CAS SciFinder

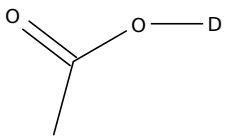
Task History

Initiating Search

February 23, 2025, 7:58 PM

Substances:

Filtered By:



Structure Match: **Substructure**

Search Tasks

Task	Search Type	View
Returned Substance Results + Filters (2,558)	Substances	View Results
Exported: Retrieved Related Reaction Results + Filters (20)	Reactions	View Results

Filtered By:

Substance Role:	**Reactant, Reagent, Solvent**
Catalyst:	**Bis(1,5-cyclooctadiene)nickel, Bis(acetylacetonato)nickel, Bis(triphenylphosphine) nickel dibromide, Dichloro[1,1'-(1,3-propanediyl)bis[1,1-diphenylphosphine-κ*P*]]nickel, Nickel, Nickel acetate, Nickel dichloride, (*SP*-4-1)-Bis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-κO^2,κO^4)nickel**
Document Type:	**Journal**
Language:	**English**

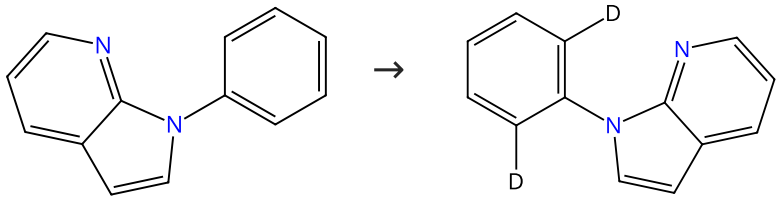
CAS SciFinder

Reactions (8)

View in CAS SciFinder

Scheme 1 (1 Reaction)

Steps: **1** Yield: **95%**



Suppliers (6)

31-116-CAS-23703959

Steps: **1** Yield: **95%**

1.1 **Reagents:** Potassium carbonate, Acetic acid-*d*, *N*-(2,2-Dimethyl-1-oxopropyl)-L-valine
Catalysts: Triphenylphosphine, Nickel dichloride, Bis(dichloro(η^6-*p*-cymene)ruthenium)
Solvents: 1,2-Dichloroethane; 2 h, 140 °C

Experimental Protocols

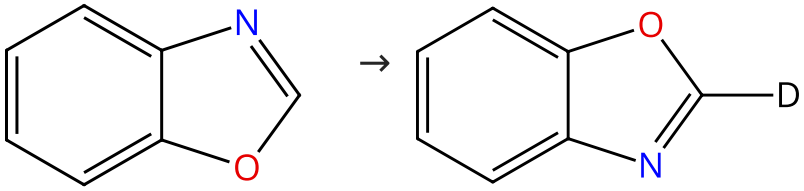
Ru(II)-Catalyzed Difluoromethylations of 7-Azaindoles: Access to Novel Fluoro-7-Azaindole Derivatives

By: Zhu, Yan-Ying; et al

Asian Journal of Organic Chemistry (2021), 10(6), 1410-1413.

Scheme 2 (2 Reactions)

Steps: **1** Yield: **78-85%**



Suppliers (81)

31-116-CAS-16148497

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

1.1 **Reagents:** Silver carbonate, Water-d_2, Propanoic acid-*d*, 2,2-dimethyl-
Catalysts: Nickel acetate, Triphenylphosphine
Solvents: *o*-Xylene; 3 min, rt; 2 h, 120 °C; 120 °C → rt

Experimental Protocols

Nickel Catalysis Enables Oxidative C(sp^2)-H/C(sp^2)-H Cross-Coupling Reactions between Two Hetero arenes

By: Cheng, Yangyang; et al

Angewandte Chemie, International Edition (2016), 55(40), 12275-12279.

31-116-CAS-16148498

Steps: **1** Yield: **78%**

1.1 **Reagents:** Silver carbonate, Water-d_2, *N*-8-Quinolinyl benzamide, Propanoic acid-*d*, 2,2-dimethyl-
Catalysts: Nickel acetate, Triphenylphosphine
Solvents: *o*-Xylene; 3 min, rt; 2 h, 120 °C; 120 °C → rt

Experimental Protocols

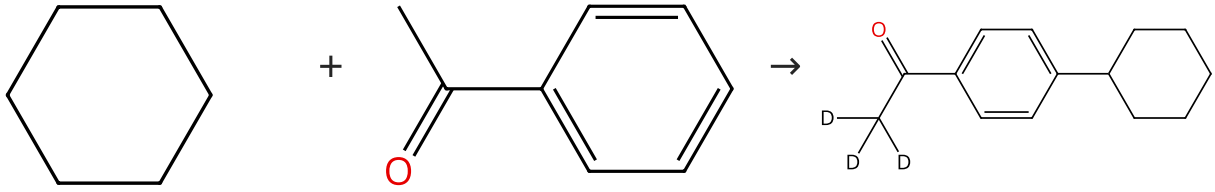
Nickel Catalysis Enables Oxidative C(sp^2)-H/C(sp^2)-H Cross-Coupling Reactions between Two Hetero arenes

By: Cheng, Yangyang; et al

Angewandte Chemie, International Edition (2016), 55(40), 12275-12279.

Scheme 3 (1 Reaction)

Steps: **1** Yield: **32%**



Suppliers (228)

Suppliers (109)

31-116-CAS-21503453

Steps: **1** Yield: **32%**

1.1 **Reagents:** *tert*-Butyl peroxide
Catalysts: (*SP*-4-1)-Bis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-κO^2,κO^4)nickel, Lithium bis(trifluoromethanesulfonyl)imide, N^1,N^2-Bis(tricyclo[3.3.1.1^{3,7}]dec-1-yl)ethanediamide; 5 h, 140 °C; 140 °C → rt

1.2 **Reagents:** Acetic acid-*d*; rt → 140 °C; 4 h, 140 °C

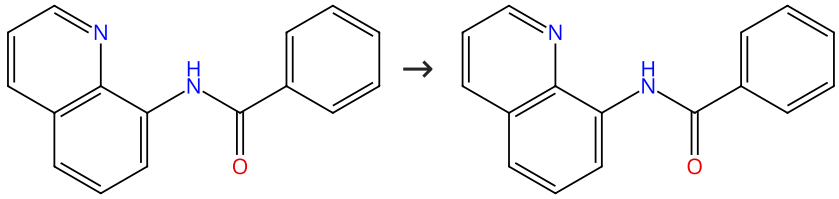
Nickel-Catalyzed, para-Selective, Radical-Based Alkylation of Aromatic Ketones

By: Wang, Jie; et al

Organic Letters (2020), 22(3), 854-857.

Scheme 4 (1 Reaction)

Steps: **1** Yield: **14%**



Suppliers (25)

31-614-CAS-28602446

Steps: **1** Yield: **14%**

1.1 **Reagents:** Silver carbonate, Water-d_2, Propanoic acid-*d*, 2,2-dimethyl-
Catalysts: Nickel acetate, Triphenylphosphine
Solvents: *o*-Xylene; 3 min, rt; 2 h, 120 °C; 120 °C → rt

Experimental Protocols

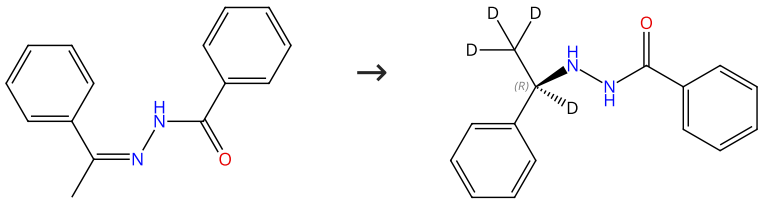
Nickel Catalysis Enables Oxidative C(sp^2)-H/C(sp^2)-H Cross-Coupling Reactions between Two Heteroarenes

By: Cheng, Yangyang; et al

Angewandte Chemie, International Edition (2016), 55(40), 12275-12279.

Scheme 5 (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

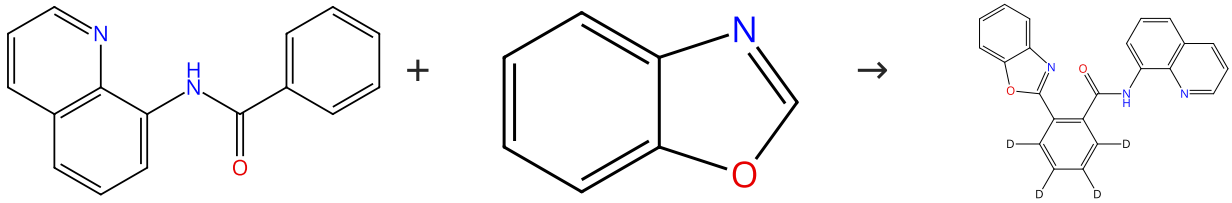
Nickel-Catalyzed Asymmetric Hydrogenation of Hydrazones

By: Li, Bowen; et al

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

Scheme 6 (1 Reaction)

Steps: **1**



Suppliers (81)

31-614-CAS-25979663

Steps: **1**

1.1 **Reagents:** Silver carbonate, Propanoic acid-*d*, 2,2-dimethyl-
Catalysts: Nickel acetate, Triphenylphosphine
Solvents: *o*-Xylene; 3 min, rt; 2 h, 120 °C; 120 °C → rt

Experimental Protocols

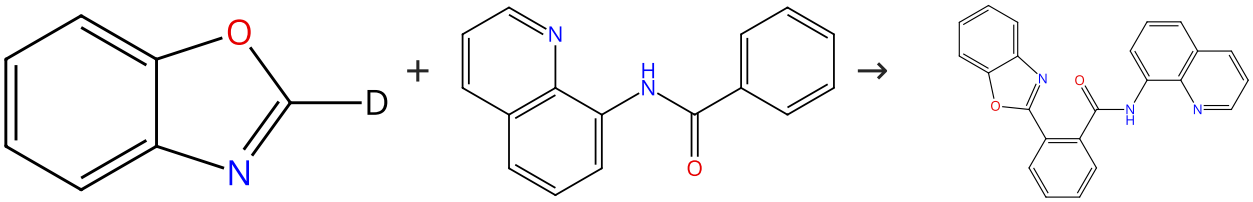
Nickel Catalysis Enables Oxidative C(sp^2)-H/C(sp^2)-H Cross-Coupling Reactions between Two Hetero arenes

By: Cheng, Yangyang; et al

Angewandte Chemie, International Edition (2016), 55(40), 12275-12279.

Scheme 7 (1 Reaction)

Steps: **1**



Suppliers (25)

31-090-CAS-21040001

Steps: **1**

1.1 **Reagents:** Silver carbonate, Propanoic acid-*d*, 2,2-dimethyl-
Catalysts: Nickel acetate, Triphenylphosphine
Solvents: *o*-Xylene; 3 min, rt; 2 h, 120 °C; 120 °C → rt

Experimental Protocols

Nickel Catalysis Enables Oxidative C(sp^2)-H/C(sp^2)-H Cross-Coupling Reactions between Two Hetero arenes

By: Cheng, Yangyang; et al

Angewandte Chemie, International Edition (2016), 55(40), 12275-12279.