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Enantioselective Synthesis of Trisubstituted Allenes via Cu(I)-Catalyzed Coupling of Diazoalkanes with Terminal Alkynes

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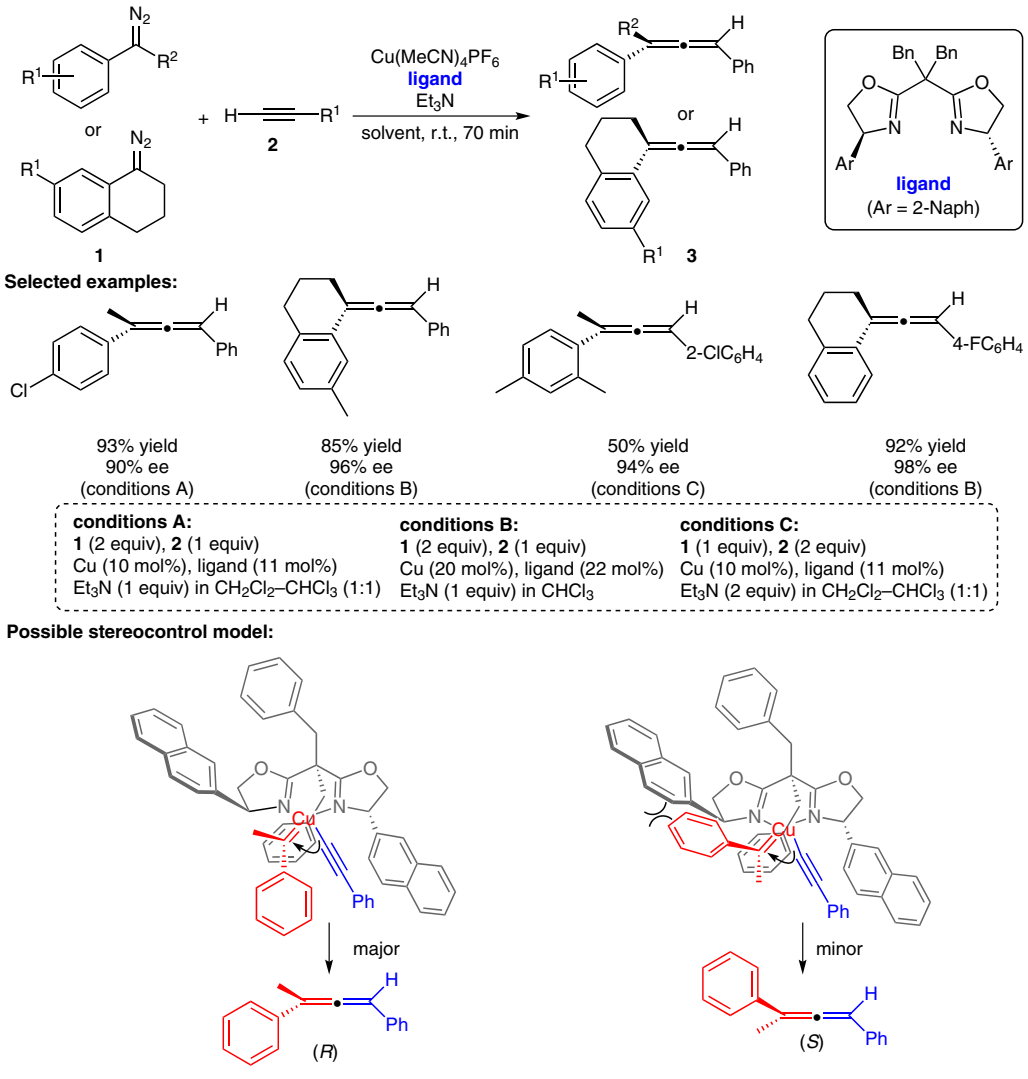
Enantioselective Coupling of Diazoalkanes with Terminal Alkynes



Significance: An enantioselective coupling reaction of aryldiazoalkanes with terminal alkynes is described. A copper complex promotes this transformation to afford trisubstituted allenes with high enantioselectivities. A rational stereocontrol model is proposed.

Comment: This reaction involves copper(I) carbene formation, alkynyl migratory insertion, and protonation. The authors suggest that migratory insertion of the copper(I) carbene species is the enantiodetermining step.

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