

## Initiating Search

August 14, 2025, 11:19 AM

## • Search:

Filtered By:

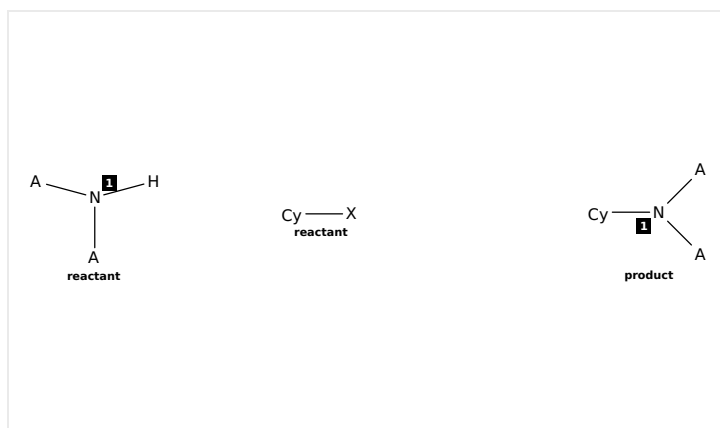
Yield: 90-100%, 80-89%, 70-79%

Reaction Mapping: Mapping Data Available

Catalyst: Palladium diacetate, Tris(dibenzylideneacetone)dipalladium, Palladium, tris[ $\mu$ -[(1,2- $\eta$ :4,5- $\eta$ )-(1*E*,4*E*)-1,5-diphenyl-1,4-pentadien-3-one]]di-, compd. with trichloromethane (1:1), Palladium, [7,9-bis[2,6-bis(1-methylethyl)phenyl]-7,9-dihydro-8*H*-acenaphth[1,2-*d*]imidazol-8-ylidene]bromo[2-(4,5-dihydro-4,4-dimethyl-2-oxazolyl- $\kappa^N$ )-1-naphthalenyl- $\kappa^C$ ]-, (*SP*-4-4)-, Bis(tri-*tert*-butylphosphine)palladium, Palladium, Palladium, bromo[dicyclohexyl[3-(1,1-dimethylethoxy)-6-methoxy-2',6'-bis(1-methylethyl)[1,1'-biphenyl]-2-yl- $\kappa^C$ ']phosphine- $\kappa^P$ ][4-[[2-(trimethylsilyl)ethoxy]carbonyl]phenyl]-, (*SP*-4-2)-, Stereoisomer of [(4*S*,5*S*)-1,3-bis[2,6-bis(1-methylethyl)phenyl]-4,5-diphenyl-2-imidazolidinylidene]chloro[(1,2,3- $\eta$ )-1-phenyl-2-propen-1-yl]palladium

Document Type: Journal

Publication Year: 2023 to 2024



Structure Match: Substructure

## Search Tasks

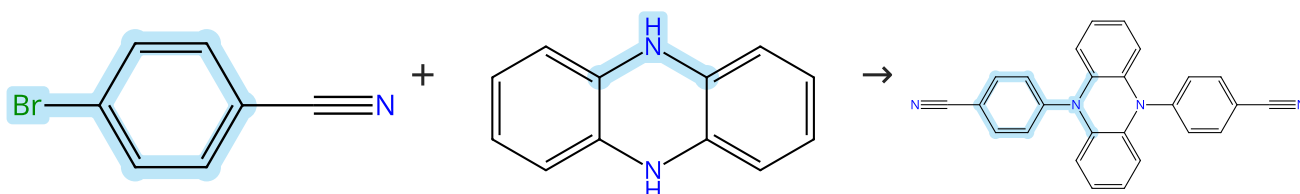
Task	Result Type	View
Exported: Returned Reaction Results + Filters (1,278)	Reactions	<a href="#">View Results</a>


# Reactions (100)

[View in CAS SciFinder](#)

Scheme 1 (1 Reaction)

Steps: 1 Yield: 76%


 Suppliers (93)

 Suppliers (62)

 Suppliers (26)

31-614-CAS-36922435

Steps: 1 Yield: 76%

**Molecular design of phenazine-5,10-diyl-dibenzonitriles and the impact on their thermally activated delayed fluorescence properties**

By: Pueschel, Dietrich; et al

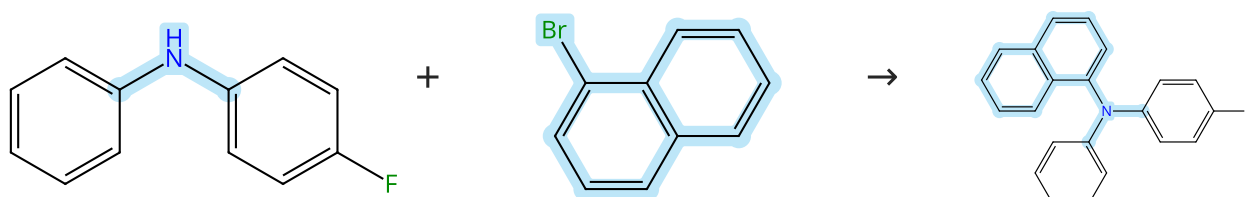
Journal of Materials Chemistry C: Materials for Optical and Electronic Devices (2023), 11(26), 8982-8991.

1.1 Reagents: Potassium carbonate  
Catalysts: Palladium diacetate, Tri-*tert*-butylphosphine  
Solvents: Toluene; 24 h, reflux

Experimental Protocols

Scheme 2 (1 Reaction)

Steps: 1 Yield: 76%


 Suppliers (57)

 Suppliers (88)

 Suppliers (2)

31-614-CAS-35114301

Steps: 1 Yield: 76%

**A general arene C-H functionalization strategy via electron donor-acceptor complex photoactivation**

By: Dewanji, Abhishek; et al

Nature Chemistry (2023), 15(1), 43-52.

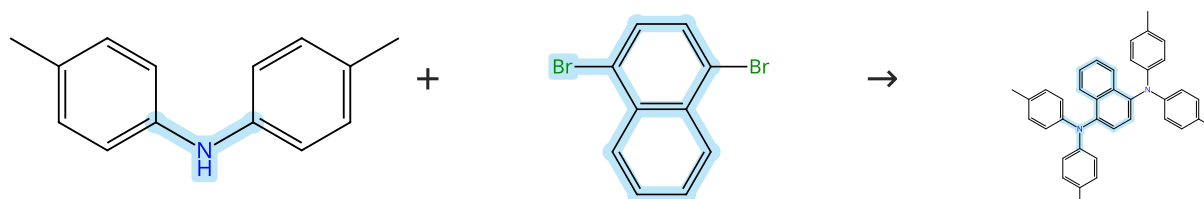
1.1 Reagents: Potassium *tert*-butoxide, Tri-*tert*-butylphosphine  
Catalysts: Tris(dibenzylideneacetone)dipalladium  
Solvents: Toluene; 15 min, rt

1.2 Reagents: Tri-*tert*-butylphosphine  
Solvents: Toluene; 18 h, 110 °C

Experimental Protocols

Scheme 3 (1 Reaction)

Steps: 1 Yield: 76%

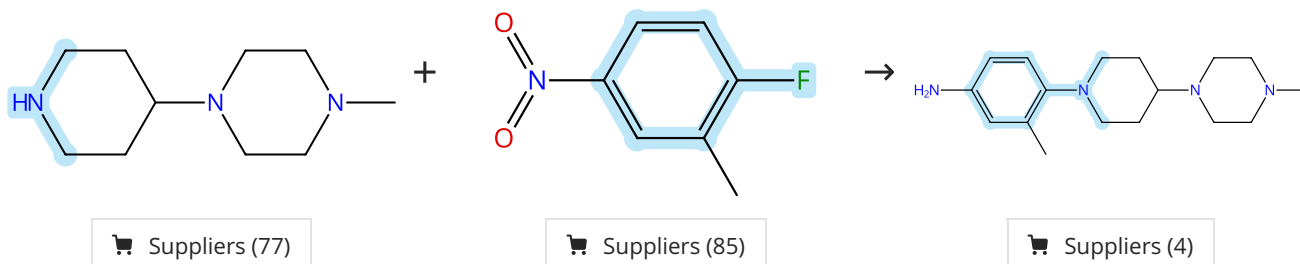

 Suppliers (80)

 Suppliers (96)

31-614-CAS-35774671	Steps: 1 Yield: 76%	<b>Machine-Learning Classification for the Prediction of Catalytic Activity of Organic Photosensitizers in the Nickel(II)-Salt-Induced Synthesis of Phenols</b>
1.1 Reagents: Lithium bis(trimethylsilyl)amide Catalysts: Tris(dibenzylideneacetone)dipalladium, [2',6'-Bis(1-methylethoxy)[1,1'-biphenyl]-2-yl]dicyclohexylphosphine Solvents: 1,4-Dioxane; rt; 24 h, 100 °C		By: Noto, Naoki; et al
Experimental Protocols		Angewandte Chemie, International Edition (2023), 62(11), e202219107.

Scheme 4 (1 Reaction)

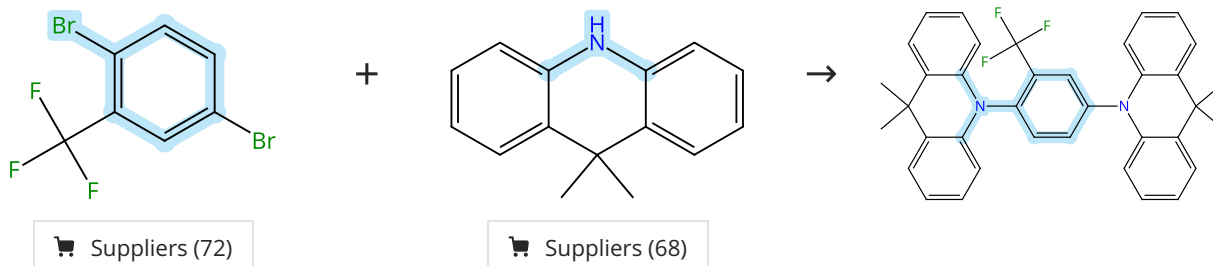
Steps: 1 Yield: 76%



31-614-CAS-36413341	Steps: 1 Yield: 76%	<b>Design, Synthesis, and Evaluation of (R)-8-((Tetrahydrofuran-2-yl)methyl)pyrido[2,3-d]pyrimidin-7-ones as Novel Selective ACK1 Inhibitors to Combat Acquired Resistance to the Third-Generation EGFR Inhibitor</b>
1.1 Reagents: Potassium carbonate Solvents: Dimethylformamide; overnight, 60 °C		By: Li, Qian; et al
1.2 Reagents: Hydrogen Catalysts: Palladium Solvents: Methanol; 3 h, rt		Journal of Medicinal Chemistry (2023), 66(10), 6905-6921.
Experimental Protocols		

Scheme 5 (1 Reaction)

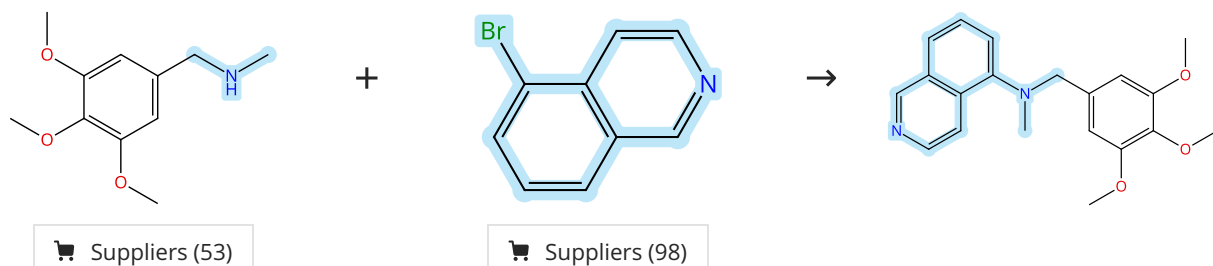
Steps: 1 Yield: 76%



31-614-CAS-43376620	Steps: 1 Yield: 76%	<b>Microwave-Assisted Buchwald-Hartwig Double Amination: A Rapid and Promising Approach for the Synthesis of TADF Compounds</b>
1.1 Reagents: Sodium <i>tert</i> -butoxide Catalysts: Tris(dibenzylideneacetone)dipalladium, X-Phos Solvents: Toluene; 10 - 30 min, 150 °C		By: Mohd Jamel, Nor Shafiq; et al
Experimental Protocols		ACS Omega (2024), 9(51), 50446-50457.

Scheme 6 (1 Reaction)

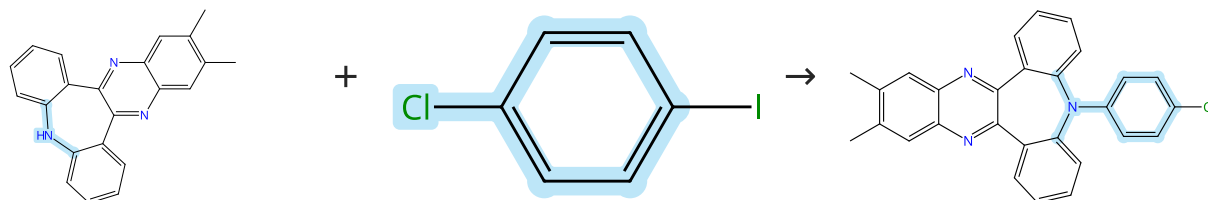
Steps: 1 Yield: 76%



31-614-CAS-43159476	Steps: 1 Yield: 76%	<b>Ruthenium-Catalyzed Carbocycle-Selective Hydrogenation of Fused Heteroarenes</b>
1.1 <b>Reagents:</b> Sodium <i>tert</i> -butoxide <b>Catalysts:</b> Tris(dibenzylideneacetone)dipalladium, 1,1'-(9,9-Dimethyl-9 <i>H</i> -xanthene-4,5-diyl)bis[1,1-diphenylphosphine] <b>Solvents:</b> 1,4-Dioxane; rt → 90 °C; 24 h, 90 °C		By: Luo, Chenguang; et al Journal of the American Chemical Society (2024), 146(51), 35043-35056.
Experimental Protocols		

Scheme 7 (1 Reaction)

Steps: 1 Yield: 75%

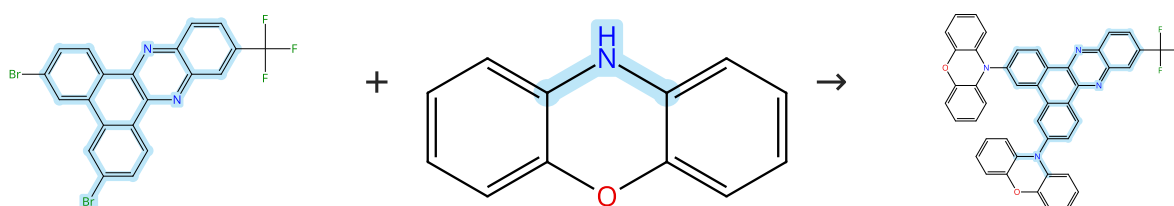


Suppliers (83)

31-614-CAS-36261971	Steps: 1 Yield: 75%	<b>V-shaped donor-acceptor organic emitters. A new approach towards efficient TADF OLED devices</b>
1.1 <b>Reagents:</b> Sodium <i>tert</i> -butoxide <b>Catalysts:</b> Palladium diacetate, Tri- <i>tert</i> -butylphosphonium tetrafluoroborate <b>Solvents:</b> Toluene; overnight, 105 °C		By: Derkowski, Wojciech; et al Chemical Communications (Cambridge, United Kingdom) (2023), 59(19), 2815-2818.
Experimental Protocols		

Scheme 8 (1 Reaction)

Steps: 1 Yield: 75%

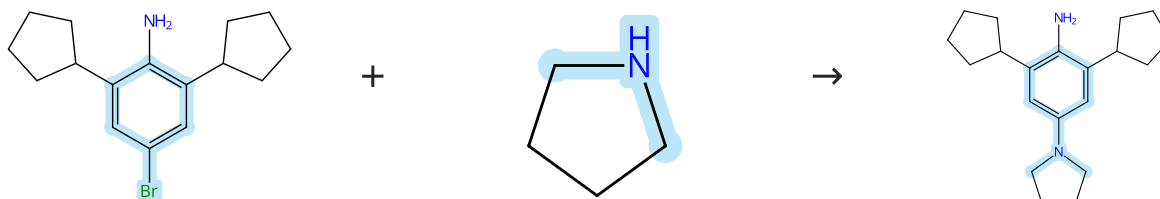


Suppliers (96)

31-614-CAS-43376637	Steps: 1 Yield: 75%	<b>Microwave-Assisted Buchwald-Hartwig Double Amination: A Rapid and Promising Approach for the Synthesis of TADF Compounds</b>
1.1 <b>Reagents:</b> Sodium <i>tert</i> -butoxide <b>Catalysts:</b> Tris(dibenzylideneacetone)dipalladium, X-Phos <b>Solvents:</b> Toluene; 30 min, 130 °C		By: Mohd Jamel, Nor Shafiq; et al ACS Omega (2024), 9(51), 50446-50457.
Experimental Protocols		

Scheme 9 (1 Reaction)

Steps: 1 Yield: 75%

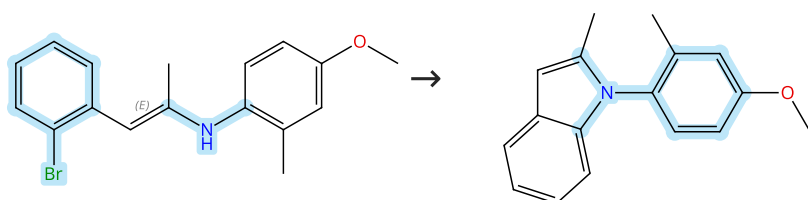


Suppliers (74)

<p><b>31-614-CAS-36317428</b> Steps: 1 Yield: 75%</p> <p>1.1 <b>Reagents:</b> Sodium <i>tert</i>-butoxide, 2'-(Dicyclohexylphosphino)-<i>N,N</i>-dimethyl[1,1'-biphenyl]-2-amine  <b>Catalysts:</b> Tris(dibenzylideneacetone)dipalladium  <b>Solvents:</b> Toluene; rt; 16 h, 95 °C</p> <p>1.2 <b>Reagents:</b> Ammonium chloride  <b>Solvents:</b> Water</p> <p>Experimental Protocols</p>	<p><b>Iron-Catalyzed Synthesis of Conformationally Restricted Bicyclic N-Heterocycles via [2+2]-Cycloaddition: Exploring Ring Expansion-Mechanistic Insights and Challenges</b></p> <p>By: Hertwig, Leif E.; et al</p> <p>ACS Catalysis (2023), 13(9), 6416-6429.</p>
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Scheme 10 (1 Reaction)

Steps: 1 Yield: 75%

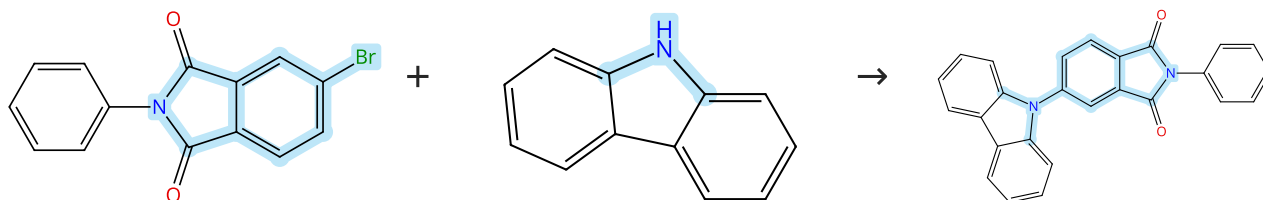


Double bond geometry shown

<p><b>31-614-CAS-40129215</b> Steps: 1 Yield: 75%</p> <p>1.1 <b>Catalysts:</b> Palladium diacetate, (-)-BINAP  <b>Solvents:</b> Toluene; 20 min, rt</p> <p>1.2 <b>Reagents:</b> Cesium carbonate  <b>Solvents:</b> Toluene; 5 min, rt</p> <p>1.3 5 min, rt; 18 h, 60 °C</p> <p>Experimental Protocols</p>	<p><b>Pd-Catalyzed Asymmetric Amination of Enamines: Expedient Synthesis of Structurally Diverse N-C Atropisomers</b></p> <p>By: Zhang, Peng; et al</p> <p>ACS Catalysis (2023), 13(11), 7680-7690.</p>
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Scheme 11 (1 Reaction)

Steps: 1 Yield: 75%



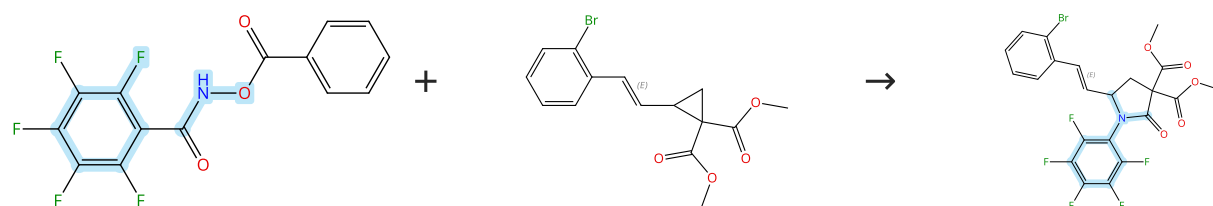
Suppliers (32)

Suppliers (109)

<p><b>31-614-CAS-37385835</b> Steps: 1 Yield: 75%</p> <p>1.1 <b>Reagents:</b> Sodium <i>tert</i>-butoxide  <b>Catalysts:</b> Palladium diacetate, Tri-<i>tert</i>-butylphosphonium tetrafluoroborate  <b>Solvents:</b> Toluene; 24 h, 120 °C; 120 °C → rt</p> <p>1.2 <b>Solvents:</b> Water; rt</p> <p>Experimental Protocols</p>	<p><b>Isomer and substituent engineering of TADF emitters toward tunable room-temperature phosphorescence</b></p> <p>By: Feng, Quanyou; et al</p> <p>Chemical Engineering Journal (Amsterdam, Netherlands) (2023), 471, 144352.</p>
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Scheme 12 (1 Reaction)

Steps: 1 Yield: 75%



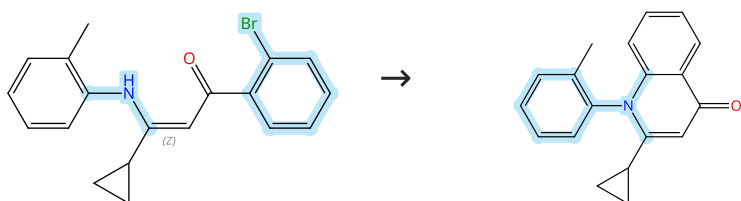
Double bond geometry shown

Double bond geometry shown

31-614-CAS-36837159	Steps: 1 Yield: 75%	<b>[3+2] Cycloaddition of Vinyl Cyclopropane and Hydroxy lamines via Isocyanate Intermediate to <math>\gamma</math>-Lactams</b>
1.1 Reagents: Cesium carbonate Catalysts: 2,2'-Bipyridine, Tris(dibenzylideneacetone)dipalladium Solvents: Tetrahydrofuran; 24 h, 50 °C		By: Huang, Xiaobing; et al Chinese Journal of Chemistry (2023), 41(16), 1937-1942.
Experimental Protocols		

Scheme 13 (1 Reaction)

Steps: 1 Yield: 75%

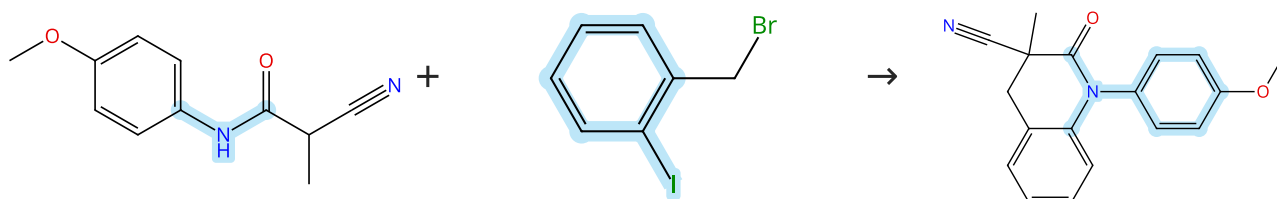


Double bond geometry shown

31-614-CAS-40129296	Steps: 1 Yield: 75%	<b>Pd-Catalyzed Asymmetric Amination of Enamines: Expedient Synthesis of Structurally Diverse N-C Atropisomers</b>
1.1 Reagents: Potassium carbonate, Sodium hydroxide Catalysts: Palladium diacetate, (-)-BINAP Solvents: Toluene, 1,4-Dioxane; 18 h, 60 °C		By: Zhang, Peng; et al ACS Catalysis (2023), 13(11), 7680-7690.
Experimental Protocols		

Scheme 14 (1 Reaction)

Steps: 1 Yield: 75%



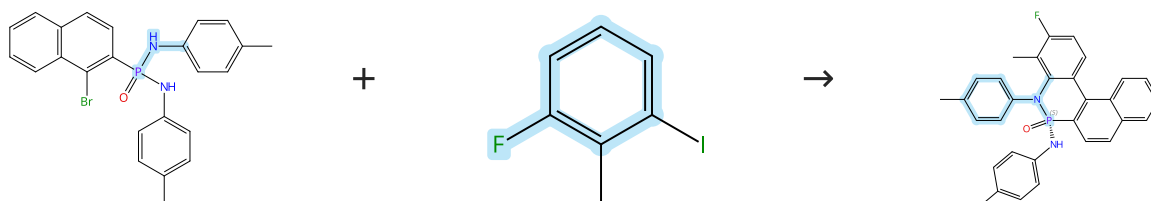
Suppliers (4)

Suppliers (68)

31-614-CAS-39519123	Steps: 1 Yield: 75%	<b>Synthesis of highly functionalized dihydroquinolinones via a tandem benzylation/intramolecular C-N coupling strategy</b>
1.1 Reagents: Cesium carbonate Solvents: 1,4-Dioxane; 2 h, 110 °C 1.2 Catalysts: Palladium diacetate, 1,1'-(9,9-Dimethyl-9H-xanthene-4,5-diyl)bis[1,1-diphenylphosphine] Solvents: 1,4-Dioxane; overnight, 110 °C 1.3 Reagents: Ammonium chloride Solvents: Water		By: Gao, Pei-Sen; et al Tetrahedron (2024), 155, 133865.
Experimental Protocols		

Scheme 15 (1 Reaction)

Steps: 1 Yield: 75%



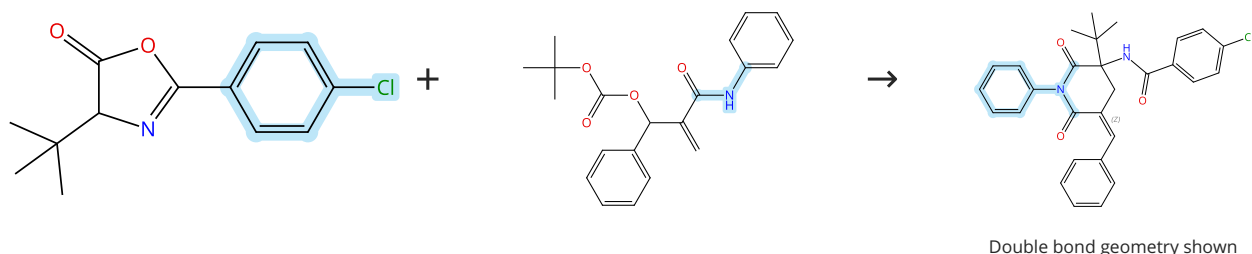
Absolute stereochemistry shown

Suppliers (67)

31-614-CAS-42232662	Steps: 1 Yield: 75%	<b>Solvent-Controlled Enantiodivergent Construction of P(V)-Stereogenic Molecules via Palladium-Catalyzed Annulation of Prochiral N-Aryl Phosphonamides with Aromatic Iodides</b>
1.1 <b>Reagents:</b> Potassium carbonate <b>Catalysts:</b> Palladium diacetate, Tris(2-furyl)phosphine, Bicyclo [2.2.1]hept-2-ene-2-carboxylic acid, methyl ester, (1 <i>R</i> ,4 <i>R</i> )- <b>Solvents:</b> Acetonitrile; 12 h, 100 °C		By: Tian, Qingyu; et al
Experimental Protocols		Angewandte Chemie, International Edition (2024), 63(41), e202409366.

Scheme 16 (1 Reaction)

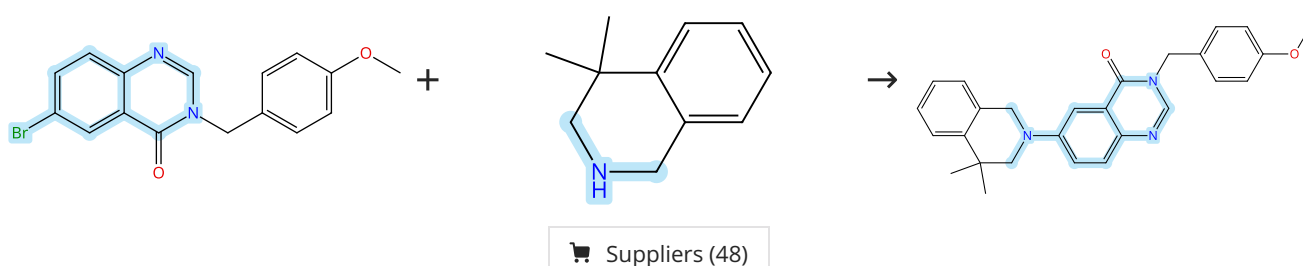
Steps: 1 Yield: 75%



31-614-CAS-35547330	Steps: 1 Yield: 75%	<b>Palladium-catalyzed [4 + 2] cycloaddition of amido-tethered allylic carbonates with oxazol-5-(4H)-ones: synthesis of piperidine-2,6-dione derivatives</b>
1.1 <b>Catalysts:</b> 1,1-Bis(diphenylphosphino)ferrocene, Tris (dibenzylideneacetone)dipalladium <b>Solvents:</b> Dichloromethane; 24 h, 40 °C		By: Wang, Lan; et al
Experimental Protocols		Organic Chemistry Frontiers (2023), 10(3), 813-818.

Scheme 17 (1 Reaction)

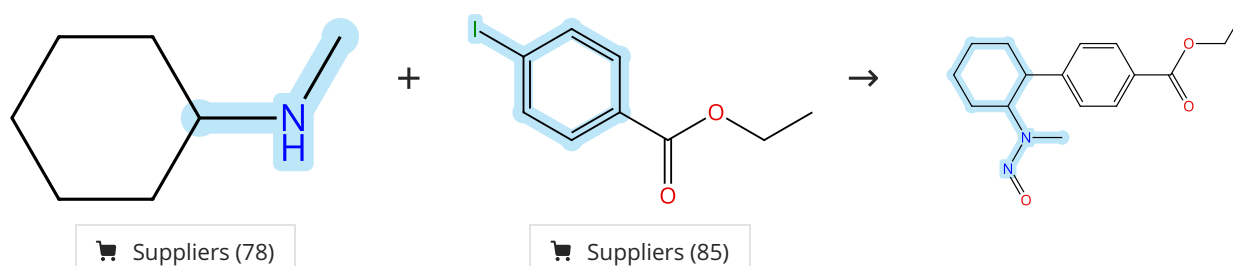
Steps: 1 Yield: 75%



31-614-CAS-38625340	Steps: 1 Yield: 75%	<b>Fragment-Based Screening Identifies New Quinazolinone-Based Inositol Hexakisphosphate Kinase (IP6K) Inhibitors</b>
1.1 <b>Reagents:</b> Cesium carbonate <b>Catalysts:</b> Palladium diacetate, 1,1'-(9,9-Dimethyl-9 <i>H</i> -xanthene-4,5-diyl)bis[1,1-diphenylphosphine] <b>Solvents:</b> 1,4-Dioxane; overnight, rt → 90 °C		By: Heitmann, Tyler; et al
Experimental Protocols		ACS Medicinal Chemistry Letters (2023), 14(12), 1760-1766.

Scheme 18 (1 Reaction)

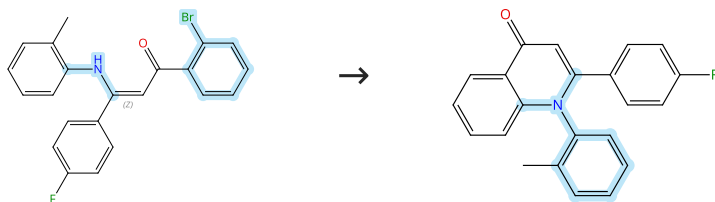
Steps: 1 Yield: 75%



<b>31-614-CAS-42625416</b> Steps: 1 Yield: 75% 1.1 Reagents: Isoamyl nitrite; 12 h, 60 °C 1.2 Reagents: Silver tetrafluoroborate Catalysts: Palladium diacetate, Glycine, <i>N</i> -[(1,6-dihydro-5-nitro-6-oxo-2-pyridinyl)carbonyl]-, methyl ester Solvents: 1,1,1,3,3,3-Hexafluoro-2-propanol; 24 h, 100 °C	<b>Efficient Construction of <math>\beta</math>-Arylethylamines via Selective C (sp<sup>3</sup>)-H Arylation of Aliphatic Amines</b> By: Tu, Hua; et al ACS Catalysis (2024), 14(23), 17535-17546.
Experimental Protocols	

Scheme 19 (1 Reaction)

Steps: 1 Yield: 75%

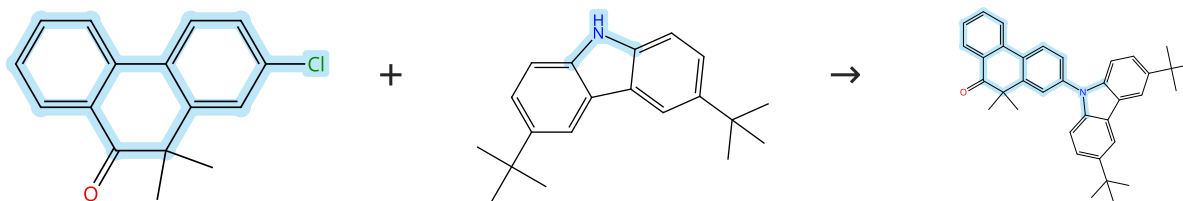


Double bond geometry shown

<b>31-614-CAS-40129285</b> Steps: 1 Yield: 75% 1.1 Reagents: Potassium carbonate, Sodium hydroxide Catalysts: Palladium diacetate, (-)-BINAP Solvents: Toluene, 1,4-Dioxane; 18 h, 40 °C	<b>Pd-Catalyzed Asymmetric Amination of Enamines: Expedient Synthesis of Structurally Diverse N-C Atropisomers</b> By: Zhang, Peng; et al ACS Catalysis (2023), 13(11), 7680-7690.
Experimental Protocols	

Scheme 20 (1 Reaction)

Steps: 1 Yield: 75%

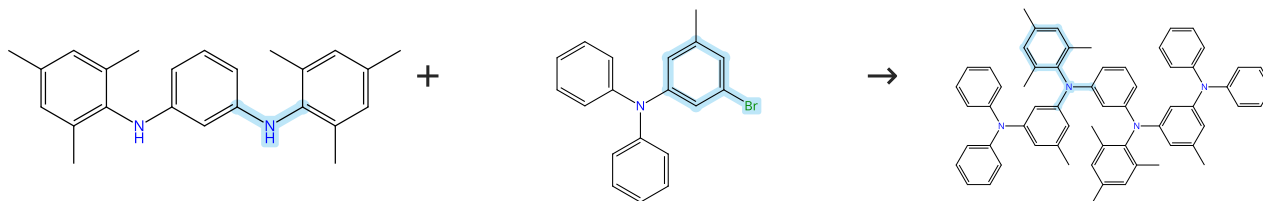


Suppliers (69)

<b>31-614-CAS-36610941</b> Steps: 1 Yield: 75% 1.1 Reagents: Sodium <i>tert</i> -butoxide, Tri- <i>tert</i> -butylphosphonium tetrafluoroborate Catalysts: Palladium diacetate Solvents: Toluene; 30 h, 150 °C	<b>Molecular engineering of locked alkyl aryl carbonyl-based thermally activated delayed fluorescence emitters via a cascade C-H activation process</b> By: Zhang, Yunxi; et al Chemical Science (2023), 14(19), 5125-5131.
Experimental Protocols	

Scheme 21 (1 Reaction)

Steps: 1 Yield: 75%



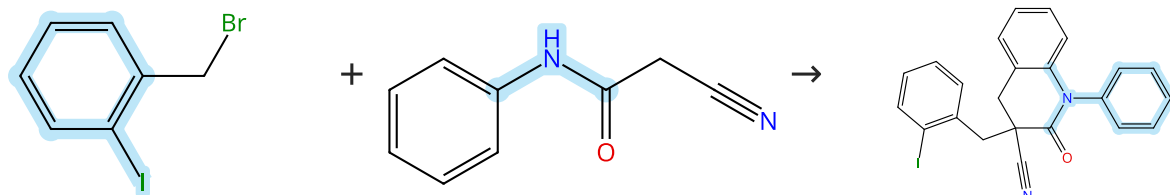
Suppliers (19)



31-614-CAS-41860642	Steps: 1 Yield: 75%	<b>Orienting Group Directed Cascade Borylation for Efficient One-Shot Synthesis of 1,4-BN-Doped Polycyclic Aromatic Hydrocarbons as Narrowband Organic Emitters</b>
1.1 <b>Reagents:</b> Sodium <i>tert</i> -butoxide <b>Catalysts:</b> Tris(dibenzylideneacetone)dipalladium, [2',6'-Bis(1-methylethoxy)[1,1'-biphenyl]-2-yl]dicyclohexylphosphine <b>Solvents:</b> Toluene; overnight, 120 °C		By: Wu, Lin; et al
Experimental Protocols		Angewandte Chemie, International Edition (2024), 63(18), e202402020.

Scheme 22 (1 Reaction)

Steps: 1 Yield: 75%



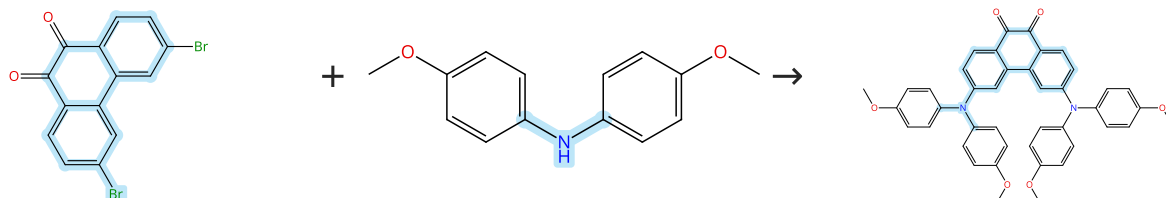
Suppliers (68)

Suppliers (71)

31-614-CAS-39519097	Steps: 1 Yield: 75%	<b>Synthesis of highly functionalized dihydroquinolinones via a tandem benzylation/intramolecular C-N coupling strategy</b>
1.1 <b>Reagents:</b> Cesium carbonate <b>Solvents:</b> 1,4-Dioxane; 1 h, 110 °C		By: Gao, Pei-Sen; et al
1.2 <b>Catalysts:</b> Palladium diacetate, 1,1'-(9,9-Dimethyl-9H-xanthene-4,5-diyl)bis[1,1-diphenylphosphine] <b>Solvents:</b> 1,4-Dioxane; 10 h, 110 °C		Tetrahedron (2024), 155, 133865.
1.3 <b>Reagents:</b> Ammonium chloride <b>Solvents:</b> Water		
Experimental Protocols		

Scheme 23 (1 Reaction)

Steps: 1 Yield: 75%



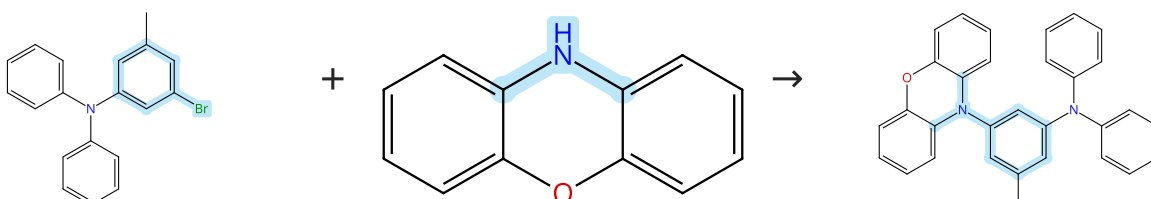
Suppliers (67)

Suppliers (70)

31-614-CAS-40866795	Steps: 1 Yield: 75%	<b>Red phenanthrenequinone dyes with high thermal and photo-stability for LCD color filters</b>
1.1 <b>Reagents:</b> Sodium <i>tert</i> -butoxide <b>Catalysts:</b> Palladium diacetate <b>Solvents:</b> 1,4-Dioxane; 24 h, 105 °C		By: Li, Sunfan; et al
Experimental Protocols		Dyes and Pigments (2024), 224, 112023.

Scheme 24 (1 Reaction)

Steps: 1 Yield: 75%



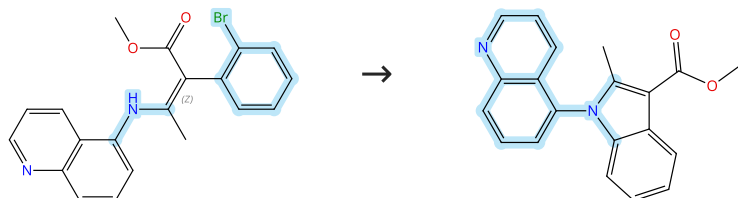
Suppliers (19)

Suppliers (96)

31-614-CAS-41860556	Steps: 1 Yield: 75%	<b>Orienting Group Directed Cascade Borylation for Efficient One-Shot Synthesis of 1,4-BN-Doped Polycyclic Aromatic Hydrocarbons as Narrowband Organic Emitters</b>  By: Wu, Lin; et al  Angewandte Chemie, International Edition (2024), 63(18), e202402020.
1.1 Reagents: Sodium <i>tert</i> -butoxide Catalysts: Tris(dibenzylideneacetone)dipalladium, Tri- <i>tert</i> -butylphosphonium tetrafluoroborate Solvents: Toluene; overnight, 110 °C		
Experimental Protocols		

Scheme 25 (1 Reaction)

Steps: 1 Yield: 75%

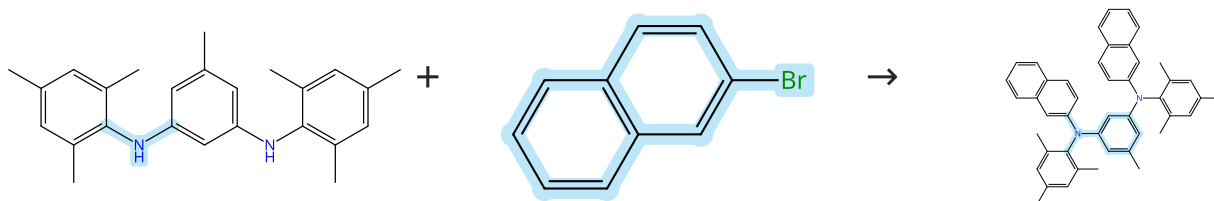


Double bond geometry shown

31-614-CAS-40129210	Steps: 1 Yield: 75%	<b>Pd-Catalyzed Asymmetric Amination of Enamines: Expedient Synthesis of Structurally Diverse N-C Atropisomers</b>  By: Zhang, Peng; et al  ACS Catalysis (2023), 13(11), 7680-7690.
1.1 Catalysts: Palladium diacetate, (-)-BINAP Solvents: Toluene; 20 min, rt		
1.2 Reagents: Cesium carbonate Solvents: Toluene; 5 min, rt		
1.3 5 min, rt; 18 h, 60 °C		
Experimental Protocols		

Scheme 26 (1 Reaction)

Steps: 1 Yield: 75%



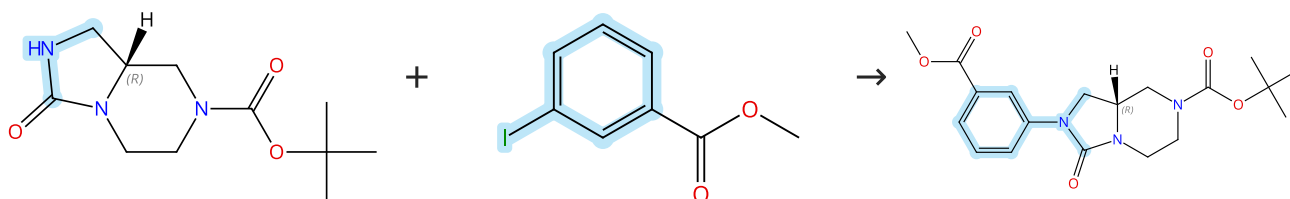
Suppliers (3)

Suppliers (88)

31-614-CAS-41860576	Steps: 1 Yield: 75%	<b>Orienting Group Directed Cascade Borylation for Efficient One-Shot Synthesis of 1,4-BN-Doped Polycyclic Aromatic Hydrocarbons as Narrowband Organic Emitters</b>  By: Wu, Lin; et al  Angewandte Chemie, International Edition (2024), 63(18), e202402020.
1.1 Reagents: Sodium <i>tert</i> -butoxide Catalysts: Tris(dibenzylideneacetone)dipalladium, [2',6'-Bis(1-methylethoxy)[1,1'-biphenyl]-2-yl]dicyclohexylphosphine Solvents: Toluene; overnight, 110 °C		
Experimental Protocols		

Scheme 27 (1 Reaction)

Steps: 1 Yield: 75%



Absolute stereochemistry shown

Absolute stereochemistry shown

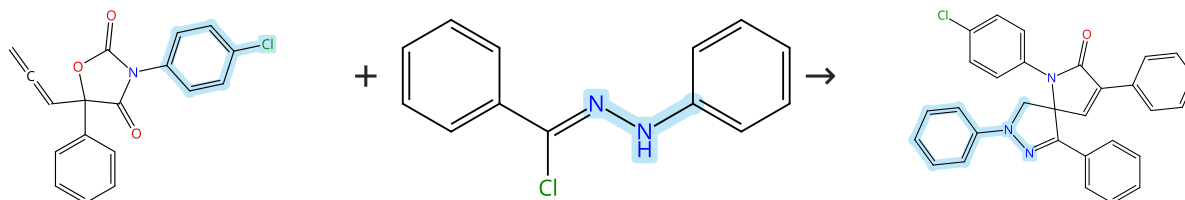
Suppliers (42)

Suppliers (58)

<p>31-614-CAS-40593940</p> <p>Steps: 1 Yield: 75%</p> <p>1.1 <b>Reagents:</b> Cesium carbonate  <b>Catalysts:</b> Palladium diacetate, 1,1'-(9,9-Dimethyl-9<i>H</i>-xanthene-4,5-diyl)bis[1,1-diphenylphosphine]  <b>Solvents:</b> 1,4-Dioxane; 5 min, rt; overnight, 90 °C</p> <p>Experimental Protocols</p>	<p><b>Discovery of Linvencorvir (RG7907), a Hepatitis B Virus Core Protein Allosteric Modulator, for the Treatment of Chronic HB V Infection</b></p> <p>By: Zhang, Weixing; et al</p> <p>Journal of Medicinal Chemistry (2023), 66(6), 4253-4270.</p>
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Scheme 28 (1 Reaction)

Steps: 1 Yield: 75%

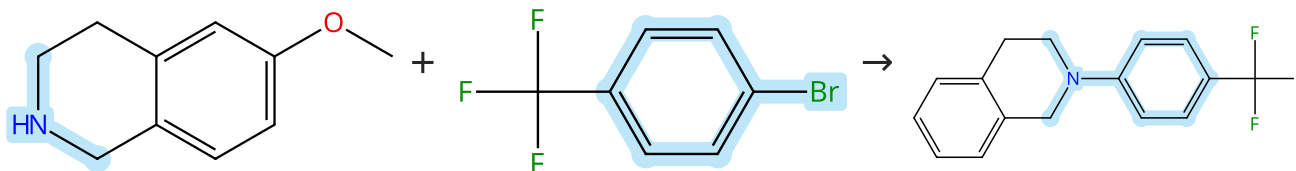


Suppliers (38)

<p>31-614-CAS-41716083</p> <p>Steps: 1 Yield: 75%</p> <p>1.1 <b>Reagents:</b> Triethylamine  <b>Catalysts:</b> Palladium, tris[μ-[(1,2-η:4,5-η)-(1<i>E</i>,4<i>E</i>)-1,5-diphenyl-1,4-pentadien-3-one]]di-, compd. with trichloromethane (1:1), 1,1'-(9,9-Dimethyl-9<i>H</i>-xanthene-4,5-diyl)bis[1,1-diphenylphosphine]  <b>Solvents:</b> Dichloromethane; 12 h, 25 °C</p> <p>Experimental Protocols</p>	<p><b>Pd-catalyzed sequential intramolecular annulation/intermolecular [3+2] cycloaddition of 5-allyloxazolidine-2,4-diones with dipoles: synthesis of spiroheterocycles</b></p> <p>By: Dong, Yujie; et al</p> <p>Chemical Communications (Cambridge, United Kingdom) (2024), 60(76), 10516-10519.</p>
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Scheme 29 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (83)

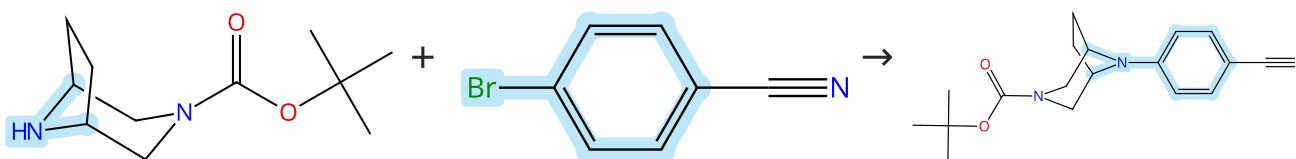
Suppliers (79)

Suppliers (2)

<p>31-614-CAS-41429354</p> <p>Steps: 1 Yield: 75%</p> <p>1.1 <b>Reagents:</b> Potassium <i>tert</i>-butoxide  <b>Catalysts:</b> Palladium diacetate, BINAP  <b>Solvents:</b> Toluene; 24 h, 100 °C</p> <p>1.2 <b>Reagents:</b> Water</p> <p>Experimental Protocols</p>	<p><b>Green approach to the synthesis of α-aminophosphonate-tetrahydroisoquinoline hybrids and their anti-cholinesterase activity</b></p> <p>By: Marchan-Garcia, Joaquin; et al</p> <p>Bioorganic Chemistry (2024), 143, 107008.</p>
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Scheme 30 (1 Reaction)

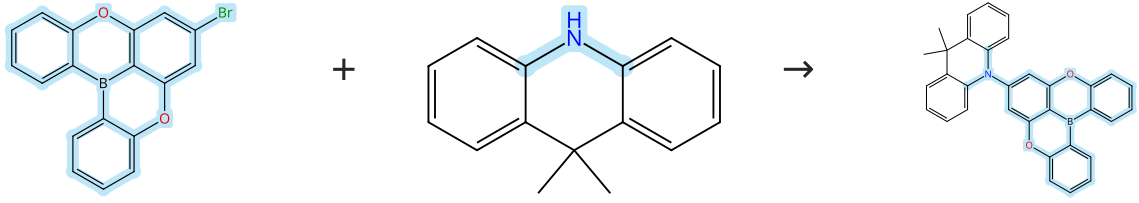
Steps: 1 Yield: 75%



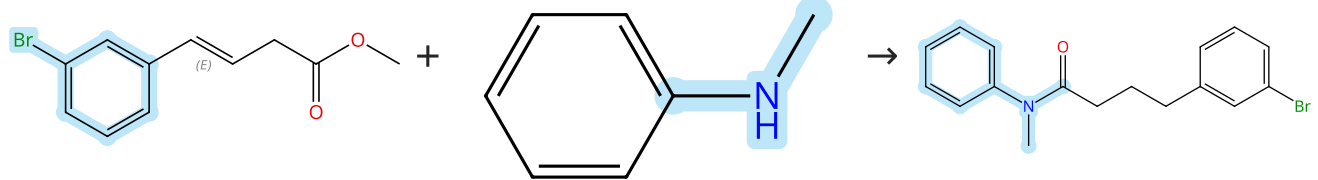
Suppliers (88)

Suppliers (93)

<b>31-614-CAS-38701046</b> Steps: 1 Yield: 75%	<b>Discovery of (2S)-N-(6-cyano-5-(trifluoromethyl)pyridin-3-yl)-3-(6-(4-cyanophenyl)-3,6-diazabicyclo[3.1.1]heptan-3-yl)-2-hydroxy-2-methylpropanamide as a Highly Potent and Selective Topical Androgen Receptor Antagonist for Androgenetic Alopecia Treatment</b>
1.1 Reagents: Sodium <i>tert</i> -butoxide Catalysts: Tris(dibenzylideneacetone)dipalladium, BINAP Solvents: Toluene; 12 h, 80 °C; 80 °C → rt 1.2 Reagents: Water; rt	
Experimental Protocols	By: Zhang, Wenqiang; et al Journal of Medicinal Chemistry (2024), 67(1), 322-348.

<b>Scheme 31 (1 Reaction)</b> Steps: 1 Yield: 75%	
 <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div data-bbox="199 739 418 790">  Suppliers (25)         </div> <div data-bbox="654 739 873 790">  Suppliers (68)         </div> </div>	

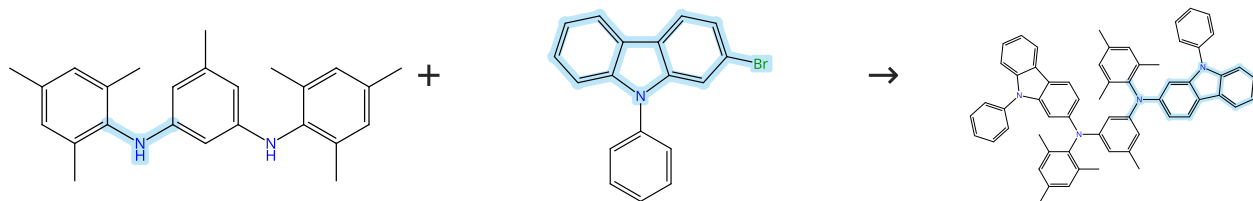
<b>31-614-CAS-39432311</b> Steps: 1 Yield: 75%	<b>Tunable multimode emission induced by charge transfer and multiple resonance effect</b>
1.1 Reagents: Sodium <i>tert</i> -butoxide Catalysts: Tri- <i>tert</i> -butylphosphonium tetrafluoroborate Solvents: Toluene; 15 min, 80 °C 1.2 Catalysts: Tris(dibenzylideneacetone)dipalladium; 12 h, 120 °C	By: Zhang, Fuzheng; et al Dyes and Pigments (2024), 222, 111902.
Experimental Protocols	

<b>Scheme 32 (1 Reaction)</b> Steps: 1 Yield: 75%	
 <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div data-bbox="175 1377 434 1476">           Double bond geometry shown   Supplier (1)         </div> <div data-bbox="654 1377 873 1429">  Suppliers (69)         </div> </div>	

<b>31-614-CAS-39786388</b> Steps: 1 Yield: 75%	<b>Tertiary Amides as Directing Groups for Enantioselective C-H Amination using Ion-Paired Rhodium Complexes</b>
1.1 Reagents: Hydrogen Catalysts: Palladium Solvents: Methanol; overnight, rt 1.2 Reagents: Methylmagnesium bromide Solvents: Diethyl ether; rt → 0 °C; 0 °C; 0 °C; 0 °C → rt; overnight, rt 1.3 Reagents: Hydrochloric acid Solvents: Water; rt	By: Paterson, Kieran J.; et al Angewandte Chemie, International Edition (2024), 63(14), e202317489.
Experimental Protocols	

Scheme 33 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (3)

Suppliers (65)

31-614-CAS-41860572

Steps: 1 Yield: 75%

**Orienting Group Directed Cascade Borylation for Efficient One-Shot Synthesis of 1,4-BN-Doped Polycyclic Aromatic Hydrocarbons as Narrowband Organic Emitters**

By: Wu, Lin; et al

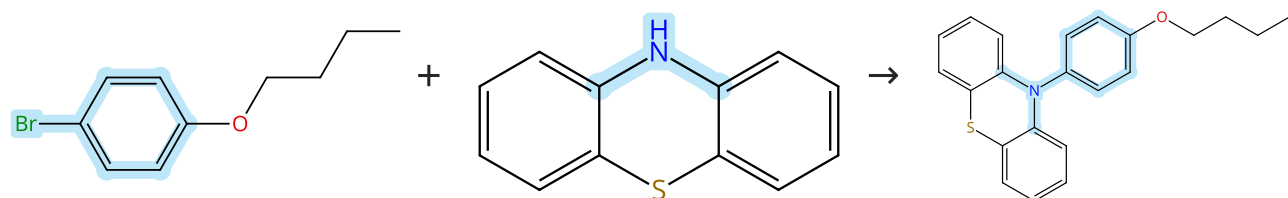
Angewandte Chemie, International Edition (2024), 63(18), e202402020.

1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Tris(dibenzylideneacetone)dipalladium, [2',6'-Bis(1-methylethoxy)[1,1'-biphenyl]-2-yl]dicyclohexylphosphine  
**Solvents:** Toluene; overnight, 110 °C

Experimental Protocols

Scheme 34 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (66)

Suppliers (96)

31-614-CAS-36474312

Steps: 1 Yield: 75%

**Fluorogenic Phenothiazine-Derivative as Radical Sensors**

By: Desoky, Mohamed M. H.

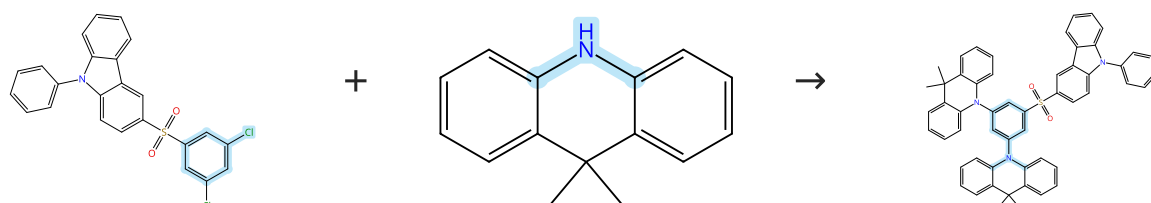
ChemistrySelect (2023), 8(17), e202204638.

1.1 **Reagents:** Sodium *tert*-butoxide, Tri-*tert*-butylphosphine  
**Catalysts:** Tris(dibenzylideneacetone)dipalladium  
**Solvents:** Xylene; 12 h, 80 °C

Experimental Protocols

Scheme 35 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (68)

31-614-CAS-34602567

Steps: 1 Yield: 75%

**Molecular engineering of blue diphenylsulfone-based emitter with aggregation-enhanced emission and thermally activated delayed fluorescence characteristics: impairing intermolecular electron-exchange interactions using steric hindrance**

By: Huo, Jinnan; et al

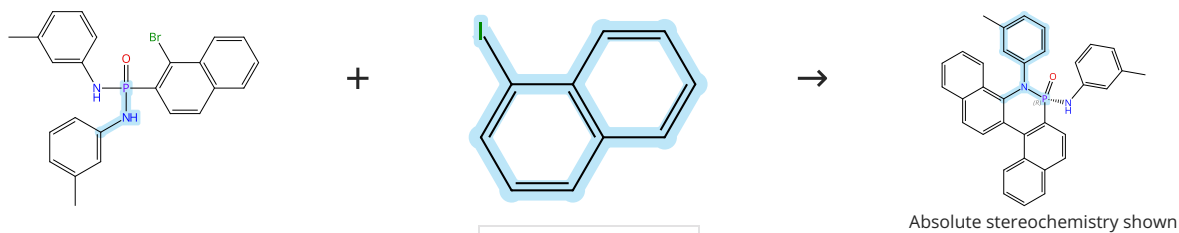
Chemical Engineering Journal (Amsterdam, Netherlands) (2023), 452(Part\_1), 138957.

1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Palladium diacetate, Tri-*tert*-butylphosphonium tetrafluoroborate  
**Solvents:** Toluene; 48 h, 125 °C

Experimental Protocols

Scheme 36 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (87)

31-614-CAS-42232623

Steps: 1 Yield: 75%

1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Palladium diacetate, Tris(2-furyl)phosphine, Bicyclo [2.2.1]hept-2-ene-2-carboxylic acid, methyl ester, (1*R*,4*R*)-  
**Solvents:** Toluene; 12 h, 100 °C

Experimental Protocols

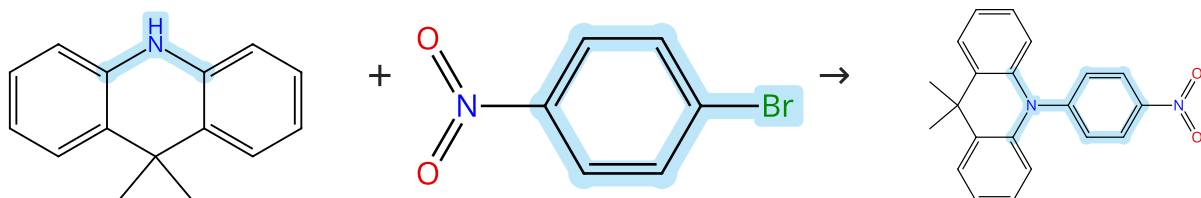
**Solvent-Controlled Enantiodivergent Construction of P(V)-Stereogenic Molecules via Palladium-Catalyzed Annulation of Prochiral N-Aryl Phosphonamides with Aromatic Iodides**

By: Tian, Qingyu; et al

Angewandte Chemie, International Edition (2024), 63(41), e202409366.

Scheme 37 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (68)

Suppliers (76)

31-614-CAS-37097215

Steps: 1 Yield: 75%

1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Palladium diacetate, Tri-*tert*-butylphosphonium tetrafluoroborate  
**Solvents:** Toluene; 24 h, reflux

Experimental Protocols

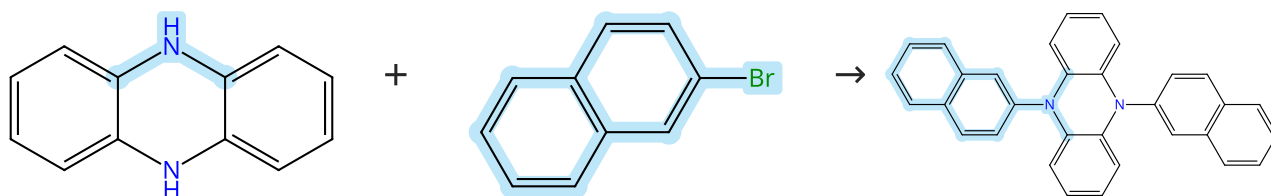
**Alternating Thermally Activated Delayed Fluorescence Copolymers Featuring Through-Space Charge Transfer for Efficient Electroluminescence**

By: Yu, Maolin; et al

Macromolecules (Washington, DC, United States) (2023), 56(14), 5381-5389.

Scheme 38 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (62)

Suppliers (88)

Suppliers (38)

31-614-CAS-35436069

Steps: 1 Yield: 75%

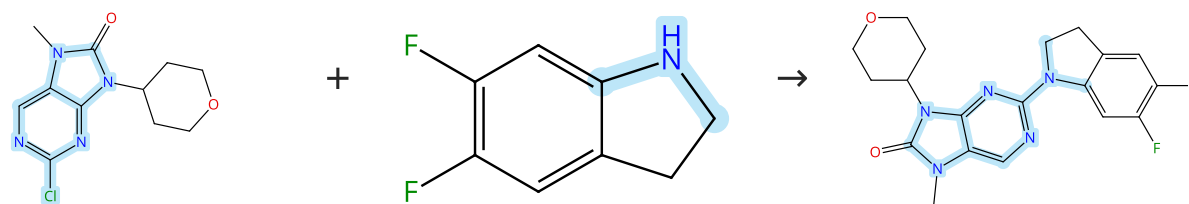
1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Tris(dibenzylideneacetone)dipalladium, Tri-*tert*-butylphosphonium tetrafluoroborate  
**Solvents:** Toluene; 24 h, rt → 115 °C

Experimental Protocols

**Aggregation Effect on Multiperformance Improvement in Aryl-Armed Phenazine-Based Emitters**

By: Wan, Qing; et al

Journal of the American Chemical Society (2023), 145(3), 1607-1616.

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

 Suppliers (65)

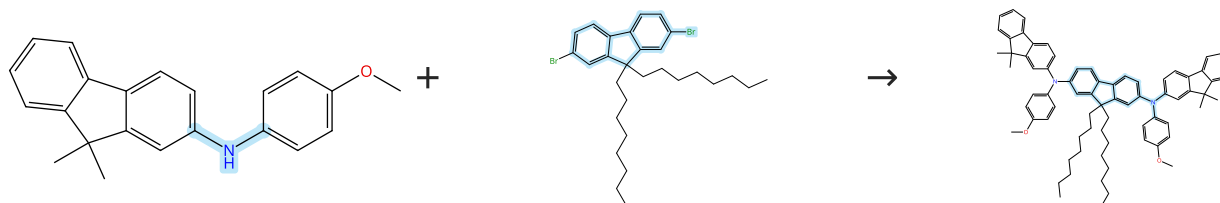
Steps: **1** Yield: **75%**

## Discovery, Optimization, and Evaluation of Potent and Selective DNA-PK Inhibitors in Combination with Chemotherapy or Radiotherapy for the Treatment of Malignancies

Journal of Medicinal Chemistry (2024), 67(1), 245-271.

## Experimental Protocols

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



 Suppliers (68)

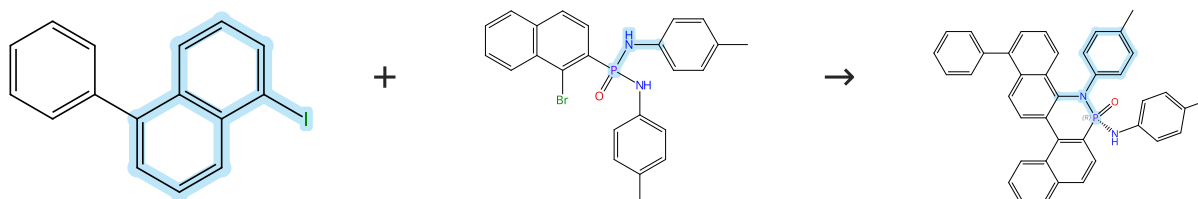
Steps: **1** Yield: **75%**

## Achieving ultra-narrow band deep blue emission by designing D- $\pi$ -D molecular-structure with conjugated donors

Tetrahedron (2023), 140, 133475.

## Experimental Protocols

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



Absolute stereochemistry shown

 Supplier (1)

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

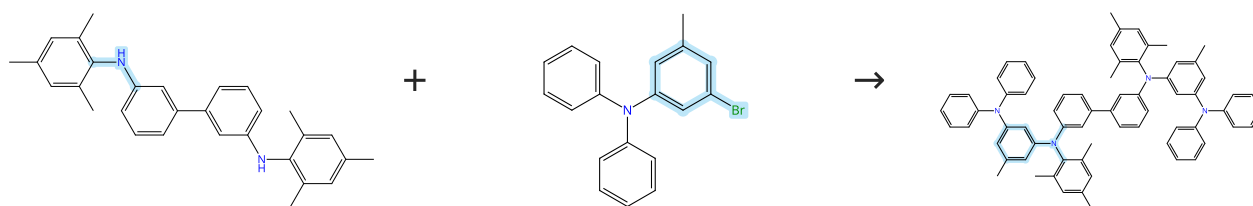
Solvent-Controlled Enantiodivergent Construction of P(V)-  
Stereogenic Molecules via Palladium-Catalyzed Annulation of  
Prochiral N-Aryl Phosphonamides with Aromatic Iodides

Angewandte Chemie, International Edition (2024), 63(41),  
e202409366.

## Experimental Protocols

Scheme 42 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (19)

31-614-CAS-41860628

Steps: 1 Yield: 75%

**Orienting Group Directed Cascade Borylation for Efficient One-Shot Synthesis of 1,4-BN-Doped Polycyclic Aromatic Hydrocarbons as Narrowband Organic Emitters**

By: Wu, Lin; et al

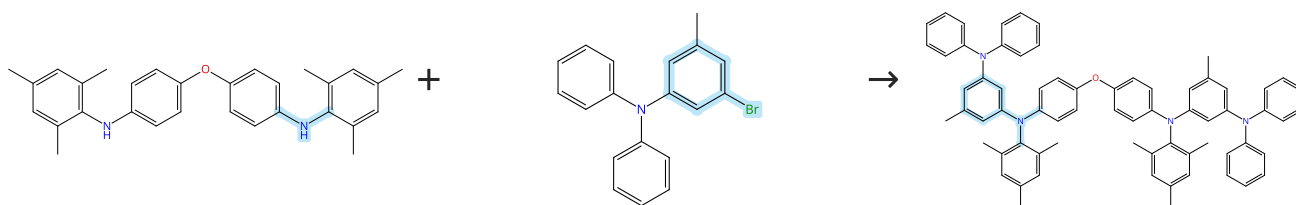
Angewandte Chemie, International Edition (2024), 63(18), e202402020.

1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Tris(dibenzylideneacetone)dipalladium, [2',6'-Bis(1-methylethoxy)[1,1'-biphenyl]-2-yl]dicyclohexylphosphine  
**Solvents:** Toluene; overnight, 120 °C

Experimental Protocols

Scheme 43 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (19)

31-614-CAS-41860616

Steps: 1 Yield: 75%

**Orienting Group Directed Cascade Borylation for Efficient One-Shot Synthesis of 1,4-BN-Doped Polycyclic Aromatic Hydrocarbons as Narrowband Organic Emitters**

By: Wu, Lin; et al

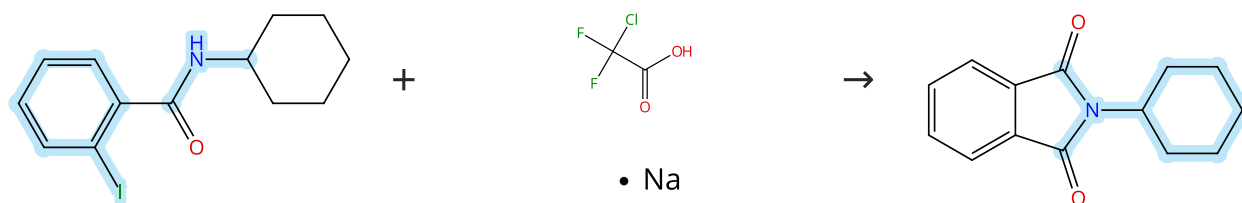
Angewandte Chemie, International Edition (2024), 63(18), e202402020.

1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Tris(dibenzylideneacetone)dipalladium, [2',6'-Bis(1-methylethoxy)[1,1'-biphenyl]-2-yl]dicyclohexylphosphine  
**Solvents:** Toluene; overnight, 120 °C

Experimental Protocols

Scheme 44 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (32)

Suppliers (88)

Suppliers (17)

31-614-CAS-38558290

Steps: 1 Yield: 75%

**Synthesis of N-substituted phthalimides via Pd-catalyzed [4+1] cycloaddition reaction**

By: Hu, Chengxian; et al

Chemical Communications (Cambridge, United Kingdom) (2023), 59(100), 14839-14842.

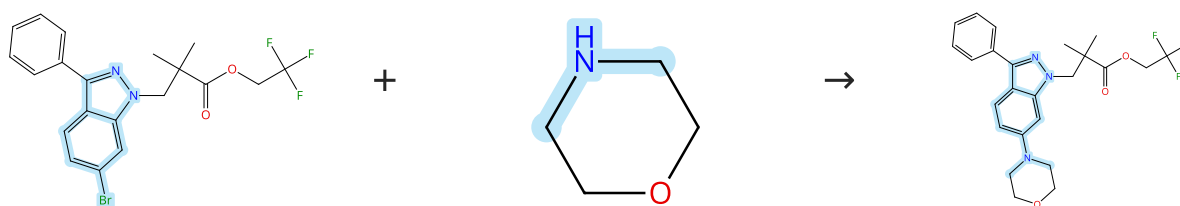
1.1 **Reagents:** Potassium carbonate  
**Catalysts:** Palladium diacetate, Bis[2-(diphenylphosphino)phenyl] ether  
**Solvents:** Dimethylformamide; 5 h, 95 °C

Experimental Protocols



Scheme 45 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (83)

31-614-CAS-35421851

Steps: 1 Yield: 75%

Solvent-Dependent Selective Synthesis of C F<sub>3</sub>-Tethered Indazole Derivatives Based on Multiple Bond Activations

By: Li, Hao; et al

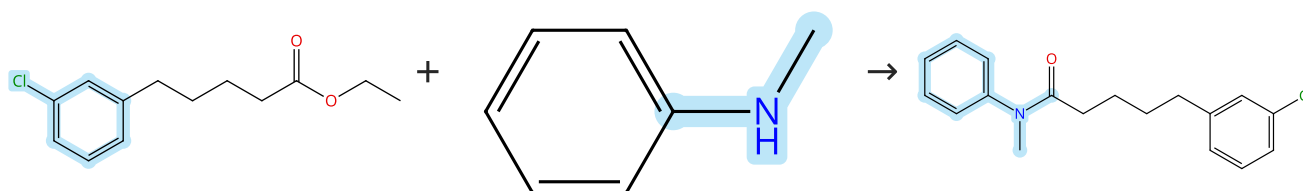
Organic Letters (2023), 25(5), 720-725.

1.1 **Reagents:** Potassium carbonate  
**Catalysts:** Tris(dibenzylideneacetone)dipalladium, 2'-(Dicyclohexylphosphino)-*N,N*-dimethyl[1,1'-biphenyl]-2-amine  
**Solvents:** 1,4-Dioxane; 80 °C

Experimental Protocols

Scheme 46 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (69)

31-614-CAS-39786419

Steps: 1 Yield: 75%

Tertiary Amides as Directing Groups for Enantioselective C-H Amination using Ion-Paired Rhodium Complexes

By: Paterson, Kieran J.; et al

Angewandte Chemie, International Edition (2024), 63(14), e202317489.

1.1 **Reagents:** Hydrogen  
**Catalysts:** Palladium  
**Solvents:** Methanol; overnight, rt

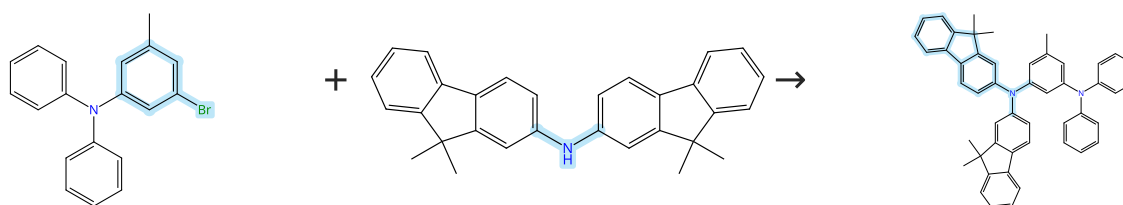
1.2 **Reagents:** Methylmagnesium bromide  
**Solvents:** Diethyl ether; rt → 0 °C; 0 °C; 0 °C; 0 °C → rt; overnight, rt

1.3 **Reagents:** Hydrochloric acid  
**Solvents:** Water; rt

Experimental Protocols

Scheme 47 (1 Reaction)

Steps: 1 Yield: 75%



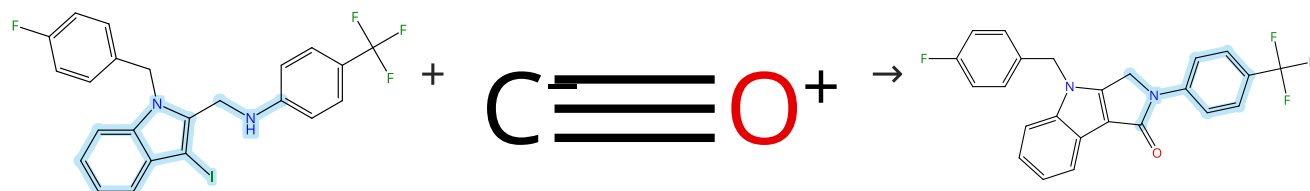
Suppliers (19)

Suppliers (57)

31-614-CAS-41860548	Steps: 1 Yield: 75%	<b>Orienting Group Directed Cascade Borylation for Efficient One-Shot Synthesis of 1,4-BN-Doped Polycyclic Aromatic Hydrocarbons as Narrowband Organic Emitters</b>  By: Wu, Lin; et al  Angewandte Chemie, International Edition (2024), 63(18), e202402020.
1.1	<b>Reagents:</b> Sodium <i>tert</i> -butoxide <b>Catalysts:</b> Tris(dibenzylideneacetone)dipalladium, Tri- <i>tert</i> -butylphosphonium tetrafluoroborate <b>Solvents:</b> Toluene; overnight, 110 °C	
Experimental Protocols		

Scheme 48 (1 Reaction)

Steps: 1 Yield: 75%

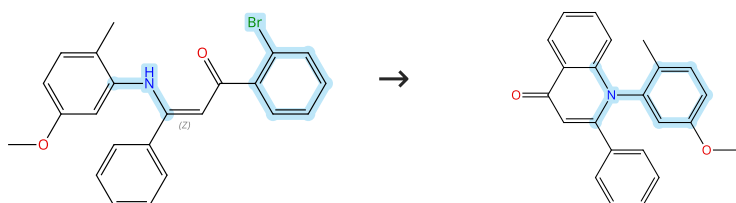


Suppliers (17)

31-614-CAS-37486994	Steps: 1 Yield: 75%	<b>Accessing Dihydropyrrolo[3,4-b]indol-1(2H)-ones via Pd-Catalyzed Intramolecular Aminocarbonylative Ring Closure</b>  By: Alam, Ryan M.; et al  European Journal of Organic Chemistry (2023), 26(34), e202300646.
1.1	<b>Reagents:</b> Triethylamine <b>Catalysts:</b> Palladium diacetate, 1,1'-(9,9-Dimethyl-9 <i>H</i> -xanthene-4,5-diyl)bis[1,1-diphenylphosphine] <b>Solvents:</b> Toluene	
1.2	<b>Reagents:</b> Formic acid, Triethylamine, Methanesulfonyl chloride; 10 min, rt; rt → 100 °C; 18 h, 100 °C	
Experimental Protocols		

Scheme 49 (1 Reaction)

Steps: 1 Yield: 75%

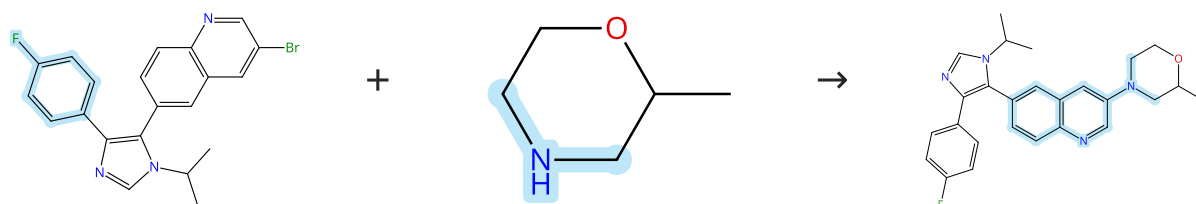


Double bond geometry shown

31-614-CAS-40129302	Steps: 1 Yield: 75%	<b>Pd-Catalyzed Asymmetric Amination of Enamines: Expedient Synthesis of Structurally Diverse N-C Atropisomers</b>  By: Zhang, Peng; et al  ACS Catalysis (2023), 13(11), 7680-7690.
1.1	<b>Reagents:</b> Potassium carbonate, Sodium hydroxide <b>Catalysts:</b> Palladium diacetate, (-)-BINAP <b>Solvents:</b> Toluene, 1,4-Dioxane; 18 h, 40 °C	
Experimental Protocols		

Scheme 50 (1 Reaction)

Steps: 1 Yield: 75%

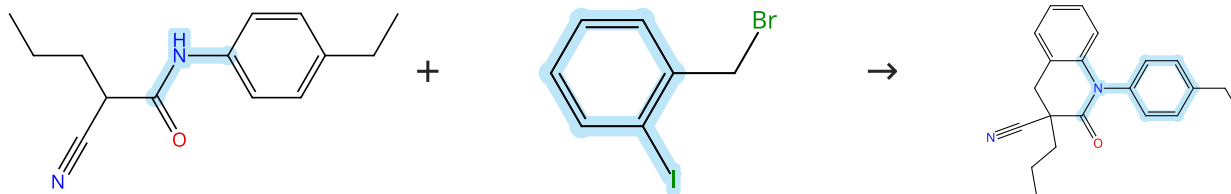


Suppliers (81)

31-614-CAS-39722147	Steps: 1 Yield: 75%	Fragment growth-based discovery of novel TNIK inhibitors for the treatment of colorectal cancer
1.1 Reagents: Sodium <i>tert</i> -butoxide Catalysts: Tris(dibenzylideneacetone)dipalladium, 2'-(Dicyclohexylphosphino)- <i>N,N</i> -dimethyl[1,1'-biphenyl]-2-amine Solvents: Toluene; 18 h, 100 °C		By: Teng, Yaxin; et al European Journal of Medicinal Chemistry (2024), 268, 116240.
Experimental Protocols		

Scheme 51 (1 Reaction)

Steps: 1 Yield: 75%



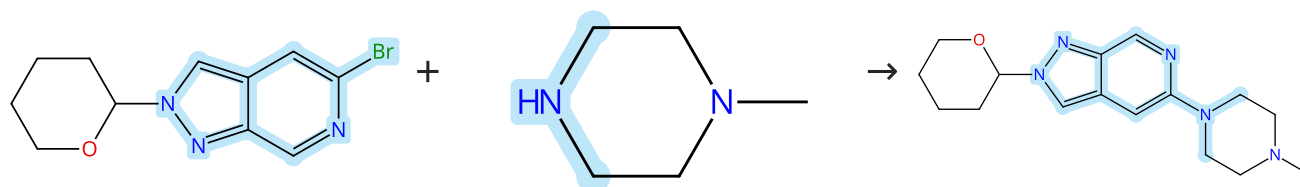
Suppliers (3)

Suppliers (68)

31-614-CAS-39519117	Steps: 1 Yield: 75%	Synthesis of highly functionalized dihydroquinolinones via a tandem benzylation/intramolecular C-N coupling strategy
1.1 Reagents: Cesium carbonate Solvents: 1,4-Dioxane; 2 h, 110 °C 1.2 Catalysts: Palladium diacetate, 1,1'-(9,9-Dimethyl-9 <i>H</i> -xanthene-4,5-diyl)bis[1,1-diphenylphosphine] Solvents: 1,4-Dioxane; overnight, 110 °C 1.3 Reagents: Ammonium chloride Solvents: Water		By: Gao, Pei-Sen; et al Tetrahedron (2024), 155, 133865.
Experimental Protocols		

Scheme 52 (1 Reaction)

Steps: 1 Yield: 75%

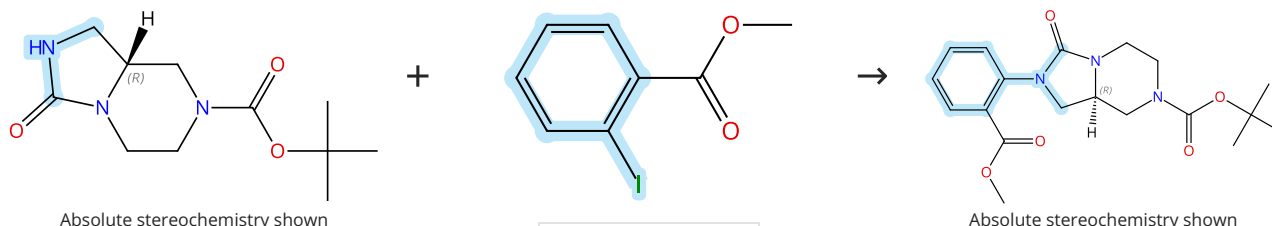


Suppliers (101)

31-614-CAS-38711461	Steps: 1 Yield: 75%	Synthesis and vectorial functionalization of pyrazolo[3,4- <i>c</i> ]pyridines
1.1 Reagents: Sodium <i>tert</i> -butoxide Catalysts: Tris(dibenzylideneacetone)dipalladium, BINAP Solvents: Tetrahydrofuran; 18 h, 55 °C		By: Bedwell, Elizabeth V.; et al RSC Advances (2023), 13(49), 34391-34399.
Experimental Protocols		

Scheme 53 (1 Reaction)

Steps: 1 Yield: 75%



Absolute stereochemistry shown

Absolute stereochemistry shown

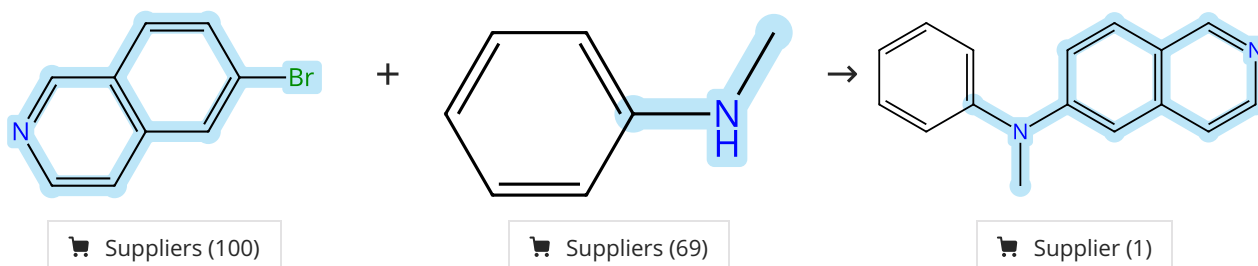
Suppliers (42)

Suppliers (88)

31-614-CAS-40593937	Steps: 1 Yield: 75%	<b>Discovery of Linvencorvir (RG7907), a Hepatitis B Virus Core Protein Allosteric Modulator, for the Treatment of Chronic HB V Infection</b>  By: Zhang, Weixing; et al  Journal of Medicinal Chemistry (2023), 66(6), 4253-4270.
1.1 Reagents: Cesium carbonate Catalysts: Palladium diacetate, 1,1'-(9,9-Dimethyl-9H-xanthene-4,5-diyl)bis[1,1-diphenylphosphine] Solvents: 1,4-Dioxane; 5 min, rt; overnight, 90 °C		
Experimental Protocols		

Scheme 54 (1 Reaction)

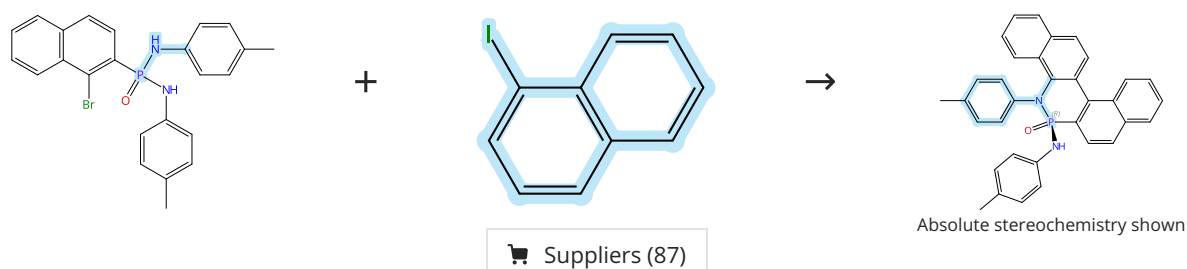
Steps: 1 Yield: 75%



31-614-CAS-43159502	Steps: 1 Yield: 75%	<b>Ruthenium-Catalyzed Carbocycle-Selective Hydrogenation of Fused Heteroarenes</b>  By: Luo, Chenguang; et al  Journal of the American Chemical Society (2024), 146(51), 35043-35056.
1.1 Reagents: Sodium <i>tert</i> -butoxide Catalysts: Tris(dibenzylideneacetone)dipalladium, 1,1'-(9,9-Dimethyl-9H-xanthene-4,5-diyl)bis[1,1-diphenylphosphine] Solvents: 1,4-Dioxane; rt → 90 °C; 24 h, 90 °C		
Experimental Protocols		

Scheme 55 (1 Reaction)

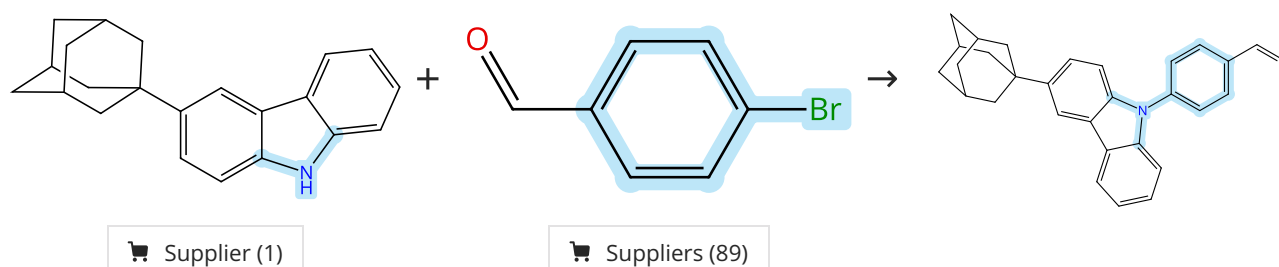
Steps: 1 Yield: 75%



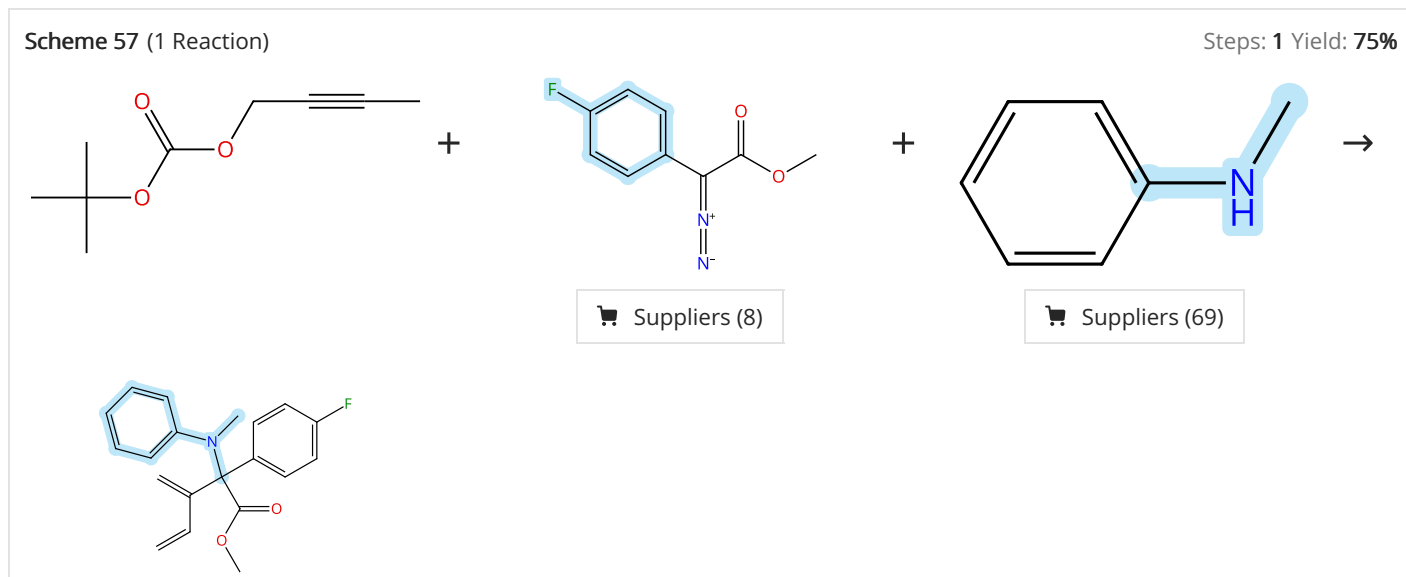
31-614-CAS-42232608	Steps: 1 Yield: 75%	<b>Solvent-Controlled Enantiodivergent Construction of P(V)-Stereogenic Molecules via Palladium-Catalyzed Annulation of Prochiral N-Aryl Phosphonamides with Aromatic Iodides</b>  By: Tian, Qingyu; et al  Angewandte Chemie, International Edition (2024), 63(41), e202409366.
1.1 Reagents: Sodium <i>tert</i> -butoxide Catalysts: Palladium diacetate, Tris(2-furyl)phosphine, Bicyclo [2.2.1]hept-2-ene-2-carboxylic acid, methyl ester, (1 <i>R</i> ,4 <i>R</i> )- Solvents: Toluene; 12 h, 100 °C		
Experimental Protocols		

Scheme 56 (1 Reaction)

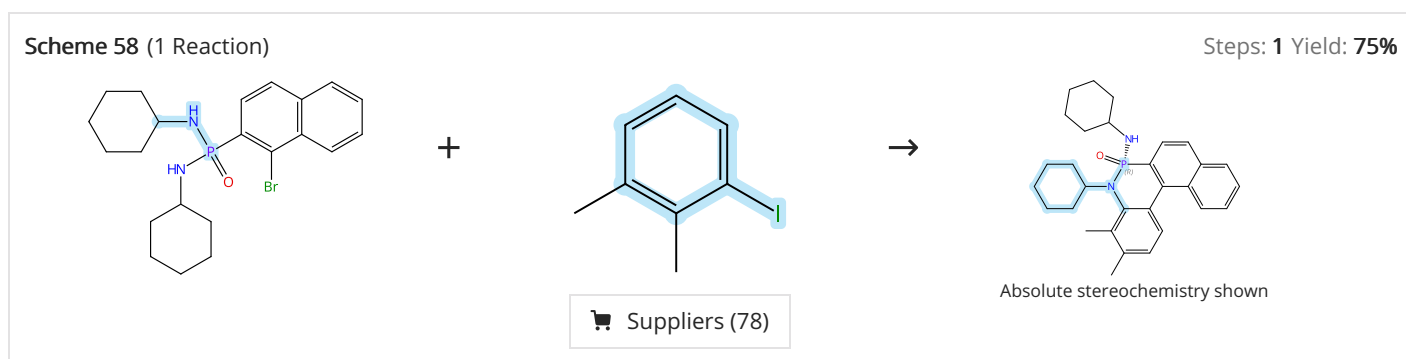
Steps: 1 Yield: 75%



<b>31-614-CAS-41841761</b> <b>Steps: 1 Yield: 75%</b> <b>1.1 Reagents:</b> Cesium carbonate, 1,1-Bis(diphenylphosphino)ferrocene <b>Catalysts:</b> Tris(dibenzylideneacetone)dipalladium <b>Solvents:</b> <i>o</i> -Xylene; 24 h, 140 °C Experimental Protocols	<b>Low amplified spontaneous emission threshold coupled with efficient electroluminescence from a solution-processable bis-stilbene-derived dye</b> By: Wu, Houlin; et al Organic Electronics (2024), 135, 107141.
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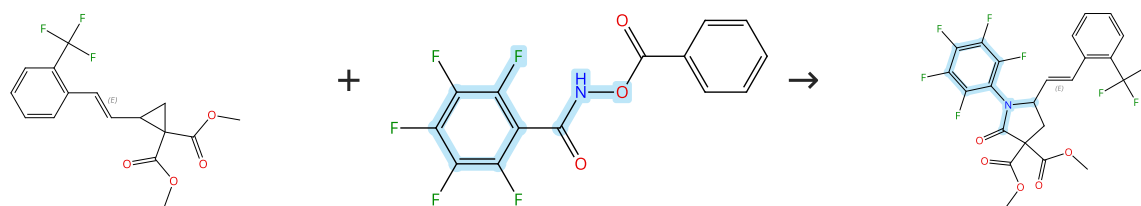
<b>31-614-CAS-37847448</b> <b>Steps: 1 Yield: 75%</b> <b>1.1 Reagents:</b> Cesium carbonate <b>Catalysts:</b> 1,1-Bis(diphenylphosphino)ferrocene, Tris(dibenzylideneacetone)dipalladium, Rhodium, tetrakis[μ-(octanoato-κO:κO')]di-, ( <i>Rh-Rh</i> ) <b>Solvents:</b> Acetonitrile; 12 h, 60 °C Experimental Protocols	<b>Rh(II)/Pd(0) Dual-Catalyzed Regio-Divergent Three-Component Propargylic Substitution</b> By: Xu, Jie; et al JACS Au (2023), 3(10), 2862-2872.
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<b>31-614-CAS-42232633</b> <b>Steps: 1 Yield: 75%</b> <b>1.1 Reagents:</b> Potassium carbonate <b>Catalysts:</b> Palladium diacetate, Tris(2-furyl)phosphine, Bicyclo[2.2.1]hept-2-ene-2-carboxylic acid, methyl ester, (1 <i>R</i> ,4 <i>R</i> )- <b>Solvents:</b> Toluene; 12 h, 105 °C Experimental Protocols	<b>Solvent-Controlled Enantiodivergent Construction of P(V)-Stereogenic Molecules via Palladium-Catalyzed Annulation of Prochiral N-Aryl Phosphonamides with Aromatic Iodides</b> By: Tian, Qingyu; et al Angewandte Chemie, International Edition (2024), 63(41), e202409366.
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## Scheme 59 (1 Reaction)

Steps: 1 Yield: 75%



Double bond geometry shown

Double bond geometry shown

31-614-CAS-36837154

Steps: 1 Yield: 75%

- 1.1 **Reagents:** Cesium carbonate  
**Catalysts:** 2,2'-Bipyridine, Tris(dibenzylideneacetone)dipalladium  
**Solvents:** Tetrahydrofuran; 24 h, 50 °C

Experimental Protocols

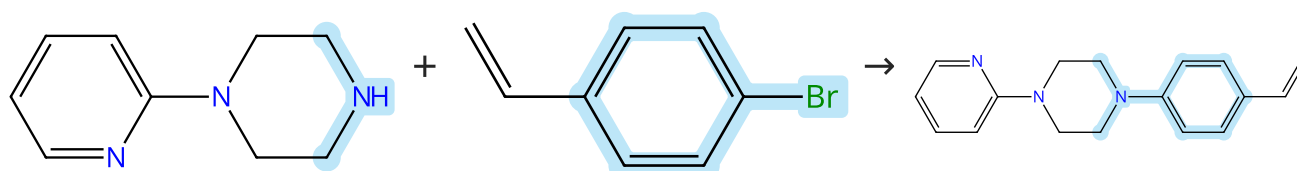
**[3+2] Cycloaddition of Vinyl Cyclopropane and Hydroxyamines via Isocyanate Intermediate to  $\gamma$ -Lactams**

By: Huang, Xiaobing; et al

Chinese Journal of Chemistry (2023), 41(16), 1937-1942.

## Scheme 60 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (101)

Suppliers (87)

31-614-CAS-39940483

Steps: 1 Yield: 75%

- 1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Palladium diacetate, BINAP  
**Solvents:** Toluene; 10 min, rt; 3 h, rt → 100 °C

- 1.2 **Reagents:** Water

Experimental Protocols

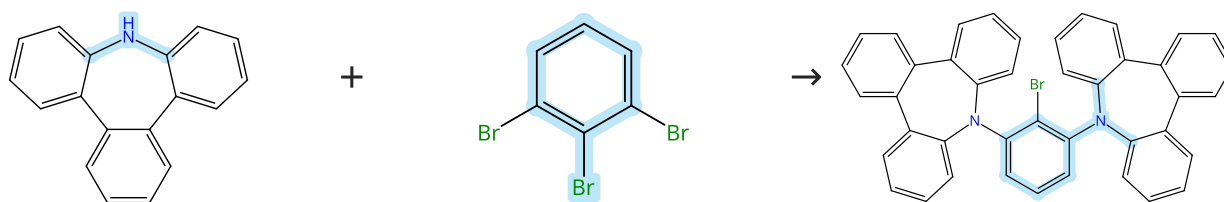
**Photoinduced Palladium-Catalyzed 1,2-Difunctionalization of Electron-Rich Olefins via a Reductive Radical-Polar Crossover Reaction**

By: Fang, Hao; et al

ACS Catalysis (2023), 13(9), 6445-6451.

## Scheme 61 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (44)

Suppliers (68)

31-614-CAS-36221263

Steps: 1 Yield: 75%

- 1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Palladium diacetate, 2-Dicyclohexylphosphino-2',6'-dimethoxybiphenyl  
**Solvents:** Toluene; 24 h, 120 °C

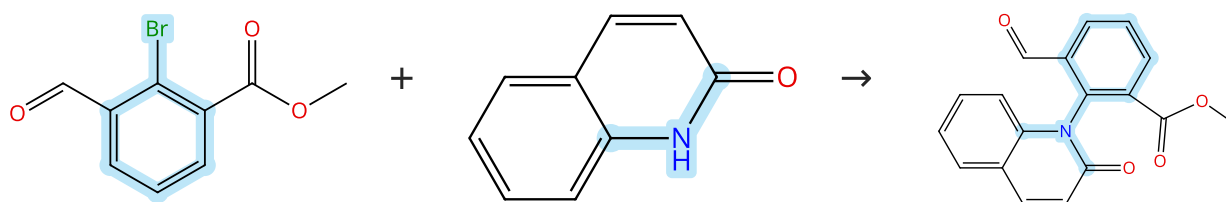
**Medium-Ring Strategy Enables Multiple Resonance Emitters with Twisted Geometry and Fast Spin-Flip to Suppress Efficiency Roll-Off**

By: Lei, Bowen; et al

Angewandte Chemie, International Edition (2023), 62(12), e202218405.

Scheme 62 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (54)

Suppliers (83)

31-614-CAS-41335321

Steps: 1 Yield: 75%

1.1 **Catalysts:** 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), (2*R*)-1-[(1*R*)-1-[Bis(1,1-dimethylethyl)phosphino]ethyl]-2-(di-2-furanylmphosphino)ferrocene

**Solvents:** *tert*-Butyl methyl ether; 30 min, rt

1.2 **Reagents:** Tripotassium phosphate; 36 h, 90 °C

Experimental Protocols

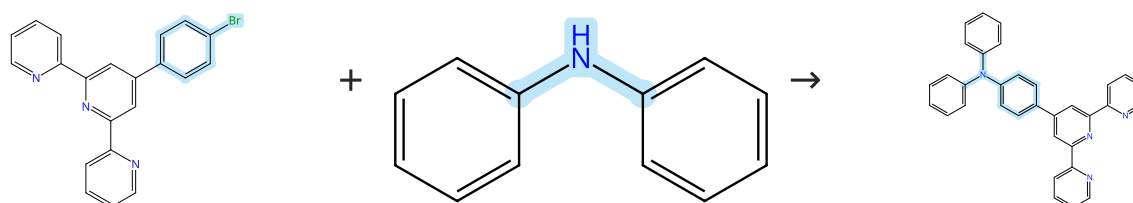
**Intermolecular Buchwald-Hartwig Reactions for Enantioselective Synthesis of Diverse Atropisomers: Rerouting the C-N Forming Mechanism to Substrate Oxygen-Assisted Reductive Elimination**

By: Wang, Wei; et al

Journal of the American Chemical Society (2024), 146(24), 16567-16580.

Scheme 63 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (71)

Suppliers (98)

Suppliers (6)

31-614-CAS-35639584

Steps: 1 Yield: 75%

1.1 **Reagents:** Sodium *tert*-butoxide

**Catalysts:** Palladium diacetate, Tri-*tert*-butylphosphonium tetrafluoroborate

**Solvents:** Toluene; 24 h, reflux

Experimental Protocols

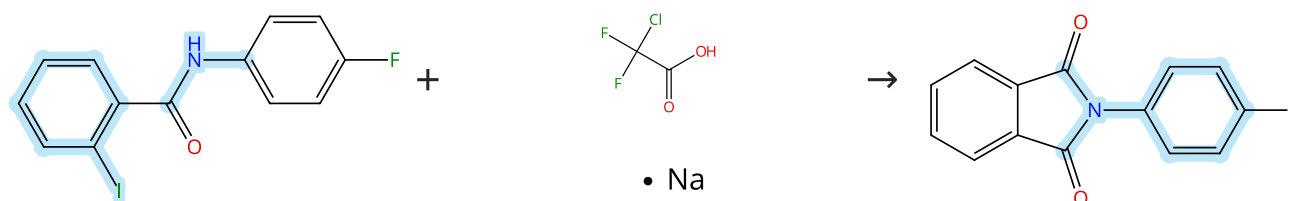
**Crystalline Unipolymer Monolayer with High Modulus and Conductivity**

By: Wang, Jinxin; et al

Angewandte Chemie, International Edition (2023), 62(4), e202216838.

Scheme 64 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (8)

Suppliers (88)

Suppliers (17)

31-614-CAS-38558264

Steps: 1 Yield: 75%

1.1 **Reagents:** Potassium carbonate

**Catalysts:** Palladium diacetate, Bis[2-(diphenylphosphino)phenyl] ether

**Solvents:** Dimethylformamide; 5 h, 95 °C

Experimental Protocols

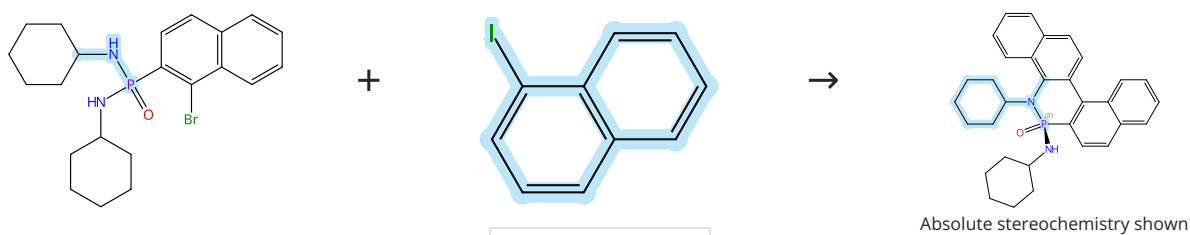
**Synthesis of N-substituted phthalimides via Pd-catalyzed [4+1] cycloaddition reaction**

By: Hu, Chengxian; et al

Chemical Communications (Cambridge, United Kingdom) (2023), 59(100), 14839-14842.

Scheme 65 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (87)

31-614-CAS-42232629

Steps: 1 Yield: 75%

- 1.1 **Reagents:** Potassium carbonate  
**Catalysts:** Palladium diacetate, Tris(2-furyl)phosphine, Bicyclo [2.2.1]hept-2-ene-2-carboxylic acid, methyl ester, (1*R*,4*R*)-  
**Solvents:** Toluene; 12 h, 105 °C

Experimental Protocols

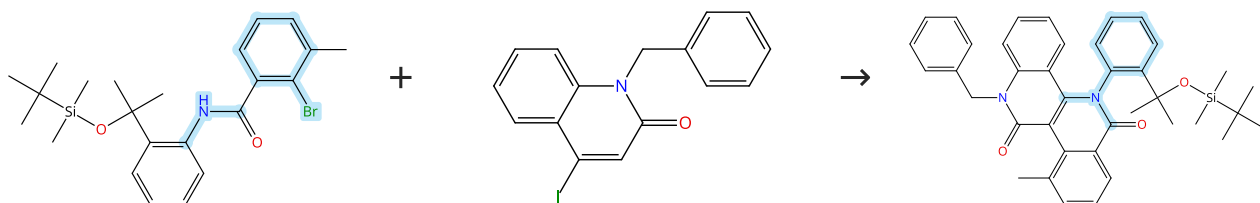
**Solvent-Controlled Enantiodivergent Construction of P(V)-Stereogenic Molecules via Palladium-Catalyzed Annulation of Prochiral N-Aryl Phosphonamides with Aromatic Iodides**

By: Tian, Qingyu; et al

Angewandte Chemie, International Edition (2024), 63(41), e202409366.

Scheme 66 (1 Reaction)

Steps: 1 Yield: 75%



31-614-CAS-39194521

Steps: 1 Yield: 75%

- 1.1 **Reagents:** Potassium carbonate  
**Catalysts:** Palladium diacetate, Tris(2-furyl)phosphine, Ethyl (1*S*,4*R*)-bicyclo[2.2.1]hept-2-ene-2-carboxylate  
**Solvents:** Tetrahydrofuran; 5 min, rt; 48 h, 90 °C

Experimental Protocols

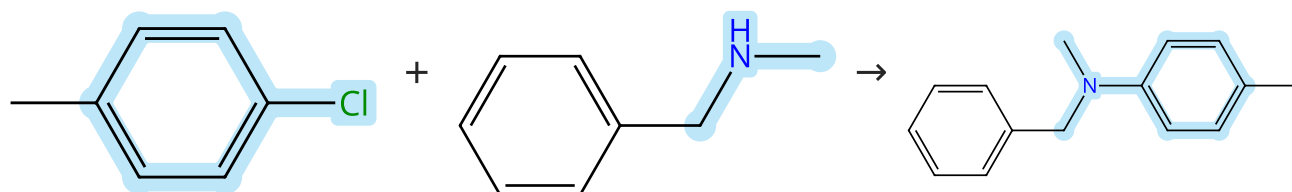
**Asymmetric Two-Component Alkenyl Catellani Reaction for the Construction of C-N Axial Chirality**

By: Wu, Chenggui; et al

Chinese Journal of Chemistry (2024), 42(7), 699-704.

Scheme 67 (1 Reaction)

Steps: 1 Yield: 75%



Suppliers (76)

Suppliers (81)

Suppliers (7)

31-614-CAS-42014412

Steps: 1 Yield: 75%

- 1.1 **Catalysts:** Phenylboronic acid, Palladium diacetate, 1*H*-Indole, 3-(dicyclohexylphosphino)-1-methyl-2-(2,3,4-trimethoxyphenyl)-  
**Solvents:** Dichloromethane; rt  
 1.2 **Reagents:** Sodium *tert*-butoxide  
**Solvents:** Toluene; rt; 24 h, 135 °C; 135 °C → rt  
 1.3 **Solvents:** Water; rt

Experimental Protocols

**Application of indole-based monophosphine in ppm level Pd-catalyzed C-N bond formation**

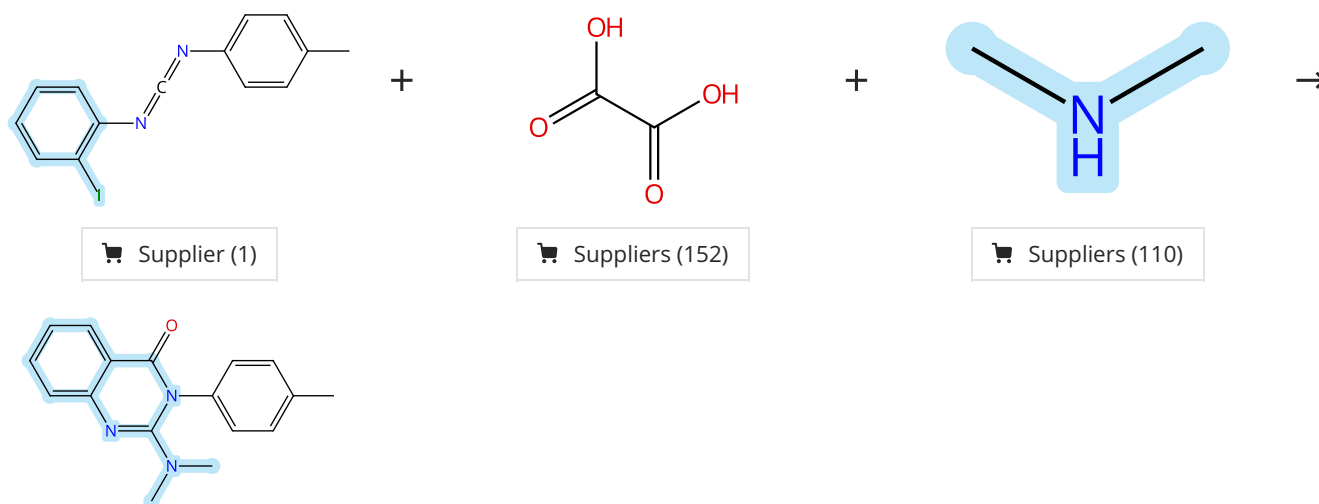
By: Li, Cheuk Long; et al

Journal of Organometallic Chemistry (2024), 1011, 123124.



## Scheme 68 (1 Reaction)

Steps: 1 Yield: 75%



31-614-CAS-35649891

Steps: 1 Yield: 75%

**Supported Palladium-Catalyzed Tandem Synthesis of 2-(Alkylamino/amino)-3-arylquinazolin-4(3H)-ones Employing C O Source**

By: Shaifali; et al

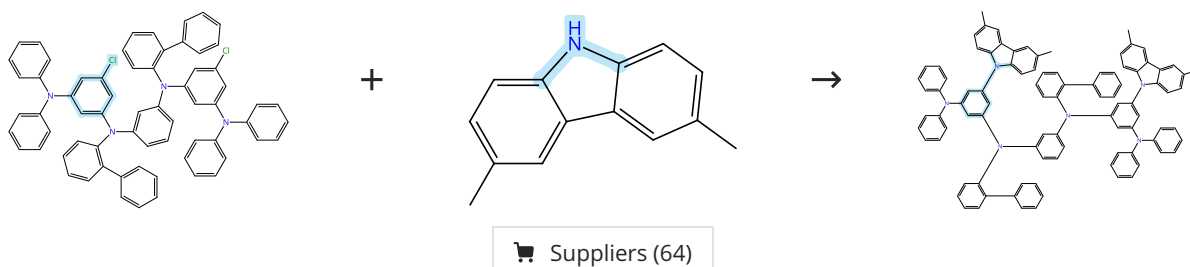
Chemistry - An Asian Journal (2023), 18(6), e202201288.

1.1 **Reagents:** Potassium carbonate  
**Catalysts:** Palladium  
**Solvents:** Dimethylformamide, Xylene; 15 h, 130 °C

Experimental Protocols

## Scheme 69 (1 Reaction)

Steps: 1 Yield: 74%



31-614-CAS-38006378

Steps: 1 Yield: 74%

**One-Shot Construction of BN-Embedded Heptadecacene Framework Exhibiting Ultra-narrowband Green Thermally Activated Delayed Fluorescence**

By: Sano, Yusuke; et al

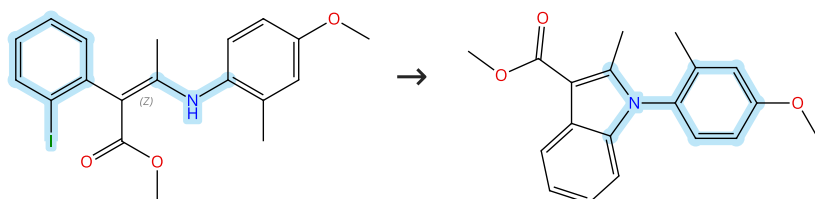
Journal of the American Chemical Society (2023), 145(21), 11504-11511.

1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Tris(dibenzylideneacetone)dipalladium, Tri-*tert*-butylphosphonium tetrafluoroborate  
**Solvents:** *o*-Xylene; 24 h, 130 °C

Experimental Protocols

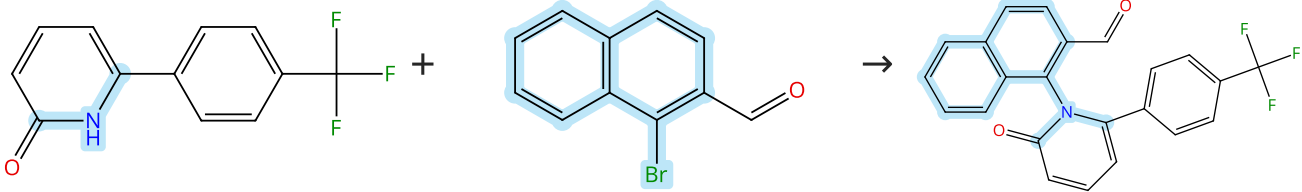


## Scheme 70 (1 Reaction)

Steps: 1 Yield: 74%

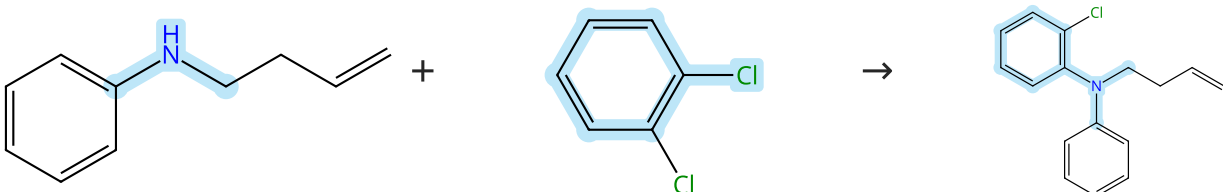




Double bond geometry shown

31-614-CAS-40129316	Steps: 1 Yield: 74%	<b>Pd-Catalyzed Asymmetric Amination of Enamines: Expedient Synthesis of Structurally Diverse N-C Atropisomers</b>
1.1 <b>Reagents:</b> Potassium hydroxide <b>Catalysts:</b> Palladium diacetate, (-)-BINAP <b>Solvents:</b> Toluene; 20 min, rt		By: Zhang, Peng; et al
1.2 <b>Solvents:</b> Toluene; 5 min, rt		ACS Catalysis (2023), 13(11), 7680-7690.
1.3 5 min, rt; 18 h, 60 °C		
Experimental Protocols		

Scheme 71 (1 Reaction)	Steps: 1 Yield: 74%
	
 Suppliers (38)	 Suppliers (71)

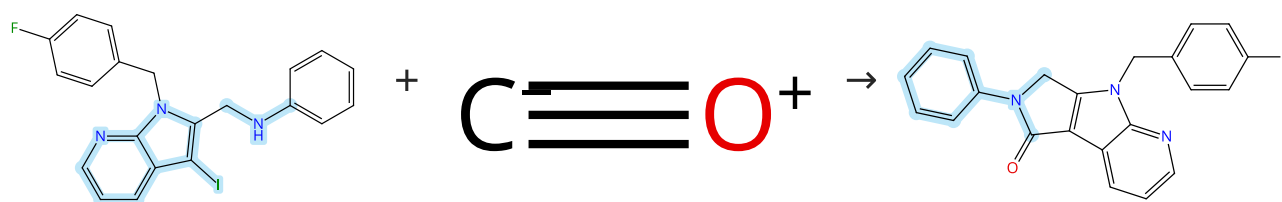
31-614-CAS-41335327	Steps: 1 Yield: 74%	<b>Intermolecular Buchwald-Hartwig Reactions for Enantioselective Synthesis of Diverse Atropisomers: Rerouting the C-N Forming Mechanism to Substrate Oxygen-Assisted Reductive Elimination</b>
1.1 <b>Catalysts:</b> Palladium, tris[μ-[(1,2-η:4,5-η)-(1 <i>E</i> ,4 <i>E</i> )-1,5-diphenyl-1,4-pentadien-3-one]]di-, compd. with trichloromethane (1:1), (2 <i>R</i> )-1-[(1 <i>R</i> )-1-[Bis(1,1-dimethylethyl)phosphino]ethyl]-2-(di-2-furanylphosphino)ferrocene <b>Solvents:</b> Toluene; 30 min, rt		By: Wang, Wei; et al
1.2 <b>Reagents:</b> Cesium carbonate; 36 h, 90 °C		Journal of the American Chemical Society (2024), 146(24), 16567-16580.
Experimental Protocols		

Scheme 72 (1 Reaction)	Steps: 1 Yield: 74%
	
 Suppliers (23)	 Suppliers (123)

31-614-CAS-38970058	Steps: 1 Yield: 74%	<b>A General Protocol toward Synthesis of 3-Methylindoles Using Acenaphthoimidazolydene-Ligated Oxazoline Palladacycle</b>
1.1 <b>Reagents:</b> Sodium <i>tert</i> -butoxide <b>Catalysts:</b> Palladium, [7,9-bis[2,6-bis(1-methylethyl)phenyl]-7,9-dihydro-8 <i>H</i> -acenaphth[1,2- <i>d</i> ]imidazol-8-ylidene]bromo[2-(4,5-dihydro-4,4-dimethyl-2-oxazolyl-κ <sup>N</sup> )-1-naphthalenyl-κC]-, ( <i>SP</i> -4-4)- <b>Solvents:</b> 1,4-Dioxane; 24 h, 100 °C		By: Fan, Ruoqian; et al
Experimental Protocols		Organic Letters (2024), 26(1), 22-28.

Scheme 73 (1 Reaction)

Steps: 1 Yield: 74%



Suppliers (17)

31-614-CAS-37487007

Steps: 1 Yield: 74%

**Accessing Dihydropyrrolo[3,4-b]indol-1(2H)-ones via Pd-Catalyzed Intramolecular Aminocarbonylative Ring Closure**

By: Alam, Ryan M.; et al

European Journal of Organic Chemistry (2023), 26(34), e202300646.

1.1 Reagents: Triethylamine

Catalysts: Palladium diacetate, 1,1'-(9,9-Dimethyl-9H-xanthene-4,5-diyl)bis[1,1-diphenylphosphine]

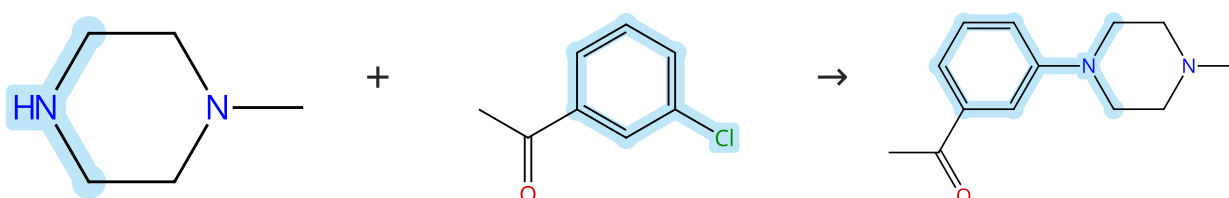
Solvents: Toluene

1.2 Reagents: Formic acid, Triethylamine, Methanesulfonyl chloride; 10 min, rt; rt → 100 °C; 18 h, 100 °C

Experimental Protocols

Scheme 74 (1 Reaction)

Steps: 1 Yield: 74%



Suppliers (101)

Suppliers (59)

Suppliers (19)

31-614-CAS-37909650

Steps: 1 Yield: 74%

**Unleashing the Potential of 1,3-Diketone Analogues as Selective LH2 Inhibitors**

By: Lee, Juhoon; et al

ACS Medicinal Chemistry Letters (2023), 14(10), 1396-1403.

1.1 Reagents: Tripotassium phosphate

Catalysts: Tris(dibenzylideneacetone)dipalladium, 2'-(Dicyclohexylphosphino)-N,N-dimethyl[1,1'-biphenyl]-2-amine; 12 h, 100 °C

Experimental Protocols

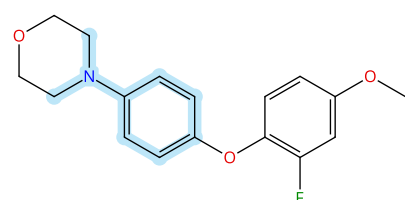
Scheme 75 (1 Reaction)

Steps: 1 Yield: 74%



Suppliers (84)

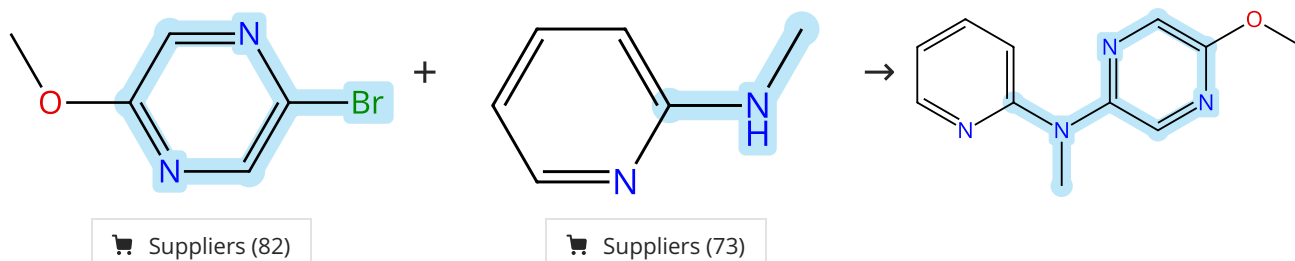
Suppliers (83)



31-614-CAS-38927532	Steps: 1 Yield: 74%	<b>Rhodium-Catalyzed C(sp<sup>2</sup>)-O Cross Couplings of Diazo Quinones with Phenols to Construct Diaryl Ethers</b> By: Fu, Zhen; et al Organic Letters (2024), 26(1), 292-297.
1.1 Reagents: Potassium carbonate Solvents: Dimethylformamide; rt		
1.2 Reagents: Ammonium chloride Solvents: Water; rt		
1.3 Reagents: Cesium carbonate Catalysts: Palladium diacetate, X-Phos Solvents: Toluene; 16 h, 116 °C		
Experimental Protocols		

Scheme 76 (1 Reaction)

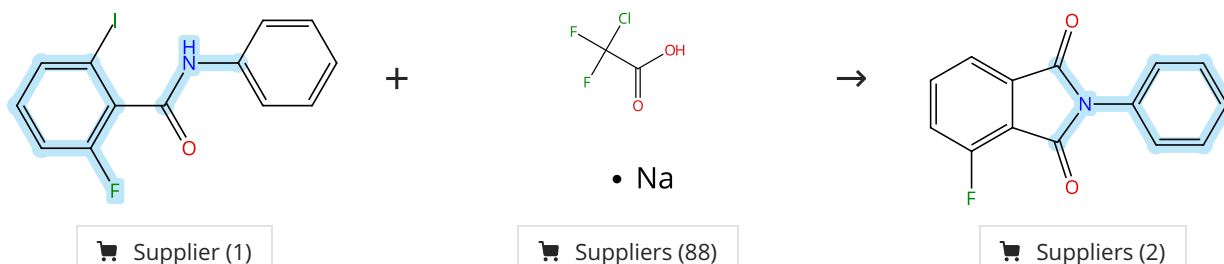
Steps: 1 Yield: 74%



31-614-CAS-41834116	Steps: 1 Yield: 74%	<b>Ratiometric Imaging Detection of Amyloid-β Fibrils by a Dual-Emissive Tris-Heteroleptic Ruthenium Complex</b> By: Wu, Si-Hai; et al Inorganic Chemistry (2024), 63(39), 17983-17992.
1.1 Reagents: Sodium <i>tert</i> -butoxide Catalysts: 1,1-Bis(diphenylphosphino)ferrocene, Tris (dibenzylideneacetone)dipalladium Solvents: Toluene; 2 d, 130 °C		
Experimental Protocols		

Scheme 77 (1 Reaction)

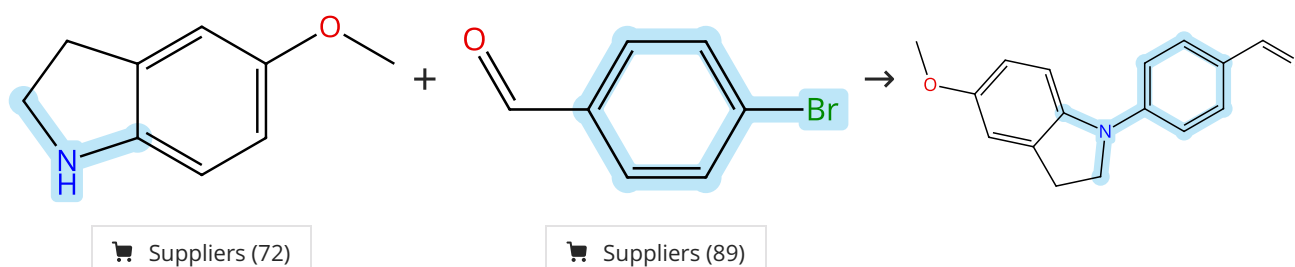
Steps: 1 Yield: 74%



31-614-CAS-38558294	Steps: 1 Yield: 74%	<b>Synthesis of N-substituted phthalimides via Pd-catalyzed [4+1] cycloaddition reaction</b> By: Hu, Chengxian; et al Chemical Communications (Cambridge, United Kingdom) (2023), 59(100), 14839-14842.
1.1 Reagents: Potassium carbonate Catalysts: Palladium diacetate, Bis[2-(diphenylphosphino)phenyl] ether Solvents: Dimethylformamide; 5 h, 95 °C		
Experimental Protocols		

Scheme 78 (1 Reaction)

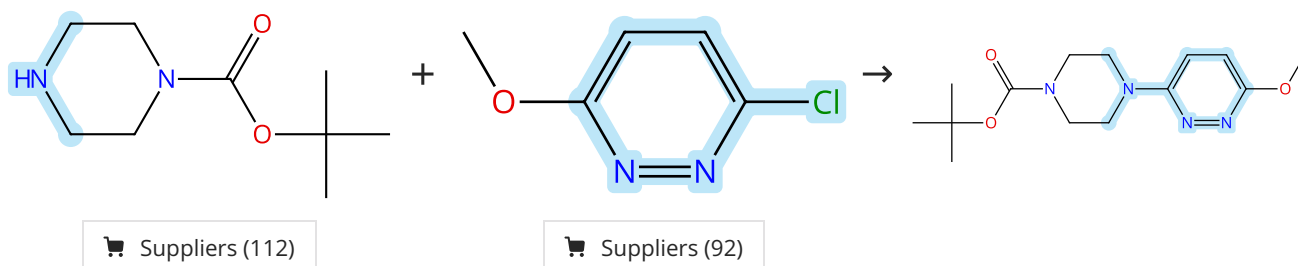
Steps: 1 Yield: 74%



<div>31-614-CAS-36398804</div> <div>Steps: 1 Yield: 74%</div> <div>           1.1 Reagents: Cesium carbonate            Catalysts: Palladium diacetate, BINAP            Solvents: Toluene; 12 h, 100 °C         </div> <div>Experimental Protocols</div>	<div>Discovery of N-substituted oseltamivir derivatives as novel neuraminidase inhibitors with improved drug resistance profiles and favorable drug-like properties</div> <div>By: Jia, Ruifang; et al</div> <div>European Journal of Medicinal Chemistry (2023), 252, 115275.</div>
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Scheme 79 (1 Reaction)

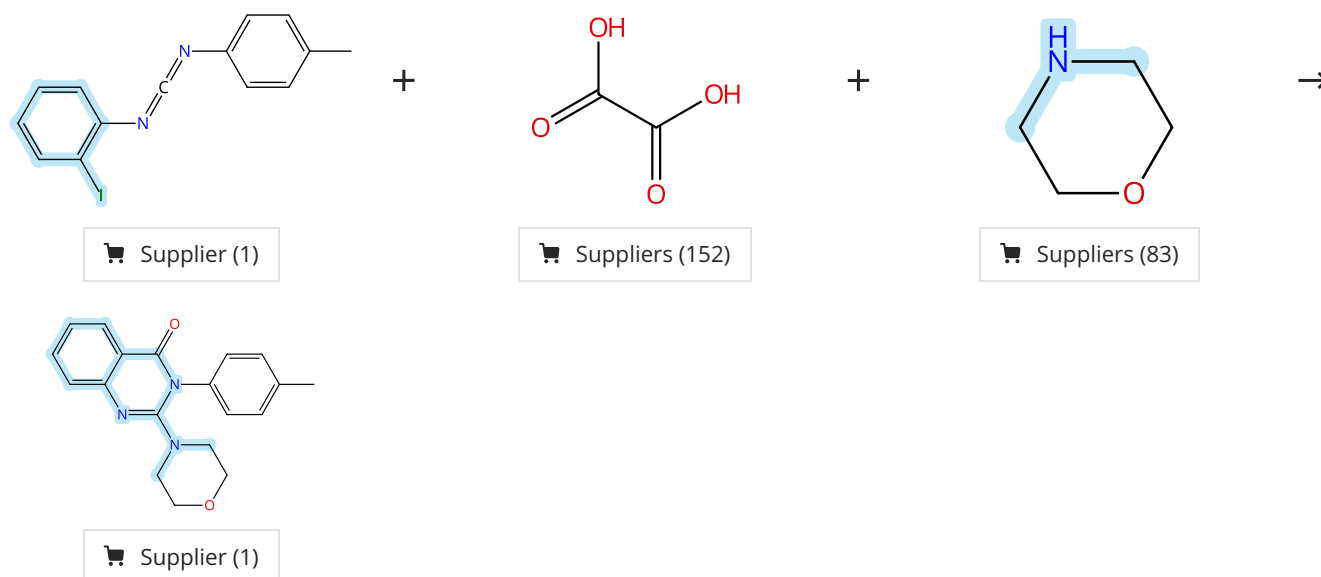
Steps: 1 Yield: 74%



<div>31-614-CAS-36749009</div> <div>Steps: 1 Yield: 74%</div> <div>           1.1 Reagents: Sodium <i>tert</i>-butoxide            Catalysts: Tris(dibenzylideneacetone)dipalladium, [2',6'-Bis(1-methylethoxy)[1,1'-biphenyl]-2-yl]dicyclohexylphosphine            Solvents: 1,4-Dioxane; overnight, heated         </div> <div>Experimental Protocols</div>	<div>Structure-Activity relationships of replacements for the triazolopyridazine of Anti-Cryptosporidium lead SLU-2633</div> <div>By: Oboh, Edmund; et al</div> <div>Bioorganic &amp; Medicinal Chemistry (2023), 86, 117295.</div>
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Scheme 80 (1 Reaction)

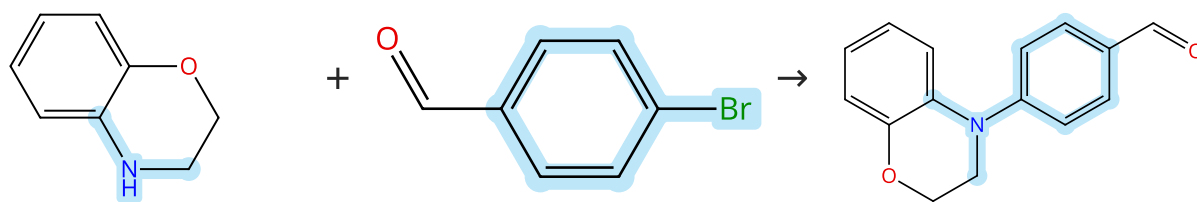
Steps: 1 Yield: 74%



<div>31-614-CAS-35649888</div> <div>Steps: 1 Yield: 74%</div> <div>           1.1 Reagents: Potassium carbonate            Catalysts: Palladium            Solvents: Dimethylformamide, Xylene; 15 h, 130 °C         </div> <div>Experimental Protocols</div>	<div>Supported Palladium-Catalyzed Tandem Synthesis of 2-(Alkylamino/amino)-3-arylquinazolin-4(3H)-ones Employing C O Source</div> <div>By: Shaifali; et al</div> <div>Chemistry - An Asian Journal (2023), 18(6), e202201288.</div>
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## Scheme 81 (1 Reaction)

Steps: 1 Yield: 74%



Suppliers (88)

Suppliers (89)

31-614-CAS-36398813

Steps: 1 Yield: 74%

**Discovery of N-substituted oseltamivir derivatives as novel neuraminidase inhibitors with improved drug resistance profiles and favorable drug-like properties**

By: Jia, Ruifang; et al

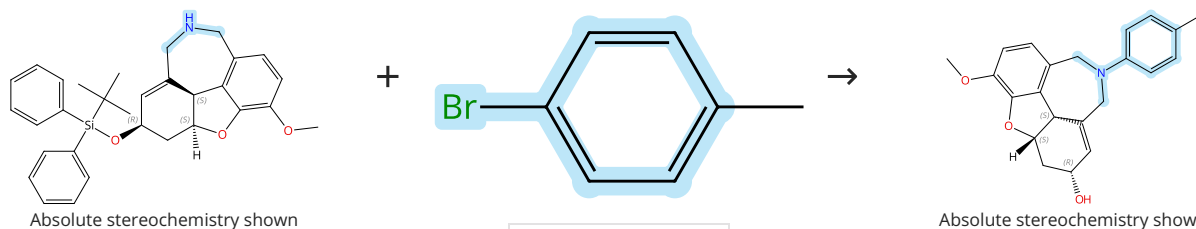
European Journal of Medicinal Chemistry (2023), 252, 115275.

1.1 **Reagents:** Cesium carbonate  
**Catalysts:** Palladium diacetate, BINAP  
**Solvents:** Toluene; 12 h, 100 °C

Experimental Protocols

## Scheme 82 (1 Reaction)

Steps: 1 Yield: 74%



Suppliers (65)

31-614-CAS-36363940

Steps: 1 Yield: 74%

**Palladium-Catalyzed Synthesis, Acetylcholinesterase Inhibition, and Neuroprotective Activities of N-Aryl Galantamine Analogues**

By: Zhang, Yang; et al

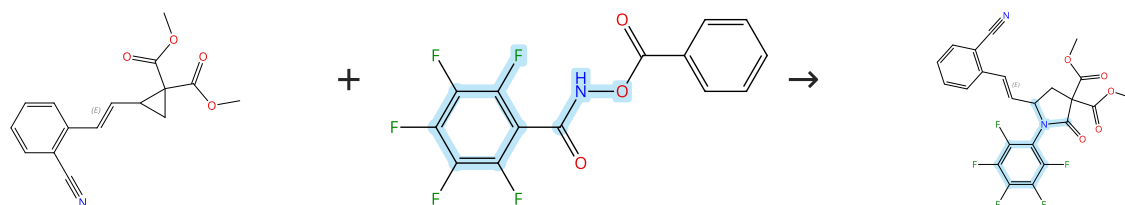
Journal of Natural Products (2023), 86(4), 939-946.

1.1 **Catalysts:** Palladium diacetate, BINAP  
**Solvents:** Toluene; 4 h, rt  
 1.2 **Reagents:** Potassium *tert*-butoxide  
**Solvents:** Toluene; 24 h, 110 °C  
 1.3 **Reagents:** Water  
 1.4 **Reagents:** Hydrochloric acid  
**Solvents:** Methanol, Water; rt; overnight, 35 °C  
 1.5 **Reagents:** Ammonium hydroxide  
**Solvents:** Water; pH 10

Experimental Protocols

## Scheme 83 (1 Reaction)

Steps: 1 Yield: 74%



Double bond geometry shown

Double bond geometry shown

31-614-CAS-36837157

Steps: 1 Yield: 74%

**[3+2] Cycloaddition of Vinyl Cyclopropane and Hydroxy lamines via Isocyanate Intermediate to  $\gamma$ -Lactams**

By: Huang, Xiaobing; et al

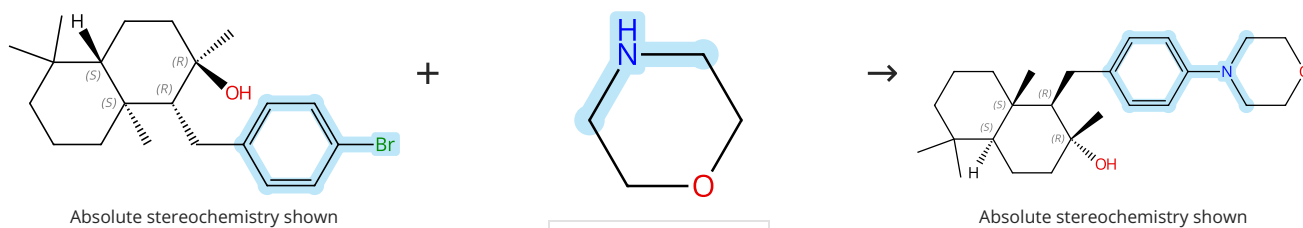
Chinese Journal of Chemistry (2023), 41(16), 1937-1942.

1.1 **Reagents:** Cesium carbonate  
**Catalysts:** 2,2'-Bipyridine, Tris(dibenzylideneacetone)dipalladium  
**Solvents:** Tetrahydrofuran; 24 h, 50 °C

Experimental Protocols

## Scheme 84 (1 Reaction)

Steps: 1 Yield: 74%



Suppliers (83)

31-614-CAS-37656909

Steps: 1 Yield: 74%

**Practical Synthesis and Antifungal Investigation of Drimane Meroterpenoids Enabled by Nickel-Catalyzed Decarboxylative Coupling**

By: Sun, Shengxin; et al

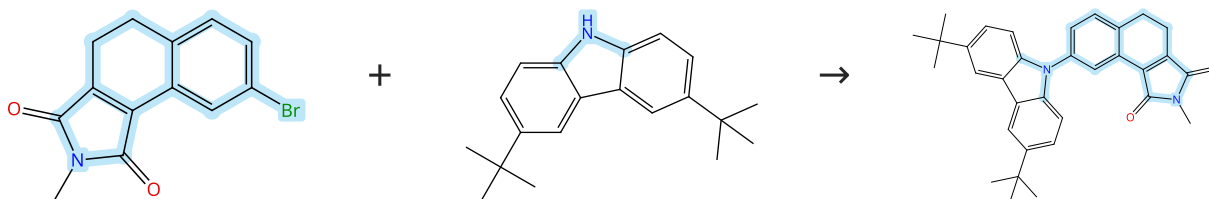
Journal of Natural Products (2023), 86(6), 1420-1427.

- 1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Tris(dibenzylideneacetone)dipalladium, X-Phos; 24 h, 80 °C
- 1.2 **Reagents:** Ammonium chloride  
**Solvents:** Water

Experimental Protocols

## Scheme 85 (1 Reaction)

Steps: 1 Yield: 74%



Suppliers (69)

31-614-CAS-46090916

Steps: 1 Yield: 74%

**Synthesis of Ce(IV) Heteroleptic Double-Decker Complex with a New Helical Naphthalocyanine as a Potential Gearing Subunit**

By: Subramaniam, Jeevithra Dewi; et al

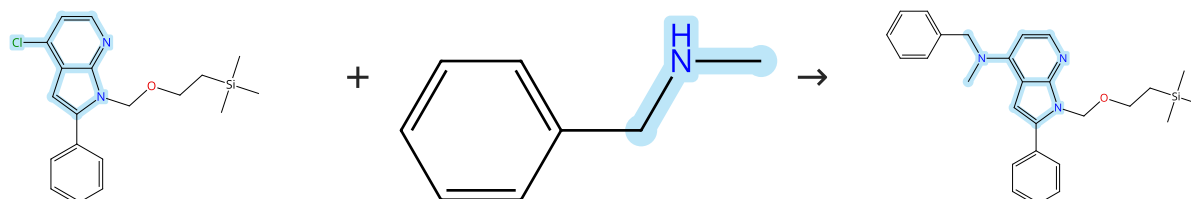
Chemistry - A European Journal (2024), 30(55), e202402470.

- 1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Palladium diacetate, Tri-*tert*-butylphosphonium tetrafluoroborate  
**Solvents:** Toluene; 20 h, reflux

Experimental Protocols

## Scheme 86 (1 Reaction)

Steps: 1 Yield: 74%



Supplier (1)

Suppliers (81)

31-614-CAS-42383736

Steps: 1 Yield: 74%

**Synthetic Routes to 2-aryl-1H-pyrrolo[2,3-b]pyridin-4-amines: Cross-Coupling and Challenges in SEM-Deprotection**

By: Merugu, Srinivas Reddy; et al

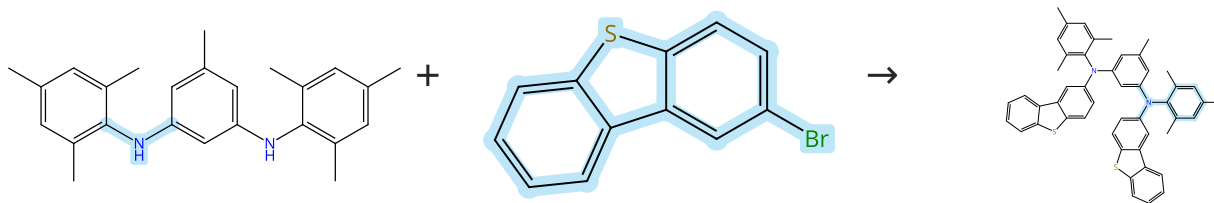
Molecules (2024), 29(19), 4743.

- 1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Palladium diacetate, [2',6'-Bis(1-methylethoxy)[1,1'-biphenyl]-2-yl]dicyclohexylphosphine  
**Solvents:** *tert*-Butanol; 1 h, 85 °C

Experimental Protocols

Scheme 87 (1 Reaction)

Steps: 1 Yield: 74%



Suppliers (3)

Suppliers (80)

31-614-CAS-41860573

Steps: 1 Yield: 74%

**Orienting Group Directed Cascade Borylation for Efficient One-Shot Synthesis of 1,4-BN-Doped Polycyclic Aromatic Hydrocarbons as Narrowband Organic Emitters**

By: Wu, Lin; et al

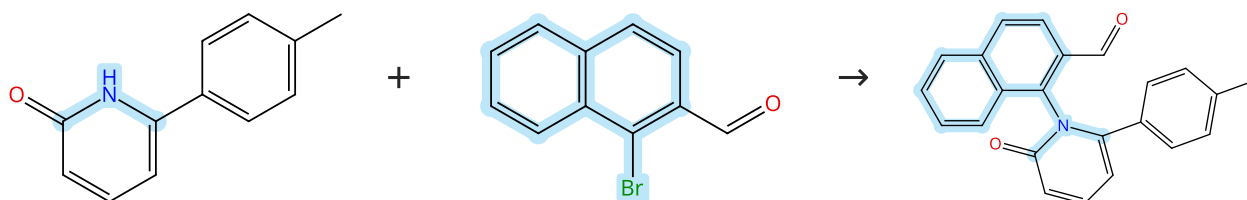
Angewandte Chemie, International Edition (2024), 63(18), e202402020.

1.1 **Reagents:** Sodium *tert*-butoxide  
**Catalysts:** Tris(dibenzylideneacetone)dipalladium, [2',6'-Bis(1-methylethoxy)[1,1'-biphenyl]-2-yl]dicyclohexylphosphine  
**Solvents:** Toluene; overnight, 110 °C

Experimental Protocols

Scheme 88 (1 Reaction)

Steps: 1 Yield: 74%



Suppliers (41)

Suppliers (71)

31-614-CAS-41335330

Steps: 1 Yield: 74%

**Intermolecular Buchwald-Hartwig Reactions for Enantioselective Synthesis of Diverse Atropisomers: Rerouting the C-N Forming Mechanism to Substrate Oxygen-Assisted Reductive Elimination**

By: Wang, Wei; et al

Journal of the American Chemical Society (2024), 146(24), 16567-16580.

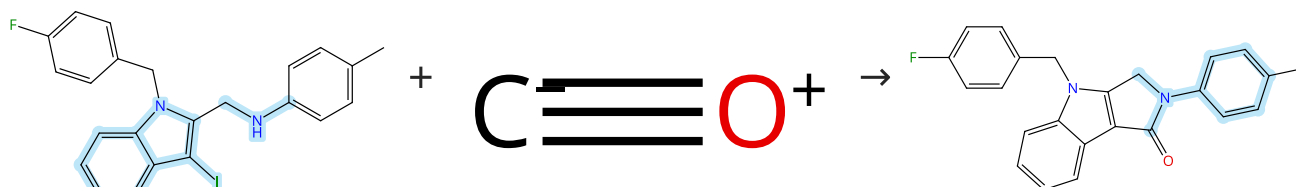
1.1 **Catalysts:** Palladium, tris[μ-[(1,2-η:4,5-η)-(1*E*,4*E*)-1,5-diphenyl-1,4-pentadien-3-one]]di-, compd. with trichloromethane (1:1), (2*R*)-1-[(1*R*)-1-[Bis(1,1-dimethylethyl)phosphino]ethyl]-2-(di-2-furanylphosphino)ferrocene  
**Solvents:** Toluene; 30 min, rt

1.2 **Reagents:** Cesium carbonate; 36 h, 90 °C

Experimental Protocols

Scheme 89 (1 Reaction)

Steps: 1 Yield: 74%



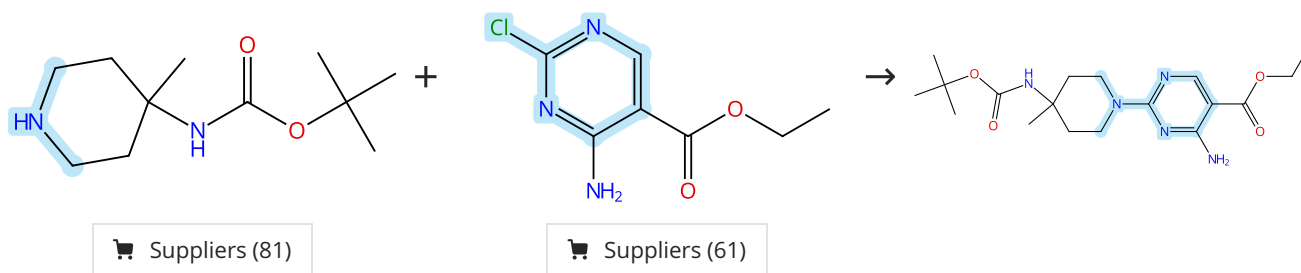
Suppliers (17)



31-614-CAS-37486992	Steps: 1 Yield: 74%	<b>Accessing Dihydropyrrolo[3,4-b]indol-1(2H)-ones via Pd-Catalyzed Intramolecular Aminocarbonylative Ring Closure</b>
1.1 <b>Reagents:</b> Triethylamine <b>Catalysts:</b> Palladium diacetate, 1,1'-(9,9-Dimethyl-9H-xanthene-4,5-diyl)bis[1,1-diphenylphosphine] <b>Solvents:</b> Toluene		By: Alam, Ryan M.; et al
1.2 <b>Reagents:</b> Formic acid, Triethylamine, Methanesulfonyl chloride; 10 min, rt; rt → 100 °C; 18 h, 100 °C		European Journal of Organic Chemistry (2023), 26(34), e202300646.
Experimental Protocols		

Scheme 90 (1 Reaction)

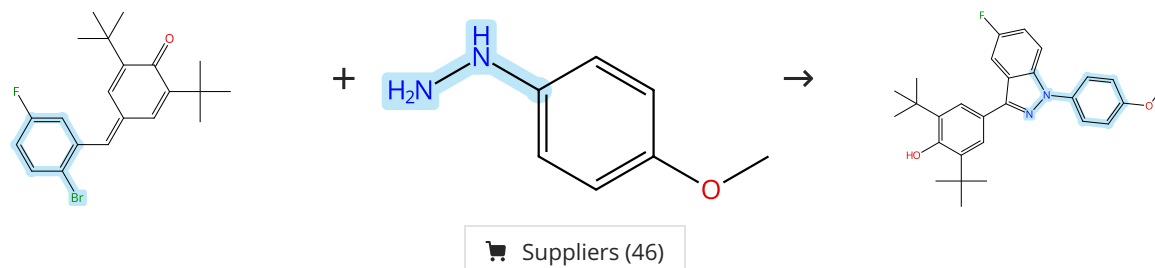
Steps: 1 Yield: 74%



31-614-CAS-36514165	Steps: 1 Yield: 74%	<b>Discovery of a potent and selective allosteric inhibitor targeting the SHP2 tunnel site for RTK-driven cancer treatment</b>
1.1 <b>Reagents:</b> Sodium <i>tert</i> -butoxide <b>Catalysts:</b> Triphenylphosphine, Tris(dibenzylideneacetone) dipalladium <b>Solvents:</b> 1,4-Dioxane; 15 min, rt		By: Luo, Ruixiang; et al
1.2 <b>Solvents:</b> 1,4-Dioxane; 18 h, 100 °C		European Journal of Medicinal Chemistry (2023), 253, 115305.
Experimental Protocols		

Scheme 91 (1 Reaction)

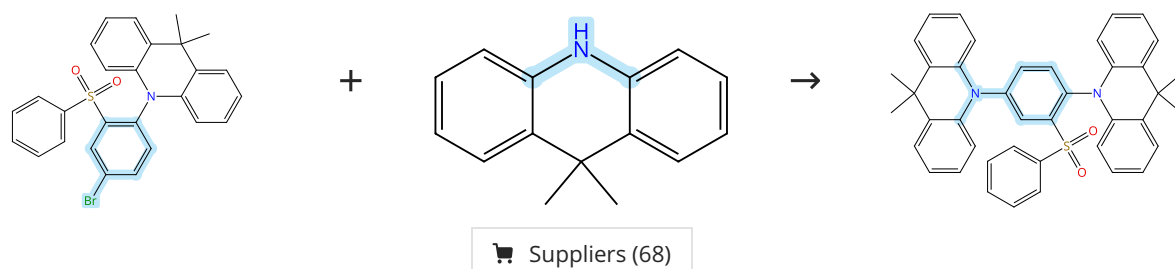
Steps: 1 Yield: 74%



31-614-CAS-38947669	Steps: 1 Yield: 74%	<b>Synthesis and Photophysical Properties of 3-Substituted-1H-Indazoles: A Pd-Catalyzed Double C-N Bond Formation Strategy via 1,6-Conjugate Addition</b>
1.1 <b>Reagents:</b> Potassium <i>tert</i> -butoxide <b>Catalysts:</b> Palladium diacetate, 1,3-Bis(diphenylphosphino) propane <b>Solvents:</b> Toluene; 15 h, 110 °C		By: Kayastha, Nasib; et al
Experimental Protocols		Journal of Organic Chemistry (2024), 89(1), 402-413.

Scheme 92 (1 Reaction)

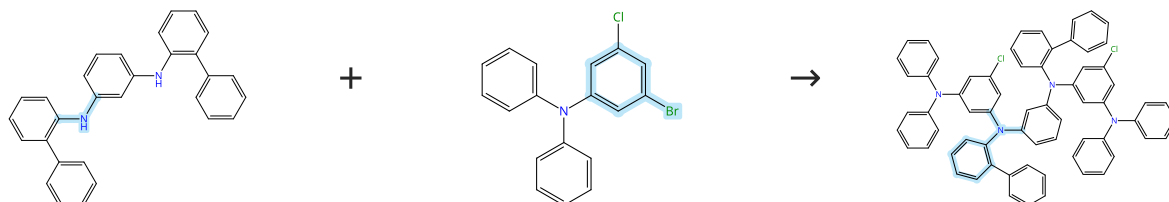
Steps: 1 Yield: 74%



<p>31-614-CAS-39718658</p> <p>Steps: 1 Yield: 74%</p> <p>1.1 Reagents: Sodium <i>tert</i>-butoxide, Tri-<i>tert</i>-butylphosphonium tetrafluoroborate Catalysts: Palladium diacetate Solvents: Toluene; 48 h, 110 °C</p> <p>Experimental Protocols</p>	<p><b>Unveiling the TADF Emitters with Apparent Negative Singlet-Triplet Gaps: Implications for Exciton Harvesting and OLED Performance</b></p> <p>By: Chen, Xinrui; et al</p> <p>Advanced Optical Materials (2024), 12(6), 2301784.</p>
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Scheme 93 (1 Reaction)

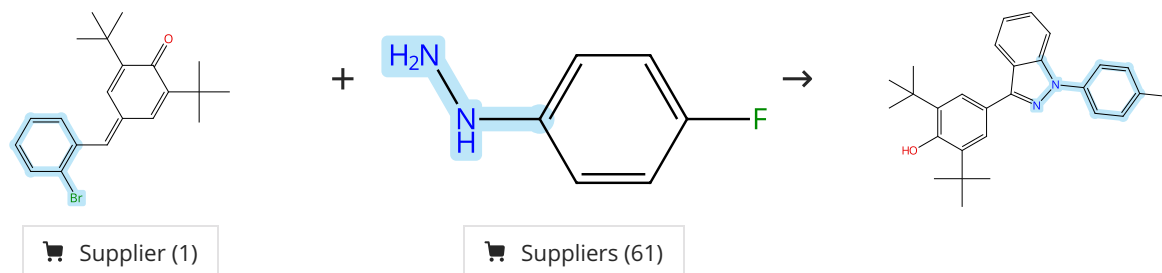
Steps: 1 Yield: 74%



<p>31-614-CAS-38006388</p> <p>Steps: 1 Yield: 74%</p> <p>1.1 Reagents: Sodium <i>tert</i>-butoxide Catalysts: Tris(dibenzylideneacetone)dipalladium, 2-Dicyclohexylphosphino-2',6'-dimethoxybiphenyl Solvents: Toluene; 2 h, 100 °C</p> <p>Experimental Protocols</p>	<p><b>One-Shot Construction of BN-Embedded Heptadecacene Framework Exhibiting Ultra-narrowband Green Thermally Activated Delayed Fluorescence</b></p> <p>By: Sano, Yusuke; et al</p> <p>Journal of the American Chemical Society (2023), 145(21), 11504-11511.</p>
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Scheme 94 (1 Reaction)

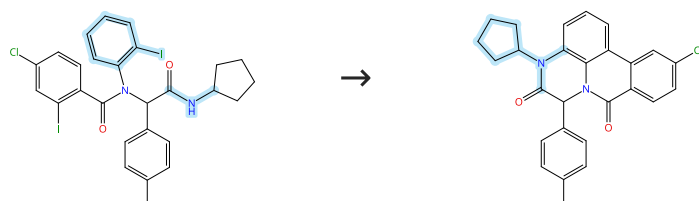
Steps: 1 Yield: 74%



<p>31-614-CAS-38947660</p> <p>Steps: 1 Yield: 74%</p> <p>1.1 Reagents: Potassium <i>tert</i>-butoxide Catalysts: Palladium diacetate, 1,3-Bis(diphenylphosphino)propane Solvents: Toluene; 15 h, 110 °C</p> <p>Experimental Protocols</p>	<p><b>Synthesis and Photophysical Properties of 3-Substituted-1H-Indazoles: A Pd-Catalyzed Double C-N Bond Formation Strategy via 1,6-Conjugate Addition</b></p> <p>By: Kayastha, Nasib; et al</p> <p>Journal of Organic Chemistry (2024), 89(1), 402-413.</p>
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Scheme 95 (1 Reaction)

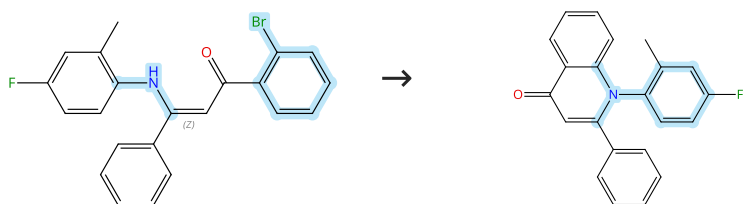
Steps: 1 Yield: 74%



<p>31-614-CAS-38556063</p> <p>Steps: 1 Yield: 74%</p> <p>1.1 Reagents: Potassium carbonate Catalysts: Palladium diacetate Solvents: Dimethylformamide; 12 h, 110 °C</p> <p>Experimental Protocols</p>	<p><b>Preparation of pyridopyrazines through tandem Pd-catalyzed C-N/C-C coupling reactions of Ugi adducts</b></p> <p>By: Takallou, Ahmad; et al</p> <p>Organic &amp; Biomolecular Chemistry (2023), 21(48), 9530-9533.</p>
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## Scheme 96 (1 Reaction)

Steps: 1 Yield: 74%



Double bond geometry shown

31-614-CAS-40129295

Steps: 1 Yield: 74%

**Pd-Catalyzed Asymmetric Amination of Enamines: Expedient Synthesis of Structurally Diverse N-C Atropisomers**

By: Zhang, Peng; et al

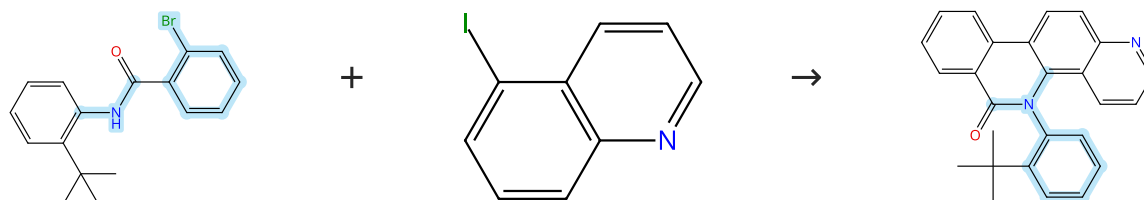
ACS Catalysis (2023), 13(11), 7680-7690.

1.1 **Reagents:** Potassium carbonate, Sodium hydroxide  
**Catalysts:** Palladium diacetate, (-)-BINAP  
**Solvents:** Toluene, 1,4-Dioxane; 18 h, 40 °C

Experimental Protocols

## Scheme 97 (1 Reaction)

Steps: 1 Yield: 74%



Suppliers (5)

Suppliers (56)

31-614-CAS-41071010

Steps: 1 Yield: 74%

**Chiral dinitrogen ligand enabled asymmetric Pd/norbornene cooperative catalysis toward the assembly of C-N axially chiral scaffolds**

By: Jin, Liang; et al

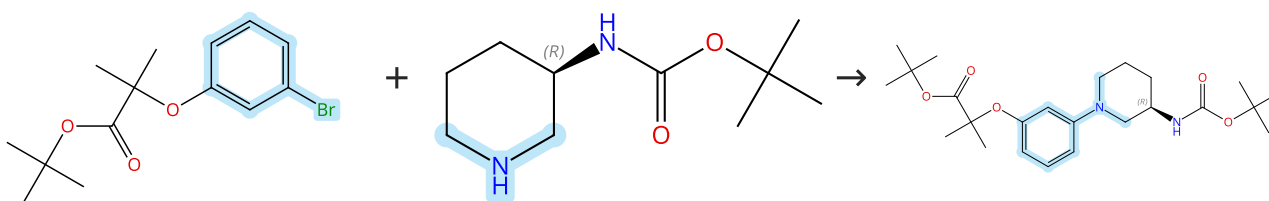
Nature Communications (2024), 15(1), 4908.

1.1 **Reagents:** Norbornene, Silver sulfate  
**Catalysts:** Tris(dibenzylideneacetone)dipalladium, (4*S*,4'*S*)-4,4',5,5'-Tetrahydro-4,4'-bis(1-methylethyl)-1,1'-bis[3-(trifluoromethyl)phenyl]-2,2'-bi-1*H*-imidazole  
**Solvents:** Toluene, Water; 36 h, 80 °C

Experimental Protocols

## Scheme 98 (1 Reaction)

Steps: 1 Yield: 74%



Suppliers (14)

Absolute stereochemistry shown

Suppliers (101)

Absolute stereochemistry shown

Suppliers (6)

31-614-CAS-41301353

Steps: 1 Yield: 74%

**Discovery of Novel 1-Phenylpiperidine Urea-Containing Derivatives Inhibiting  $\beta$ -Catenin/BCL9 Interaction and Exerting Antitumor Efficacy through the Activation of Antigen Presentation of cDC1 Cells**

By: Zhu, Wenhua; et al

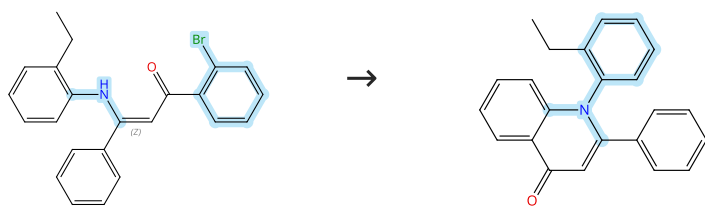
Journal of Medicinal Chemistry (2024), 67(15), 12485-12520.

1.1 **Reagents:** Cesium carbonate  
**Catalysts:** Tris(dibenzylideneacetone)dipalladium, [2',6'-Bis(1-methylethoxy)[1,1'-biphenyl]-2-yl]dicyclohexylphosphine  
**Solvents:** Toluene; 48 h, 90 °C

Experimental Protocols

## Scheme 99 (1 Reaction)

Steps: 1 Yield: 74%



Double bond geometry shown

31-614-CAS-40129306

Steps: 1 Yield: 74%

**Pd-Catalyzed Asymmetric Amination of Enamines: Expedient Synthesis of Structurally Diverse N-C Atropisomers**

By: Zhang, Peng; et al

ACS Catalysis (2023), 13(11), 7680-7690.

1.1 Reagents: Potassium carbonate, Sodium hydroxide

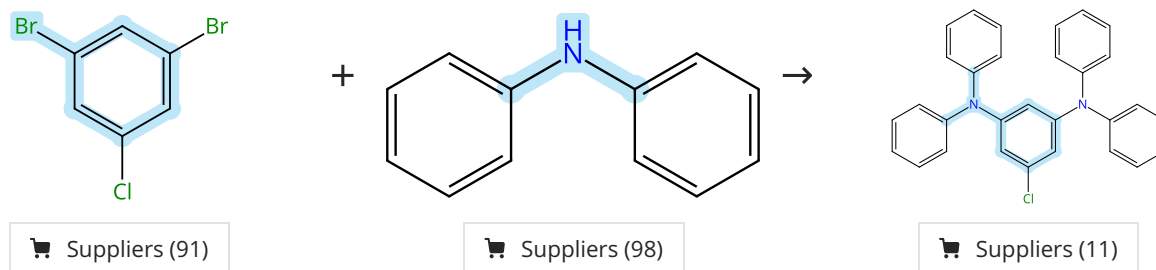
Catalysts: Palladium diacetate, (-)-BINAP

Solvents: Toluene, 1,4-Dioxane; 18 h, 40 °C

Experimental Protocols

## Scheme 100 (1 Reaction)

Steps: 1 Yield: 74%



31-614-CAS-41860662

Steps: 1 Yield: 74%

**Orienting Group Directed Cascade Borylation for Efficient One-Shot Synthesis of 1,4-BN-Doped Polycyclic Aromatic Hydrocarbons as Narrowband Organic Emitters**

By: Wu, Lin; et al

Angewandte Chemie, International Edition (2024), 63(18), e202402020.

1.1 Reagents: Sodium *tert*-butoxideCatalysts: Tris(dibenzylideneacetone)dipalladium, Tri-*tert*-butylphosphonium tetrafluoroborate

Solvents: Toluene; overnight, 110 °C

Experimental Protocols