CAS SciFinder

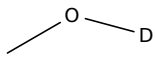
Task History

Initiating Search

February 23, 2025, 8:18 PM

Substances:

Filtered By:



Structure Match: **Substructure**

Search Tasks

Task	Search Type	View
Returned Substance Results + Filters (12,936)	**Substances**	View Results
Exported: Retrieved Related Reaction Results + Filters (288) Filtered By: Substance Role: **Reactant, Reagent, Solvent**	**Reactions**	View Results

Catalyst:	Bis(1,5-cyclooctadiene)nickel, Bis(acetylacetonato)nickel, (Bis(diphenylphosphino)ethane)dichloronickel, Bis(triphenylphosphine) nickel dibromide, Bis(triphenylphosphine)nickel dichloride, Dibromo[1,1'-(oxy-κ*O*)bis[2-(methoxy-κ*O*)ethane]]nickel, Dibromo[1,2-di(methoxy-κ*O*)ethane]nickel, Dichloro[1,1'-(1,3-propanediyl)bis[1,1-diphenylphosphine-κ*P*]]nickel, Dichloro[1,2-di(methoxy-κ*O*)ethane]nickel, Dichlorobis(tricyclohexylphosphine)nickel, Methanesulfonic acid, 1,1,1-trifluoro-, nickel(2+) salt (2:1), Nickel, Nickel(1+), [octahydro-1-[(4-methylphenyl)sulfonyl]-4,7-bis[(2-pyridinyl-κ*N*)methyl]-1*H*-1,4,7-triazonine-κN^1,κN^4,κN^7](1,1,1-trifluoromethanesulfonato-κ*O*)-, (*OC*-6-43)-, 1,1,1-trifluoromethanesulfonate (1:1), Nickel, (2,2'-bipyridine-κN^1,κ$N^{1'}$)dichloro-, (*SP*-4-2)-, Nickel(2+), tris(2,2'-bipyridine-κN^1,κ$N^{1'}$)-, (*OC*-6-11)-, tetrafluoroborate(1-) (1:2), Nickel, [4,4'-bis(1,1-dimethylethyl)-2,2'-bipyridine-κN^1,κ$N^{1'}$]dibromo-, (*T*-4)-, Nickel acetate, Nickel acetate tetrahydrate, Nickel bromide, Nickel bromide ($NiBr_2$), trihydrate, Nickel chloride hexahydrate, Nickel dichloride, Nickel, dichloro(4,4'-dimethoxy-2,2'-bipyridine-κN^1,κ$N^{1'}$)-, Nickel ferrite, Nickel(II) perchlorate, Nickel iodide (NiI_2), Nickel monoxide, Nickel octanoate, (*SP*-4-2)-Bis(acetato-κ*O*)[(2*S*,2'*S*,5*S*,5'*S*)-1,1'-(1,2-phenylene)bis[2,5-dimethylphospholane-κ*P*]]nickel, (*SP*-4-3)-Chloro[4-[[2-(diphenylphosphino-κ*P*)ethyl]imino-κ*N*]-2-pentanonato-κ*O*]nickel, (*SP*-4-3)-Chloro[8-[2-(dicyclohexylphosphino-κ*P*)phenyl]-1,3,5,7-tetramethyl-2,4,6-trioxa-8-phosphatricyclo[3.3.1.1^{3,7}]decane-κP^8](2-methylphenyl)nickel, (*T*-4)-[1,1'-Bis(diphenylphosphino-κ*P*)ferrocene]dichloronickel, (*T*-4)-Tetrakis(triphenyl phosphite-κ*P*)nickel
Document Type:	Journal
Language:	English

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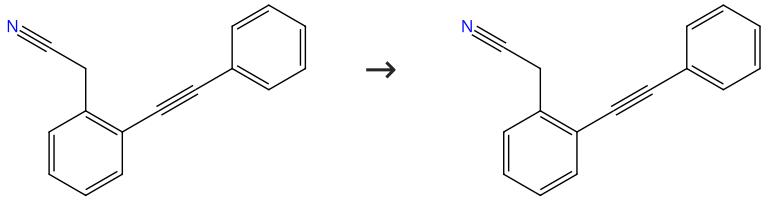
CAS SciFinder

Reactions (30)

View in CAS SciFinder

Scheme 1 (1 Reaction)

Steps: **1** Yield: **97%**



Suppliers (2)

31-614-CAS-29268197

Steps: **1** Yield: **97%**

1.1 **Reagents:** Methanol-d_4
Catalysts: *N*-Phenyl-*p*-toluenesulfonamide, Bis(1,5-cyclooctadiene)nickel, 2,9-Dihexyl-4,7-diphenyl-1,10-phenanthroline
Solvents: Toluene; 12 h, 80 °C

Experimental Protocols

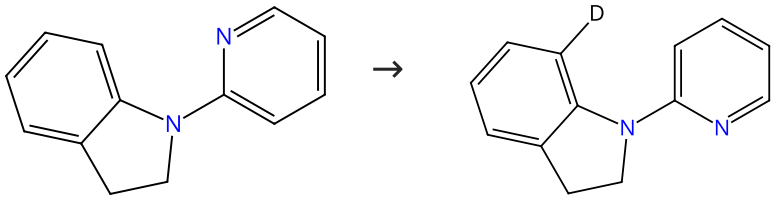
Nickel-Catalyzed C(sp^3)-H Functionalization of Benzyl Nitriles: Direct Michael Addition to Terminal Vinyl Ketones

By: Zhang, Ninghui; et al

Organic Letters (2021), 23(15), 6004-6009.

Scheme 2 (1 Reaction)

Steps: **1** Yield: **96%**



Suppliers (7)

31-614-CAS-38030136

Steps: **1** Yield: **96%**

1.1 **Reagents:** Methanol-d_4, Sodium iodide
Catalysts: Triphenylphosphine, Methanesulfonic acid, 1,1,1-trifluoro-, nickel(2+) salt (2:1)
Solvents: Toluene; 24 h, 140 °C

Experimental Protocols

Nickel-Catalyzed Tandem Cyclization of 1,6-Diynes with Indolines/Indoles through Dual C-H Bond Activation

By: Yadav, Suresh Kumar; et al

Journal of Organic Chemistry (2023), 88(20), 14454-14469.

Scheme 3 (2 Reactions)

Steps: **1** Yield: **90-91%**

Absolute stereochemistry shown
Double bond geometry shown

Absolute stereochemistry shown
Double bond geometry shown

31-116-CAS-22686331 Steps: **1** Yield: **91%**

1.1 **Reagents:** Methanol-d_4, Zinc
Catalysts: Nickel acetate, (*R*)-Ph-PHOX; 72 h, 60 °C

Experimental Protocols

Stereoselective synthesis of pentasubstituted 1,3-dienes via Ni-catalyzed reductive coupling of unsymmetrical internal alkynes

By: Zhou, Zhijun; et al

Chemical Science (2020), 11(37), 10204-10211.

31-116-CAS-22686333 Steps: **1** Yield: **90%**

1.1 **Reagents:** Methanol-*d*, Zinc
Catalysts: Nickel acetate, (*R*)-Ph-PHOX; 72 h, 60 °C

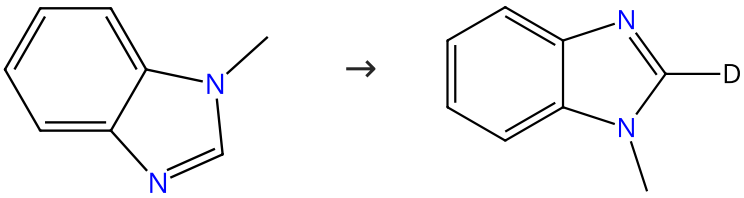
Experimental Protocols

Stereoselective synthesis of pentasubstituted 1,3-dienes via Ni-catalyzed reductive coupling of unsymmetrical internal alkynes

By: Zhou, Zhijun; et al

Chemical Science (2020), 11(37), 10204-10211.

Scheme 4 (2 Reactions) Steps: **1** Yield: **84-89%**



Suppliers (87) Suppliers (2)

31-116-CAS-17952748 Steps: **1** Yield: **89%**

1.1 **Catalysts:** Bis(1,5-cyclooctadiene)nickel, 1,3-Bis[2,6-bis(1-methylethyl)phenyl]-1,3-dihydro-2*H*-imidazol-2-ylidene
Solvents: Toluene, Methanol-d_4; 14 h, 100 °C

Experimental Protocols

Bifurcated Nickel-Catalyzed Functionalizations: Heteroarene C-H Activation with Allenes

By: Nakanowatari, Sachiyo; et al

Angewandte Chemie, International Edition (2017), 56(50), 15891-15895.

31-116-CAS-17952749 Steps: **1** Yield: **84%**

1.1 **Reagents:** 3-(1,1-Dimethylethyl)-1,2-heptadiene
Catalysts: Bis(1,5-cyclooctadiene)nickel, 1,3-Bis[2,6-bis(1-methylethyl)phenyl]-1,3-dihydro-2*H*-imidazol-2-ylidene
Solvents: Toluene, Methanol-d_4; 14 h, 100 °C

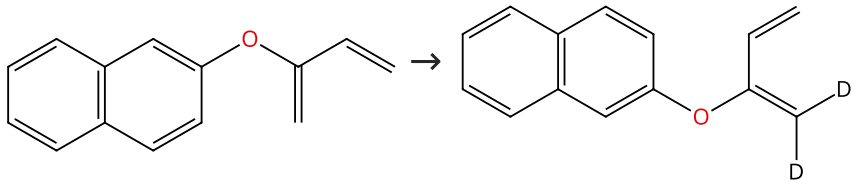
Experimental Protocols

Bifurcated Nickel-Catalyzed Functionalizations: Heteroarene C-H Activation with Allenes

By: Nakanowatari, Sachiyo; et al

Angewandte Chemie, International Edition (2017), 56(50), 15891-15895.

Scheme 5 (1 Reaction) Steps: **1** Yield: **80%**



31-116-CAS-19658304 Steps: **1** Yield: **80%**

1.1 **Reagents:** *tert*-Butyl alcohol-*d*
Catalysts: Bis(1,5-cyclooctadiene)nickel, 1,1-Bis(diphenylphosphino)ferrocene; 10 min, rt

1.2 24 h, 40 °C

Experimental Protocols

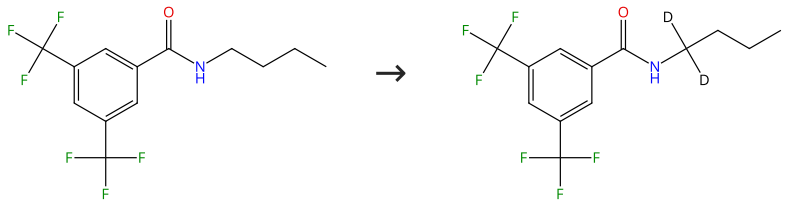
Synthesis of 2-Aryloxy-1,3-dienes from Phenols and Propargyl Carbonates

By: Ishida, Naoki; et al

Journal of the American Chemical Society (2019), 141(1), 84-88.

Scheme 6 (1 Reaction)

Steps: **1** Yield: **40%**



Suppliers (5)

31-614-CAS-40796524

Steps: **1** Yield: **40%**

1.1 **Reagents:** *tert*-Butanol-d_{10}
Catalysts: Iridium(1+), [4,4'-bis(1,1-dimethylethyl)-2,2'-bipyridine-κN^1,κ$N^{1'}$]bis[3,5-difluoro-2-[5-(trifluoromethyl)-2-pyridinyl-κ*N*]phenyl-κ*C*]-, (*OC*-6-33)-, hexafluorophosphate(1-) (1:1), Nickel, [4,4'-bis(1,1-dimethylethyl)-2,2'-bipyridine-κN^1, κ$N^{1'}$]dibromo-, (*T*-4)-
Solvents: Ethyl acetate; 48 h, rt

Experimental Protocols

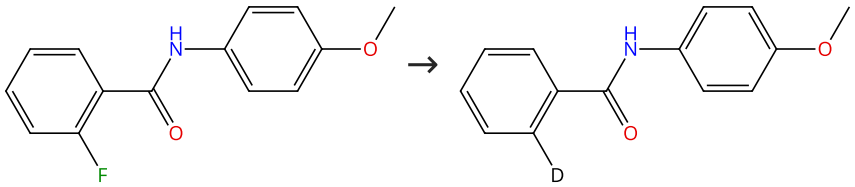
Dehydrogenative Coupling of Alkylamines with Primary Alcohols Forming α-Amino Ketones

By: Kawasaki, Tairin; et al

Journal of the American Chemical Society (2024), 146(26), 17566-17572.

Scheme 7 (1 Reaction)

Steps: **1** Yield: **35%**



Suppliers (23)

31-614-CAS-36091883

Steps: **1** Yield: **35%**

1.1 **Reagents:** Potassium *tert*-butoxide, Ethanol-d_6
Catalysts: Bis(1,5-cyclooctadiene)nickel
Solvents: Dimethylformamide; 20 h, 60 °C

Experimental Protocols

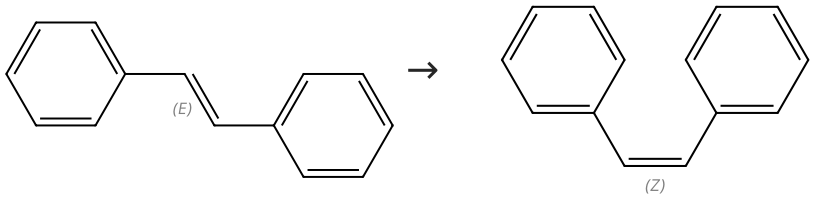
Nickel-catalyzed Hydrodefluorination of ortho-Fluoro Aromatic Amides with 2-Propanol

By: Morishige, Aoi; et al

Chemistry Letters (2023), 52(2), 63-66.

Scheme 8 (1 Reaction)

Steps: **1** Yield: **7%**



Double bond geometry shown

Suppliers (79)

Double bond geometry shown

Suppliers (65)

31-614-CAS-35835184

Steps: **1** Yield: **7%**

1.1 **Reagents:** Magnesium acetate, Methanol-*d*, Sodium borodeuteride
Catalysts: Nickel dichloride, Per-6-thio-β-cyclodextrin
Solvents: Dimethylformamide; 1 h, rt

Experimental Protocols

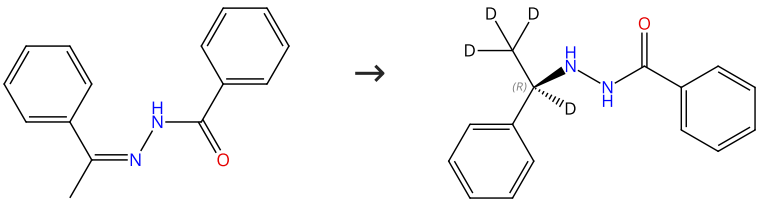
E-Selective semi-hydrogenation of alkynes via a sulfur-radical mediation over cyclodextrin-modified nickel nanocatalyst

By: Su, Yatao; et al

Catalysis Science & Technology (2023), 13(6), 1718-1724.

Scheme 9 (1 Reaction)

Steps: **1**



Absolute stereochemistry shown

Suppliers (8)

31-116-CAS-23725248

Steps: **1**

1.1 **Reagents:** Deuterium
Catalysts: Nickel acetate, 2,3-Bis[(*R*)-(1,1-dimethylethyl) methylphosphino]quinoxaline
Solvents: Acetic acid-*d*, 2,2,2-Trifluoroethanol-*d*; 24 h, 20 bar, 50 °C

Experimental Protocols

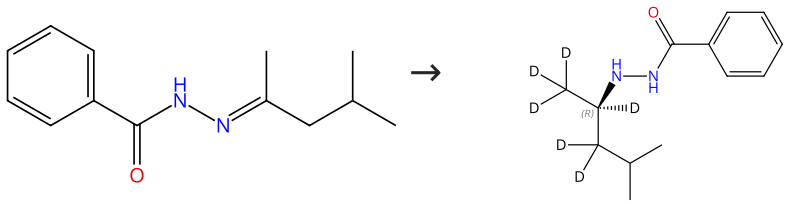
Nickel-Catalyzed Asymmetric Hydrogenation of Hydrazones

By: Li, Bowen; et al

European Journal of Organic Chemistry (2021), 2021(23), 3421-3425.

Scheme 10 (1 Reaction)

Steps: **1**



Absolute stereochemistry shown

Supplier (1)

31-116-CAS-14466804

Steps: **1**

1.1 **Reagents:** Triethylamine, Formic-*d* acid-*d*
Catalysts: Dichloro[1,2-di(methoxy-κ*O*)ethane]nickel, (3*R*,3'*R*,4*S*,4'*S*,11b*S*,11'b*S*)-4,4'-Bis(1,1-dimethylethyl)-4,4',5,5'-tetrahydro-3,3'-bi-3*H*-dinaphtho[2,1-*c*:1',2'-*e*]phosphepin
Solvents: Methanol-d_4; 48 h, 70 °C

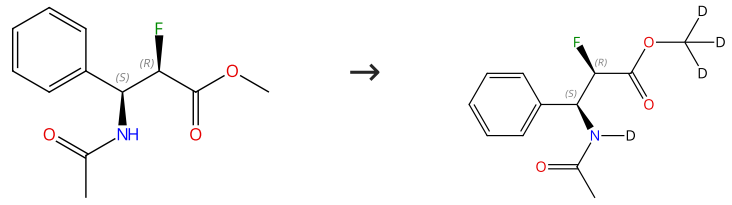
Nickel-catalyzed asymmetric transfer hydrogenation of hydrazones and other ketimines

By: Xu, Haiyan; et al

Angewandte Chemie, International Edition (2015), 54(17), 5112-5116.

Scheme 11 (1 Reaction)

Steps: **1**



Absolute stereochemistry shown

Absolute stereochemistry shown

31-116-CAS-19427830

Steps: **1**

1.1 **Catalysts:** Nickel acetate, (3*R*,3'*R*,4*S*,4'*S*,11b*S*,11'b*S*)-4,4'-Bis(1,1-dimethylethyl)-4,4',5,5'-tetrahydro-3,3'-bi-3*H*-dinaphtho[2,1-*c*:1',2'-*e*]phosphepin
Solvents: 2,2,2-Trifluoroethanol; 1 h, rt

1.2 **Reagents:** Methanol-d_4, Hydrogen; 24 h, 50 atm, 80 °C

Experimental Protocols

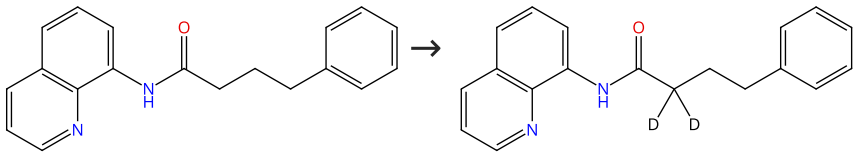
A cheap metal for a challenging task: nickel-catalyzed highly diastereo- and enantioselective hydrogenation of tetrasubstituted fluorinated enamides

By: Guan, Yu-Qing; et al

Chemical Science (2019), 10(1), 252-256.

Scheme 12 (1 Reaction)

Steps: **1**



Suppliers (5)

31-116-CAS-19237227

Steps: **1**

1.1 **Reagents:** Methanol-*d*, Propanoic acid, 2,2-dimethyl-, cesium salt (1:1)
Catalysts: Triphenylphosphine, Bis(1,5-cyclooctadiene)nickel; 70 °C; 24 h, 70 °C

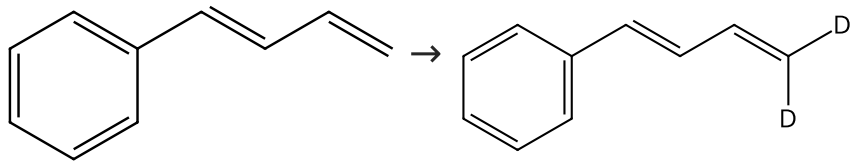
Nickel(0)-catalyzed linear-selective hydroarylation of unactivated alkenes and styrenes with aryl boronic acids

By: Lv, Honggui; et al

Chemical Science (2018), 9(33), 6839-6843.

Scheme 13 (1 Reaction)

Steps: **1**



Suppliers (27)

31-116-CAS-19288935

Steps: **1**

1.1 **Reagents:** Ethanol-*d*
Catalysts: Bis(1,5-cyclooctadiene)nickel, 1,1'-(4*R*)-[4,4'-Bi-1,3-benzodioxole]-5,5'-diylbis[1,1-bis[3,5-bis(1,1-dimethylethyl)-4-methoxyphenyl]phosphine; 5 min, rt; 48 h, 80 °C

Experimental Protocols

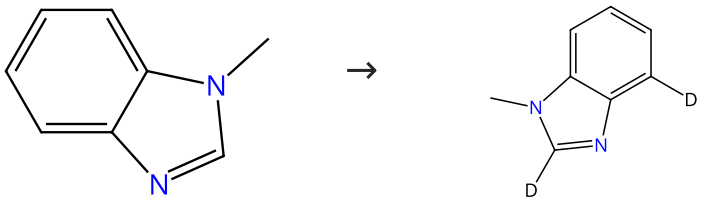
Nickel(0)-Catalyzed Hydroalkylation of 1,3-Dienes with Simple Ketones

By: Cheng, Lei; et al

Journal of the American Chemical Society (2018), 140(37), 11627-11630.

Scheme 14 (1 Reaction)

Steps: **1**



Suppliers (87)

31-614-CAS-33817173

Steps: **1**

1.1 **Reagents:** Methanol-d_4
Catalysts: Bis(1,5-cyclooctadiene)nickel, 1*H*-Imidazolium, 1,3-bis[2,6-bis(1-methylethyl)phenyl]-, chloride (1:1)
Solvents: Toluene; 24 h, 100 °C

Experimental Protocols

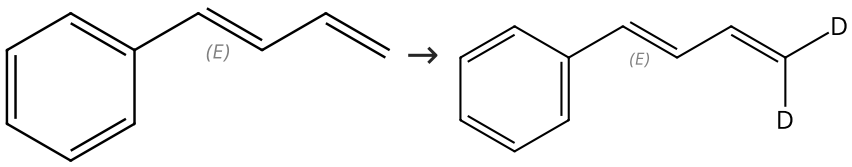
Nickel-catalysed asymmetric heteroarylative cyclotelomerization of isoprene

By: Zhang, Gong; et al

Nature Catalysis (2022), 5(8), 708-715.

Scheme 15 (1 Reaction)

Steps: **1**



Double bond geometry shown

Double bond geometry shown

Suppliers (57)

31-614-CAS-34572094

Steps: **1**

1.1 **Reagents:** Ethanol-*d*
Catalysts: Bis(1,5-cyclooctadiene)nickel, 2,3-Bis[(*S*)-(1,1-dimethylethyl)methylphosphino]quinoxaline; 16 h, 25 °C

Experimental Protocols

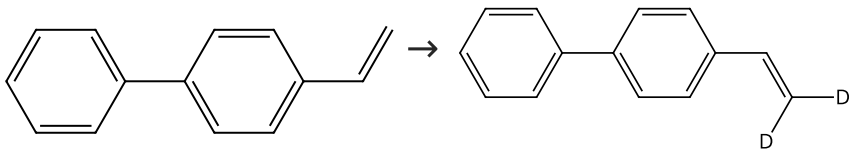
Nickel-catalyzed regio- and enantio-selective Markovnikov hydromonofluoroalkylation of 1,3-dienes

By: Liao, Ling; et al

Chemical Science (2022), 13(42), 12519-12526.

Scheme 16 (1 Reaction)

Steps: **1**



Suppliers (74)

Supplier (1)

31-116-CAS-20840749

Steps: **1**

1.1 **Catalysts:** Lithium methoxide, Bis(1,5-cyclooctadiene)nickel, 1*H*-Imidazolium, 4,5-dihydro-1,3-bis(2,4,6-trimethylphenyl)-, chloride (1:1)
Solvents: Toluene; 15 min, rt

1.2 **Solvents:** Toluene, Methanol-d_4; rt → 50 °C; 20 h, 50 °C

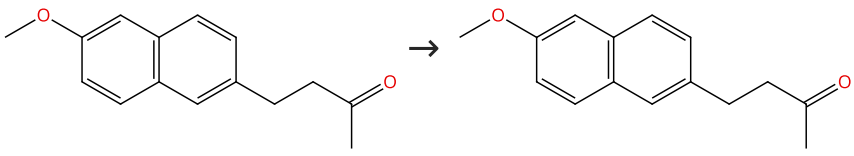
Methylenespiro[2.3]hexanes via Nickel-Catalyzed Cycloprop anations with [1.1.1]Propellane

By: Yu, Songjie; et al

Journal of the American Chemical Society (2019), 141(51), 20325-20334.

Scheme 17 (1 Reaction)

Steps: **1**



Suppliers (99)

31-614-CAS-37018035

Steps: **1**

1.1 **Reagents:** 2-Propan-*1,1,1,2,3,3,3-d*$_7$-ol-*d*
Catalysts: Bis(1,5-cyclooctadiene)nickel, 1,1'-[1,1'-Biphenyl]-2,2'-diylbis[1,1-bis[3,5-bis(1,1-dimethylethyl)-4-methoxyphenyl]phosphine]; 5 min, rt; 12 h, 80 °C

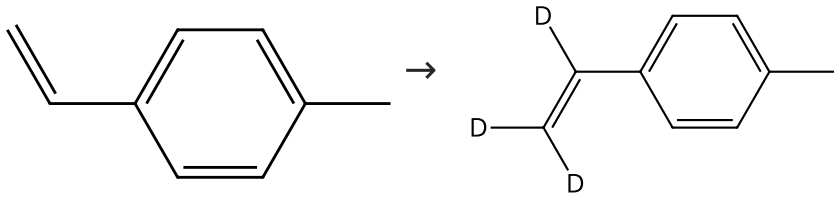
Experimental Protocols

Ketone α-alkylation at the more-hindered site

By: Li, Ming-Ming; et al

Nature Communications (2023), 14(1), 3326.

Scheme 18 (1 Reaction) Steps: **1**



Suppliers (69)

31-116-CAS-17771758 Steps: **1**

1.1 **Reagents:** Methanol-d_4
Catalysts: Bis(1,5-cyclooctadiene)nickel, Tri-*tert*-butylphosphine
Solvents: Toluene; 10 h, 75 °C

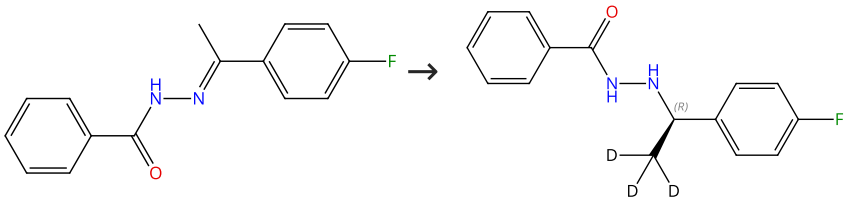
Experimental Protocols

Base-free nickel-catalyzed hydroboration of simple alkenes with bis(pinacolato)diboron in an alcoholic solvent

By: Li, Jiang-Fei; et al

Green Chemistry (2017), 19(19), 4498-4502.

Scheme 19 (1 Reaction) Steps: **1**



Absolute stereochemistry shown

Suppliers (3)

31-116-CAS-10200249 Steps: **1**

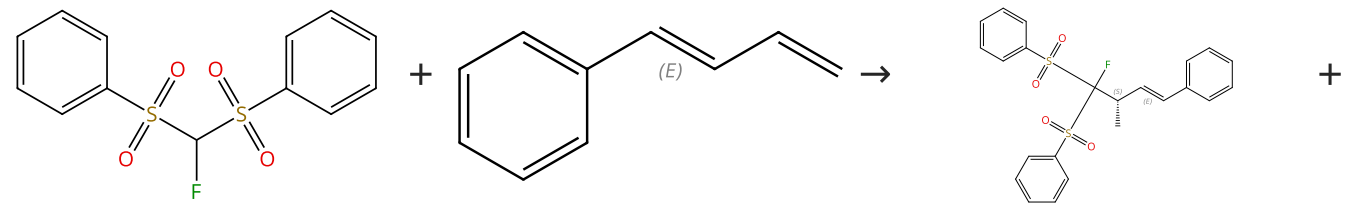
1.1 **Reagents:** Triethylamine, Formic acid-*d*
Catalysts: Dichloro[1,2-di(methoxy-κ*O*)ethane]nickel, (3*R*,3'*R*,4*S*,4'*S*,11b*S*,11'b*S*)-4,4'-Bis(1,1-dimethylethyl)-4,4',5,5'-tetrahydro-3,3'-bi-3*H*-dinaphtho[2,1-*c*:1',2'-*e*]phosphepin
Solvents: Methanol-d_4; 48 h, 70 °C

Nickel-catalyzed asymmetric transfer hydrogenation of hydrazones and other ketimines

By: Xu, Haiyan; et al

Angewandte Chemie, International Edition (2015), 54(17), 5112-5116.

Scheme 20 (1 Reaction) Steps: **1** Yield: **96%**

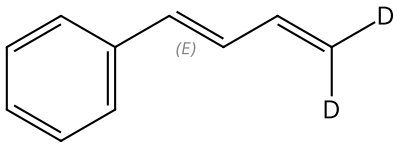


Suppliers (36)

Double bond geometry shown

Suppliers (57)

Absolute stereochemistry shown
Double bond geometry shown



Double bond geometry shown

31-614-CAS-34572095 Steps: **1** Yield: **96%**

1.1 **Reagents:** Ethanol-*d*
Catalysts: Bis(1,5-cyclooctadiene)nickel, 2,3-Bis[(*S*)-(1,1-dimethylethyl)methylphosphino]quinoxaline; 16 h, 25 °C

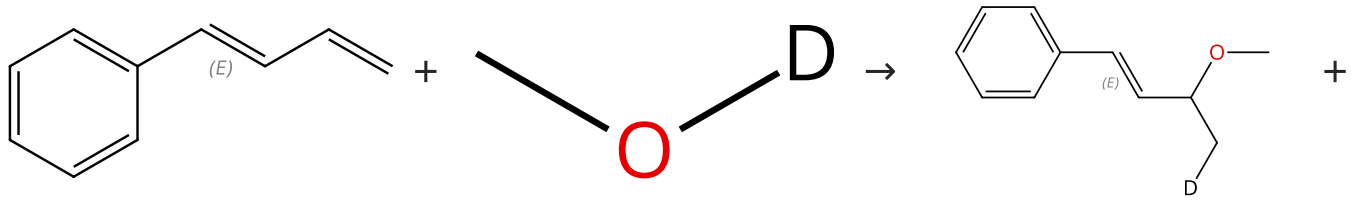
Experimental Protocols

Nickel-catalyzed regio- and enantio-selective Markovnikov hydromonofluoroalkylation of 1,3-dienes

By: Liao, Ling; et al

Chemical Science (2022), 13(42), 12519-12526.

Scheme 21 (1 Reaction) Steps: **1** Yield: **85%**

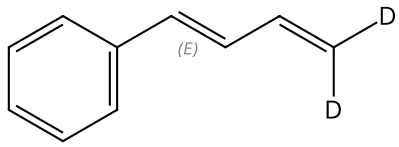


Double bond geometry shown

Suppliers (57)

Suppliers (49)

Double bond geometry shown



Double bond geometry shown

31-614-CAS-35310365 Steps: **1** Yield: **85%**

1.1 **Catalysts:** Bis(1,5-cyclooctadiene)nickel, (*R*,*R*)-Methyl-DuPhos; 10 min, rt

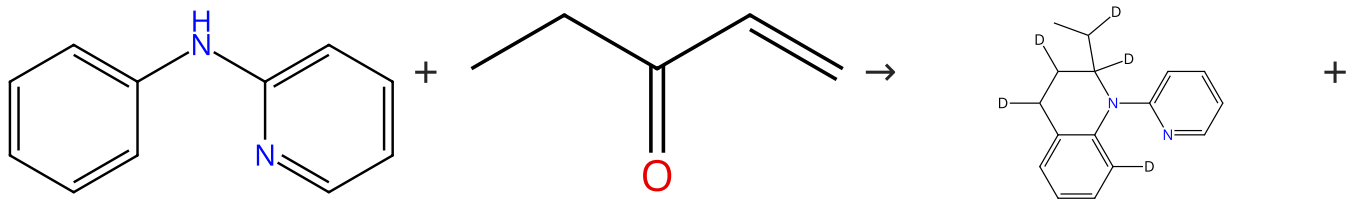
1.2 4 h, 0 °C

Enantioselective Hydroalkoxylation of 1,3-Dienes via Ni-Catalysis

By: Li, Qi; et al

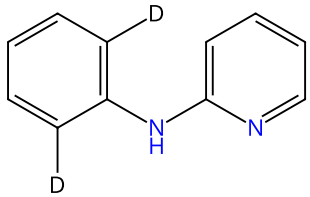
Journal of the American Chemical Society (2023), 145(7), 3909-3914.

Scheme 22 (1 Reaction) Steps: **1** Yield: **82%**



Suppliers (73)

Suppliers (34)



31-085-CAS-18874912 Steps: **1** Yield: **82%**

1.1 **Reagents:** Pivalic acid
Catalysts: Nickel acetate, Iridium, di-μ-chlorodichlorobis[(1,2,3,4,5-η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl]di-, Silver hexafluoroantimonate
Solvents: 2-Propanol-*d*; 12 h, 80 °C

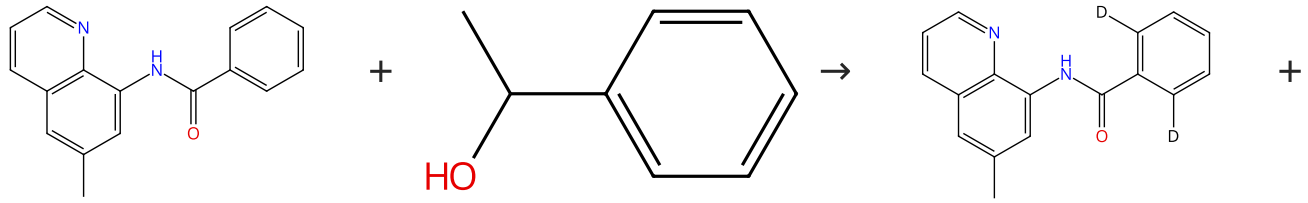
Experimental Protocols

Divergent Coupling of Anilines and Enones by Integr ation of C-H Activation and Transfer Hydroge nation

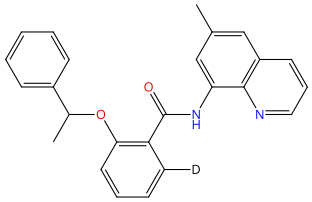
By: Zhou, Xukai; et al

Angewandte Chemie, International Edition (2018), 57(22), 6681-6685.

Scheme 23 (1 Reaction) Steps: **1** Yield: **53%**



Suppliers (75)



31-116-CAS-21665281 Steps: **1** Yield: **53%**

1.1 **Reagents:** Tetrabutylammonium perchlorate, *tert*-Butyl alcohol-*d*, Tricyclo[3.3.1.1^{3,7}]decane-1-carboxylic acid, sodium salt (1:1)
Catalysts: 1-Adamantanecarboxylic acid, Dichloro[1,2-di(methoxy-κ*O*)ethane]nickel
Solvents: Dimethylacetamide; 5 h, 130 °C

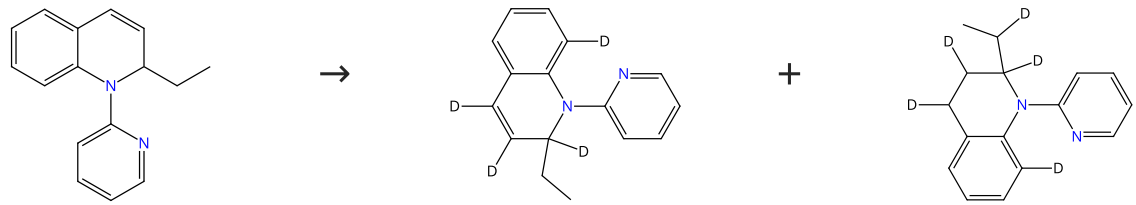
Experimental Protocols

Nickela-electrocatalyzed C-H Alkoxylation with Secondary Alcohols: Oxidation-Induced Reductive Elimin ation at Nickel(II I)

By: Zhang, Shou-Kun; et al

Angewandte Chemie, International Edition (2020), 59(8), 3178-3183.

Scheme 24 (1 Reaction) Steps: **1** Yield: **51%**



31-116-CAS-18874914 Steps: **1** Yield: **51%**

1.1 **Reagents:** Pivalic acid
Catalysts: Nickel acetate, Iridium, di-μ-chlorodichlorobis[(1,2,3,4,5-η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl]di-, Silver hexafluoroantimonate
Solvents: 2-Propan-*1,1,1,2,3,3,3-d*$_7$-ol-*d*; 12 h, 80 °C

Experimental Protocols

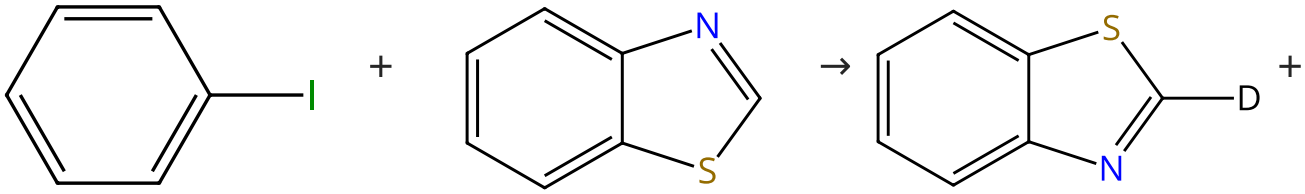
Divergent Coupling of Anilines and Enones by Integr ation of C-H Activation and Transfer Hydroge nation

By: Zhou, Xukai; et al

Angewandte Chemie, International Edition (2018), 57(22), 6681-6685.

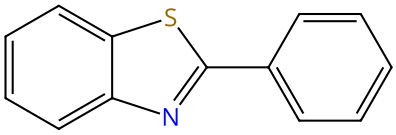
Scheme 25 (1 Reaction)

Steps: **1** Yield: **44%**



Suppliers (104)

Suppliers (106)



Suppliers (77)

31-116-CAS-15065104

Steps: **1** Yield: **44%**

1.1 **Reagents:** Lithium *tert*-butoxide, *tert*-Butyl alcohol-*d*
Catalysts: 2,2'-Bipyridine, Nickel acetate
Solvents: 1,4-Dioxane; 10 h, 120 °C

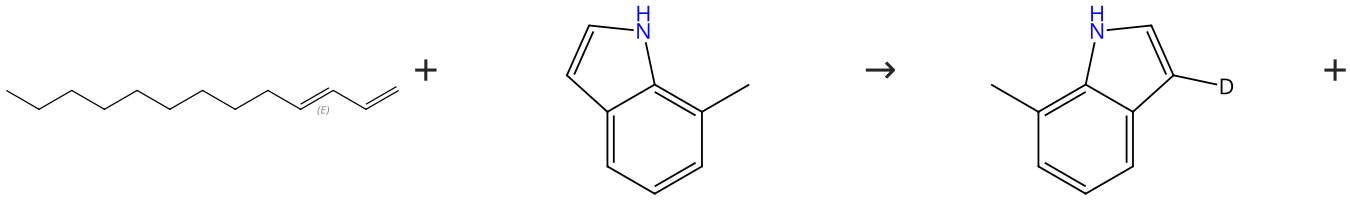
Nickel-Catalyzed C-H Arylation of Azoles with Haloarenes: Scope, Mechanism, and Applications to the Synthesis of Bioactive Molecules

By: Yamamoto, Takuya; et al

Chemistry - A European Journal (2011), 17(36), 10113-10122, S10113/1-S10113/18.

Scheme 26 (1 Reaction)

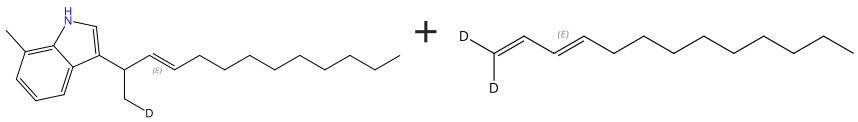
Steps: **1** Yield: **87%**



Double bond geometry shown

Suppliers (3)

Suppliers (94)



Double bond geometry shown

Double bond geometry shown

31-614-CAS-34299838

Steps: **1** Yield: **87%**

1.1 **Reagents:** Potassium *tert*-butoxide, 2-Propan-*1,1,1,2,3,3,3-d*$_7$-ol-*d*
Catalysts: Bis(1,5-cyclooctadiene)nickel, 1,1'-[(1*S*)-6,6'-Dimethoxy[1,1'-biphenyl]-2,2'-diyl]bis[1,1-bis[3,5-bis(1,1-dimethylethyl)-4-methoxyphenyl]phosphine; 5 min, rt; 2 h, 60 °C

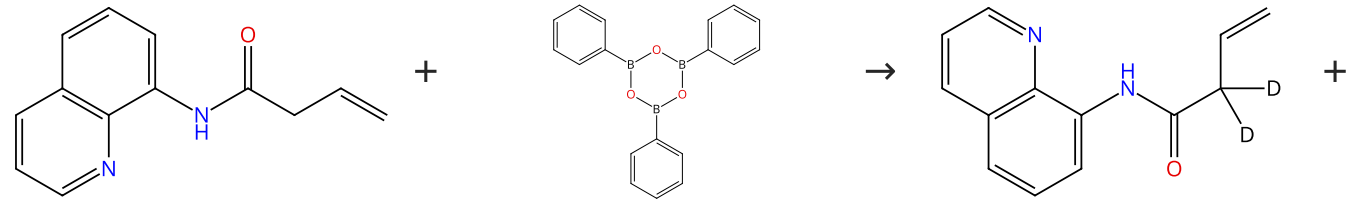
Nickel-catalyzed Regio- and enantioselective hydroarylation of 1,3-dienes with indoles

By: Cheng, Lei; et al

CCS Chemistry (2022), 4(8), 2612-2619.

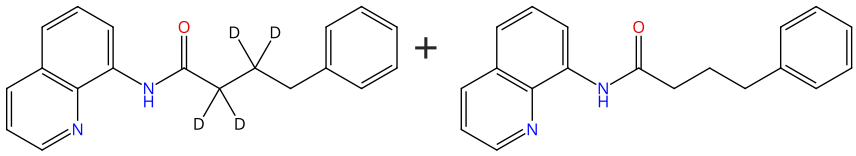
Scheme 27 (1 Reaction)

Steps: **1** Yield: **19%**



Supplier (1)

Suppliers (71)



Suppliers (5)

31-116-CAS-19237225

Steps: **1** Yield: **19%**

1.1 **Reagents:** Methanol-*d*, Propanoic acid, 2,2-dimethyl-, cesium salt (1:1)
Catalysts: Triphenylphosphine, Bis(1,5-cyclooctadiene)nickel; 70 °C; 24 h, 70 °C

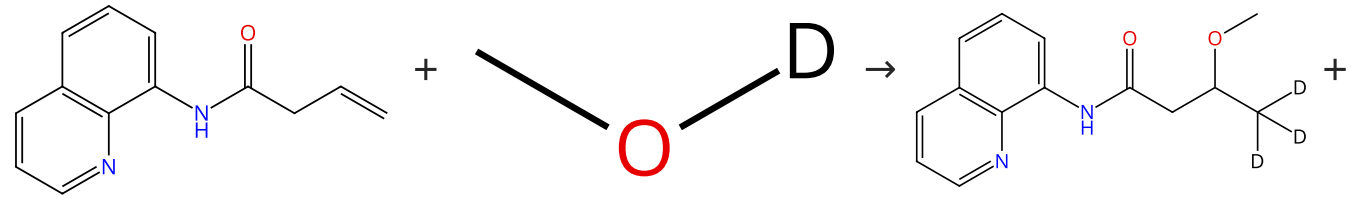
Nickel(0)-catalyzed linear-selective hydroarylation of unactivated alkenes and styrenes with aryl boronic acids

By: Lv, Honggui; et al

Chemical Science (2018), 9(33), 6839-6843.

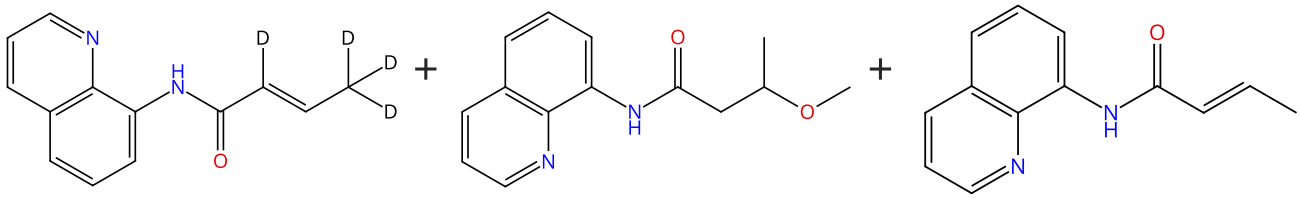
Scheme 28 (1 Reaction)

Steps: **1**



Supplier (1)

Suppliers (49)



Suppliers (2)

31-116-CAS-19237226

Steps: **1**

1.1 **Reagents:** Propanoic acid, 2,2-dimethyl-, cesium salt (1:1)
Catalysts: Triphenylphosphine, Bis(1,5-cyclooctadiene)nickel; 70 °C; 24 h, 70 °C

Nickel(0)-catalyzed linear-selective hydroarylation of unactivated alkenes and styrenes with aryl boronic acids

By: Lv, Honggui; et al

Chemical Science (2018), 9(33), 6839-6843.

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