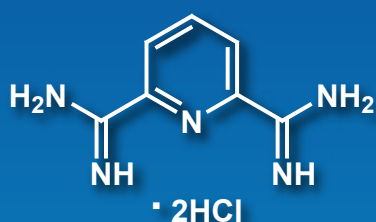


New

CHEMISTRY

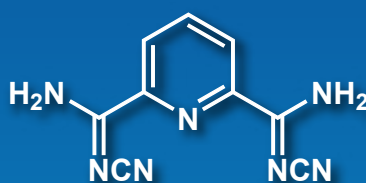
TCI®

Ligands for Reductive Cross Electrophile Coupling Capable of C(sp²)-C(sp³) Bond Formation



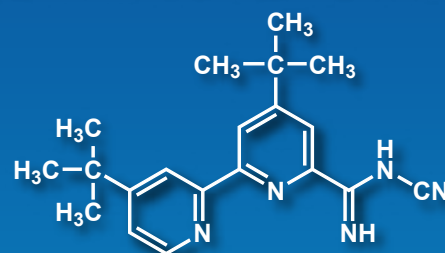
Pyridine-2,6-dicarboximidamide Dihydrochloride

1g / 10g
[P3015]



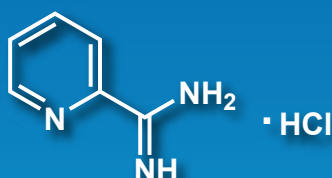
N²,N⁶-Dicyano-2,6-pyridine-Dicarboximidamide

1g / 5g
[D6070]



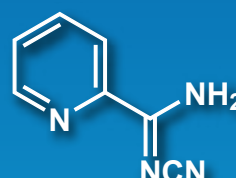
4,4'-Di-tert-Butyl-N-cyano[2,2'-bipyridine]-6-carboximidamide

200mg / 1g
[C3803]



Picolinimidamide Hydrochloride

1g / 10g
[P2176]



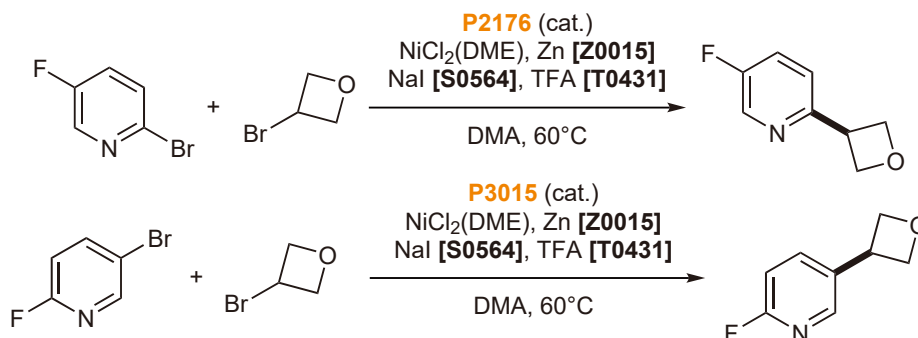
N'-Cyano-2-pyridine-carboximidamide

1g / 10g
[C3801]

Reductive cross electrophile coupling enables C(sp²)-C(sp³) bond formation between aryl groups and alkyl groups. The coupling is a sufficiently robust catalytic reaction for library synthesis. These ligands are applicable to catalytic screening for parallel library synthesis. Also, readily available alkyl halides, alkyl carboxylic acids, and alkyl amines can be used as substrates containing an alkyl group.

Applications

Cross coupling of alkyl halides and aryl halides

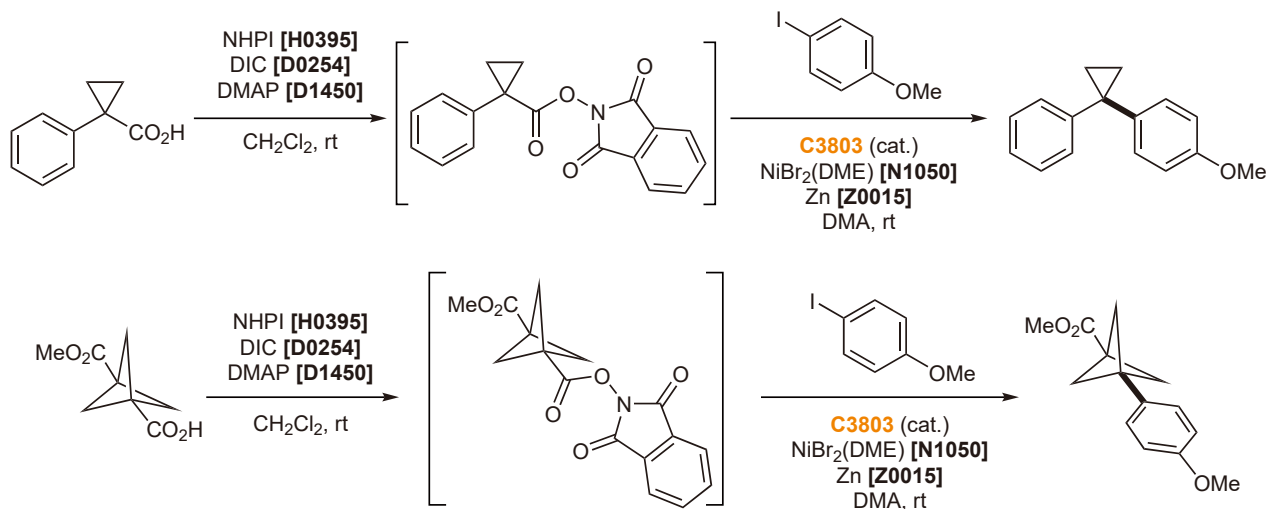


Reference E. C. Hansen, C. Li, S. Yang, D. Pedro, D. J. Weix, *J. Org. Chem.* **2017**, *82*, 7085. <https://doi.org/10.1021/acs.joc.7b01334>

Ligands for Reductive Cross Electrophile Coupling Capable of C(sp²)-C(sp³) Bond Formation

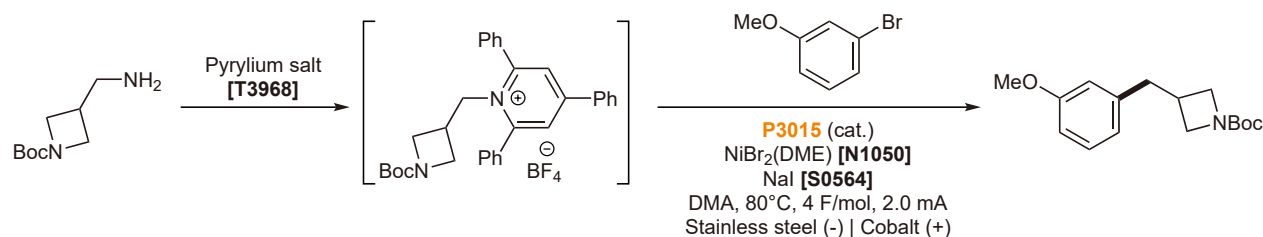
Applications

Cross coupling of alkyl carboxylic acids and aryl halides



Reference D. C. Salgueiro, B. K. Chi, I. A. Guzei, P. García-Reynaga, D. J. Weix, *Angew. Chem. Int. Ed.* **2022**, 61, e202205673. <https://doi.org/10.1002/anie.202205673>

Cross coupling of alkyl amines and aryl halides



Reference J. Fu, W. Lundy, J. C. Twitty, J. Sampson, M. P. Watson, D. Kalyani, *ChemRxiv* **2022**. <https://doi.org/10.26434/chemrxiv-2022-69tc7-v2>

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N-Hydroxyphthalimide (= NHPI)	25g / 100g / 500g [H0395]
N,N'-Diisopropylcarbodiimide (= DIC)	25g / 250g [D0254]
4-Dimethylaminopyridine (= DMAP)	25g / 100g / 500g [D1450]
Dibromo(glyme)nickel (= NiBr ₂ (DME))	1g / 10g [N1050]
2,4,6-Triphenylpyrylium Tetrafluoroborate	1g [T3968]

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