CAS SciFinder

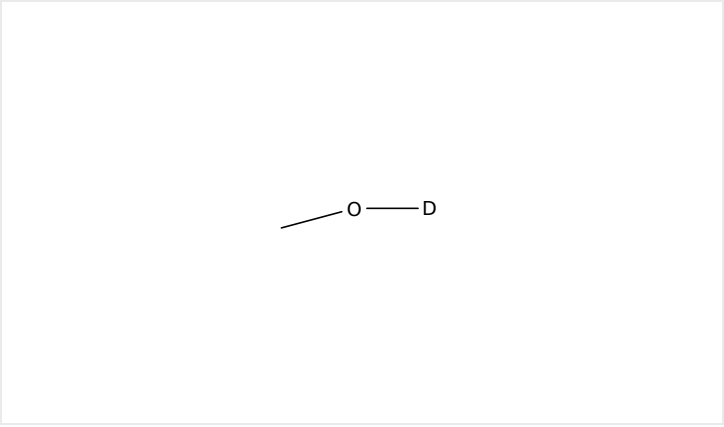
Task History

Initiating Search

February 21, 2025, 5:40 PM

Substances:

Filtered By:



Structure Match: **Substructure**

Search Tasks

Task	Search Type	View
Returned Substance Results + Filters (12,935)	Substances	View Results
Exported: Retrieved Related Reaction Results + Filters (910)	Reactions	View Results

Filtered By:

Substance Role: **Reactant, Reagent, Solvent**

Catalyst: **[1,1'-Bis(diphenylphosphino)ferrocene]dichloropalladium, [1,3-Bis[2,6-bis(1-ethylpropyl)phenyl]-1,3-dihydro-2*H*-imidazol-2-ylidene]chloro(η^3-2-propen-1-yl)palladium, [1,3-Bis[2,6-bis(1-methylethyl)phenyl]-1,3-dihydro-2*H*-imidazol-2-ylidene]chloro[(1,2,3-η)-1-phenyl-2-propen-1-yl]palladium, [1,3-Bis[2,6-bis(1-methylethyl)phenyl]-2-imidazolidinylidene](tricyclohexylphosphine)palladium, [1,3-Dihydro-1,3-bis(2,4,6-trimethylphenyl)-2*H*-imidazol-2-ylidene]bis[(3,4-η)-2,5-furandione]palladium, [2'-(Amino-κ*N*)[1,1'-biphenyl]-2-yl-κ*C*][1'-[bis(1,1-dimethylethyl)phosphino]-1,2,3,4,5-pentaphenylferrocene](methanesulfonato-κ*O*)palladium, [2'-(Amino-κ*N*)[1,1'-biphenyl]-2-yl-κ*C*]chloro[tris(1,1-dimethylethyl)phosphine]palladium, (η^5-2,4-Cyclopentadien-1-yl)(η^3-2-propen-1-yl)palladium, Bis[2'-(amino-κ*N*)[1,1'-biphenyl]-2-yl-κ*C*]bis[μ-(methanesulfonato-κ*O*:κ*O*)]dipalladium, Bis(acetonitrile)bis(4-methylbenzenesulfonato-κ*O*)palladium, Bis(benzonitrile)dichloropalladium, Bis(dibenzylideneacetone)palladium, Bis(hexafluoroacetylacetonato)palladium, Bis(tri-*tert*-butylphosphine)palladium, Copper, compd. with palladium (0.6:1), Chloro(η^3-2-propen-1-yl)**

[tricyclohexyl[1-(dicyclohexylphosphino-κ*P*)ethylidene]phosphorane]palladium, Dichloro[1,1'-bis(diphenylphosphino)ferrocene]palladium(II) dichloromethane adduct, Dichloro[(1,2,5,6-η)-1,5-cyclooctadiene]palladium, Di-μ-chlorobis(η^3-2-propenyl)dipalladium, Dichlorobis(triphenylphosphine)palladium, Palladium, Palladium(1+), [2'-(amino-κ*N*)[1,1'-biphenyl]-2-yl-κ*C*][[3,6-dimethoxy-2',4',6'-tris(1-methylethyl)[1,1'-biphenyl]-2-yl-κ*C*$^{1'}$]bis(1,1-dimethylethyl)phosphine-κ*P*]-, (*SP*-4-2)-, methanesulfonate (1:1), Palladium(1+), bis(acetonitrile)[(1,2,3-η)-1-phenyl-2-propen-1-yl]-, tetrafluoroborate(1-) (1:1), Palladium(1+), hydro-*d*-(methan-*d*$_3$-ol-*d*)[1,1'-(1,3-propanediyl)bis[1,1-bis(1,1-dimethylethyl)phosphine-κ*P*]]-, (*SP*-4-3)-, 1,1,1-trifluoromethanesulfonate (1:1), Palladium(2+), (acetonitrile)tris(triphenylphosphine)-, (*SP*-4-2)-, tetrafluoroborate(1-) (1:2), Palladium(2+), bis[1,1'-(1*R*)-[1,1'-binaphthalene]-2,2'-diylbis[1,1-diphenylphosphine-κ*P*]]di-μ-hydroxydi-, tetrafluoroborate(1-) (1:2), Palladium(2+), bis[1,1'-(1*S*)-[1,1'-binaphthalene]-2,2'-diylbis[1,1-diphenylphosphine-κ*P*]]di-μ-hydroxydi-, tetrafluoroborate(1-) (1:2), Palladium(2+), bis[μ-(acetato-κ*O*:κ*O*')]bis(2,9-dimethyl-1,10-phenanthroline-κ*N*^{1},κ*N*^{10})di-, 1,1,1-trifluoromethanesulfonate (1:2), Palladium(2+), bis[*N*,*N*'-(1,2-dimethyl-1,2-ethanediylidene)bis[3,5-bis(1,1-dimethylethyl)benzenamine-κ*N*]]di-μ-hydroxydi-, Palladium(2+), diaqua[1,1'-(1,3-propanediyl)bis[1,1-diphenylphosphine-κ*P*]]-, (*SP*-4-2)-, tetrafluoroborate(1-) (1:2), Palladium(2+), tetrakis(acetonitrile)-, (*SP*-4-1)-, tetrafluoroborate(1-) (1:2), Palladium acetylacetonate, Palladium chloride, Palladium, compd. with titanium (1:1), Palladium diacetate, Palladium dihydroxide, Palladium hydroxide, Palladium, [*N*,*N*'-1,2-acenaphthylenediylidenebis[2,4-bis(diphenylmethyl)-6-methylbenzenamine-κ*N*]]dichloro-, (*SP*-4-2)-, Palladium oxide (PdO), Palladium titanium oxide, Palladium trifluoroacetate, Palladium, tris[μ-[(1,2-η:4,5-η)-(1*E*,4*E*)-1,5-diphenyl-1,4-pentadien-3-one]]di-, compd. with trichloromethane (1:1), (*SP*-4-1)-[1,3-Bis[2,6-bis(1-methylethyl)phenyl]-1,3-dihydro-2*H*-imidazol-2-ylidene]dichloro(3-chloropyridine-κ*N*)palladium, (*SP*-4-1)-(Acetato-κ*O*)[2,6-bis[(diphenylphosphino-κ*P*)methyl]-3,5-dimethylphenyl-κ*C*]palladium, (*SP*-4-1)-Chloro[*rel*-4-methoxy-2,6-bis[[(*R*)-(4-methoxyphenyl)seleno-κ*Se*]methyl]phenyl-κ*C*]palladium, (*SP*-4-1)-Chloro[*rel*-4-methoxy-2,6-bis[[(*R*)-phenylseleno-κ*Se*]methyl]phenyl-κ*C*]palladium, (*SP*-4-2)-[1,1'-Bis[bis(1,1-dimethylethyl)phosphino-κ*P*]ferrocene]dichloropalladium, (*SP*-4-2)-(1,2-Ethanediamine-κ*N*^{1},κ*N*^{2})bis(1,1,1-trifluoromethanesulfonato-κ*O*)palladium, (*SP*-4-2)-(1,2-Ethanediamine-κ*N*^{1},κ*N*^{2})bis(nitrato-κ*O*)palladium, (*SP*-4-2)-(1,2-Ethanediamine-κ*N*^{1},κ*N*^{2})bis(perchlorato-κ*O*)palladium, (*SP*-4-2)-(1,2-Ethanediamine-κ*N*^{1},κ*N*^{2})bis[tetrafluoroborato(1-)-κ*F*]palladium, (*SP*-4-2)-Bis(acetato-κ*O*)(2,9-dimethyl-1,10-phenanthroline-κ*N*^{1},κ*N*^{10})palladium, (*SP*-4-2)-

Chloro[*rel*-4-methoxy-2-[[(*R*)-(4-methoxyphenyl)seleno-κ*Se*]methyl]-6-[[(*S*)-(4-methoxyphenyl)seleno-κ*Se*]methyl]phenyl-κ*C*]palladium, (*SP*-4-2)-Chloro[*rel*-4-methoxy-2-[[(*R*)-phenylseleno-κ*Se*]methyl]-6-[[(*S*)-phenylseleno-κ*Se*]methyl]phenyl-κ*C*]palladium, (*SP*-4-3)-[[2',6'-Bis(1-methylethoxy)[1,1'-biphenyl]-2-yl]dicyclohexylphosphine-κ*P*](methanesulfonato-κ*O*)[2'-(methylamino-κ*N*)[1,1'-biphenyl]-2-yl-κ*C*]palladium, (*SP*-4-3)-Chlorohydrobis[tris(1,1-dimethylethyl)phosphine]palladium, (*SP*-4-3)-Dichloro[(5*S*,7*S*,7a*S*,12*S*,14*S*,14a*S*)-dodecahydro-7,14-methano-2*H*,6*H*-dipyrido[1,2-*a*:1',2'-*e*][1,5]diazocine-κN^{5},κN^{12}]palladium, stereoisomer of (η^{5}-2,4-Cyclopentadien-1-yl)[(1,2,3-η)-1-phenyl-2-propen-1-yl]palladium, Stereoisomer of chloro[η^{3}-2,4-dimethyl-6-methylene-1-[(8-quinolinyl-κ*N*)(2,4,6-trimethylphenyl)boryl-κ*B*]-2,4-cyclohexadien-1-yl-κ*C*]palladium, Stereoisomer of dichloro[1,1'-tricyclo[8.2.2.2^{4,7}]hexadeca-4,6,10,12,13,15-hexaene-5,11-diylbis[1,1-bis(3,5-dimethylphenyl)phosphine-κ*P*]]palladium, (*T*-4)-Tetrakis(triphenyl phosphite-κ*P*)palladium, Tetrakis(triphenylphosphine)palladium, Tris(dibenzylideneacetone)dipalladium

Document Type: Journal

Language: English

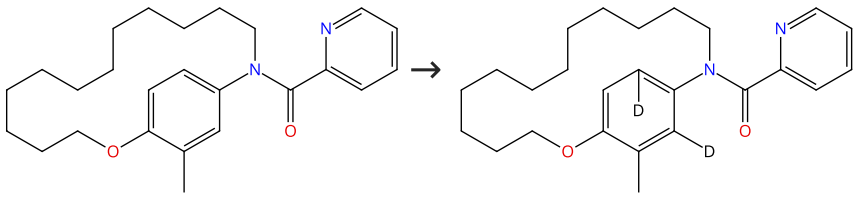
CAS SciFinder

Reactions (70)

View in CAS SciFinder

Scheme 1 (1 Reaction)

Steps: **1** Yield: **100%**



31-614-CAS-38487677

Steps: **1** Yield: **100%**

1.1 **Reagents:** Silver carbonate, 2-Propan-*1,1,1,2,3,3,3-d*$_7$-ol-*d*
Catalysts: Palladium diacetate, (+)-Pyroglutamic acid; 18 h, 80 °C

Experimental Protocols

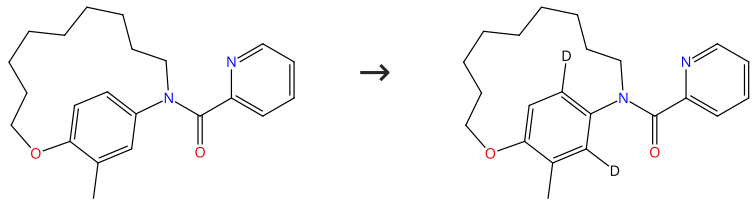
Palladium-Catalyzed Enantioselective C-H Olefination to Access Planar-Chiral Cyclophanes by Dynamic Kinetic Resolution

By: Dong, Ziyang; et al

Angewandte Chemie, International Edition (2023), 62(51), e202315603.

Scheme 2 (2 Reactions)

Steps: **1** Yield: **100%**



31-614-CAS-38487684

Steps: **1** Yield: **100%**

1.1 **Reagents:** Silver carbonate, 2-Propan-*1,1,1,2,3,3,3-d*$_7$-ol-*d*
Catalysts: Palladium diacetate, (+)-Pyroglutamic acid; 18 h, 80 °C

Experimental Protocols

Palladium-Catalyzed Enantioselective C-H Olefination to Access Planar-Chiral Cyclophanes by Dynamic Kinetic Resolution

By: Dong, Ziyang; et al

Angewandte Chemie, International Edition (2023), 62(51), e202315603.

31-614-CAS-38487683

Steps: **1** Yield: **100%**

1.1 **Reagents:** Silver carbonate, 2-Propan-*1,1,1,2,3,3,3-d*$_7$-ol-*d*
Catalysts: DL-Pyrrolidonecarboxylic acid, Palladium diacetate; 18 h, 80 °C

Experimental Protocols

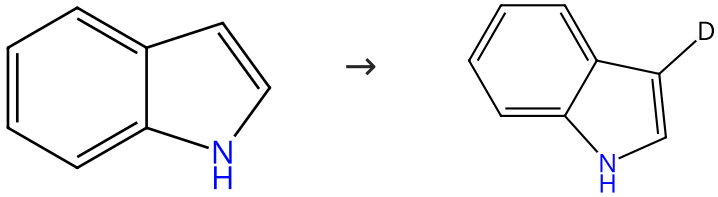
Palladium-Catalyzed Enantioselective C-H Olefination to Access Planar-Chiral Cyclophanes by Dynamic Kinetic Resolution

By: Dong, Ziyang; et al

Angewandte Chemie, International Edition (2023), 62(51), e202315603.

Scheme 3 (1 Reaction)

Steps: **1** Yield: **99%**



Suppliers (117)

Suppliers (10)

31-614-CAS-24633317 Steps: **1** Yield: **99%**

1.1 **Reagents:** Sodium dodecyl sulfate
Catalysts: Palladium chloride, (α*S*,α'*S*)-α,α'-Bis(1,1-dimethylethyl)[2,2'-bipyridine]-6,6'-dimethanol
Solvents: Methanol-d_4; 18 h, rt

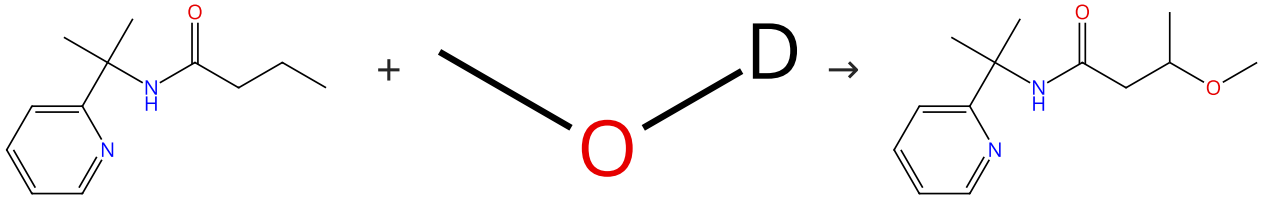
Experimental Protocols

Hydrogen-Bonding-Assisted Cationic Aqua Palladium(II) Complex Enables Highly Efficient Asymmetric Reactions in Water

By: Kitanosono, Taku; et al

Angewandte Chemie, International Edition (2021), 60(7), 3407-3411.

Scheme 4 (1 Reaction) Steps: **1** Yield: **98%**



Suppliers (3)

Suppliers (49)

31-491-CAS-18113143 Steps: **1** Yield: **98%**

1.1 **Reagents:** Iodobenzene diacetate
Catalysts: Palladium diacetate
Solvents: *m*-Xylene; 24 h, 90 °C

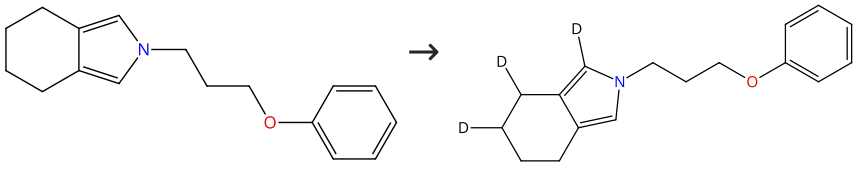
Experimental Protocols

Pd(II)-catalyzed alkoxylation of unactivated C(sp^3)-H and C(sp^2)-H bonds using a removable directing group: efficient synthesis of alkyl ethers

By: Chen, Fa-Jie; et al

Chemical Science (2013), 4(11), 4187-4192.

Scheme 5 (1 Reaction) Steps: **1** Yield: **95%**



Suppliers (2)

31-116-CAS-1276990 Steps: **1** Yield: **95%**

1.1 **Reagents:** Formic-*d* acid, ammonium salt
Catalysts: Palladium dihydroxide
Solvents: Methanol-d_4; 14 h, reflux

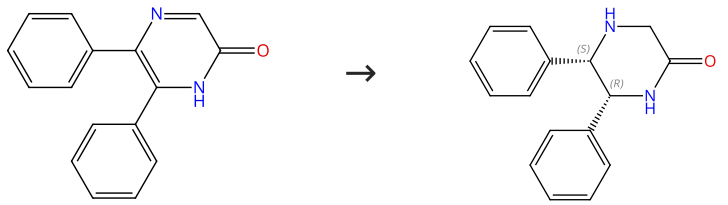
New formation of 4,5,6,7-tetrahydroisoindoles

By: Hou, Duen-Ren; et al

Tetrahedron Letters (2005), 46(35), 5927-5929.

Scheme 6 (1 Reaction)

Steps: **1** Yield: **94%**



Absolute stereochemistry shown

Suppliers (58)

31-614-CAS-24225313

Steps: **1** Yield: **94%**

1.1 **Reagents:** Methanol-d_4, (-)-Camphorsulfonic acid
Catalysts: Palladium trifluoroacetate, 1,1'-(1*R*)-[1,1'-Binaphthalene]-2,2'-diylbis[bis(4-methylphenyl)phosphine
Solvents: Acetone; 30 min, rt

1.2 **Reagents:** *p*-Toluenesulfonic acid
Solvents: Benzene; 5 min, rt

1.3 **Reagents:** Hydrogen
Solvents: Dichloromethane; 24 h, 1000 psi, 80 °C; 80 °C → rt

1.4 **Reagents:** Sodium bicarbonate
Solvents: Water; 10 - 15 min, rt

Experimental Protocols

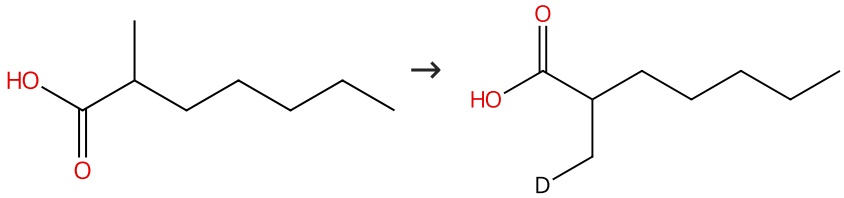
Synthesis of chiral piperazin-2-ones through palladium-catalyzed asymmetric hydrogenation of pyrazin-2-ols

By: Feng, Guang-Shou; et al

Organic Chemistry Frontiers (2021), 8(22), 6273-6278.

Scheme 7 (2 Reactions)

Steps: **1** Yield: **12-92%**



Suppliers (73)

31-614-CAS-37287851

Steps: **1** Yield: **92%**

1.1 **Reagents:** Acetic acid, Iodobenzene diacetate
Catalysts: Palladium diacetate, 6-[1-Methyl-1-(2-quinolinyl)ethyl]-2(1*H*)-pyridinone
Solvents: 2-Propan-*2-d*-ol-*d*, 1,1,1,3,3,3-hexafluoro-; 24 h, 100 °C

Experimental Protocols

Enhancing Substrate-Metal Catalyst Affinity via Hydrogen Bonding: Pd(II)-Catalyzed β-C(sp^3)-H Bromination of Free Carboxylic Acids

By: Hu, Liang; et al

Journal of the American Chemical Society (2023), 145(30), 16297-16304.

31-614-CAS-37287844

Steps: **1** Yield: **12%**

1.1 **Reagents:** Acetic acid, *N*-Bromosuccinimide, Iodobenzene diacetate
Catalysts: *N*-Acetylalanine, Palladium diacetate
Solvents: 2-Propan-*2-d*-ol-*d*, 1,1,1,3,3,3-hexafluoro-; 24 h, 100 °C

Experimental Protocols

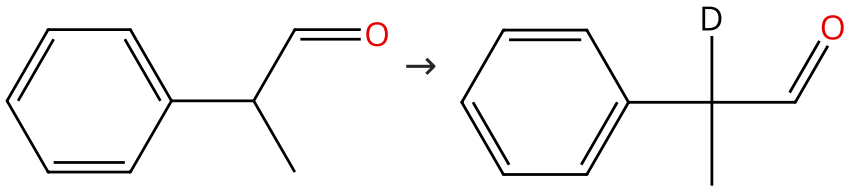
Enhancing Substrate-Metal Catalyst Affinity via Hydrogen Bonding: Pd(II)-Catalyzed β-C(sp^3)-H Bromination of Free Carboxylic Acids

By: Hu, Liang; et al

Journal of the American Chemical Society (2023), 145(30), 16297-16304.

Scheme 8 (1 Reaction)

Steps: **1** Yield: **92%**



Suppliers (90)

Supplier (1)

31-116-CAS-5663328

Steps: **1** Yield: **92%**

1.1 **Reagents:** Sodium carbonate, Methanol-d_4
Catalysts: Palladium diacetate
Solvents: Dimethyl sulfoxide; 5 h, 120 °C

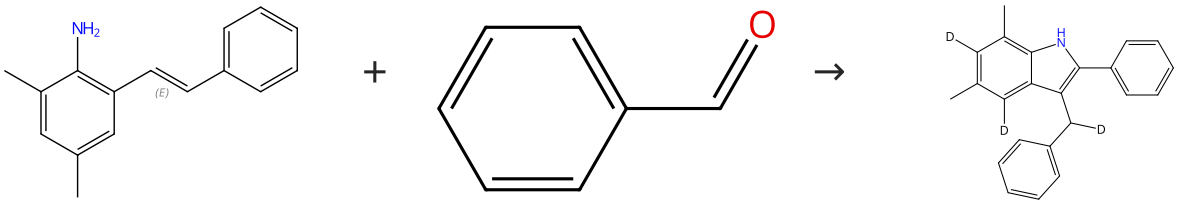
Palladium-Catalyzed Dehydrogenative β-Arylation of Simple Saturated Carbonyls by Aryl Halides

By: Gandeepan, Parthasarathy; et al

ACS Catalysis (2014), 4(12), 4485-4489.

Scheme 9 (1 Reaction)

Steps: **1** Yield: **91%**



Double bond geometry shown

Supplier (1)

Suppliers (80)

31-116-CAS-22933181

Steps: **1** Yield: **91%**

1.1 **Reagents:** Ethanol-*d*
Catalysts: Di-μ-chlorobis(η^3-2-propenyl)dipalladium, 1,1'-(9,9-Dimethyl-9*H*-xanthene-4,5-diyl)bis[1,1-diphenylphosphine]; 24 h, 100 °C

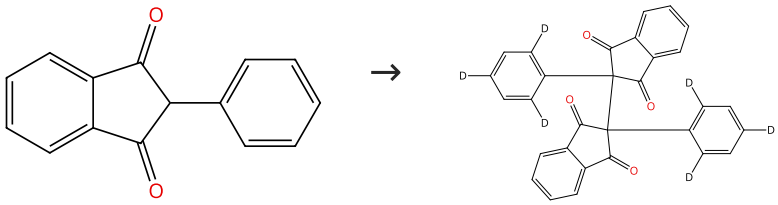
Divergent Syntheses of Indoles and Quinolines Involving N1-C2-C3 Bond Formation through Two Distinct Pd Catalyses

By: San Jang, Su; et al

Organic Letters (2020), 22(23), 9151-9157.

Scheme 10 (1 Reaction)

Steps: **1** Yield: **91%**



Suppliers (79)

31-614-CAS-40822170

Steps: **1** Yield: **91%**

1.1 **Reagents:** Methanol-*d*
Catalysts: Cupric acetate, Palladium diacetate
Solvents: Toluene; 1 h, 120 °C

Experimental Protocols

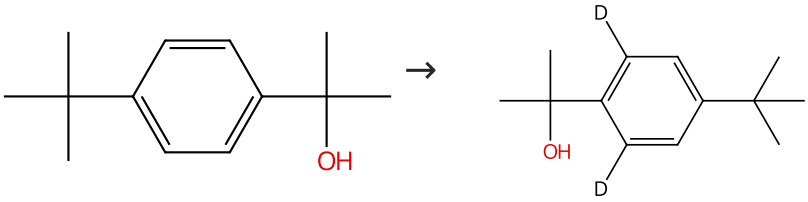
Synthesis of 1,2'-Spirobi[indene]-1,3-diones by Pd(II)-Catalyzed C-H Activation and Alkynes Annulation Reaction

By: Xu, Xuefeng; et al

Advanced Synthesis & Catalysis (2024), 366(13), 2926-2932.

Scheme 11 (1 Reaction)

Steps: **1** Yield: **90%**



Suppliers (26)

31-116-CAS-18990978

Steps: **1** Yield: **90%**

1.1 **Reagents:** Cesium carbonate, Methanol-d_4, 4-Bromo-*N*,*N*-dimethylbenzamide
Catalysts: Lithium *tert*-butoxide, Palladium trifluoroacetate
Solvents: Dimethylformamide; 20 min, 1 atm, 140 °C

Experimental Protocols

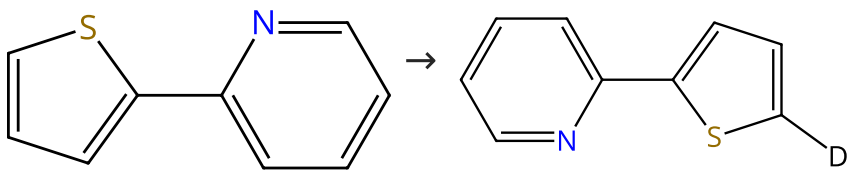
Catalytic Lactonization of Unactivated Aryl C-H Bonds with C O_2: Experimental and Computational Investigation

By: Song, Lei; et al

Organic Letters (2018), 20(13), 3776-3779.

Scheme 12 (1 Reaction)

Steps: **1** Yield: **90%**



Suppliers (71)

31-614-CAS-37050871

Steps: **1** Yield: **90%**

1.1 **Reagents:** Silver carbonate, Methanol-d_4
Catalysts: Palladium diacetate
Solvents: (Trifluoromethyl)benzene; 12 h, 120 °C

Experimental Protocols

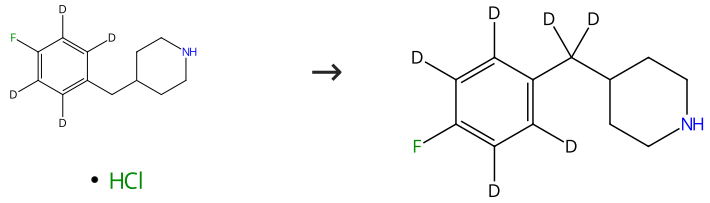
Catalyst-controlled regiodivergent C-H bond alkenylation of 2-pyridylthiophenes

By: Zhang, Qiang; et al

Chemical Communications (Cambridge, United Kingdom) (2023), 59(57), 8842-8845.

Scheme 13 (1 Reaction)

Steps: **1** Yield: **90%**



31-116-CAS-4563156

Steps: **1** Yield: **90%**

1.1 **Reagents:** Deuterium chloride, Deuterium
Catalysts: Palladium
Solvents: Methanol-d, Water-d_2; 6 h, 3 bar, 60 °C

1.2 **Reagents:** Sodium hydroxide
Solvents: Water

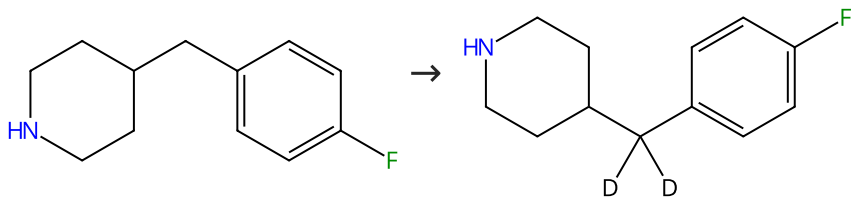
Convenient methods for the synthesis of d_4, d_2 and d_6 isotopomers of 4-(4-fluorobenzyl)piperidine

By: Proszenyak, Agnes; et al

Journal of Labelled Compounds & Radiopharmaceuticals (2005), 48(6), 421-427.

Scheme 14 (1 Reaction)

Steps: **1** Yield: **90%**



Suppliers (79)

31-116-CAS-11564808

Steps: **1** Yield: **90%**

1.1 **Reagents:** Deuterium chloride, Deuterium
Catalysts: Palladium
Solvents: Methanol-*d*, Water-d_2; 6 h, 3 bar, 60 °C

1.2 **Reagents:** Sodium hydroxide
Solvents: Water

Convenient methods for the synthesis of d_4, d_2 and d_6 isotopomers of 4-(4-fluorobenzyl)piperidine

By: Proszenyak, Agnes; et al

Journal of Labelled Compounds & Radiopharmaceuticals (2005), 48(6), 421-427.

Scheme 15 (1 Reaction)

Steps: **1** Yield: **89%**

Suppliers (36)

Suppliers (2)

31-243-CAS-21421505

Steps: **1** Yield: **89%**

1.1 **Catalysts:** Palladium trifluoroacetate, (2*R*)-1-[(1*S*)-1-[Bis(1,1-dimethylethyl)phosphino]ethyl]-2-(diphenylphosphino) ferrocene
Solvents: Acetone; 30 min, rt

1.2 **Catalysts:** Benzoic acid
Solvents: 2,2,2-Trifluoroethan-*1,1*-d_2-ol-*d*; 1 min, rt

1.3 **Reagents:** Hydrogen
Solvents: 2,2,2-Trifluoroethan-*1,1*-d_2-ol-*d*; 24 h, 1000 psi, 80 °C

1.4 **Reagents:** Sodium bicarbonate
Solvents: Water; 10 - 15 min, 80 °C

Experimental Protocols

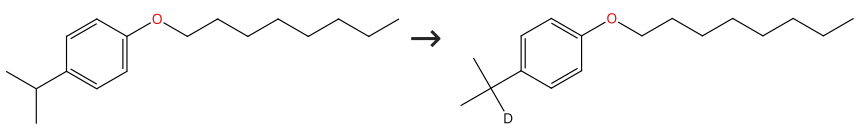
Facile Synthesis of Chiral Cyclic Ureas through Hydroge nation of 2-Hydroxypyrimidine/Pyrimidin-2(1H)-one Tautomers

By: Feng, Guang-Shou; et al

Angewandte Chemie, International Edition (2018), 57(20), 5853-5857.

Scheme 16 (1 Reaction)

Steps: **1** Yield: **85%**



Suppliers (3)

31-116-CAS-16366004 Steps: **1** Yield: **85%**

1.1 **Reagents:** Hydrogen
Catalysts: Palladium
Solvents: Methanol-d_4; 24 h, rt

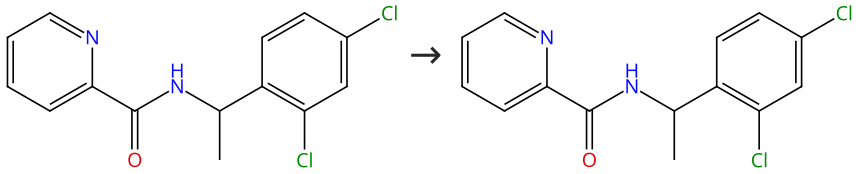
Experimental Protocols

Facile Hydrogenolysis of C(sp^3)-C(sp^3) σ Bonds

By: Fillion, Eric; et al

Advanced Synthesis & Catalysis (2016), 358(21), 3422-3434.

Scheme 17 (1 Reaction) Steps: **1** Yield: **85%**



Suppliers (2)

31-614-CAS-27887663 Steps: **1** Yield: **85%**

1.1 **Reagents:** Acetic acid-d_4
Catalysts: Palladium diacetate
Solvents: Methanol-d_4; 36 h, 125 °C

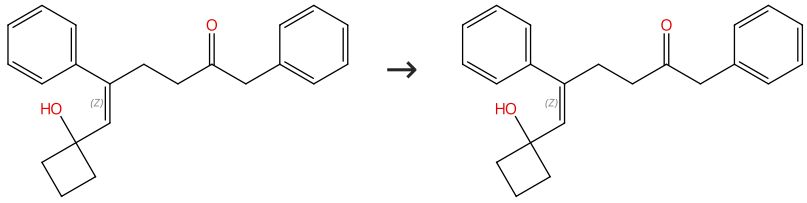
Experimental Protocols

Expedient Cobalt-Catalyzed C-H Alkynylation of (Enantiopure) Benzylamines

By: Landge, Vinod G.; et al

Organic Letters (2016), 18(20), 5252-5255.

Scheme 18 (1 Reaction) Steps: **1** Yield: **84%**



Double bond geometry shown Double bond geometry shown

31-614-CAS-41318088 Steps: **1** Yield: **84%**

1.1 **Reagents:** Methanol-d_4
Catalysts: Tricyclohexylphosphine, Tetrakis(triphenyl phosphine)palladium
Solvents: Toluene; 12 h, 100 °C

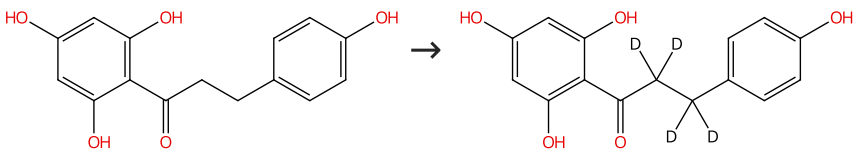
Experimental Protocols

Hydroxy Group-Enabled Regio- and Stereoselective Hydroalkylation of Alkynyl Cyclobutanol via Palladium-Catalyzed C-C Bond Activation of Cyclopropanol: A One-Step Access to Vinyl Cyclobutanols

By: Najiar, Lamphiza O.; et al

Organic Letters (2024), 26(30), 6314-6319.

Scheme 19 (1 Reaction) Steps: **1** Yield: **84%**



Suppliers (99)

31-116-CAS-2385686 Steps: **1** Yield: **84%**

1.1 **Reagents:** Sodium formate, Methanol-*d*
Catalysts: Palladium; 4 h, reflux

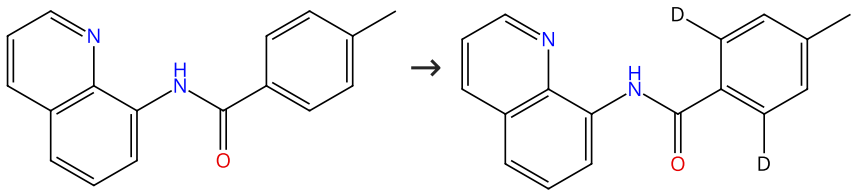
1.2 **Reagents:** Hydrochloric acid
Solvents: Water; acidified

Synthesis of deuterated dihydrochalcones

By: Comeskey, Daniel J.; et al

Journal of Labelled Compounds and Radiopharmaceuticals (2006), 49(6), 479-487.

Scheme 20 (1 Reaction) Steps: **1** Yield: **80%**



Suppliers (8)

31-116-CAS-24683939 Steps: **1** Yield: **80%**

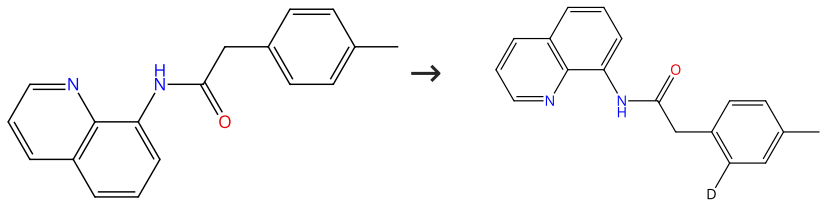
1.1 **Reagents:** Methanol-d_4, Tripotassium phosphate, Oxygen
Catalysts: Palladium diacetate
Solvents: Methanol-d_4; 8 h, 120 °C

Palladium-catalyzed oxidative annulation of N-(8-quinolinyl) aryl carboxamides with 1-aryl-2-tosyloxy ethanones

By: Long, Qinghuang; et al

Synthetic Communications (2021), 51(18), 2796-2807.

Scheme 21 (1 Reaction) Steps: **1** Yield: **74%**



Supplier (1)

31-116-CAS-22890742 Steps: **1** Yield: **74%**

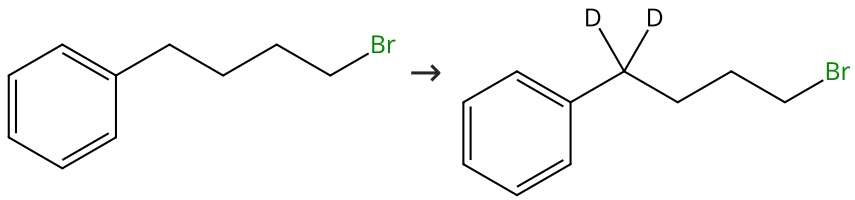
1.1 **Reagents:** Silver carbonate, Methanol-d_4, Trifluoromethane sulfonic acid, Silver triflate
Catalysts: Palladium chloride
Solvents: Dimethylformamide; 16 h, 100 °C

Palladium-Catalyzed Distal C-H Selenylation of 2-Aryl Acetamides with Diselenides and Selenyl Chlorides

By: He, Meicui; et al

Advanced Synthesis & Catalysis (2020), 362(24), 5708-5715.

Scheme 22 (1 Reaction) Steps: **1** Yield: **74%**



Suppliers (88)

Supplier (1)

31-116-CAS-17238853 Steps: **1** Yield: **74%**

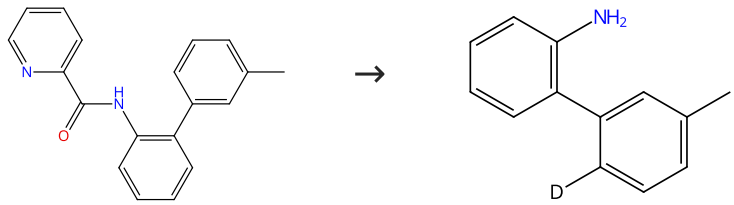
1.1 **Reagents:** Deuterium
Catalysts: Palladium
Solvents: Methanol-d_4; 20 h, rt

Cobalt-Porphyrin-Catalysed Intramolecular Ring-Closing C-H Amination of Aliphatic Azides: A Nitrene-Radical Approach to Saturated Heterocycles

By: Kuijpers, Petrus F.; et al

Chemistry - A European Journal (2017), 23(33), 7945-7952.

Scheme 23 (1 Reaction) Steps: **1** Yield: **74%**



31-614-CAS-36908143 Steps: **1** Yield: **74%**

1.1 **Reagents:** Trifluoroacetic acid, Silver acetate
Catalysts: Palladium trifluoroacetate
Solvents: (Trifluoromethyl)benzene, Methanol-*d*; 12 h, 120 °C

1.2 **Solvents:** Water; rt

1.3 **Reagents:** Sodium hydroxide
Solvents: Ethanol; 12 h, 80 °C

1.4 **Solvents:** Water; rt

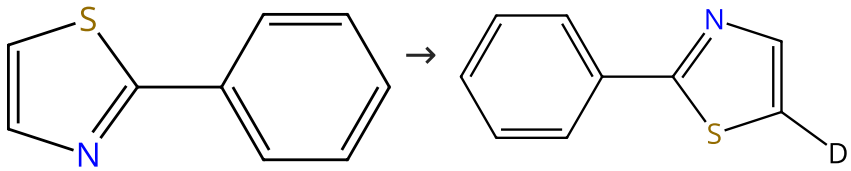
Experimental Protocols

Palladium-catalyzed distal selective C-H chalcogenation of biphenyl amines

By: Zhou, Yunhao; et al

Chemical Communications (Cambridge, United Kingdom) (2023), 59(53), 8262-8265.

Scheme 24 (1 Reaction) Steps: **1** Yield: **73%**



Suppliers (79) Supplier (1)

31-614-CAS-41279979 Steps: **1** Yield: **73%**

1.1 **Reagents:** Pivalic acid, Silver carbonate, Potassium carbonate, Methanol-d_4
Catalysts: Palladium diacetate, 2-(Di-*tert*-butylphosphino) biphenyl
Solvents: Toluene; 16 h, 120 °C

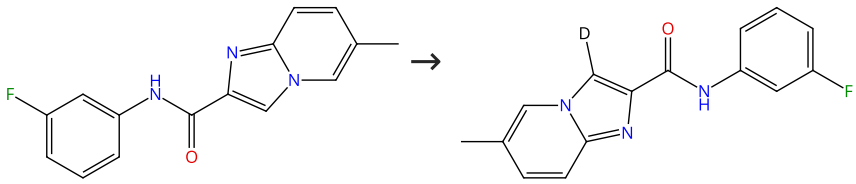
Experimental Protocols

Regiodivergent Metal-Catalyzed Oxidative Alkynylation of 2-Arylthiazoles with Terminal Alkynes under Air Conditions

By: Zhou, Pengfei; et al

Journal of Organic Chemistry (2024), 89(15), 10953-10964.

Scheme 25 (1 Reaction) Steps: **1** Yield: **73%**



Supplier (1)

31-614-CAS-39746341 Steps: **1** Yield: **73%**

1.1 **Reagents:** Methanol-*d*, Oxygen, Water-d_2
Catalysts: Palladium diacetate; 14 h, 1 atm, 100 °C

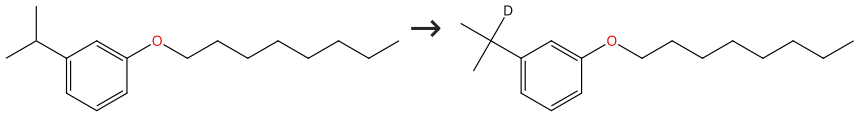
Experimental Protocols

Palladium-Catalyzed C-H Olefination of Imidazo[1,2a] pyridine Carboxamide in Aqueous Ethanol under Oxygen

By: Balaso Mohite, Sachin; et al

Chemistry - A European Journal (2024), 30(23), e202304239.

Scheme 26 (1 Reaction) Steps: **1** Yield: **72%**



31-116-CAS-16366005 Steps: **1** Yield: **72%**

1.1 **Reagents:** Hydrogen
Catalysts: Palladium
Solvents: Methanol-d_4; 24 h, rt

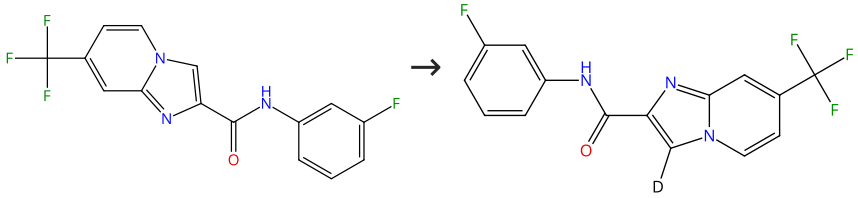
Experimental Protocols

Facile Hydrogenolysis of C(sp^3)-C(sp^3) σ Bonds

By: Fillion, Eric; et al

Advanced Synthesis & Catalysis (2016), 358(21), 3422-3434.

Scheme 27 (1 Reaction) Steps: **1** Yield: **72%**



31-614-CAS-39746348 Steps: **1** Yield: **72%**

1.1 **Reagents:** Methanol-*d*, Oxygen, Water-d_2
Catalysts: Palladium diacetate; 14 h, 1 atm, 100 °C

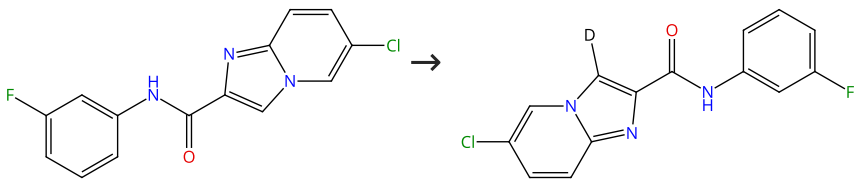
Experimental Protocols

Palladium-Catalyzed C-H Olefination of Imidazo[1,2a] pyridine Carboxamide in Aqueous Ethanol under Oxygen

By: Balaso Mohite, Sachin; et al

Chemistry - A European Journal (2024), 30(23), e202304239.

Scheme 28 (1 Reaction) Steps: **1** Yield: **71%**



Suppliers (2)

31-614-CAS-39746344 Steps: **1** Yield: **71%**

1.1 **Reagents:** Methanol-*d*, Oxygen, Water-d_2
Catalysts: Palladium diacetate; 14 h, 1 atm, 100 °C

Experimental Protocols

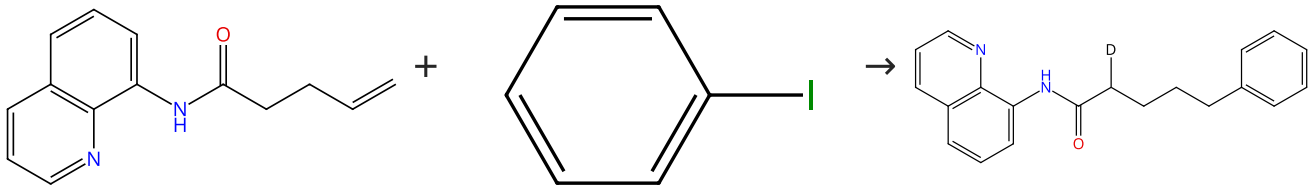
Palladium-Catalyzed C-H Olefination of Imidazo[1,2a] pyridine Carboxamide in Aqueous Ethanol under Oxygen

By: Balaso Mohite, Sachin; et al

Chemistry - A European Journal (2024), 30(23), e202304239.

Scheme 29 (1 Reaction)

Steps: **1** Yield: **71%**



Supplier (1)

Suppliers (104)

31-614-CAS-42237067

Steps: **1** Yield: **71%**

1.1 **Reagents:** Ethanol-*d*, Tripotassium phosphate
Catalysts: Palladium diacetate; 8 h, 100 °C

1.2 **Solvents:** Ethyl acetate

Experimental Protocols

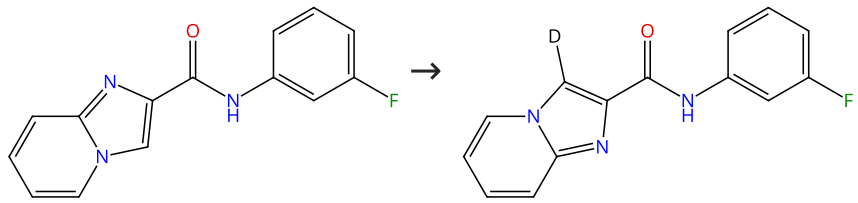
Palladium-catalyzed δ-selective reductive Heck reaction of alkenyl carbonyl compounds with aryl iodides and bromides

By: Li, Yang; et al

Organic Chemistry Frontiers (2020), 7(16), 2216-2223.

Scheme 30 (1 Reaction)

Steps: **1** Yield: **70%**



Supplier (1)

31-614-CAS-39746346

Steps: **1** Yield: **70%**

1.1 **Reagents:** Methanol-*d*, Oxygen, Water-d_2
Catalysts: Palladium diacetate; 14 h, 1 atm, 100 °C

Experimental Protocols

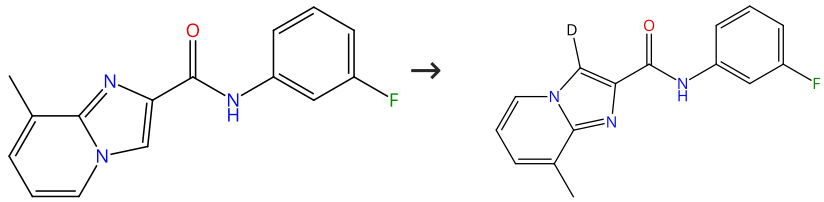
Palladium-Catalyzed C-H Olefination of Imidazo[1,2a] pyridine Carboxamide in Aqueous Ethanol under Oxygen

By: Balaso Mohite, Sachin; et al

Chemistry - A European Journal (2024), 30(23), e202304239.

Scheme 31 (1 Reaction)

Steps: **1** Yield: **70%**



31-614-CAS-39746347

Steps: **1** Yield: **70%**

1.1 **Reagents:** Methanol-*d*, Oxygen, Water-d_2
Catalysts: Palladium diacetate; 14 h, 1 atm, 100 °C

Experimental Protocols

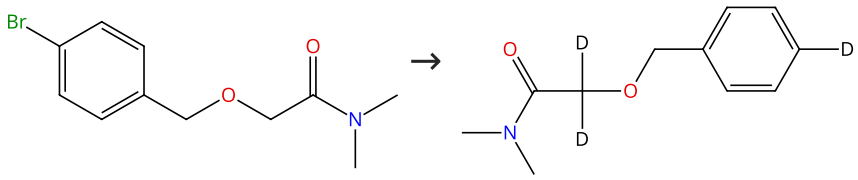
Palladium-Catalyzed C-H Olefination of Imidazo[1,2a] pyridine Carboxamide in Aqueous Ethanol under Oxygen

By: Balaso Mohite, Sachin; et al

Chemistry - A European Journal (2024), 30(23), e202304239.

Scheme 32 (1 Reaction)

Steps: **1** Yield: **62%**



Supplier (1)

Suppliers (3)

31-113-CAS-20248524

Steps: **1** Yield: **62%**

1.1 **Reagents:** Sodium *tert*-butoxide
Catalysts: Tetrakis(triphenylphosphine)palladium
Solvents: 2-Propan-*1,1,1,2,3,3,3-d*$_7$-ol-*d*; rt

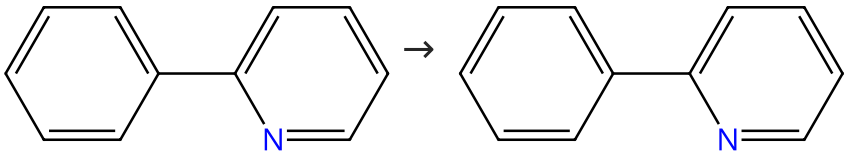
Visible-light-mediated hydrodehalogenation and Br/D exchange of inactivated aryl and alkyl halides with a palladium complex

By: Zhou, Zhao-Zhao; et al

Organic Chemistry Frontiers (2019), 6(10), 1649-1654.

Scheme 33 (1 Reaction)

Steps: **1** Yield: **49%**



Suppliers (94)

31-614-CAS-25934962

Steps: **1** Yield: **49%**

1.1 **Reagents:** Methanol-d_4, Acetic acid, 2,2,2-trifluoro-, copper(1+) salt (1:1)
Catalysts: Palladium diacetate
Solvents: Tetrahydrofuran; 24 h, 120 °C

Experimental Protocols

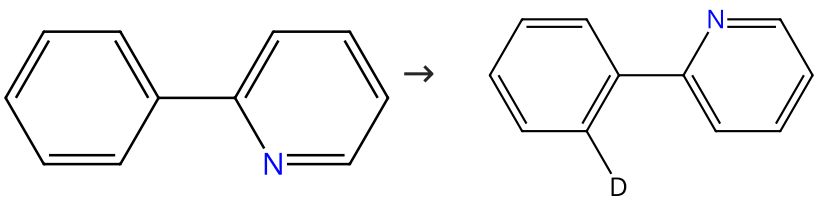
α-Iminonitrile: a new cyanating agent for the palladium catalyzed C-H cyanation of arenes

By: Chen, Zhen-Bang; et al

RSC Advances (2016), 6(69), 64234-64238.

Scheme 34 (1 Reaction)

Steps: **1** Yield: **48%**



Suppliers (94)

Suppliers (6)

31-614-CAS-39339113

Steps: **1** Yield: **48%**

1.1 **Reagents:** 2-Ethylbutanoic acid, Styrene oxide, Methanol-d_4, Sodium iodide
Catalysts: Dichlorobis(triphenylphosphine)palladium
Solvents: 1,4-Dioxane; 8 h, 70 °C

Experimental Protocols

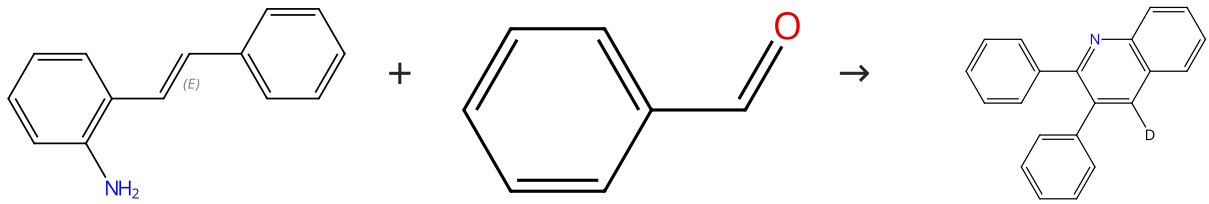
Unlocking regioselective meta-alkylation with epoxides and oxetanes via dynamic kinetic catalyst control

By: Bai, Peng-Bo; et al

Nature Communications (2024), 15(1), 31.

Scheme 35 (1 Reaction)

Steps: **1** Yield: **45%**



Double bond geometry shown

Suppliers (14)

Suppliers (80)

31-614-CAS-31286269

Steps: **1** Yield: **45%**

1.1 **Reagents:** Ethanol-*d*
Catalysts: Ethanol, Bis(benzonitrile)dichloropalladium; 24 h, 100 °C

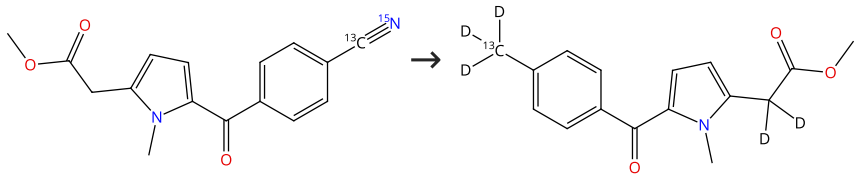
Divergent Syntheses of Indoles and Quinolines Involving N1-C2-C3 Bond Formation through Two Distinct Pd Catalyses

By: San Jang, Su; et al

Organic Letters (2020), 22(23), 9151-9157.

Scheme 36 (1 Reaction)

Steps: **1** Yield: **41%**



31-116-CAS-16838541

Steps: **1** Yield: **41%**

1.1 **Reagents:** Deuterium
Catalysts: Palladium
Solvents: Methanol-d_4; 5 h, rt

Experimental Protocols

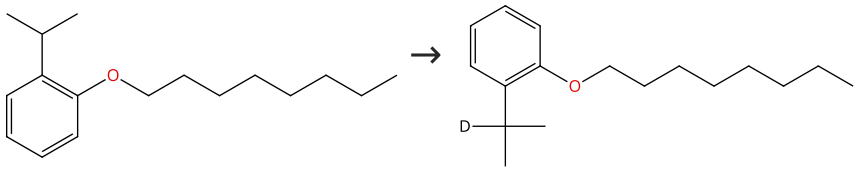
Isotope labelling by reduction of nitriles: applic ation to the synthesis of isotopologues of tolmetin and celecoxib

By: Ellis-Sawyer, Kate; et al

Journal of Labelled Compounds and Radiopharmaceuticals (2017), 60(4), 213-220.

Scheme 37 (1 Reaction)

Steps: **1** Yield: **37%**



Suppliers (3)

31-116-CAS-16366002

Steps: **1** Yield: **37%**

1.1 **Reagents:** Deuterium
Catalysts: Palladium
Solvents: Methanol-d_4; 24 h, rt

Experimental Protocols

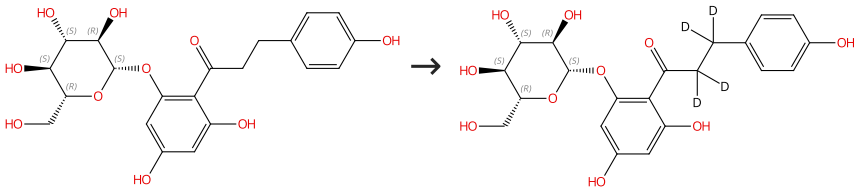
Facile Hydrogenolysis of C(sp^3)-C(sp^3) σ Bonds

By: Fillion, Eric; et al

Advanced Synthesis & Catalysis (2016), 358(21), 3422-3434.

Scheme 38 (1 Reaction)

Steps: **1** Yield: **29%**



Absolute stereochemistry shown

Absolute stereochemistry shown

Suppliers (98)

31-116-CAS-4525807

Steps: **1** Yield: **29%**

1.1 **Reagents:** Sodium formate, Methanol-*d*
Catalysts: Palladium; 30 min, reflux

1.2 **Reagents:** Hydrochloric acid
Solvents: Water; acidified

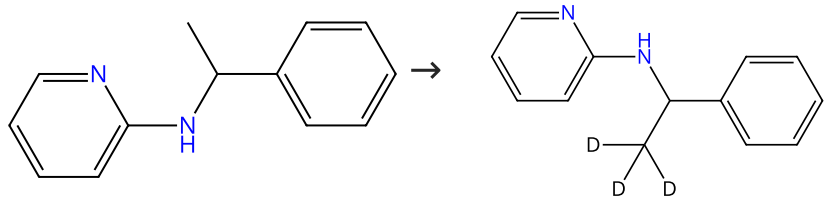
Synthesis of deuterated dihydrochalcones

By: Comeskey, Daniel J.; et al

Journal of Labelled Compounds and Radiopharmaceuticals (2006), 49(6), 479-487.

Scheme 39 (1 Reaction)

Steps: **1** Yield: **25%**



Suppliers (24)

31-116-CAS-11777755

Steps: **1** Yield: **25%**

1.1 **Reagents:** Methanol-d_4, 1-Butanamine, *N*,*N*-dibutyl-, hydrobromide (1:1)
Catalysts: Palladium diacetate
Solvents: DMSO-d_6; 24 h, 100 °C

Experimental Protocols

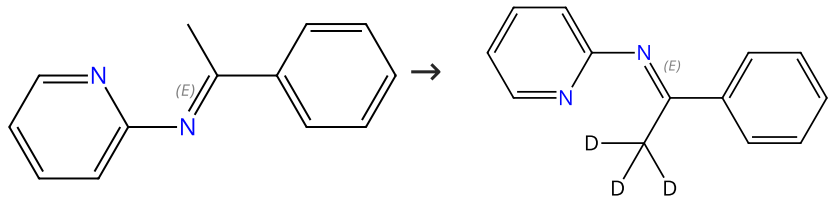
Pd-Catalyzed [3+2] cycloaddition of ketoimines with alkynes via directed sp^3 C-H bond activation

By: Xie, Ying; et al

Chemical Communications (Cambridge, United Kingdom) (2014), 50(73), 10699-10702.

Scheme 40 (1 Reaction)

Steps: **1** Yield: **20%**



Double bond geometry shown

Double bond geometry shown

31-116-CAS-12876583

Steps: **1** Yield: **20%**

1.1 **Reagents:** Methanol-d_4, Oxygen
Catalysts: Palladium diacetate
Solvents: Dimethylformamide; 24 h, 100 °C

Experimental Protocols

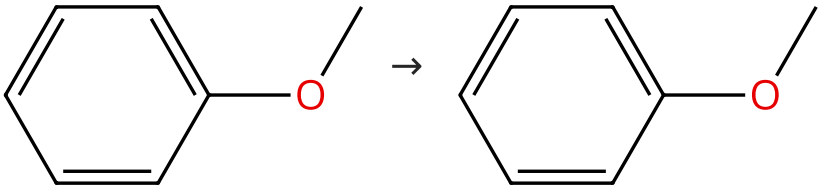
Pd-catalyzed carbonylative cycloamidation of ketoimines for the synthesis of pyrido[1,2-a]pyrimidin-4-ones

By: Xie, Ying; et al

Chemical Communications (Cambridge, United Kingdom) (2015), 51(45), 9377-9380.

Scheme 41 (1 Reaction)

Steps: **1**



Suppliers (89)

31-614-CAS-32868031

Steps: **1**

1.1 **Reagents:** 2-Propan-*2-d*-ol-*d*, 1,1,1,3,3,3-hexafluoro-
Catalysts: Palladium diacetate, 2-Methyl-2-[(2,3,4,5,6-pentafluorophenyl)thio]propanoic acid; 18 h, 90 °C

Experimental Protocols

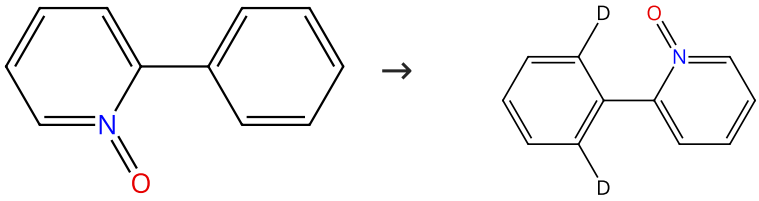
S,O-Ligand Promoted meta-C-H Arylation of Anisole Derivatives via Palladium/Norbornene Catalysis

By: Sukowski, Verena; et al

Angewandte Chemie, International Edition (2022), 61(31), e202201750.

Scheme 42 (1 Reaction)

Steps: **1**



Suppliers (53)

31-116-CAS-20921908

Steps: **1**

1.1 **Reagents:** *tert*-Butyl hydroperoxide, Methanol-d_4
Catalysts: Palladium diacetate
Solvents: Dichloromethane, Water; 24 h, 60 °C

Experimental Protocols

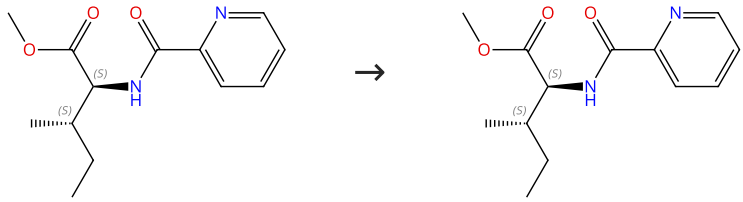
Palladium-Catalyzed Direct ortho-C-H Acylation of 2-Phenylpyridine N-oxides with Benzyl Alcohols/α-Oxocarboxylic Acids

By: Zhou, Ming-Dong; et al

ChemistrySelect (2019), 4(47), 13947-13951.

Scheme 43 (1 Reaction)

Steps: **1**



Absolute stereochemistry shown, Rotation (+)

Absolute stereochemistry shown

Supplier (1)

31-614-CAS-28063072

Steps: **1**

1.1 **Reagents:** Sodium bicarbonate, Oxygen, Lithium fluoride, 2-Propan-*2-d*-ol-*d*, 1,1,1,3,3,3-hexafluoro-
Catalysts: 2,6-Dimethyl-1,4-benzoquinone, Palladium diacetate
Solvents: 1,1,2,2-Tetrachloroethane; 18 h, 100 °C

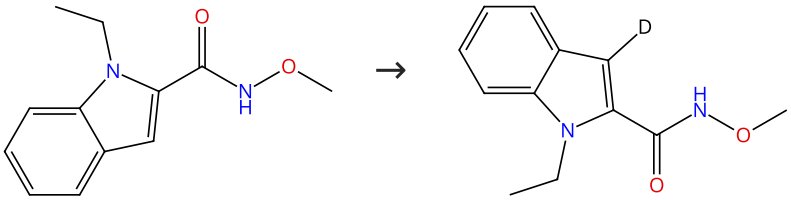
Site-Selective Alkenylation of δ-C(sp^3)-H Bonds with Alkynes via a Six-Membered Palladacycle

By: Xu, Jing-Wen; et al

Journal of the American Chemical Society (2016), 138(34), 10750-10753.

Scheme 44 (1 Reaction)

Steps: **1**



Supplier (1)

31-614-CAS-42638841

Steps: **1**

1.1 **Reagents:** Methanol-d_4, Tetrabutylammonium bromide, Oxygen
Catalysts: Palladium diacetate
Solvents: Dimethylacetamide; 80 °C

Experimental Protocols

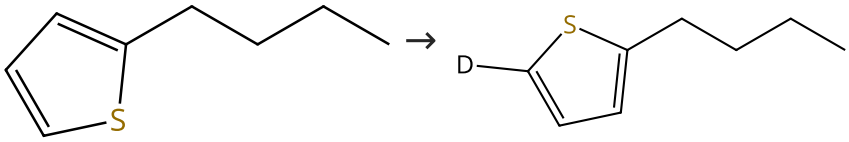
Pd(II)-catalyzed C-H annulation and lactonization of indole-2-carboxamides with hydroxyalkynoates using air as an oxidant

By: Aswale, Kiran; et al

Tetrahedron Chem (2024), 12, 100104.

Scheme 45 (1 Reaction)

Steps: **1**



Suppliers (61)

31-116-CAS-7040040

Steps: **1**

1.1 **Reagents:** Methanol-d_4, Cupric chloride
Catalysts: Alumina, Palladium
Solvents: 1,2-Dichloroethane; 5 h, 80 °C

Experimental Protocols

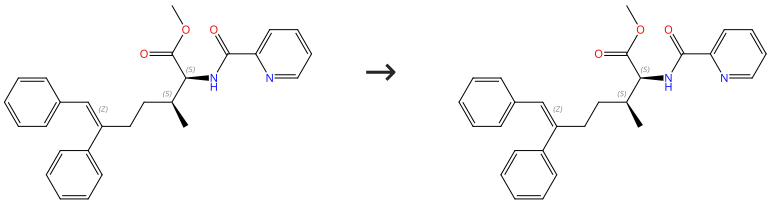
Heterogeneously Catalyzed Direct C-H Thiolation of Hetero arenes

By: Vasquez-Cespedes, Suhelen; et al

Angewandte Chemie, International Edition (2015), 54(19), 5772-5776.

Scheme 46 (1 Reaction)

Steps: **1**



Absolute stereochemistry shown, Rotation (+)
Double bond geometry shown

Absolute stereochemistry shown
Double bond geometry shown

31-614-CAS-26566369

Steps: **1**

1.1 **Reagents:** Sodium bicarbonate, Diphenylacetylene, Oxygen, Lithium fluoride, 2-Propan-2-*d*-ol-*d*, 1,1,1,3,3,3-hexafluoro-
Catalysts: 2,6-Dimethyl-1,4-benzoquinone, Palladium diacetate
Solvents: 1,1,2,2-Tetrachloroethane; 18 h, 100 °C

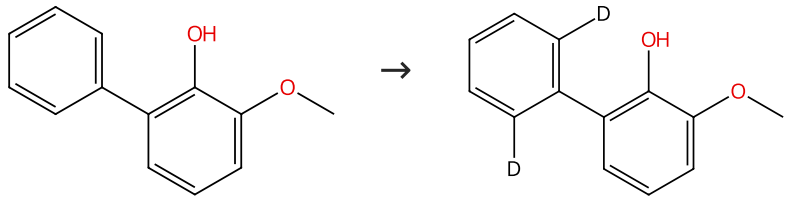
Site-Selective Alkenylation of δ-C(sp^3)-H Bonds with Alkynes via a Six-Membered Palladacycle

By: Xu, Jing-Wen; et al

Journal of the American Chemical Society (2016), 138(34), 10750-10753.

Scheme 47 (1 Reaction)

Steps: **1**



Suppliers (11)

31-614-CAS-37227551

Steps: **1**

1.1 **Reagents:** Sodium acetate, Cupric acetate, Methanol-d_4, Water-d_2
Catalysts: Palladium diacetate
Solvents: Dimethylformamide; 2 h, 100 °C

Experimental Protocols

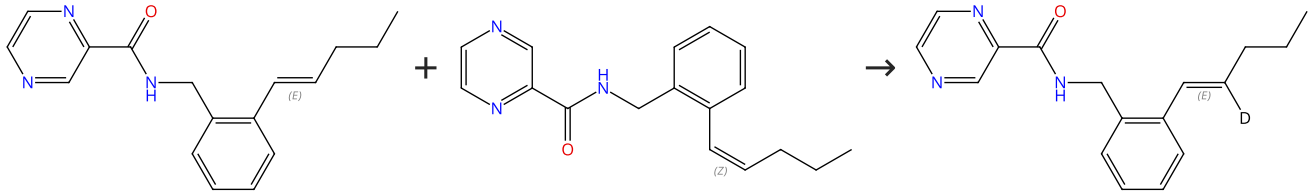
Pd-catalyzed regioselective rollover dual C-H annulation cascade: facile approach to phenanthrene derivatives

By: Kumar, Muniganti Naveen; et al

Chemical Communications (Cambridge, United Kingdom) (2023), 59(64), 9714-9717.

Scheme 48 (1 Reaction)

Steps: **1**



Double bond geometry shown

Double bond geometry shown

Double bond geometry shown

31-614-CAS-39507142

Steps: **1**

1.1 **Reagents:** Pivalic acid, Ethanol-*d*, Manganese oxide (MnO_2)
Catalysts: Quinone, Palladium diacetate; 8 h, rt → 40 °C

Experimental Protocols

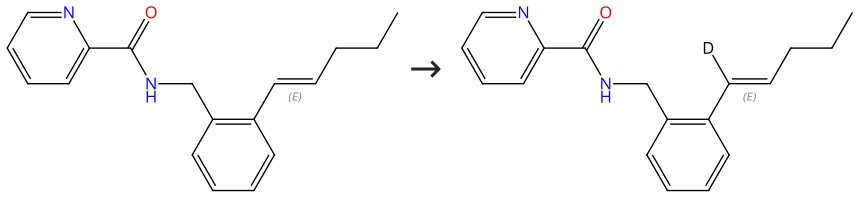
Stereoselective Synthesis of Complex Polyenes through Sequential α-/β-C H Functionalization of trans-Styrenes

By: Zhu, Yuhang; et al

Angewandte Chemie, International Edition (2024), 63(12), e202315273.

Scheme 49 (1 Reaction)

Steps: **1**



Double bond geometry shown

Double bond geometry shown

31-614-CAS-40342218

Steps: **1**

1.1 **Reagents:** Acetic acid, Ethanol-*d*
Catalysts: Palladium diacetate; 6 h, 80 °C

Experimental Protocols

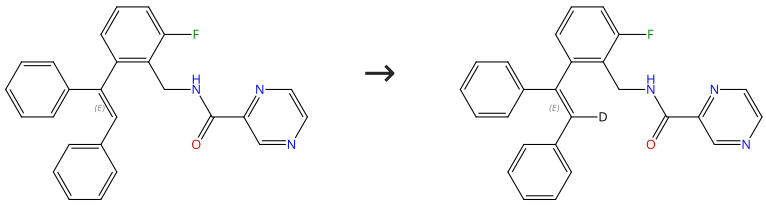
Palladium-catalysed α and β C-H allylation of aryl alkenes

By: Liao, Yilei; et al

Organic Chemistry Frontiers (2024), 11(12), 3341-3347.

Scheme 50 (1 Reaction)

Steps: **1**



Double bond geometry shown

Double bond geometry shown

31-614-CAS-41178215

Steps: **1**

1.1 **Reagents:** Pivalic acid, Ethanol-*d*, Manganese oxide (MnO_2)
Catalysts: Quinone, Palladium diacetate; 6 h, 80 °C

Experimental Protocols

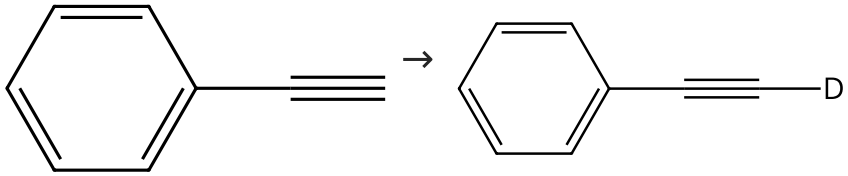
Stereo-selective synthesis of complex dienes and eneynes by sequential hydroarylation and olefinic C-H functionalization

By: Zhu, Yuhang; et al

Organic Chemistry Frontiers (2024), 11(16), 4456-4463.

Scheme 51 (1 Reaction)

Steps: **1**



Suppliers (73)

Suppliers (11)

31-116-CAS-17186401

Steps: **1**

1.1 **Reagents:** Methanol-d_4
Catalysts: Palladium oxide (PdO); 24 h, 65 °C

DNA-supported palladium nanoparticles as a reusable catalyst for the copper- and ligand-free Sonogashira reaction

By: Camacho, Ana Silvia; et al

Catalysis Science & Technology (2017), 7(11), 2262-2273.

Scheme 52 (1 Reaction)

Steps: **1**

31-116-CAS-18426612

Steps: **1**

1.1 **Reagents:** Methanol-d_4, Oxygen
Catalysts: Palladium trifluoroacetate; 65 °C

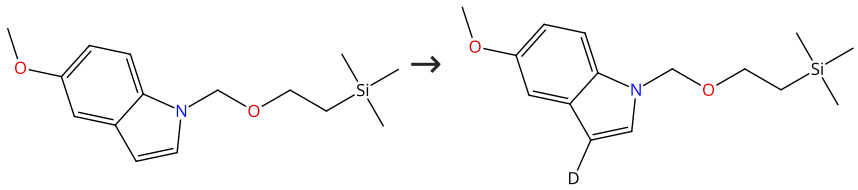
Thioketone-Directed Palladium(II)-Catalyzed C-H Arylation of Ferrocenes with Aryl Boronic Acids

By: Cai, Zhong-Jian; et al

Angewandte Chemie, International Edition (2018), 57(5), 1296-1299.

Scheme 53 (1 Reaction)

Steps: **1**



Suppliers (6)

31-116-CAS-10399235

Steps: **1**

1.1 **Reagents:** Methanol-*d*
Catalysts: Palladium diacetate; 20 min, 25 °C

Regioselective Oxidative Arylation of Indoles Bearing N-Alkyl Protecting Groups: Dual C-H Functionalization via a Concerted Metalation-Deprotonation Mechanism

By: Potavathri, Shathaverdhan; et al

Journal of the American Chemical Society (2010), 132(41), 14676-14681.

Scheme 54 (1 Reaction)

Steps: **1**

Suppliers (69)

Supplier (1)

31-614-CAS-31961521

Steps: **1**

1.1 **Reagents:** Methanol-d_4, Iodobenzene diacetate
Catalysts: Tris(dibenzylideneacetone)dipalladium
Solvents: 1,2-Dichloroethane; 30 min, rt

Experimental Protocols

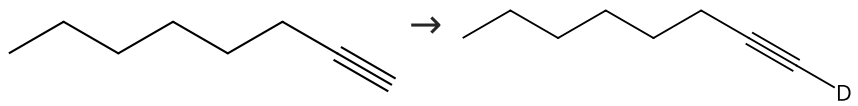
Switchable, Reagent-Controlled C(sp^3)-H Selective Iodination and Acetoxylation of 8-Methylquinolines

By: Zhang, Ming-Lu; et al

Journal of Organic Chemistry (2022), 87(9), 5730-5743.

Scheme 55 (1 Reaction)

Steps: **1**



Suppliers (59)

31-116-CAS-17186402

Steps: **1**

1.1 **Reagents:** Methanol-d_4
Catalysts: Palladium; 24 h, 65 °C

DNA-supported palladium nanoparticles as a reusable catalyst for the copper- and ligand-free Sonogashira reaction

By: Camacho, Ana Silvia; et al

Catalysis Science & Technology (2017), 7(11), 2262-2273.

Scheme 56 (1 Reaction)

Steps: **1**

Suppliers (102)

31-614-CAS-31288249

Steps: **1**

1.1 **Reagents:** Silver trifluoroacetate, Water-d_2
Catalysts: Palladium diacetate
Solvents: Trifluoroacetic acid-*d*, 2-Propan-*2*-*d*-ol-*d*, 1,1,1,3,3,3-hexafluoro-; 6 h, 100 °C

Experimental Protocols

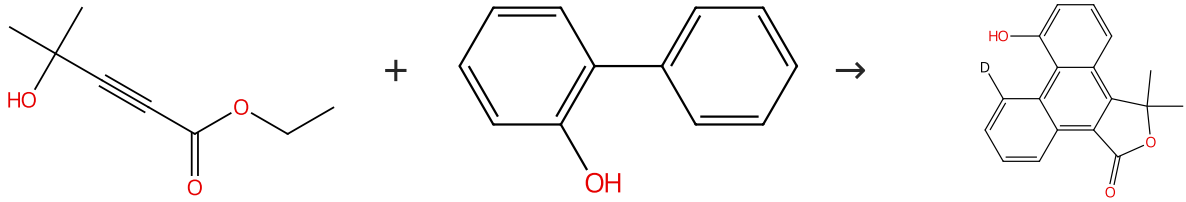
C4-arylation and domino C4-arylation/3,2-carbonyl migration of indoles by tuning Pd catalytic modes: Pd(I)-Pd(II) catalysis vs. Pd(II) catalysis

By: Cheng, Yaohang; et al

Chemical Science (2021), 12(9), 3216-3225.

Scheme 57 (1 Reaction)

Steps: **1**



Suppliers (10)

Suppliers (96)

31-614-CAS-37227561

Steps: **1**

1.1 **Reagents:** Sodium acetate, Cupric acetate, Methanol-d_4
Catalysts: Palladium diacetate
Solvents: Dimethylformamide

1.2 **Reagents:** Methanol-d_4, Water-d_2; 2 h, 100 °C; 100 °C → rt

1.3 **Reagents:** Water; cooled

Experimental Protocols

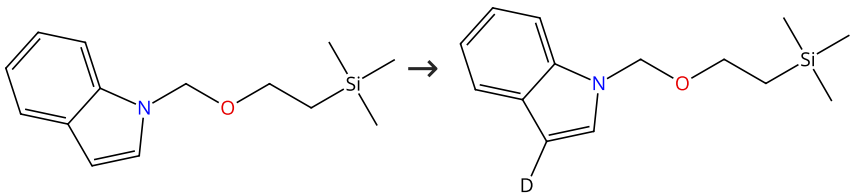
Pd-catalyzed regioselective rollover dual C-H annulation cascade: facile approach to phenanthrene derivatives

By: Kumar, Muniganti Naveen; et al

Chemical Communications (Cambridge, United Kingdom) (2023), 59(64), 9714-9717.

Scheme 58 (1 Reaction)

Steps: **1**



Suppliers (13)

31-116-CAS-1265684

Steps: **1**

1.1 **Reagents:** Methanol-*d*
Catalysts: Palladium diacetate; 30 min, 25 °C

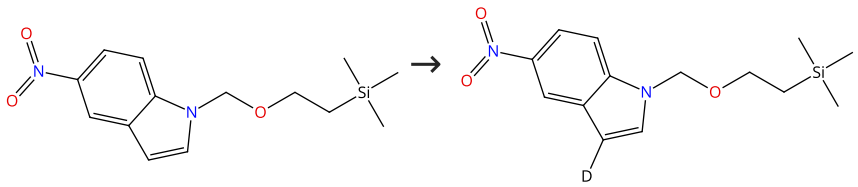
Regioselective Oxidative Arylation of Indoles Bearing N-Alkyl Protecting Groups: Dual C-H Functionalization via a Concerted Metalation-Deprotonation Mechanism

By: Potavathri, Shathaverdhan; et al

Journal of the American Chemical Society (2010), 132(41), 14676-14681.

Scheme 59 (1 Reaction)

Steps: **1**



31-116-CAS-12517950

Steps: **1**

1.1 **Reagents:** Methanol-*d*
Catalysts: Palladium diacetate; 20 min, 25 °C

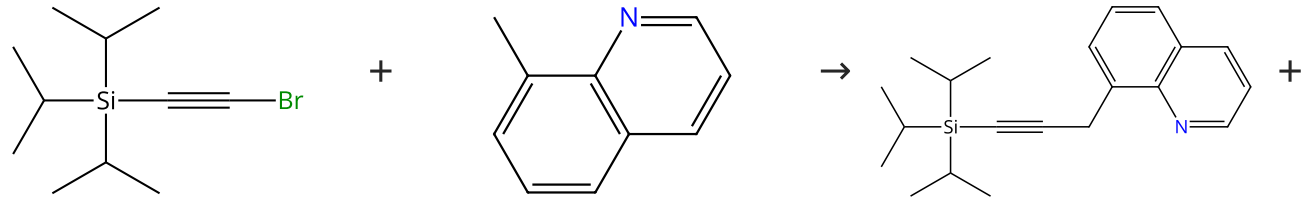
Regioselective Oxidative Arylation of Indoles Bearing N-Alkyl Protecting Groups: Dual C-H Functionalization via a Concerted Metalation-Deprotonation Mechanism

By: Potavathri, Shathaverdhan; et al

Journal of the American Chemical Society (2010), 132(41), 14676-14681.

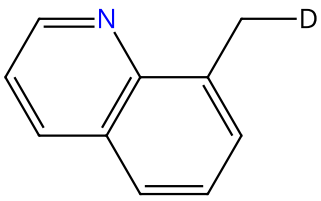
Scheme 60 (1 Reaction)

Steps: **1** Yield: **75%**



Suppliers (67)

Suppliers (69)



Supplier (1)

31-116-CAS-8247822

Steps: **1** Yield: **75%**

1.1 **Reagents:** Methanol-d_4
Catalysts: Cupric acetate, (*SP*-4-2)-Bis(acetato-κ*O*)(2,9-dimethyl-1,10-phenanthroline-κN^1,κN^{10})palladium; 5 h, 80 °C

Experimental Protocols

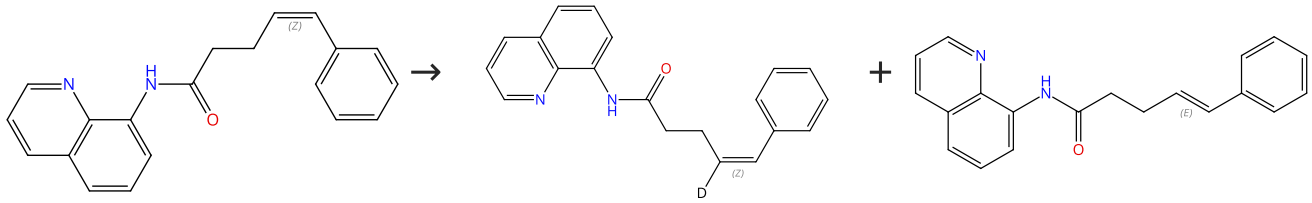
Well-defined palladium(II) complexes for ligand-enabled C (sp^3)-alkynylation

By: Landge, Vinod G.; et al

Dalton Transactions (2015), 44(35), 15382-15386.

Scheme 61 (1 Reaction)

Steps: **1** Yield: **72%**



Double bond geometry shown

Double bond geometry shown

Double bond geometry shown

31-116-CAS-20969825 Steps: **1** Yield: **72%**

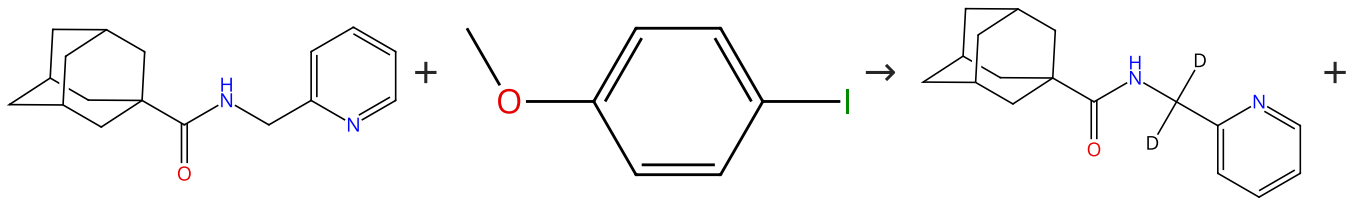
1.1 **Reagents:** Pivalic acid, DMSO-d_6
Catalysts: Palladium diacetate
Solvents: Methanol-d_4; rt → 40 °C; 12 h, 40 °C

Bidentate auxiliary-directed alkenyl C-H allylation via exo-palladacycles: synthesis of branched 1,4-dienes

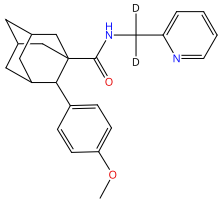
By: Shen, Cong; et al

Chemical Communications (Cambridge, United Kingdom) (2019), 55(90), 13582-13585.

Scheme 62 (1 Reaction) Steps: **1**



Suppliers (10) Suppliers (98)



31-614-CAS-28185993 Steps: **1**

1.1 **Reagents:** Silver acetate, Acetic acid-*d*
Catalysts: Palladium diacetate
Solvents: 2-Propan-*2-d*-ol-*d*, 1,1,1,3,3,3-hexafluoro-; 18 h, 110 °C

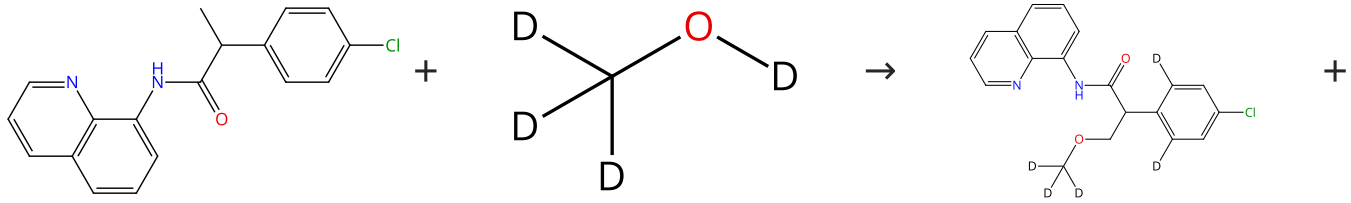
Experimental Protocols

C-H Bond Arylation of Diamondoids Catalyzed by Palladium(II) Acetate

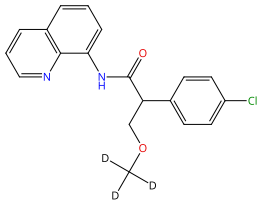
By: Larrosa, Marta; et al

Advanced Synthesis & Catalysis (2016), 358(13), 2163-2171.

Scheme 63 (1 Reaction) Steps: **1**



Supplier (1) Suppliers (248)



31-116-CAS-858232 Steps: **1**

1.1 **Reagents:** 1-(Acetyloxy)-1,2-benziodoxol-3(1*H*)-one
Catalysts: Palladium diacetate
Solvents: *p*-Xylene; 3 h, 60 °C

Experimental Protocols

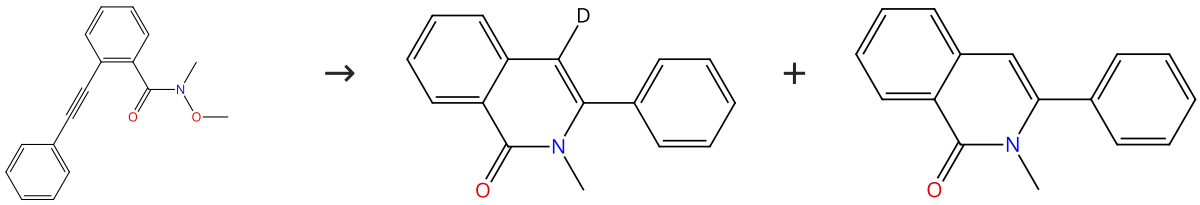
An Efficient Palladium-Catalyzed C-H Alkoxylation of Unacti vated Methylene and Methyl Groups with Cyclic Hyperv alent Iodine (I^{3+}) Oxidants

By: Shan, Gang; et al

Angewandte Chemie, International Edition (2013), 52(51), 13606-13610.

Scheme 64 (1 Reaction)

Steps: **1**



Supplier (1)

Suppliers (5)

31-614-CAS-29505657

Steps: **1**

1.1 **Reagents:** Quinone, Oxygen, 2-Propan-*1,1,1,2,3,3,3-d*$_7$-ol-*d*
Catalysts: Dichlorobis(triphenylphosphine)palladium
Solvents: 1,2-Dichloroethane; 24 h, reflux

Experimental Protocols

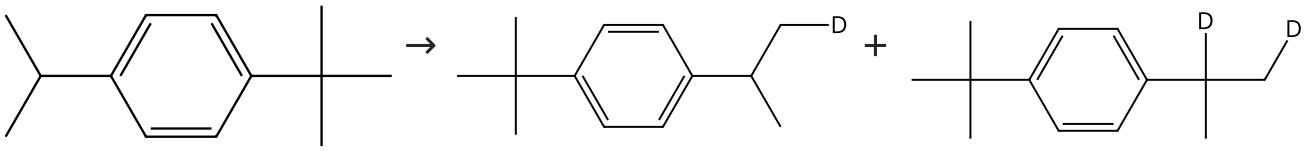
Palladium-catalyzed synthesis of isoquinolinones via sequential cyclization and N-O bond cleavage of N-methoxy-o-alkynylbenzamides

By: Jithunsa, Manita; et al

Synlett (2013), 24(4), 475-478.

Scheme 65 (1 Reaction)

Steps: **1**



Suppliers (7)

31-614-CAS-37661381

Steps: **1**

1.1 **Reagents:** Methanol-*d*
Catalysts: Palladium; 72 h, rt

Experimental Protocols

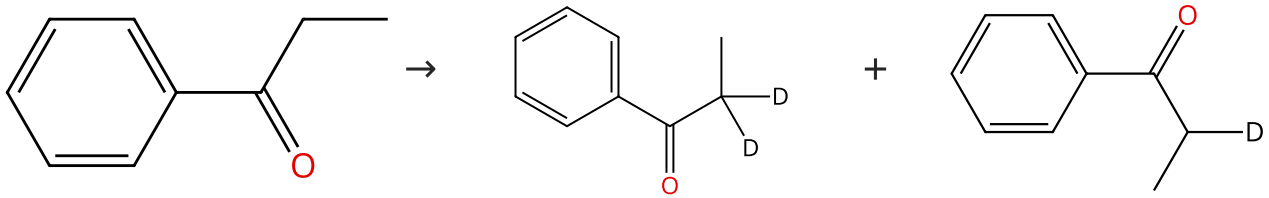
Site selective gold(I)-catalysed benzylic C-H amination via an intermolecular hydride transfer to triazolinediones

By: Bevernaege, Kevin; et al

Chemical Science (2023), 14(36), 9787-9794.

Scheme 66 (1 Reaction)

Steps: **1**



Suppliers (72)

Suppliers (14)

Supplier (1)

31-116-CAS-12062555

Steps: **1**

1.1 **Reagents:** Sodium carbonate, Methanol-d_4
Catalysts: Palladium diacetate
Solvents: Dimethyl sulfoxide; 5 h, 120 °C

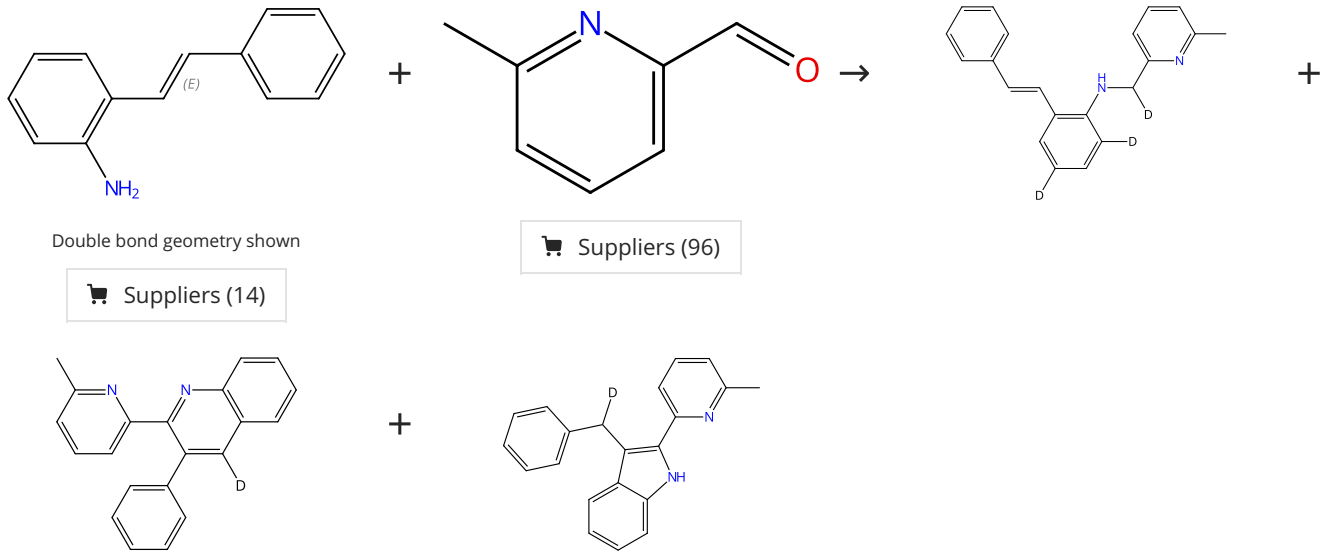
Palladium-Catalyzed Dehydrogenative β-Arylation of Simple Saturated Carbonyls by Aryl Halides

By: Gandeepan, Parthasarathy; et al

ACS Catalysis (2014), 4(12), 4485-4489.

Scheme 67 (1 Reaction)

Steps: **1** Yield: **18%**



Double bond geometry shown

Suppliers (14)

Suppliers (96)

31-116-CAS-22930003

Steps: **1** Yield: **18%**

1.1 **Reagents:** Ethanol-*d*
Catalysts: Di-μ-chlorobis(η^3-2-propenyl)dipalladium, 1,1'-(9,9-Dimethyl-9*H*-xanthene-4,5-diyl)bis[1,1-diphenylphosphine]; 24 h, 120 °C

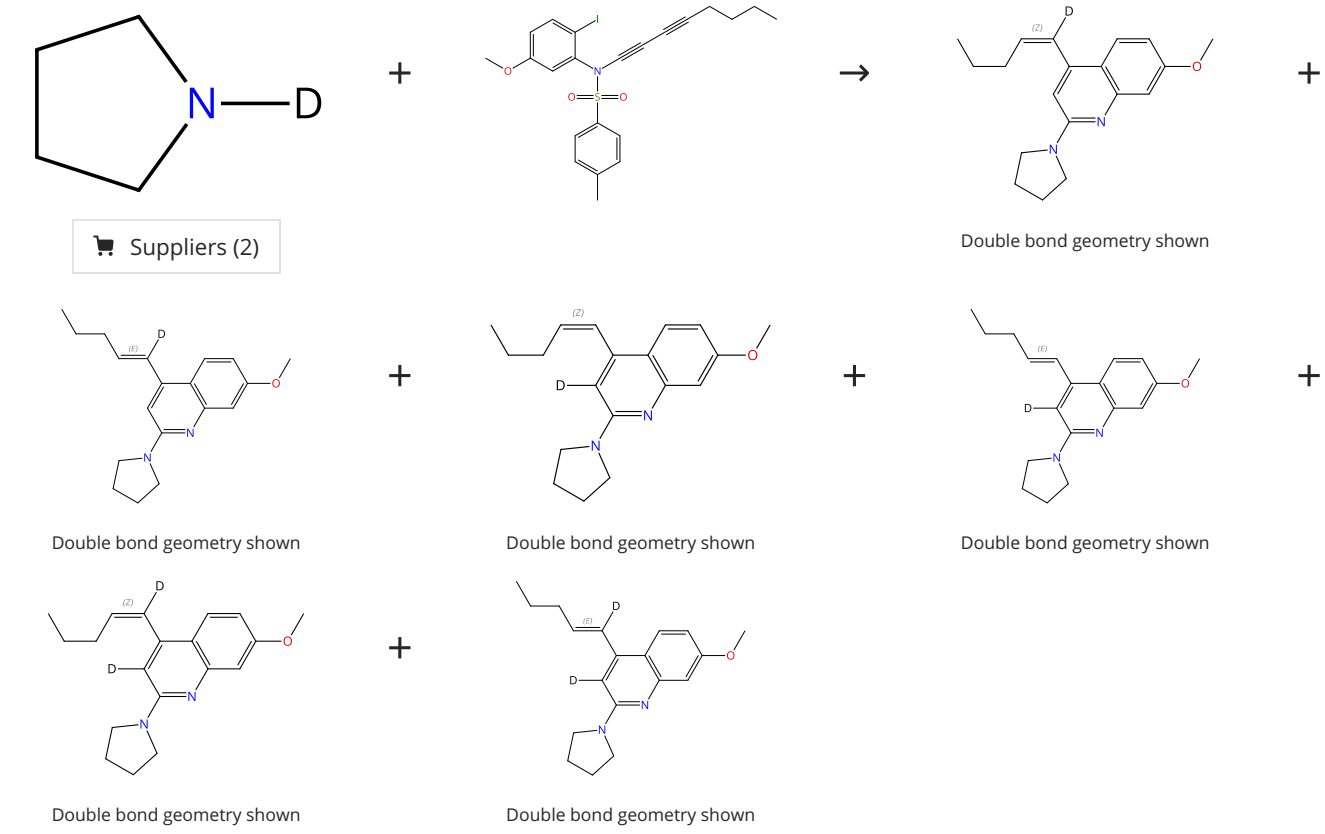
Divergent Syntheses of Indoles and Quinolines Involving N1-C2-C3 Bond Formation through Two Distinct Pd Catalyses

By: San Jang, Su; et al

Organic Letters (2020), 22(23), 9151-9157.

Scheme 68 (1 Reaction)

Steps: **1**



Suppliers (2)

Double bond geometry shown

Double bond geometry shown

Double bond geometry shown

Double bond geometry shown

Double bond geometry shown

Double bond geometry shown

31-614-CAS-24287075	Steps: 1	Media-Driven Pd-Catalyzed Reaction Cascades with 1,3-Diynamides Leading Selectively to Either Indoles or Quinolines
1.1 **Reagents:** Potassium *tert*-butoxide **Solvents:** Methanol-*d*; 30 min, rt 1.2 **Catalysts:** Tetrakis(triphenylphosphine)palladium **Solvents:** Tetrahydrofuran; 30 min, 70 °C		By: Lenko, Illia; et al Angewandte Chemie, International Edition (2021), 60(42), 22729-22734.