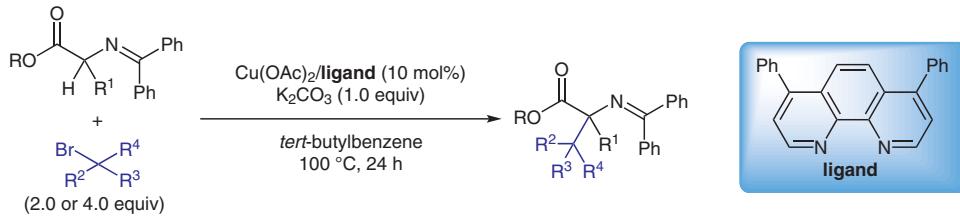
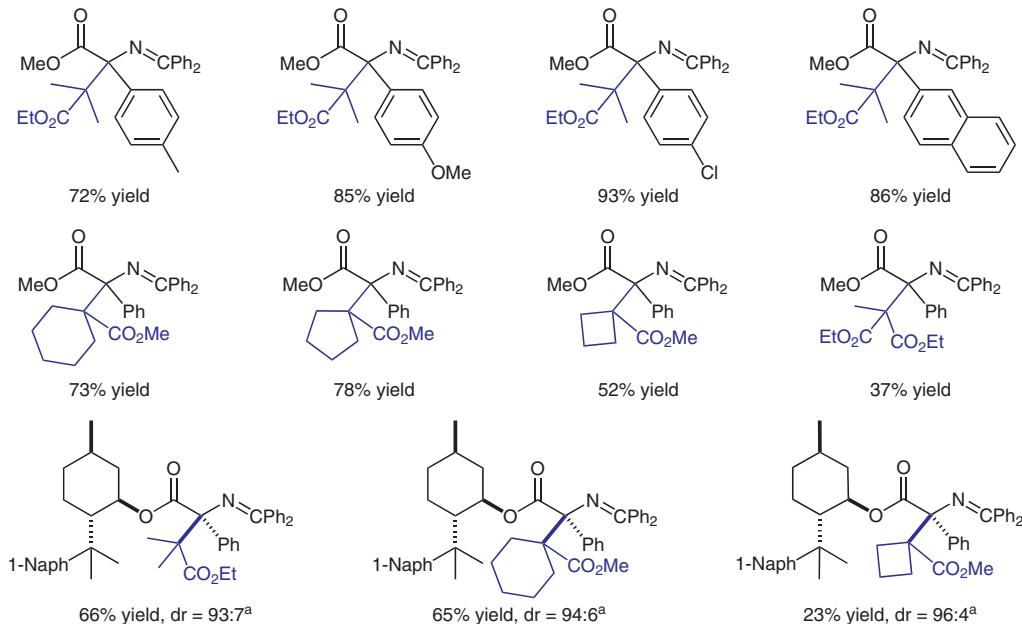


Copper-Catalyzed Synthesis of Nonnatural α -Amino Acids



Selected examples:



^aConditions: Cu(OAc)₂ (10 mol%), **ligand** (10 mol%), KOt-Bu (4.0 equiv), THF, r.t., 6 h.

Significance: Nonnatural amino acids are invaluable building blocks in synthetic organic chemistry. The authors have developed a copper-catalyzed approach for the synthesis of nonnatural α -amino acids.

Comment: This copper-catalyzed α -alkylation reaction provides the desired α -tetrasubstituted α -amino acids in moderate to high yields. The approach can be applied to a diastereoselective synthesis of α -tetrasubstituted α -amino acids by using a chiral auxiliary.

Category
Peptide Chemistry
Key words
Schiff bases
nonnatural amino acids
benzophenone imines
alkylation
copper catalysis
asymmetric catalysis

