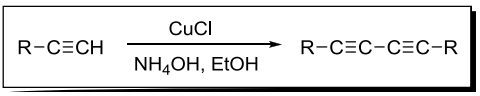
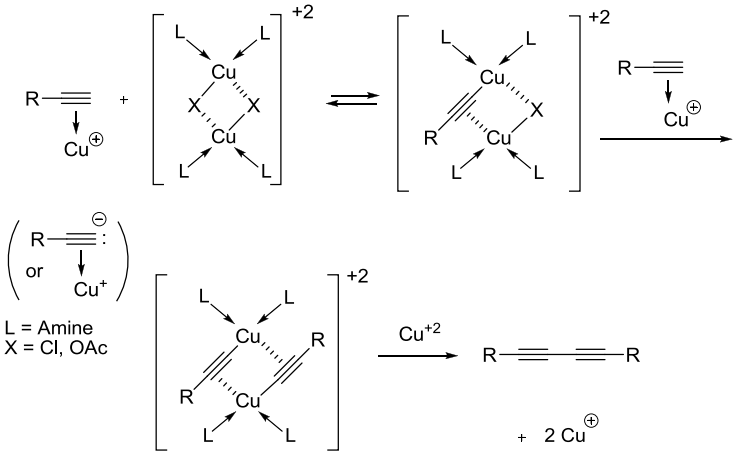
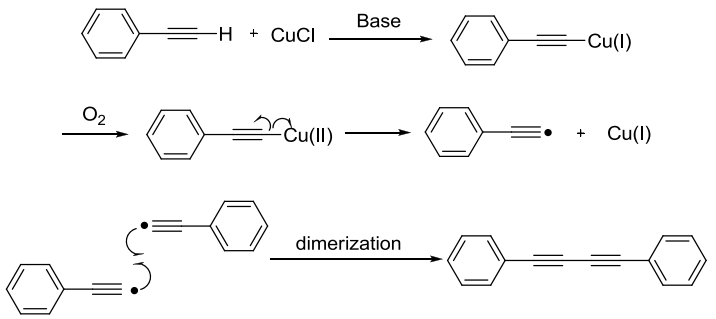
Glaser coupling

Sometimes known as the Glaser–Hay coupling, it is the oxidative homo-coupling of terminal alkynes using copper catalyst in the presence of oxygen.

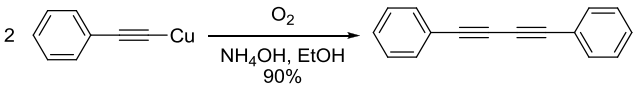




Alternatively, the radical mechanism is also operative:

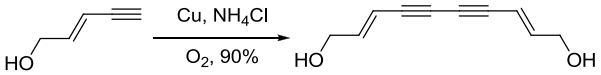


Example 1[1]

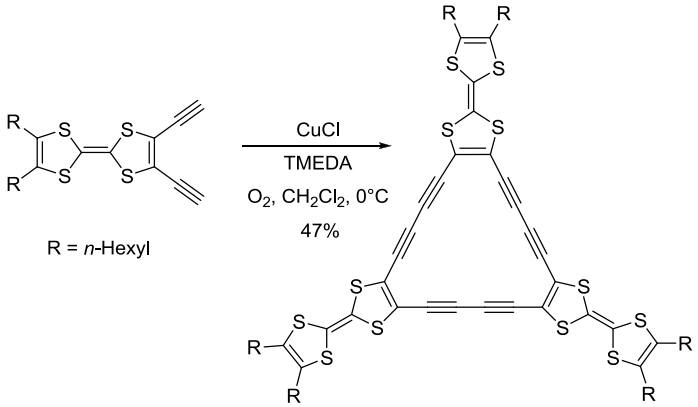


J.J. Li, *Name Reactions: A Collection of Detailed Mechanisms and Synthetic Applications*,
DOI 10.1007/978-3-319-03979-4_119, © Springer International Publishing Switzerland 2014

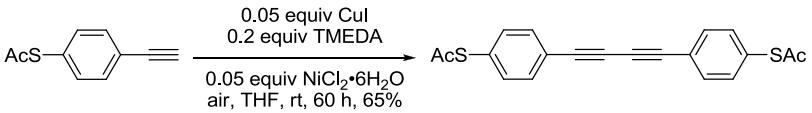
Example 2, Homo-coupling[2]



Example 3[7]



Example 4[9]



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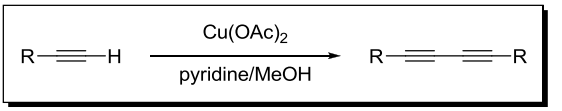
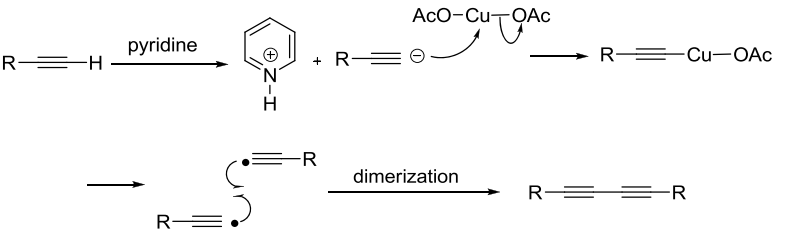
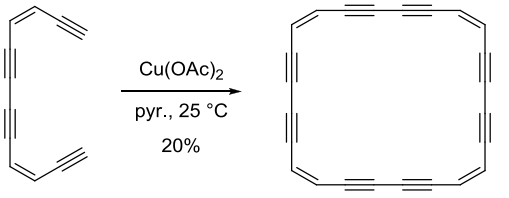
Eglinton coupling

Oxidative homo-coupling of terminal alkynes mediated by stoichiometric (or often excess) $Cu(OAc)_2$. A variant of the Glaser coupling reaction.

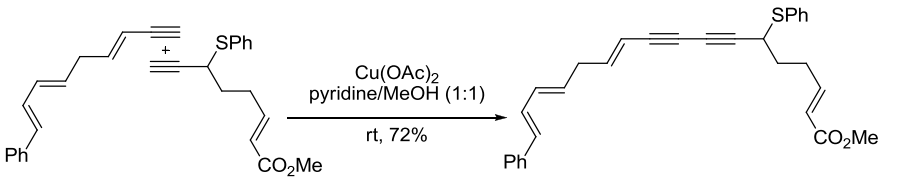




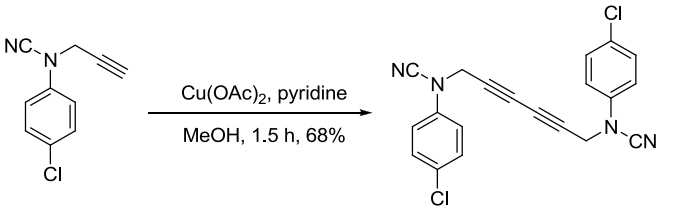
Example 1, Homo-coupling[2]



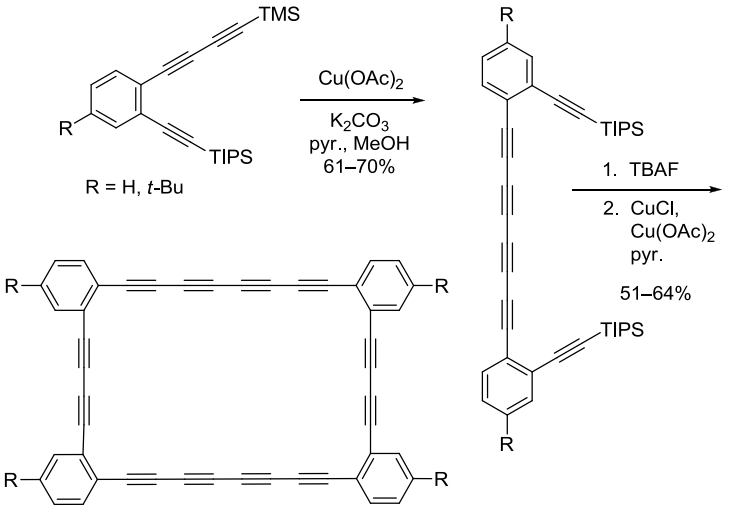
Example 2, Cross-coupling[3]



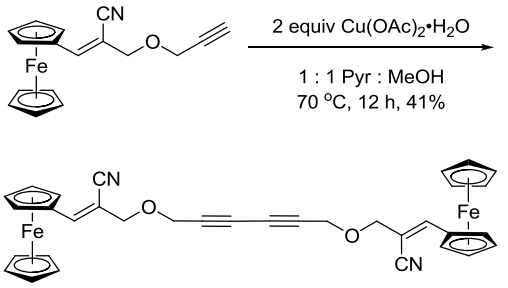
Example 3, Homo-coupling[4]



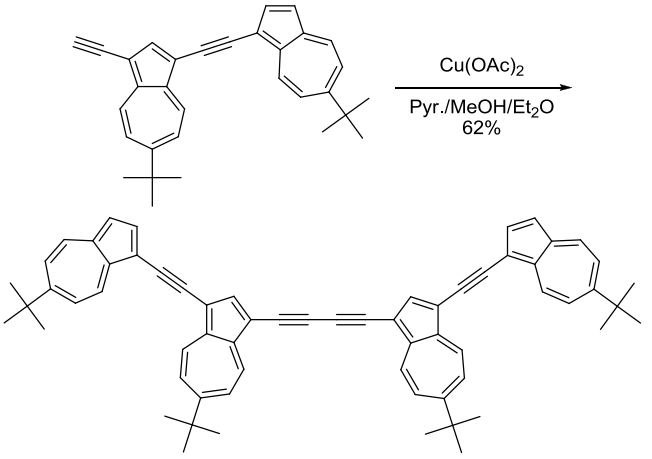
Example 4[5]



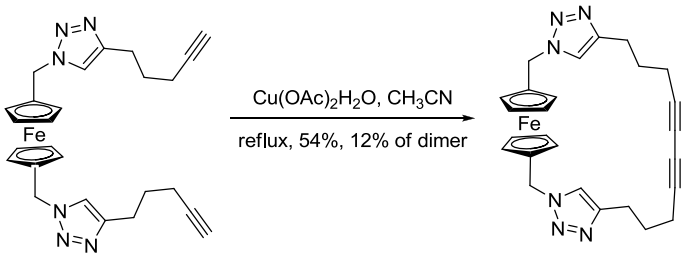
Example 5[11]



Example 6[12]



Example 7[13]



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