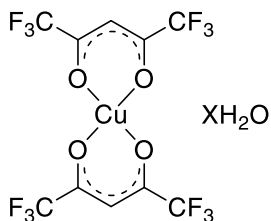


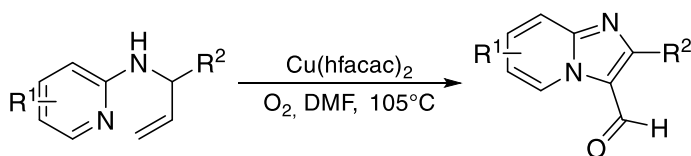
Catalog # 93-2929 Copper(II) hexafluoroacetylacetonate hydrate



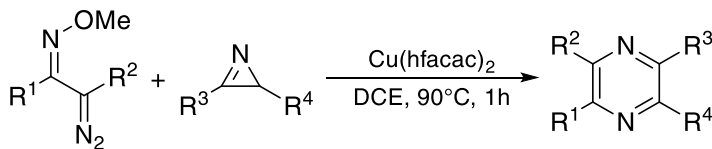
Catalysis Applications

Technical Notes:

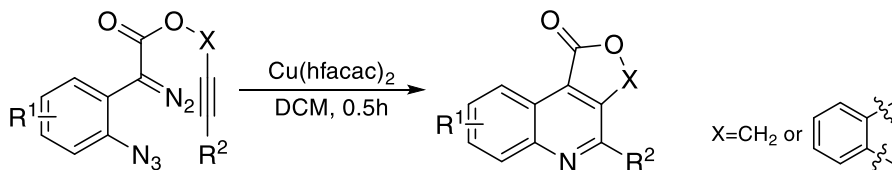
1. Catalyst used for intramolecular dehydrogenative aminoxygenation to generate formyl-substituted aromatic N-heterocycles
2. Catalyst for the synthesis of unsymmetrical pyrazines Based on α -diazo oxime ethers
3. Used in Cu-catalyzed novel carbene/alkyne metathesis cascade reaction with alkyne-tethered diazo compounds to generate 4-carboxyl quinolines
4. Catalyst for intramolecular oxidative diamination of alkynes for heterocycle synthesis via *N*-methyl transfer mechanism
5. Catalyst used for N-H insertion reactions between anilines and α -carbonyl sulfoxonium ylides
6. Used in visible-light-driven, acridine-catalyzed direct decarboxylative *N*-alkylation
7. Catalyst for the indole-based rearrangements of onium ylides
8. Catalyst for the chemodivergent reactions of 2-Pyrrolyl- α -diazo- β -ketoesters and enol ethers via [3 + 2] cycloaddition



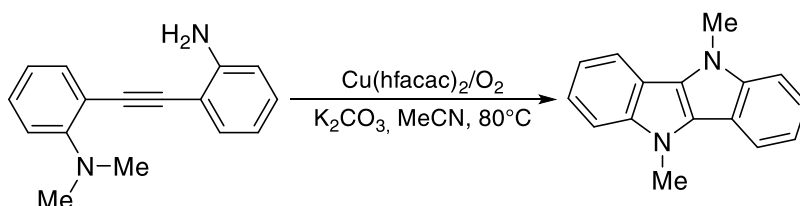
Tech Note (1)
Ref. (1)



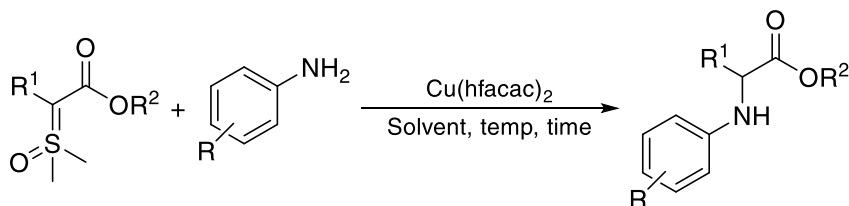
Tech Note (2)
Ref. (2)



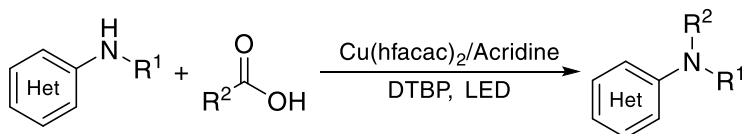
Tech Note (3)
Ref. (3)



Tech Note (4)
Ref. (4)

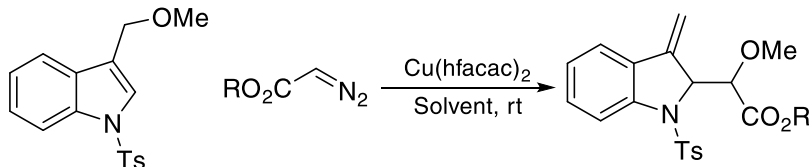


Tech Note (5)
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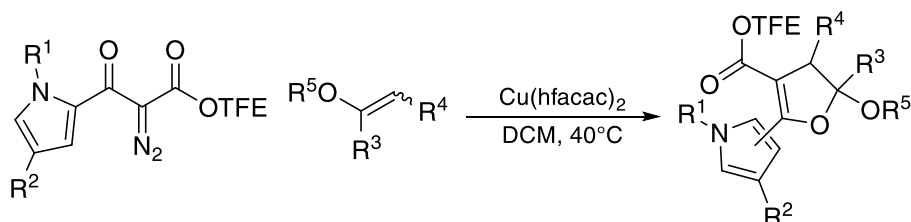


Tech Note (6)
Ref. (6)

primary anilines, *N*-alkylanilines, diarylamines, *N*-heterocycles,
primary, secondary, tertiary alkylcarboxylic acids



Tech Note (7)
Ref. (7)



Tech Note (8)
Ref. (8)

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2. [Org. Lett. 2015, 17, 395.](#)
3. [ACS Catal. 2016, 6, 1024.](#)
4. [Org. Lett. 2016, 18, 2487.](#)
5. [Tetrahedron, 2020, 76, 131313.](#)
6. [Angew. Chem. Int. Ed. 2020, 59, 7921.](#)
7. [J. Am. Chem. Soc. 2021, 143, 9016.](#)
8. [J. Org. Chem. 2021, 86, 10088.](#)

CVD/ALD Applications

Thermal Behavior:

- Melting point: 97-99°C
- Boiling point dec. 220°C
- Sublimation: 100°C/0.5 Torr

Technical Notes:

1. Precursor used for the thin copper film deposition.

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
Cu	ALD	75°C	5 mTorr	ROH	300°C	1
	ALD	60°C	1 Torr	H ₂ , Py ^{cat}	25°C	2
	ALD	70°C	3 Torr	Et ₂ Zn	180-200°C	3
	ALD	-	6 Torr	H ₂ O	280°C	4
Cu ₂ O	ALD	70°C	-	H ₂ O	280°C	5
CuN _x	ALD	60°C	3 Torr	NH ₃ , H ₂ O	210-302°C	6
	PEALD	70°C	1 Torr	^P LNH ₃	250°C	7

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4. [ACS Appl. Mater. Interfaces 2018, 10, 40958.](#)
5. [ACS Appl. Nano Mater. 2019, 2, 4358.](#)
6. [J. Electrochem. Soc. 2006, 153, C146.](#)
7. [J. Mater. Chem. A, 2015, 3, 18983.](#)