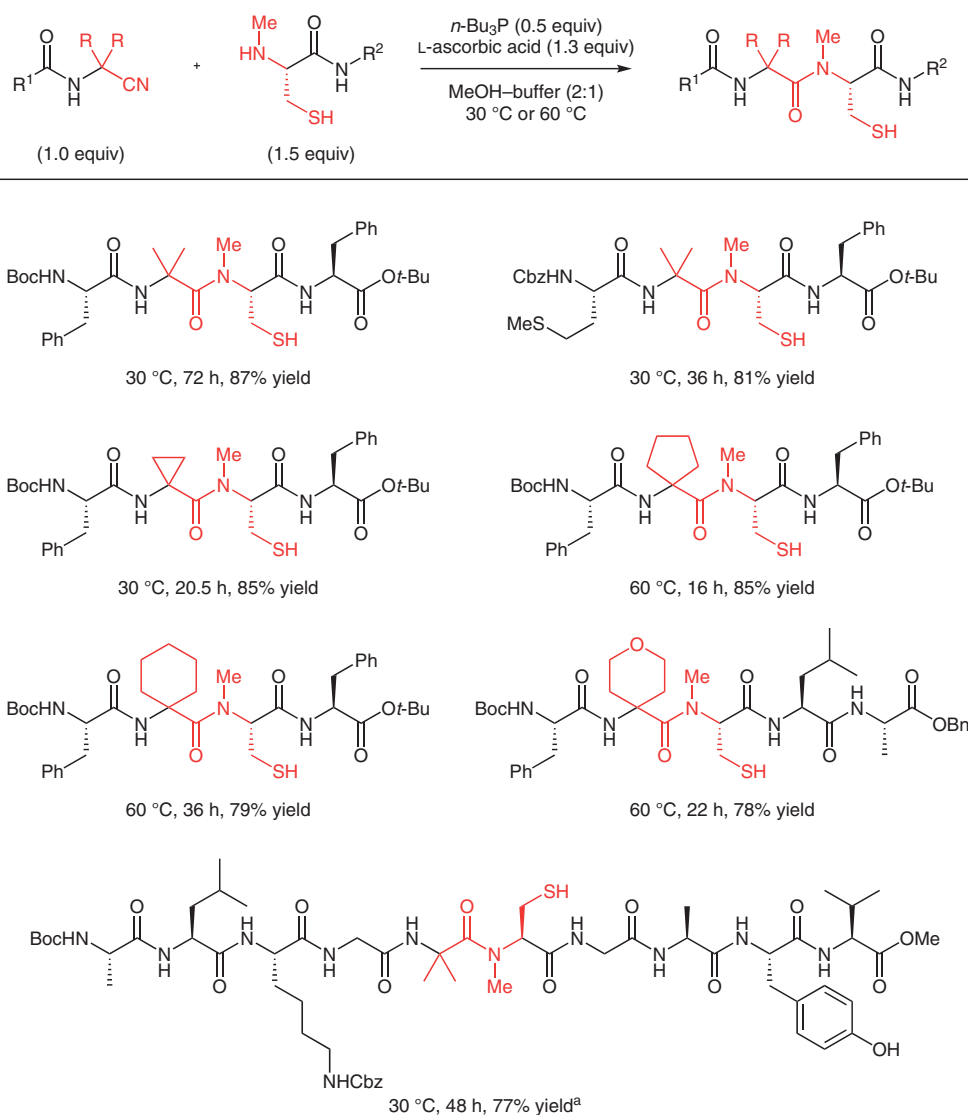


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Highly Sterically Hindered Peptide Bond Formation between α,α -Disubstituted α -Amino Acids and *N*-Alkyl Cysteines Using α,α -Disubstituted α -Amidonitrile

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Synthesis of Peptides with the Formation of Highly Sterically Hindered Peptide Bonds



^aHCl•*N*-methyl cystenyl pentapeptide was used and NaHCO_3 (1.5 equiv) was added.

Significance: The introduction of unnatural amino acids, such as α,α -disubstituted α -amino acids, into peptide backbones is important in drug discovery and medicinal chemistry. The authors have developed a synthetic method for forming such highly hindered peptide bonds from α,α -disubstituted α -amidonitriles and *N*-alkylcysteines.

Comment: The method produced hindered peptide bonds in good yields. The reaction of α,α -disubstituted α -amidonitriles with *N*-alkylcysteines proceeds in the absence of a coupling reagent.

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