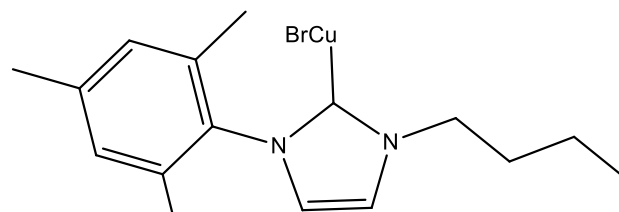
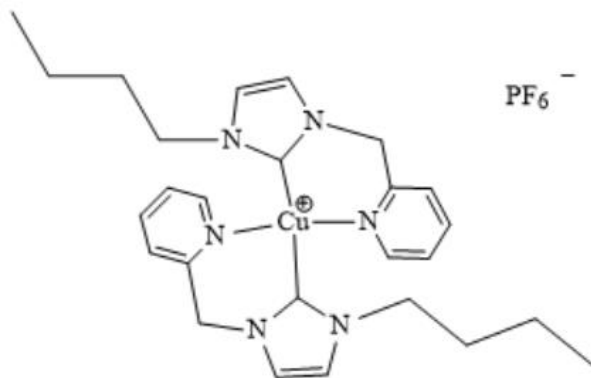
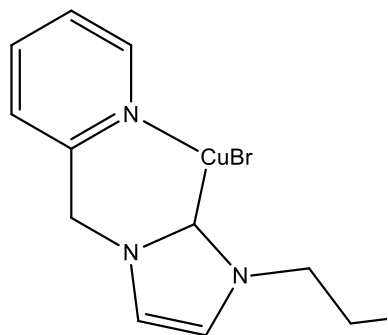
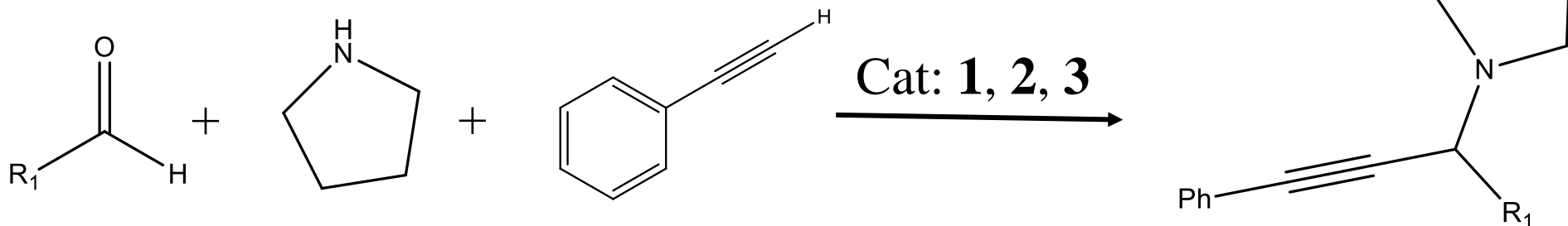


潘慶豪(2012-2015)

Cat: 3 kinds of Cu(I) complexes



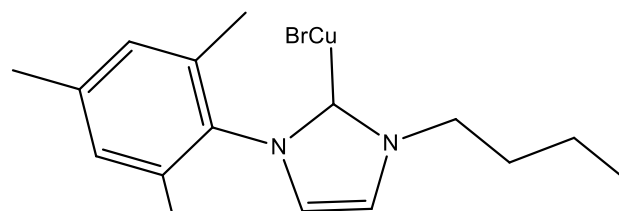
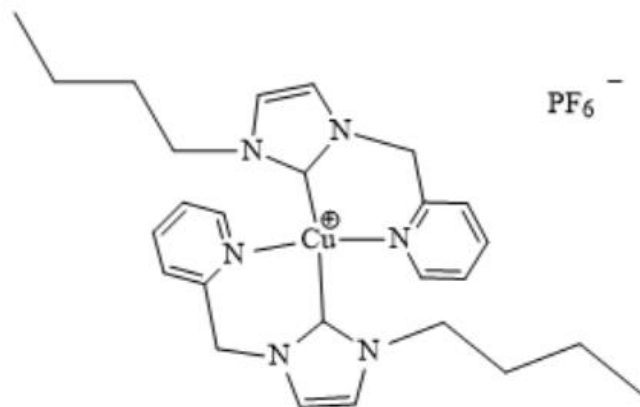
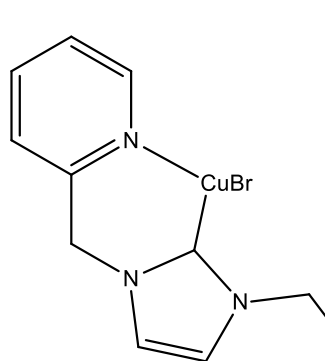
A³耦合反應 cat: 1 mol%



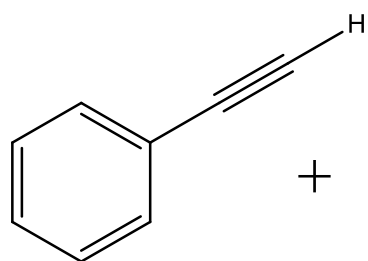
Condition: cat: 1 mol% in propionitrile, 100 °C, 1.5 h or
cat: 1 mol% in propionitrile, 2 drop [bmim]PF₆, 100 W, 5 min

潘慶豪

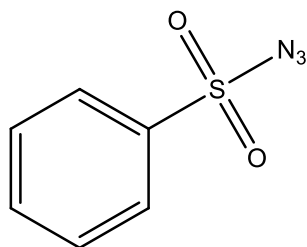
Cat: 3 kinds of Cu(I) complexes



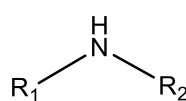
N-sulfonylamidines 催化合成反應 cat: 2 mol%



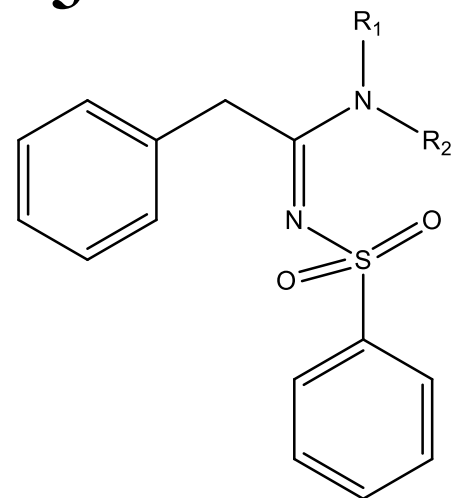
+



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Cat: 1, 2, 3



Condition: cat: 2 mol% in propionitrile, 60 °C, 45 min or
cat: 2 mol% in propionitrile, 75 W, 45 s