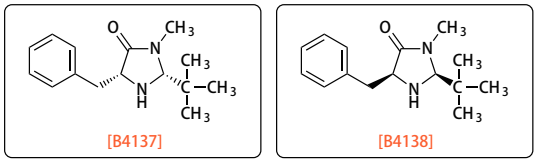
亲核卡宾是一类新兴的不对称有机催化剂。自从首个不对称分子内Stetter反应被Enders等报道后，出现了很多通过*N*-杂环卡宾(NHC)催化剂介导醛的极性转换实现不对称C-C键形成的报道[17]。Bode等利用一种原位生成的NHC催化剂[D3983]，高度对映选择性催化Diels–Alder反应制备出二氢吡啶酮[18]。

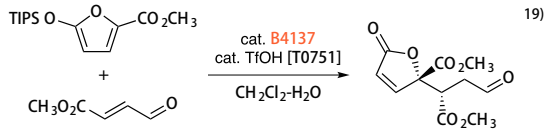


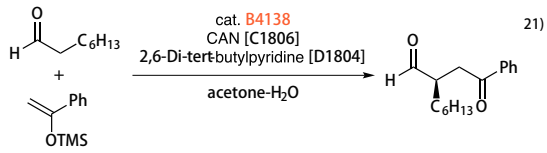


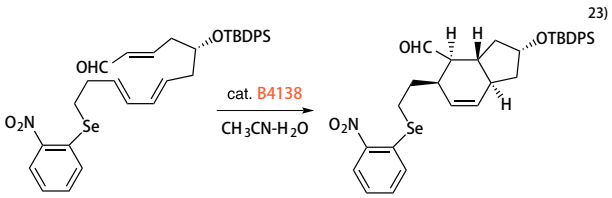
咪唑烷酮衍生物[B4137] [B4138]是由MacMillan等开发的不对称有机催化剂，使用B4137和B4138的多种类型的不对称反应已有报道，例如Mukaiyama-Michael加成[19]，α,β-不饱和醛的环氧化[20]，醛的1,3-加成[21]和Diels-Alder反应[22]。在所有情况下均能以高收率和高选择性得到目标产物。该反应常用于天然产物的全合成，也可用于构建复杂的稠环结构（如在

多杀菌素中发现的）[23]。因此，B4137和B4138是不对称反应的有力工具，其在新型不对称反应中的应用值得期待。

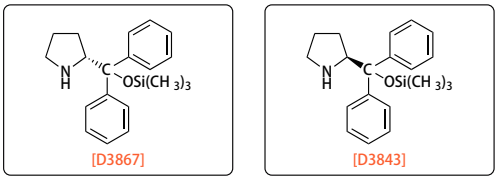


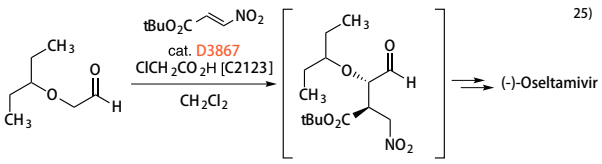


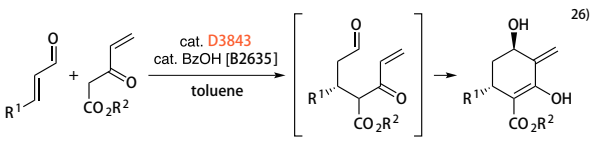




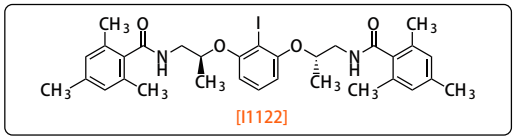
D3867和D3843这两种脯氨醇衍生物被称为Hayashi-Jørgensen催化剂，可用于多种类型的不对称反应。例如，Hayashi等报道了硝基烯烃和醛的不对称Michael加成，得到了具有高对映选择性和非对映选择性的*syn*加成物[25]。此外，以该反应作为关键前期步骤，缩短了抗流感药磷酸奥司他韦的合成流程[25]。此外，Jørgensen的团队还报道了串联型Michael/分子内Morita-Baylis-Hillman反应，得到了环己酮衍生物[26]。

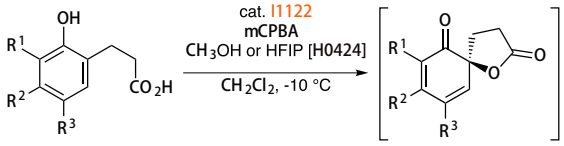


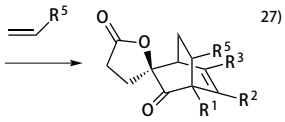


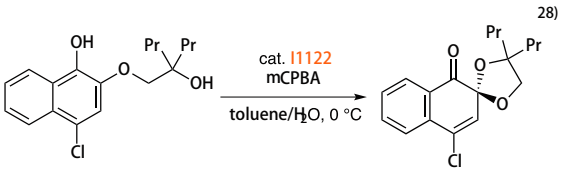


Ishihara的团队开发了一种用于对映选择性螺内酯化的新型碘代芳烃催化剂[I1122] [27]。得到的螺内酯具有二烯结构，因此能与烯烃通过Diels-Alder反应一锅法合成具有光学活性的稠环化合物。此外，I1122还能用于构建不对称环缩醛[28]。









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产品列表

以下产品基于结构列出

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Prolines, Proline Analogs

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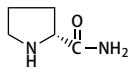
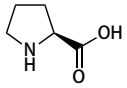

D-Prolinamide
CAS RN: 62937-45-5

P0481 25g 250g

L-Proline
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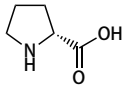
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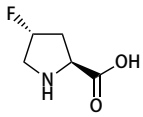
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CAS RN: 2507-61-1

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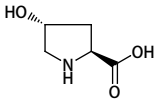
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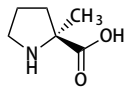
M2077 1g 5g

α-Methyl-L-proline
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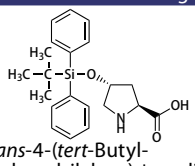
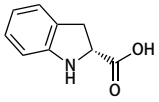
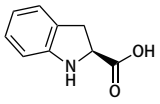

trans-4-(*tert*-Butyl-diphenylsilyloxy)-L-proline
CAS RN: 259212-61-8

I0589 1g

(*R*)-(+)-Indoline-2-carboxylic Acid
CAS RN: 98167-06-7

I0395 1g 5g

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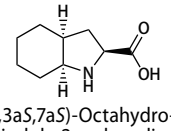
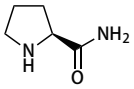
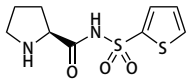
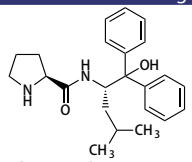
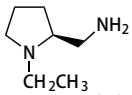
CAS RN: 79815-20-6

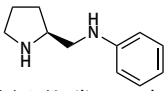
O0370 1g 5g

(2*S*,3a*S*,7a*S*)-Octahydro-1*H*-indole-2-carboxylic Acid
CAS RN: 80875-98-5

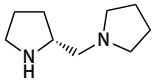
P1382 1g 5g 25g

L-Prolinamide
CAS RN: 7531-52-4

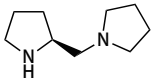
T3080 100mg

N-(2-Thiophenesulfonyl)-L-prolinamide
CAS RN: 1089663-51-3

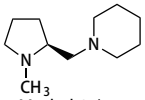
H1407 200mg 1g

Singh's Catalyst
CAS RN: 910110-45-1

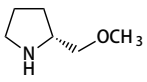
A1301 1g 5g

(*S*)-(-)-2-Aminomethyl-1-ethyl-pyrrolidine
CAS RN: 22795-99-9

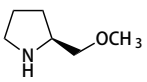
A0945 1g 5g

(*S*)-(+)-2-(Anilinomethyl)-pyrrolidine
CAS RN: 64030-44-0

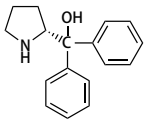
P1925 1g

(*R*)-(-)-1-(2-Pyrrolidinyl-methyl)pyrrolidine
CAS RN: 60419-23-0

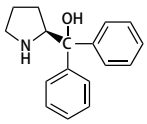
P1241 1g 5g

(*S*)-(+)-1-(2-Pyrrolidinyl-methyl)pyrrolidine
CAS RN: 51207-66-0

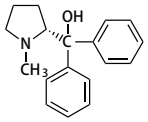
M1183 1g 5g

(*S*)-(-)-1-Methyl-2-(1-piperidinomethyl)pyrrolidine
CAS RN: 84466-85-3

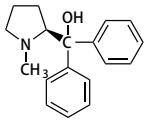
M1169 1g 5g

(*R*)-2-(Methoxymethyl)-pyrrolidine
CAS RN: 84025-81-0

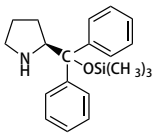
M1161 1g 5g

(*S*)-2-(Methoxymethyl)-pyrrolidine
CAS RN: 63126-47-6

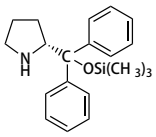
D2365 1g 5g

(*R*)-(+)-α,α-Diphenyl-2-pyrrolidinemethanol
CAS RN: 22348-32-9

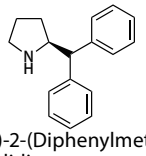
D2735 1g 5g

(*S*)-(-)-α,α-Diphenyl-2-pyrrolidinemethanol
CAS RN: 112068-01-6

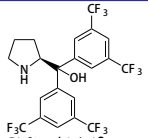
H0784 100mg 1g 5g

(*R*)-(-)-2-[Hydroxy(diphenyl)-methyl]-1-methylpyrrolidine
CAS RN: 144119-12-0

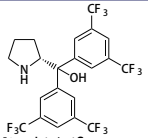
H0768 100mg 1g 5g

(*S*)-(+)-2-[Hydroxy(diphenyl)-methyl]-1-methylpyrrolidine
CAS RN: 110529-22-1

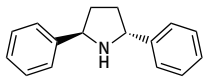
D3843 1g 5g

(*S*)-Hayashi-Jorgensen Catalyst
CAS RN: 848821-58-9

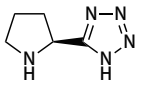
D3867 1g 5g

(*R*)-Hayashi-Jorgensen Catalyst
CAS RN: 943757-71-9

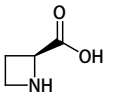
D3804 1g

(*S*)-(-)-2-(Diphenylmethyl)-pyrrolidine
CAS RN: 119237-64-8

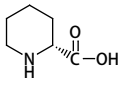
B5701 1g

(*S*)-α,α-Bis[3,5-bis(trifluoromethyl)-phenyl]-2-pyrrolidinemethanol
CAS RN: 848821-76-1

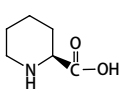
B5882 1g 5g

(*R*)-Bis[3,5-bis(trifluoromethyl)-phenyl](pyrrolidin-2-yl)methanol
CAS RN: 948595-00-4

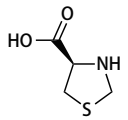
D3185 100mg

(2*R*,5*R*)-2,5-Diphenylpyrrolidine
CAS RN: 155155-73-0

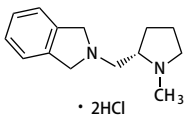
P1784 100mg 500mg

(*S*)-5-(Pyrrolidin-2-yl)-1*H*-tetrazole
CAS RN: 33878-70-5

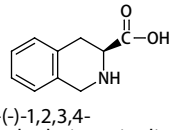
A1043 100mg 1g

L-Azetidine-2-carboxylic Acid
CAS RN: 2133-34-8

P1830 5g 25g

D-Pipecolic Acid
CAS RN: 1723-00-8

P1404 1g 5g

L-Pipecolic Acid
CAS RN: 3105-95-1

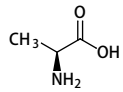
T0219 25g 500g

L-Thioproline
CAS RN: 34592-47-7

M1995 1g 5g

(*S*)-2-[(1-Methyl-2-pyrrolidinyl)methyl] isoindoline Dihydrochloride

T1515 5g 25g

(*S*)-(-)-1,2,3,4-Tetrahydroisoquinoline-3-carboxylic Acid
CAS RN: 74163-81-8

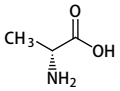
氨基酸
Amino Acids

A0179 25g 250g



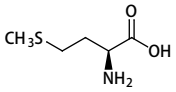
L-Alanine
CAS RN: 56-41-7

A0177 5g 25g



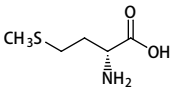
D-Alanine
CAS RN: 338-69-2

M0099 25g 100g 500g



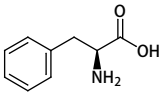
L-Methionine
CAS RN: 63-68-3

M0102 1g 5g 25g



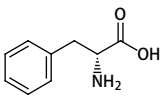
D-Methionine
CAS RN: 348-67-4

P0134 25g 250g



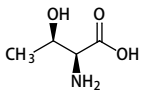
L-Phenylalanine
CAS RN: 63-91-2

P0135 5g 25g



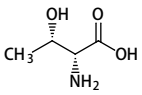
D-Phenylalanine
CAS RN: 673-06-3

T0230 25g 100g 500g



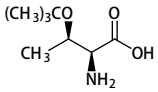
L-(-)-Threonine
CAS RN: 72-19-5

T0228 25g 100g 500g



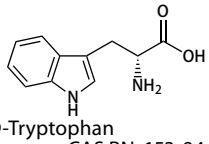
D-(+)-Threonine
CAS RN: 632-20-2

B3398 1g 5g



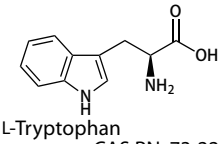
O-*tert*-Butyl-L-threonine
CAS RN: 4378-13-6

T0539 5g 25g



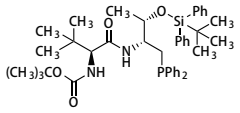
D-Tryptophan
CAS RN: 153-94-6

T0541 25g 100g



L-Tryptophan
CAS RN: 73-22-3

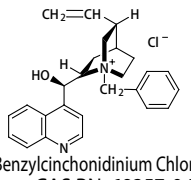
T2937 100mg



O-TBDPS-D-Thr-*N*-Boc-
L-*tert*-Leu-Diphenylphosphine
CAS RN: 1264520-63-9

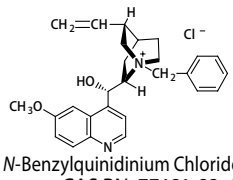
金鸡纳碱
Cinchona Alkaloids

B1683 10g



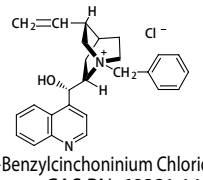
N-Benzylcinchonidinium Chloride
CAS RN: 69257-04-1

B1684 5g



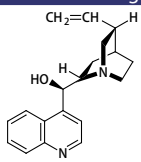
N-Benzylquinidinium Chloride
CAS RN: 77481-82-4

B1689 5g



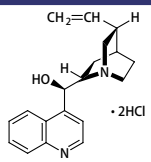
N-Benzylcinchoninium Chloride
CAS RN: 69221-14-3

C0347 25g 100g



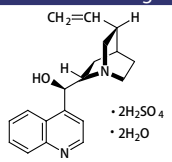
Cinchonidine
CAS RN: 485-71-2

C0348 25g



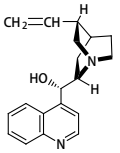
Cinchonidine Dihydrochloride
CAS RN: 24302-67-8

C0349 25g 500g



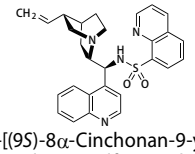
Cinchonidine Sulfate Dihydrate
CAS RN: 524-61-8

C0350 25g 200g



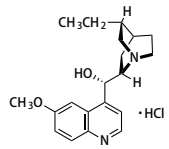
Cinchonine
CAS RN: 118-10-5

C2728 100mg



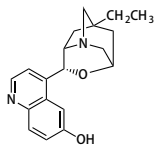
N-[(9*S*)-8α-Cinchonan-9-yl]-
quinoline-8-sulfonamide
CAS RN: 1440939-88-7

H0752 25g 250g



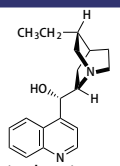
Hydroquinidine Hydrochloride
CAS RN: 1476-98-8

E0974 100mg



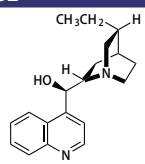
α-Isocupreine
CAS RN: 1476067-44-3

H1701 1g 5g



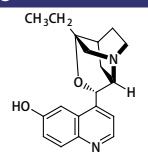
Hydrocinchonine
CAS RN: 485-65-4

H1702 1g 5g



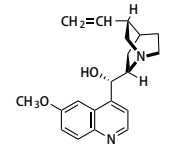
Hydrocinchonidine
CAS RN: 485-64-3

I0728 1g



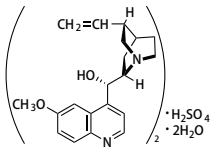
β-Isocupreidine
CAS RN: 253430-48-7

Q0006 5g 25g



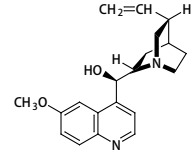
Quinidine
CAS RN: 56-54-2

Q0010 5g 25g



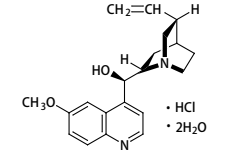
Quinidine Sulfate Dihydrate
CAS RN: 6591-63-5

Q0028 25g 100g



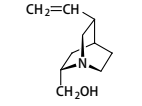
Quinine
CAS RN: 130-95-0

Q0030 25g



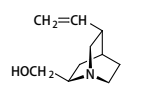
Quinine Hydrochloride Dihydrate
CAS RN: 6119-47-7

Q0074 100mg 1g



Quincorine
CAS RN: 207129-35-9

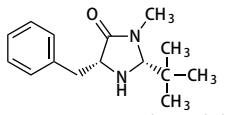
Q0076 100mg 1g



Quincoridine
CAS RN: 207129-36-0

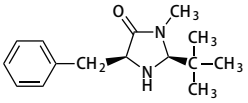
手性咪唑烷酮
Chiral Imidazolidinones

B4137 200mg 1g



(2*R*,5*R*)-(+)-2-*tert*-Butyl-3-methyl-5-benzyl-4-imidazolidinone
CAS RN: 390766-89-9

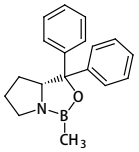
B4138 200mg 1g



(2*S*,5*S*)-(-)-2-*tert*-Butyl-3-methyl-5-benzyl-4-imidazolidinone
CAS RN: 346440-54-8

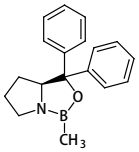
手性恶唑硼烷
Chiral Oxazaborolidines

D2130 1g 5g



(*R*)-Me-CBS Catalyst
CAS RN: 112022-83-0

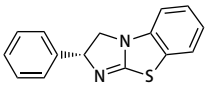
D2131 1g 5g



(*S*)-Me-CBS Catalyst
CAS RN: 112022-81-8

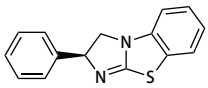
手性异硫脲
Chiral Isothioureas

B3296 200mg 1g 5g



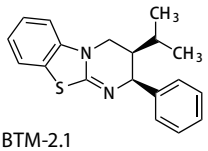
(+)-BTM
CAS RN: 885051-07-0

B3549 1g



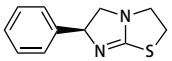
(-)-BTM
CAS RN: 950194-37-3

D4808 50mg 200mg



HBTM-2.1
CAS RN: 1203507-02-1

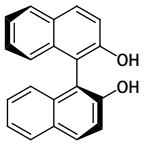
T1215 10g 25g



・HCl
(-)-Tetramisole Hydrochloride
CAS RN: 16595-80-5

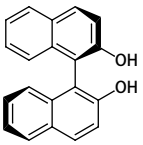
手性二醇
Chiral Diols

B1100 1g 5g 25g



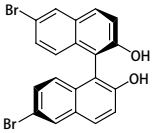
(*S*)-(-)-1,1'-Bi-2-naphthol
CAS RN: 18531-99-2

B1142 1g 5g 25g



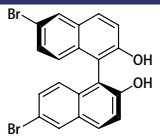
(*R*)-(+)-1,1'-Bi-2-naphthol
CAS RN: 18531-94-7

D2729 1g



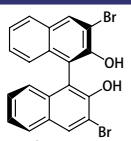
(*R*)-(-)-6,6'-Dibromo-1,1'-bi-2-naphthol
CAS RN: 65283-60-5

D2730 1g 5g



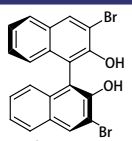
(*S*)-(+)-6,6'-Dibromo-1,1'-bi-2-naphthol
CAS RN: 80655-81-8

D2810 1g 5g



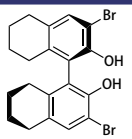
(*R*)-3,3'-Dibromo-1,1'-bi-2-naphthol
CAS RN: 111795-43-8

D2811 1g 5g



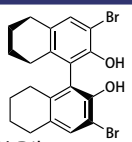
(*S*)-3,3'-Dibromo-1,1'-bi-2-naphthol
CAS RN: 119707-74-3

D4418 1g 5g



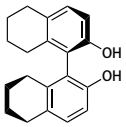
(*R*)-(+)-3,3'-Dibromo-5,5',6,6',7,7',8,8'-octahydro-1,1'-bi-2-naphthol
CAS RN: 65355-08-0

D5107 1g



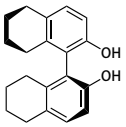
(*S*)-3,3'-Dibromo-1,1'-bi-2-naphthol
CAS RN: 765278-73-7

O0282 1g 5g 25g



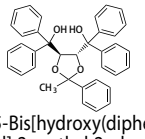
(*R*)-(+)-5,5',6,6',7,7',8,8'-Octahydro-1,1'-bi-2-naphthol
CAS RN: 65355-14-8

O0283 1g 5g



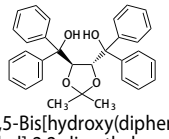
(*S*)-(-)-5,5',6,6',7,7',8,8'-Octahydro-1,1'-bi-2-naphthol
CAS RN: 65355-00-2

B1615 1g



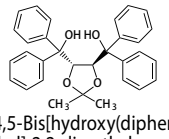
(+)-4,5-Bis[hydroxy(diphenyl)-methyl]-2-methyl-2-phenyl-1,3-dioxolane
CAS RN: 109306-21-0

B1614 1g 5g



(-)-4,5-Bis[hydroxy(diphenyl)-methyl]-2,2-dimethyl-1,3-dioxolane
CAS RN: 93379-48-7

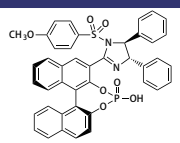
B2048 1g 5g



(+)-4,5-Bis[hydroxy(diphenyl)-methyl]-2,2-dimethyl-1,3-dioxolane
CAS RN: 93379-49-8

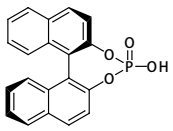
手性磷酸
Chiral Phosphoric Acids

M2765 50mg



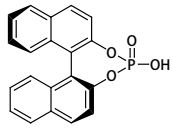
(*S*)-3-[1-(4-Methoxybenzenesulfonyl)-(4*S*,5*S*)-4,5-diphenyl-4,5-dihydro-1*H*-imidazol-2-yl]-1,1'-binaphthalene-2,2'-diyl Hydrogen Phosphate
CAS RN: 1621994-95-3

B1143 100mg 1g 5g



(*R*)-(-)-1,1'-Binaphthyl-2,2'-diyl Hydrogen Phosphate
CAS RN: 39648-67-4

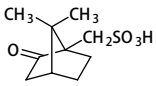
B1144 100mg 1g



(*S*)-(+)-1,1'-Binaphthyl-2,2'-diyl Hydrogen Phosphate
CAS RN: 35193-64-7

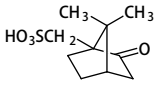
手性磺酸
Chiral Sulfonic Acids

C0015 25g 100g 500g



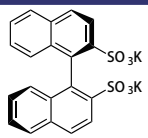
(+)-10-Camphorsulfonic Acid
CAS RN: 3144-16-9

C0972 25g 100g 500g



(-)-10-Camphorsulfonic Acid
CAS RN: 35963-20-3

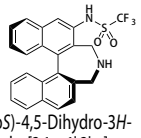
D4445 100mg



Dipotassium (*R*)-1,1'-Binaphthyl-2,2'-disulfonate
CAS RN: 1092934-19-4

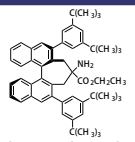
手性胺
Chiral Amines

D4663 20mg



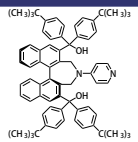
N-[(11b*S*)-4,5-Dihydro-3*H*-dinaphtho[2,1-*c*:1',2'-*e*]azepin-2-yl]-trifluoromethanesulfonamide
CAS RN: 871915-77-4

E1267 50mg



Ethyl (11b*R*)-4-Amino-2,6-bis(3,5-di-*tert*-butylphenyl)-4,5-dihydro-3*H*-cyclohepta[1,2-*a*:7,6-*a*']dinaphthalene-4-carboxylate
CAS RN: 1678540-23-2

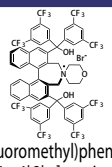
P2380 50mg



(*S*)-[4-(Pyridin-4-yl)-4,5-dihydro-3*H*-dinaphtho[2,1-*c*:1',2'-*e*]-azepine-2,6-diyl]bis[bis[4-(*tert*-butyl)phenyl]methanol]
CAS RN: 1883396-49-3

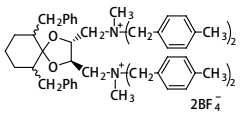
手性铵盐
Chiral Ammonium Salts

B3970 50mg



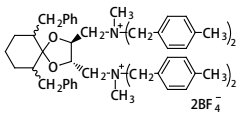
(11b*S*)-2,6-Bis[bis[3,5-bis(trifluoromethyl)phenyl]hydroxymethyl]-3,5-dihydrospiro[4*H*-dinaphth[2,1-*c*:1',2'-*e*]azepine-4,4'-morpholinium] Bromide
CAS RN: 1197922-04-5

D3475 200mg 1g



(*R*,*R*)-TaDiAS-2nd
CAS RN: 2010983-27-2

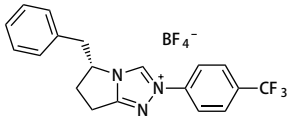
D3476 200mg 1g



(*S*,*S*)-TaDiAS-2nd
CAS RN: 2135524-59-1

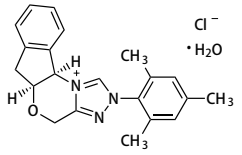
手性*N*-杂环卡宾 (NHC)
Chiral *N*-Heterocyclic Carbenes (NHC)

B3592 200mg 1g



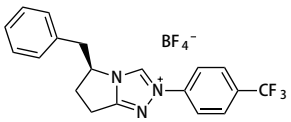
(*R*)-Benzyl-2-[4-(trifluoromethyl)phenyl]-6,7-dihydro-5*H*-pyrrolo[2,1-*c*][1,2,4]triazolium Tetrafluoroborate
CAS RN: 862095-77-0

D3984 100mg



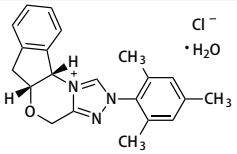
Bode Catalyst 1 Monohydrate
CAS RN: 919102-70-8

B3593 200mg 1g



(*S*)-Benzyl-2-[4-(trifluoromethyl)phenyl]-6,7-dihydro-5*H*-pyrrolo[2,1-*c*][1,2,4]triazolium Tetrafluoroborate

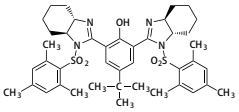
D3983 100mg



Bode Catalyst 2 Monohydrate
CAS RN: 903571-02-8

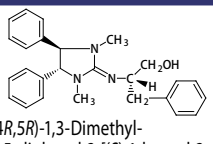
其它
Others

B6146 50mg



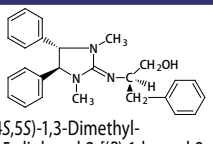
(-)-4-*tert*-Butyl-2,6-bis[(4*S*,5*S*)-4,5-tetramethylene-1-(2,4,6-trimethylbenzenesulfonyl)imidazolin-2-yl]phenol
(contains 5% Dichloromethane at maximum)
CAS RN: 2102316-91-4

D2898 100mg



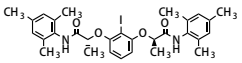
(4*R*,5*R*)-1,3-Dimethyl-4,5-diphenyl-2-[(*S*)-1-benzyl-2-hydroxyethylimino]imidazolidine
CAS RN: 337308-63-1

D2899 100mg



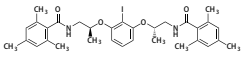
(4*S*,5*S*)-1,3-Dimethyl-4,5-diphenyl-2-[(*R*)-1-benzyl-2-hydroxyethylimino]imidazolidine
CAS RN: 210468-90-9

I0807 200mg



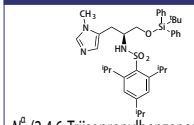
(*R*,*R*)-2-Iodo-1,3-bis[1-(mesitylcarbamoyl)ethoxy]benzene
CAS RN: 1226896-38-3

I1122 200mg



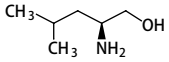
N,*N*'-[(2*S*,2'*S*)-[(2-Iodo-1,3-phenylene)bis(oxy)]bis(propane-2,1-diyl)]bis(mesitylamide)
CAS RN: 1399008-27-5

T2223 100mg



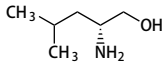
N$^{\alpha}$-(2,4,6-Triisopropylbenzenesulfonyl)-*O*-(*tert*-butyldiphenylsilyl)-π-methyl-L-histidinol
CAS RN: 787554-04-5

L0137 5mL 25mL



L-(+)-Leucinol
CAS RN: 7533-40-6

L0236 1g 5g



D-(-)-Leucinol
CAS RN: 53448-09-2

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