Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Саранск (8342)22-96-24
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

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Казахстан +7(7172)727-132
Киргизия +996(312)96-26-47

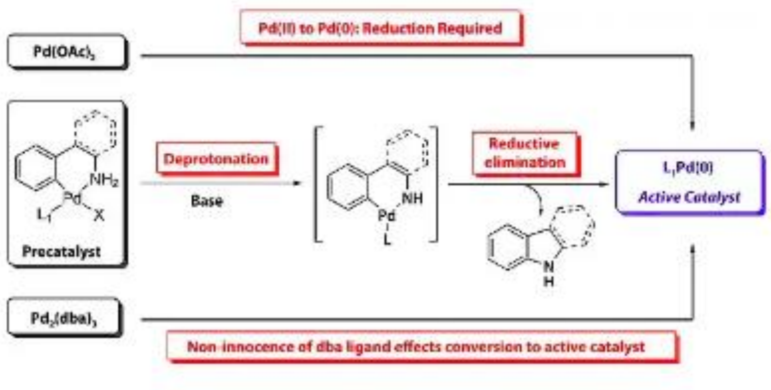
www.sigmaaldrich.nt-rt.ru || scx@nt-rt.ru

Технические характеристики на катализаторы компании Sigma-Aldrich

Виды товаров: пред-катализаторы Бухвальда, лиганды, фотокатализаторы, катализаторы активации C–H, катализаторы кросс-сочетания, катализаторы гидрирования, иридий, никель, палладий, платина, родий или рутений, органокатализаторы и др.

Buchwald Catalysts & Ligands

Standard structural features for the Buchwald ligands

- 

-

As a chemist, you would like to focus on the application of the catalyst and the new chemistry that it will lead to. We want to focus on providing you an unparalleled Buchwald portfolio for your breakthrough ideas. Through our partnership with Stephen Buchwald and his research group at MIT, we are pleased to offer a series of highly active and versatile palladium precatalysts and biarylphosphine ligands used in cross-coupling reactions for the formation of C-C, C-N, C-O, C-F, C-CF, and C-S bonds. The ligands are electron-rich and highly tunable to provide catalyst systems with a diverse scope, high stability, and reactivity.

The corresponding Buchwald precatalysts are air-, moisture-, and thermally-stable and display good solubility in common organic solvents. The employment of these precatalysts in cross-coupling reactions typically allows the researcher to use lower catalyst loadings, and results in shorter reaction times. Additionally, their use ensures the efficient formation of the active catalytic species, generally without reducing agents, and allows one to accurately control the ligand:palladium ratio. The unique features of the precatalysts have led to the discovery of new methods that would not otherwise be feasible using traditional Pd sources.

526460
Xantphos
97%

☐

638064
XPhos
98%

☐

763381
XPhos Pd G3
98%, 1:1 MTBE adduct

☐

663131
RuPhos
98%

☐

638072
SPhos
98%

761435
cataCXium® A Pd G3
95%

718742
BrettPhos
98%

638080
***t*BuXPhos**
98%

638439
JohnPhos
97%

638021
DavePhos
97%

730998
tBuBrettPhos
97%

900349
cataCXium Pd G4

638099
CyJohnPhos
97%

677264
APhos
95%

918008
GPhos
≥95%

901215
Ephos
≥95%

675938
Me*4*tButylXphos
96%

731013
JackiePhos
95%

676632
5-(Di-*tert*-butylphosphino)-1′, 3′, 5′-triphenyl-1′*H*-[1,4′]bipyrazole
97%

666564
***N*-XantPhos**
97%

759171
CPhos
98%

799718
AlPhos

677280
sSPhos

791016
RockPhos
97%

901907
RuPhos
95%

768154
AdBrettPhos
95%

695882
PhDave-Phos
97%

710342
TrixiePhos
97%

695874

t-BuDavePhos

☐

901904
*t*BuXPhos
95%

☐

695262
MePhos
97%

☐

901906
SPhos
95%

☐

900278
AdCyBrettPhos

☐

695211
tBuMePhos

☐

900275
(t-Bu)PhCPhos
95%

☐

479497
4,4′-(Phenylphosphinidene)bis(benzenesulfonic acid) dipotassium salt hydrate
97%

☐

752231
2-[2-(Dicyclohexylphosphino)phenyl]-*N*-methylindole
97%

☐

900331
VPhos
95%

☐

927775
XPHOS PD G2 ChemBeads

☐

792470
Me_3(OMe)tBuXPhos
96% (HPLC)
738611
5-(Dicyclohexylphosphino)-1′,3′,5′-triphenyl-1′*H*-[1,4′]bipyrazole
97%

☐

928356
Xantphos ChemBeads

☐

932213
XantPhos Pd G3 ChemBeads

☐

928364
XPhos ChemBeads

☐

710598
5-(Di-*tert*-butylphosphino)-1-(naphthalen-1-yl)-1*H*-pyrazole
97%

☐

931063
PEPPSI™-IPr catalyst ChemBeads

☐

928348
BrettPhos ChemBeads

☐

931853
SPhos Pd G6 acylation
≥95%

☐

RNI00040
tBuXPhos HBF_4
Aldrich[CPR]

☐

932191
SPhos ChemBeads

☐

RNI00049
CyJohnPhos HBF4
Aldrich[CPR]

Photocatalysts

Photoredox catalysis is a powerful tool in organic chemical synthesis that utilizes visible light to power a chemical reaction. Widespread adoption of visible light photoredox catalysis has been dependent on access to photocatalysts and a reliable light source. We're pleased to support your photocatalysis endeavors to create new bonds and rapidly assemble complex products.

Chemists have long struggled with reproducibility in photoredox chemistry. Both varied reaction setups and individual reactions performed with the same setup can be tricky. Our new labware seeks to alleviate these issues by providing photoreactors for each stage of reaction development, while ensuring high levels of consistency across photocatalytic reactions and between runs.

Our photoreactors serve as reliable visible light sources for a variety of applications and reaction scales:

- The Photo KitAlysis starter kit is perfect for screening of 24 micro-scale simultaneous photocatalytic reactions for reaction optimization.
- The SynLED Parallel Photoreactor enables small-scale reactions for rapid library generation by running 16 simultaneous reactions in 2 dram vials.
- Penn PhD combines LED illumination, mechanical stirring, and cooling into one device while accepting reaction vials from 1 mL up to 40 mL, allowing chemists to streamline synthetic sequences.
- The Bio-Photoreactor BPR200 utilizes LED illumination and a self-cooling heat sink for applications in parallel photoredox reactions, covalent labeling of biomolecules, and experiments using living cells.
- The LightOx PhotoReact 365 provides UV illumination suitable for photochemical and photobiological high-throughput screening reactions.

Please refer to our **photocatalysis technical article** to determine which photoreactor is most suitable for your needs.
With a continuously growing portfolio of acridinium, iridium and ruthenium catalysts, and other metal-free organic photocatalysts and ligands, we provide a broad range of complex photoredox catalysts for any reaction design. Our KitAlysis™ screening kits enable chemists to quickly and efficiently find good reaction conditions for a wide range of photoredox catalyzed reactions.

900694
10-(3,5-Dimethoxyphenyl)-9-mesityl-1,3,6,8-tetramethoxyacridin-10-ium tetrafluoroborate
≥93%

☐

905194
10-Ethyl-3,7,8-trimethyl-benzo[*g*]pteridine-2,4(3*H*,10*H*)-dione
≥95%

☐

903167
10-Phenylphenothiazine
≥95%

☐

909335
2-(2,4-Difluorophenyl)-5-(trifluoromethyl)pyridine
≥95%

☐

902136

2,4,6-Tri-(4-fluorophenyl)pyrylium tetrafluoroborate
≥95%

☐

900685
2,4,6-Tri(*p*-tolyl)pyrylium tetrafluoroborate salt
≥95%

☐

272345
2,4,6-Triphenylpyrylium tetrafluoroborate
98%

☐

900692
2,4,6-Tris(4-methoxyphenyl)pyrylium tetrafluoroborate

☐

909033
2,7-Dibromo-9-mesityl-10-methylacridinium tetrafluoroborate

☐

906115
2,7-Dibromoacridone

☐

909254
2,7-Difluoro-9-mesityl-10-methylacridinium tetrafluoroborate

☐

909327
2,7-Dimethoxy-9-mesityl-10-methylacridinium tetrafluoroborate

☐

909181
2,7-Dimethyl-9-mesityl-10-methylacridinium tetrafluoroborate

☐

920223
3,6-Di-*tert*-butyl-9-(2,6-dimethylphenyl)-10-(4-(trifluoromethyl)phenyl)acridin-10-ium tetrafluoroborate
≥95%

☐

Z744031
365nm Light Source

☐

908193
3CzClIPN

☐

908185
3DPA2FBN

≥95%

☐

908177
3DPAFIPN
≥95%

☐

902810
4,4′-Bis(trifluoromethyl)-2,·2′-bipyridine

☐

Z744032
420nm Light Source

Z744033
450nm Light Source

☐

915297
4CzIPN
≥99.9%

☐

306789
5,10,15,20-Tetrakis(4-trimethylammoniophenyl)porphyrin tetra(*p*-toluenesulfonate)
Dye content 90 %

☐

908762
5,5′-Bis(trifluoromethyl)-2,2′-bipyridine
≥95%

☐

900693
9-Mesityl-1,3,6,8-tetramethoxy-10-phenylacridin-10-ium tetrafluoroborate
95%

☐

794171
9-Mesityl-10-methylacridinium tetrafluoroborate

☐

793876
9-Mesityl-2,7-dimethyl-10-phenylacridinium tetrafluoroborate

☐

900421
9-Mesityl-3,6-di-*tert*-butyl-10-phenylacridinium tetrafluoroborate
≥95%

☐

914797
Birch O-PC™ C0103
≥97%, New Iridium

☐

913782
Birch O-PC™ C0104
≥97%, New Iridium

☐

341630
Chloro(pyridine)bis(dimethylglyoximato)cobalt(III)

☐

747629
Cu(dap)$_2$ chloride

☐

908444
DPZ
95%

☐

929743
[Ir(df(CF$_3$)ppy)$_2$(4,4′-(OMe)$_2$bpy]BF$_4$
≥95%

☐

925497
[Ir(dFOMeppy)$_2$(dtbbpy)]PF$_6$
≥95%

☐

922897
[Ir(ppy)$_2$(5,5′-Me$_2$bpy)]PF$_6$
≥95%

☐

901466
***Mes*-Umemoto reagent**
≥95%

☐

Z744035
Penn PhD Photoreactor M2

☐

901112
PhenN O-PC™ B0301
New Iridium, ≥97%

☐

901111
Phenox O-PC™ A0202
New Iridium, ≥97%

916722
Phenyl-(benzo)phenothiazine

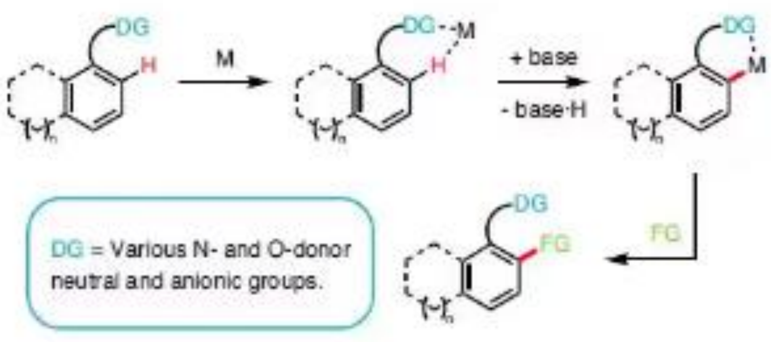
☐

907502
Potassium 5-bromo-1*H*-indole-1-carbodithioate
≥95%

922641
Pr-DMQA[BF4]
≥95%

900432
Tetra-*n*-butylammonium decatungstate

C–H Activation Catalysts

- 

Metal-catalyzed C–H functionalization is an effective approach for carbon-hydrogen bond activation. This method employs a transition metal as the C–H activation catalyst to cleave the C–H bond and attach a carbon, nitrogen, or oxygen. The ability to selectively functionalize C–H bonds of complex molecules streamlines the organic synthesis process by removing pre-functionalization steps. Moreover, the reliable and predictable conversion of a C–H into a C–C, C–N, C–O or C–X bond in a selective and controlled fashion is a sustainable alternative in diverse synthetic transformations due to waste reduction. C–H activation not only s the number of sites that can be targeted in a given molecule, multiplying the opportunities for elaboration into more complex products, but also allows for completely different kinds of chemical bonds to be targeted, often with high chemoselectivity.

We empower your breakthrough synthesis ideas with an unparalleled portfolio of C–H activation catalysts, auxiliaries, and oxidants for the activation of inert and ubiquitous C–H bonds. We offer highly abundant, sustainable metals including cobalt, copper, gold, iridium, iron, nickel, palladium, rhodium, ruthenium, silver, and titanium catalysts with unique reactivity/selectivity to suit your C–H activation needs. Discover more about our advanced catalyst materials in the **C–H Functionalization Guide**.

178721
(Diacetoxyiodo)benzene
98%

439479
1-Chloromethyl-4-fluoro-1,4-diazoniabicyclo[2.2.2]octane bis(tetrafluoroborate)
>95% in F+ active

439312
1-Fluoro-2,4,6-trimethylpyridinium tetrafluoroborate
≥95%

738115
1-Fluoro-2,4,6-trimethylpyridinium triflate
95%

ALD00382
1,5-Bis[4-(trifluoromethyl)phenyl]-1,4-pentadien-3-one

ALD00610
2-(4-Chloro-6-methoxy-1,3,5-triazin-2-yl)benzonitrile
≥95%

802166
2-(Pyridin-2-yl)isopropyl amine
95% (GC)

P42800
2-Picolinic acid
ReagentPlus®, 99%

L511269
2,2′-Azanediyldibenzonitrile
Aldrich^{CPR}

901251
[2,2′-Bipyridine]-6-carboxylic acid hydrochloride

260789
8-Aminoquinoline
98%

222380
Allylpalladium(II) chloride dimer
98%

662283
Bis(*tert*-butylcarbonyloxy)iodobenzene
97%

763896
DL-α-Tocopherol methoxypolyethylene glycol succinate

763918
DL-α-Tocopherol methoxypolyethylene glycol succinate solution
5 wt. % in H_2O

683094
HS157
Umicore, 97%

☐

255580
Hydroxylamine hydrochloride
ACS reagent, 98.0%

☐

ALD00002
Li-Quinoline Ligand

☐

ALD00004
Li-Yu t-Butyl Quinoline
95%

☐

339296
Manganese(III) fluoride
99.9% trace metals basis

ALD00596
***N*-((1*S*,2*S*)-1-(3,5-Di-*tert*-butylphenyl)-2-(quinolin-2-yl)butyl)acetamide**
≥95%

☐

ALD00614
***N*-(2-(Phenylthio)ethyl)acetamide**

☐

441511
***N*-Acetyl-L-leucine**
ReagentPlus®, 99%

☐

375810
Periodic acid
ACS reagent, 99%

☐

216224
Potassium persulfate
ACS reagent, ≥99.0%

☐

ALD00476
Sodium (4-bromophenyl)methanesulfinate

☐

790184
Sodium 1-(trifluoromethyl)cyclopropanesulfinate

☐

809063
Sodium 1-Phenoxy-methanesulfinate

792446
Sodium 1,1-difluoro-4-(2-methyl-1,3-dioxolan-2-yl)butane-1-sulfinate

745405
Sodium 1,1-difluoroethanesulfinate

ALD00462
Sodium 2-(2-Bromophenyl)-1,1-difluoroethanesulfinate
95%

ALD00458
Sodium 2-(3-Bromophenyl)-1,1-difluoroethanesulfinate

ALD00230
Sodium 4,4-difluorocyclohexanesulfinate

ALD00484
Sodium 7-Chloro-1,1-difluoroheptane-1-sulfinate
contains ≤15% sodium 7-(ethylthio)-1,1-difluoroheptane-1-sulfinate

746118
Sodium difluoroheptylazidosulfinate
95%

ALD00294
Sodium ethylsulfinate

ALD00440
Sodium isopropylsulfinate

ALD00288
Sodium *tert*-butylsulfinate

ALD00232
Sodium tetrahydropyransulfinate

ALD00238
Sodium trifluoropropylsulfinate

791369
Tang-Yu Auxiliary
97%

900432
Tetra-*n*-butylammonium decatungstate

ALD00606
Wang−Yu non-directed C−H functionalization ligand
95%

ALD00508
Yu Fluorination Ligand
≥95%

791806
Yu-Wasa Auxiliary
97%

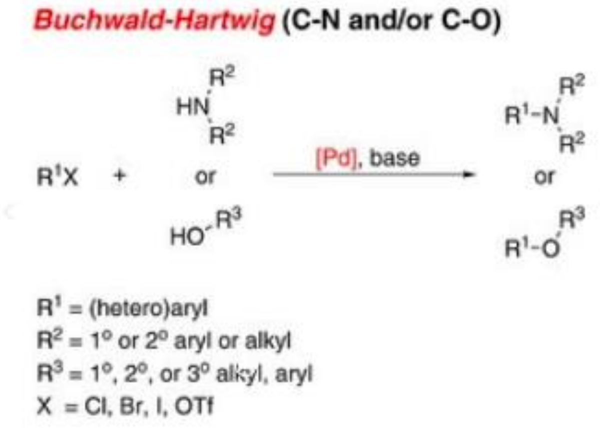
791105
Zinc chloromethanesulfinate
95% (H-NMR)

767840
Zinc difluoromethanesulfinate
95%

745480
Zinc isopropylsulfinate
95%

771406
Zinc trifluoromethanesulfinate

Cross-Coupling Catalysts

- 

-

Cross-coupling reactions are transition metal catalyzed synthetic transformations used extensively to form complex molecules from simple ones. Although used to form C-O, C-N, and C-S bonds also, they are very important carbon–carbon bond formation reactions.

Numerous research groups have developed new metal complexes and ligands, ing the scope of these transformations to form more complex molecules. Among these some of the important reactions that stand out, include Suzuki-Miyaura reaction, Negishi coupling, Heck reaction, Kumada coupling, Stille cross-coupling, Sonogashira coupling, and Buchwald Hartwig amination reaction. Furthermore, scientists have developed new transition metal complexes that can catalyze these reactions with high yield and low catalyst loading. Several of them enable these reactions to be carried out under mild reaction conditions, with high activity and high turnover numbers. Many of these transition metal catalysts have also successfully transitioned into industry, catalyzing cross-coupling reactions on a ton scale.

MPHOS: A TUNABLE LIGAND SCAFFOLD

MPhos is a new class of unsymmetrical bis-phosphino ferrocene ligands that can be used in a variety of cross-coupling reactions. The ligand scaffold includes a bulky di(1-adamantyl)phosphino motif as well as a tunable second phosphine. Demonstrated applications include many types of C_{sp2}-C_{sp3} couplings (i.e. Murahashi−Feringa (Li), Kumada−Corriu (Mg), Negishi (Zn) and Suzuki−Miyaura (B)) with broad substrate scope including many “drug-like” molecules. Learn more **here**.

PALLADIUM CATALYSTS

The palladium catalyst is extremely versatile due to its ability to fine-tune reaction conditions (temperature, solvents, ligands, bases, and other additives). Furthermore, palladium catalysts have a very high tolerance for various functional groups and often provide excellent stereo- and regio-specificity, which avoids the need of protecting groups. We offer an extensive portfolio of homogeneous and heterogeneous palladium catalysts.

NICKEL CATALYSTS

We offer an extensive and high-purity selection of Ni catalysts for use in cross-coupling reactions. These nickel catalysts span a range of oxidation states: Nickel (0), nickel (II), nickel (III) and nickel (IV). Ni catalysts available for immediate purchase are aluminum nickel (Al Ni) alloys, ammonium nickel hydrates, Ni COD, Ni halides (chlorides, bromides, fluorides and iodides), Ni cyclopentadienyls, nickel metal, nickel acac, and Raney Nickel.

911984
(2,2′-Bipyridine)diiodonickel(II)

902063
(2*Z*,6*Z*)-N′2,N′6-Dicyanopyridine-2,6-bis(carboximidamide)

911534
(4,4′-dMeObpy)$NiCl_2$

902985
(Bathocuproine)$NiBr_2$

902993
(BPhen)$Ni(OAc)_2.xH_2O$

911402
(CyPAd-DalPhos)NiCl(otol)
≥95%

802948
(dppf)Ni(*o*-tolyl)Cl

923508
(*iPr*MPhos)$PdCl_2$
1:1 complex with CH_2Cl_2, ≥95%

911844
(Me_4Phen)$NiCl_2$

918105
$(MeBPI)_2Ni$
≥95%

919365
(MeBPI)Ni-OAc

900592
(PAd-DalPhos)NiCl(otol)

900275
(t-Bu)PhCPhos
95%

905070

[(TEEDA)Ni(*o*-tolyl)Cl]
≥95%

804398
[(TMEDA)Ni(*o*-tolyl)Cl]
95%

697230
[1,1′-Bis(diphenylphosphino)ferrocene]dichloropalladium(II)

913154
1,10-Phenanthroline nickel (II) dibromide

916129
1,10-Phenanthroline nickel (II) dichloride

913278
[1,2-Bis(diphenylphosphino)ethane]dibromonickel(II)
≥95%

335363
[1,3-Bis(diphenylphosphino)propane]dichloronickel(II)

904937
2,6-Bis(*N*-pyrazolyl)pyridine nickel (II) dichloride
≥95% anhydrous basis

907111
2,6-bis(*N*-pyrazolyl)pyridine nickel(II) bromide

902039
4-Methoxypicolinimidamide hydrochloride
≥95%

903000
[4,4′-Bis(1,1-dimethylethyl)-2,2′-bipyridine] nickel (II) dichloride

903019
[4,4′-Dimethyl-2,2′-bipyridine]nickel(II) dichloride hydrate
≥95%

925918
9-(2,6-Dimethylphenyl)-1-methoxy-10-phenylacridinium bromide
95%

900278
AdCyBrettPhos

919004
AliPhos
≥95%

222380
Allylpalladium(II) chloride dimer
98%

918997
AndrewPhos
≥95%

677264
APhos
95%

244988
Bis(1,5-cyclooctadiene)nickel(0)

900277
Bis(3,5-bis(trifluoromethyl)phenyl)(2′,6′-bis(dimethylamino)-3,6-dimethoxybiphenyl-2-yl)phosphine
≥95%

927759
Bis(triphenylphosphine)palladium(II) dichloride ChemBeads

925519
BpyCAM•HCl

928348
BrettPhos ChemBeads

761435
cataCXium® A Pd G3
95%

900349
cataCXium Pd G4

900941
Chloro(4-cyanophenyl)[(*R*)-1-[(*S*)-2-[bis(4-fluorophenyl]phosphino]ferrocenyl]ethyldi-*tert*-butylphosphine]nickel(II)
≥95%

900943
Chloro(4-cyanophenyl)[(*R*)-1-[(*S*)-2-(dicyclohexylphosphino)ferrocenyl]ethyldicyclohexylphosphine]nickel(II)

900942
Chloro(4-cyanophenyl)[(*R*)-1-[(*S*)-2-(dicyclohexylphosphino)ferrocenyl]ethyldiphenylphosphine]nickel(II)
≥95%

900944
Chloro(4-cyanophenyl)[(*R*)-1-[(*S*)-2-(diphenylphosphino)ferrocenyl]ethylditertbutylphosphine]nickel(II)
≥95%

901166
***cis*-[2,2′-Bis(diphenylphosphino)-1,1′-binaphthyl](2-methylphenyl)nickel(II) chloride**

930865
[CpNi(IPr)Cl]
≥95%

725463
CX41
Umicore

725439
CX42
Umicore

915475
CX52
Umicore

920002
CX85
Umicore

923478
CyMPhos

923435
Di-1-adamantylphosphinoferrocene

901215
Ephos
≥95%

918008
GPhos
≥95%

922765
IPr* HCl

922773
IPr*Pd(acac)Cl
≥95%

908886
***N*-Cyano-4-methoxy-picolinimidamide**
≥95%

928429
Ni(COD)(CPDO-Ph)
≥95%

912794
Ni(COD)(DQ)
≥95%

930032
Ni(COD)(tBu-BQ)
≥95%

930199
Ni(COD)(TSO-Ph)
≥95%

917745
[Ni(dtbbpy)(H_2O)$_4$]Cl_2

908711
Ni(IMes)(di-t-butyl fumarate)$_2$

908541
Ni(IPr*OMe)(phenyl acrylate)$_2$

919551
PAd2-DalPhos

≥95%

919578
PAd2-DalPhos Ni(*o*-tolyl)Cl

919608
[Pd(IPr#)(3-CF_3-AN)Cl_2]

919594
Pd(IPr#)(AN)Cl_2
≥95%

919616
[Pd(IPr#)(cin)Cl]

915165
[Pd(IPr)(3-CF_3-AN)Cl_2]
≥95%

922919
Pd(IPr)(acac)Cl

931063
PEPPSI™-IPr catalyst ChemBeads

923443
PhMPhos

911828
PhPAd-DalPhos Ni(*o*-tolyl)Cl
≥95%

922803
[Pt(IPr*)(DMS)Cl_2]

902047
Pyridine-2,6-bis(carboximidamide) dihydrochloride
≥95%

901907
RuPhos
95%

901906

SPhos
95%

932191
SPhos ChemBeads

931853
SPhos Pd G6 acylation
≥95%

918989
SummerPhos
≥95%

925500
tBubpyCAMCN
≥95%

918938
tBuPyBCam

901904
***t*BuXPhos**
95%

931055
tBuXPhos Pd G3 ChemBeads

8.14761
Tetrakis(triphenylphosphine)-palladium(0)
for synthesis

917982
Tetrapyridyl nickel (II) dichloride
≥95%

902284
TyrannoPhos

918970
VincePhos
≥95%

900331
VPhos
95%

901425
White-Clark catalyst

928356
Xantphos ChemBeads

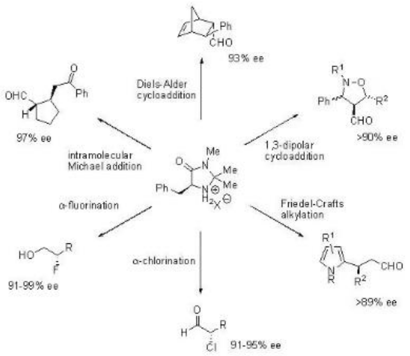
932213
XantPhos Pd G3 ChemBeads

928364
XPhos ChemBeads

927775
XPHOS PD G2 ChemBeads

763381
XPhos Pd G3
98%, 1:1 MTBE adduct

Organocatalysts



Organocatalysts, small molecules composed of carbon, hydrogen, oxygen, nitrogen, sulphur, or phosphine that activate a chemical reaction, have become an indispensable component in the green chemistry toolbox. While all catalysts are sustainable in general, organic catalysts go beyond the 12 principles of green chemistry. Organocatalysts can reduce the number of synthetic steps required to determine a target compound since they react with various functional groups under mild conditions that are not air- or water-sensitive, which saves energy and reduces costs. As nonmetal catalysts, these products are not harmful to the environment, are naturally nontoxic and do not produce metallic waste.

Due to their efficiency, stability, purity, and selectivity, organocatalytsts are used widely for small molecule drug discovery and in designing complex molecular structures. Some common organocatalytic reactions that uses organocatalysts are Diels-Alders, Michael, or Mannich asymmetric reactions, Shi epoxidation, 1,3-dipolar cycloadditions, Friedel-Crafts alkylations, α-chlorinations, α-fluorinations, and transfer hydrogenations. Initiation in these reactions happen through the organocatalyst either providing or removing electrons or protons from the substrate. Therefore, organocatalysts are generally classified as either Lewis bases, Lewis acids, Brønsted bases, and Brønsted acids.

Explore our portfolio of organocatalysts designed to spark your environmentally-friendly organocatalytic reactions and green chemistry explorations.

700665
(11b*R*)-2,6-Di-9-phenanthrenyl-4-hydroxy-dinaphtho[2,1-*d*:1′,2′-*f*][1,3,2]dioxaphosphepin-4-oxide

☐

284556
(2-Aminoethyl)trimethylammonium chloride hydrochloride
99%

☐

117196
(2-Bromoethyl)trimethylammonium bromide
98%

☐

234435
(2-Chloroethyl)trimethylammonium chloride
98%

☐

663107
(2*S*,5*S*)-(−)-2-*tert*-Butyl-3-methyl-5-benzyl-4-imidazolidinone
97%

☐

668540
(2*S*,5*S*)-(–)-5-Benzyl-3-methyl-2-(5-methyl-2-furyl)-4-imidazolidinone
95%

☐

347604
(3-Bromopropyl)trimethylammonium bromide
97%

☐

403245
(3-Carboxypropyl)trimethylammonium chloride
technical grade

☐

348287
(3-Chloro-2-hydroxypropyl)trimethylammonium chloride solution
60 wt. % in H_2O

☐

523461
(5-Bromopentyl)trimethylammonium bromide
97%

☐

683973
(5a*R*,10b*S*)-5a,10b-Dihydro-2-(2,4,6-trimethylphenyl)-4*H*,6*H*-indeno[2,1-*b*]-1,2,4-triazolo[4,3-*d*]-1,4-oxazinium chloride monohydrate
93%

☐

663069

(5*R*)-(+)-2,2,3-Trimethyl-5-benzyl-4-imidazolidinone monohydrochloride
97%

663085
(5*S*)-(−)-2,2,3-Trimethyl-5-benzyl-4-imidazolidinone dichloroacetic acid
97%

804568
(*R*,*S*)-Bode Kinetic Resolution Catalyst

248932
(*R*)-(−)-1,1′-Binaphthyl-2,2′-diyl hydrogenphosphate
≥98%

661910
(*R*)-(−)-2-(*tert*-Butyl)-3-methyl-4-imidazolidinone trifluoroacetic acid
96%

674745
(*R*)-(–)-3,3′-Bis(triphenylsilyl)-1,1′-binaphthyl-2,2′-diyl hydrogenphosphate
95%

675512
(*R*)-(–)-VAPOL hydrogenphosphate

552542
(*R*)-(+)-2-(Diphenylmethyl)pyrrolidine
97%

382337
(*R*)-(+)-*α,α*-Diphenyl-2-pyrrolidinemethanol
98%

677191
(*R*)-(+)-α,α-Diphenyl-2-pyrrolidinemethanol trimethylsilyl ether
96%

670308
(*R*)-2-(Methoxydiphenylmethyl)pyrrolidine
95% (HPLC)

674605
(*R*)-3,3′-Bis[3,5-bis(trifluoromethyl)phenyl]-1,1′-binaphthyl-2,2′-diyl hydrogenphosphate
95%

689890

***(R)*-3,3′-Bis(2,4,6-triisopropylphenyl)-1,1′-binaphthyl-2,2′-diyl hydrogenphosphate**
≥97.0% (qNMR)

695718
(*R*)-3,3′-Bis(9-anthracenyl)-1,1′-binaphthyl-2,2′-diyl hydrogenphosphate
95%

677213
(*R*)-α,α-Bis[3,5-bis(trifluoromethyl)phenyl]-2-pyrrolidinemethanol trimethylsilyl ether
technical grade

T511579
(*R*)-C8-TCYP
Aldrich^{CPR}

684341
(*S*)-(–)-5-(2-Pyrrolidinyl)-1*H*-tetrazole
96%

699837
(*S*)-(−)-α,α-Di-(2-naphthyl)-2-pyrrolidine methanol
97%

368199
(*S*)-(−)-*α,α*-Diphenyl-2-pyrrolidinemethanol
99%

728543
(*S*)-(−)-α,α-Diphenyl-2-pyrrolidinemethanol *tert*-butyldimethylsilyl ether
≥97% (HPLC)

677183
(*S*)-(–)-α,α-Diphenyl-2-pyrrolidinemethanol trimethylsilyl ether
95%

346802
(*S*)-(−)-Indoline-2-carboxylic acid
99%

324450
(*S*)-(+)-1-(2-Pyrrolidinylmethyl)pyrrolidine
96%

248940
(*S*)-(+)-1,1′-Binaphthyl-2,2′-diyl hydrogenphosphate
97%

661902
(*S*)-(+)-2-(*tert*-Butyl)-3-methyl-4-imidazolidinone trifluoroacetic acid
96%

681520
(*S*)-(+)-3,3′-Bis(3,5-bis(trifluoromethyl)phenyl)-1,1′-binaphthyl-2,2′-diyl hydrogenphosphate
95%

900811
(*S*)-2-(2,3-Bis(dicyclohexylamino)cyclopropenimine)-3-phenylpropan-1-ol hydrochloride
≥95%

670197
(*S*)-2-(Methoxydiphenylmethyl)pyrrolidine
95% (HPLC)

689785
***(S)*-3,3′-Bis(2,4,6-triisopropylphenyl)-1,1′-binaphthyl-2,2′-diyl hydrogenphosphate**
≥97.0% (qNMR)

680184
(*S*)-3,3′-Bis(triphenylsilyl)-1,1′-binaphthyl-2,2′-diyl hydrogenphosphate
96%

708569
(*S*)-5-Benzyl-2-mesityl-6,6-dimethyl-6,8-dihydro-5*H*-[1,2,4]triazolo[3,4-*c*][1,4]oxazin-2-ium tetrafluoroborate

670960
(*S*)-α,α-Bis[3,5-bis(trifluoromethyl)phenyl]-2-pyrrolidinemethanol
≥99.0%

677019
(*S*)-α,α-Bis[3,5-bis(trifluoromethyl)phenyl]-2-pyrrolidinemethanol trimethylsilyl ether
97%

670731
(*S*)-α,α-Bis(3,5-dimethylphenyl)-2-pyrrolidinemethanol
≥99% (HPLC)

T511609
(*S*)-TCYP
Aldrich^{CPR}

688320
(*S*)-VAPOL hydrogenphosphate

78194
1-Butyl-2,3-dimethylimidazolium chloride
≥97.0% (HPLC/AT)

☐

59760
1-Methylimidazolium hydrogen sulfate
95%

☐

433780
1,3-Didecyl-2-methylimidazolium chloride
96%

☐

905194
10-Ethyl-3,7,8-trimethyl-benzo[*g*]pteridine-2,4(3*H*,10*H*)-dione
≥95%

☐

903167
10-Phenylphenothiazine
≥95%

☐

902136
2,4,6-Tri-(4-fluorophenyl)pyrylium tetrafluoroborate
≥95%

☐

900685
2,4,6-Tri(*p*-tolyl)pyrylium tetrafluoroborate salt
≥95%

☐

272345
2,4,6-Triphenylpyrylium tetrafluoroborate
98%

☐

900692
2,4,6-Tris(4-methoxyphenyl)pyrylium tetrafluoroborate

☐

256234
3-Benzyl-5-(2-hydroxyethyl)-4-methylthiazolium chloride
98%

☐

908185
3DPA2FBN
≥95%

☐

908177
3DPAFIPN
≥95%

☐

674788
5a(*R*),10b(*S*)-5a,10b-Dihydro-2-(pentafluorophenyl)-4*H*,6*H*-indeno[2,1-*b*][1,2,4]triazolo[4,3-*d*][1,4]oxazinium tetrafluoroborate
97%

793876
9-Mesityl-2,7-dimethyl-10-phenylacridinium tetrafluoroborate

12060
Benzalkonium chloride
≥95.0% ((calculated on dry substance), T)

63249
Benzalkonium chloride solution
≥50% (via Cl), 50% in H_2O

13371
Benzyldimethyldecylammonium chloride
≥97.0% (AT)

13380
Benzyldimethyldodecylammonium chloride
≥99.0% (AT)

689718
Benzyldimethylhexylammonium chloride
≥96.0% (AT)

689599
Benzyldimethyloctylammonium chloride
≥96.0% (AT)

292796
Benzyldimethyltetradecylammonium chloride dihydrate
98%

13373
Benzyldodecyldimethylammonium bromide
≥99.0% (AT)

13954
Benzyltributylammonium bromide
≥99.0%

193771
Benzyltributylammonium chloride
≥98%

146552
Benzyltriethylammonium chloride
99%

147117
Benzyltrimethylammonium bromide
97%

228982
Benzyltrimethylammonium chloride
97%

13980
Benzyltrimethylammonium chloride solution
technical, ~60% in H_2O

223832
Bis(triphenylphosphoranylidene)ammonium chloride
97%

30725
Decyltrimethylammonium bromide
≥98.0% (NT)

382310
Didecyldimethylammonium bromide
98%

359025
Didodecyldimethylammonium bromide
98%

420220
Dihexadecyldimethylammonium bromide
97%

40225
Dimethylditetradecylammonium bromide
≥97.0% (NT)

44165
Dodecylethyldimethylammonium bromide
≥98.0% (AT)

V900884
Dodecyltrimethylammonium chloride
Vetec™, reagent grade, ≥98%

44242
Dodecyltrimethylammonium chloride
≥99.0% (AT)

17104
Dodecyltrimethylammonium chloride
purum, ≥98.0% anhydrous basis (AT)

50053
Glycidyltrimethylammonium chloride
technical, ≥90% (calc. based on dry substance, AT)

52366
Hexadecyltrimethylammonium chloride
≥98.0% (NT)

53272
Hexyltrimethylammonium bromide
≥98.0% (AT)

P0380
L-Proline
ReagentPlus®, ≥99% (HPLC)

V900338
L-Proline
Vetec™, reagent grade, ≥99%

365718
Methyltrioctylammonium bromide
97%

69485
Methyltrioctylammonium chloride
≥97.0% (AT)

87210
Myristyltrimethylammonium bromide
98% (AT)

728357
***N*-[(1*R*,2*R*)-2-(1-Piperidinyl)cyclohexyl]-*N′*-[4-(trifluoromethyl)phenyl]squaramide**
95%

689017
***N*-[(2*S*)-2-Pyrrolidinylmethyl]-trifluoromethanesulfonamide**
≥98.5% (T)

☐

690384
***N*-[3,5-Bis(trifluoromethyl)phenyl]-*N′*-[(8a,9*S*)-10,11-dihydro-6′-methoxy-9-cinchonanyl]thiourea**
90%

☐

690481
***N*-[3,5-Bis(trifluoromethyl)phenyl]-*N′*-[(8a,9*S*)-6′-methoxy-9-cinchonanyl]thiourea**
90%

☐

901112
PhenN O-PC™ B0301
New Iridium, ≥97%

☐

901111
Phenox O-PC™ A0202
New Iridium, ≥97%

☐

907502
Potassium 5-bromo-1*H*-indole-1-carbodithioate
≥95%

241059
Tetraethylammonium bromide
ReagentPlus®, 99%

☐

86605
Tetraethylammonium chloride monohydrate
≥98.0%

☐

235938
Tetraethylammonium iodide
98%

☐

87301
Tetraheptylammonium bromide
≥99.0% (AT)

☐

252816
Tetrahexylammonium bromide
99%

☐

263834
Tetrahexylammonium chloride
96%

☐

87580

Tetrakis(decyl)ammonium bromide
≥99.0% (AT)

404861
Tetrakis(hydroxymethyl)phosphonium chloride solution
80% in H_2O

765945
Tetramethylammonium bis(trifluoromethanesulfonyl)imide
97%

426296
Tetramethylammonium bromide
ACS reagent, ≥98.0%

195758
Tetramethylammonium bromide
98%

T19526
Tetramethylammonium chloride
reagent grade, ≥98%

87725
Tetramethylammonium hexafluorophosphate
≥98.0% (gravimetric)

235946
Tetramethylammonium iodide
99%

358738
Tetraoctadecylammonium bromide
98%

294136
Tetraoctylammonium bromide
98%

87991
Tetraoctylammonium chloride
≥97.0% (AT)

241970
Tetrapentylammonium bromide
≥99%

218782
Tetraphenylphosphonium bromide
97%

218790
Tetraphenylphosphonium chloride
98%

225568
Tetrapropylammonium bromide
98%

438243
Tetrapropylammonium chloride
98%

235954
Tetrapropylammonium iodide
≥98%

P8533
Tributylammonium pyrophosphate

90802
Tributylmethylammonium bromide
≥98.0%

70444
Tributylmethylammonium chloride
≥98.0% (T)

255165
Tributylmethylammonium chloride solution
75 wt. % in H_2O

367729
Tridodecylmethylammonium chloride
98%

☐
374350
Tridodecylmethylammonium iodide
97%

☐
438278
Triethylmethylammonium chloride
97%

☐
28612
Trihexyltetradecylphosphonium bis(2,4,4-trimethylpentyl)phosphinate
≥90.0%

☐
89744
Trihexyltetradecylphosphonium chloride
≥95.0% (NMR)

☐
87212
Trimethyl-tetradecylammonium chloride
≥98.0% (AT)

☐
359246
Trimethyloctadecylammonium bromide
98%

☐
75091
Trimethyloctylammonium bromide
≥98.0% (AT)

☐
75094
Trimethyloctylammonium chloride
≥97.0% (AT)

☐
135321
Trimethylphenylammonium bromide
98%

☐
199168
Trimethylphenylammonium chloride
≥98%

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