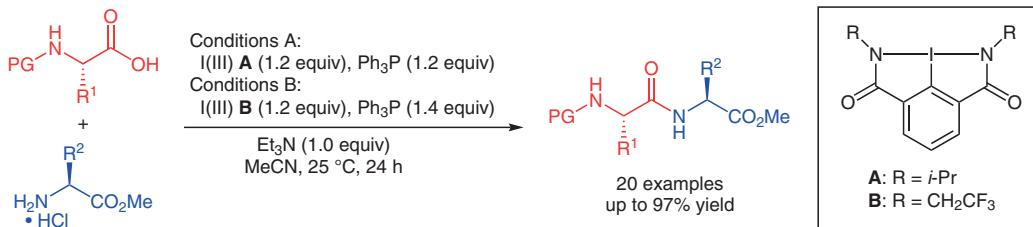
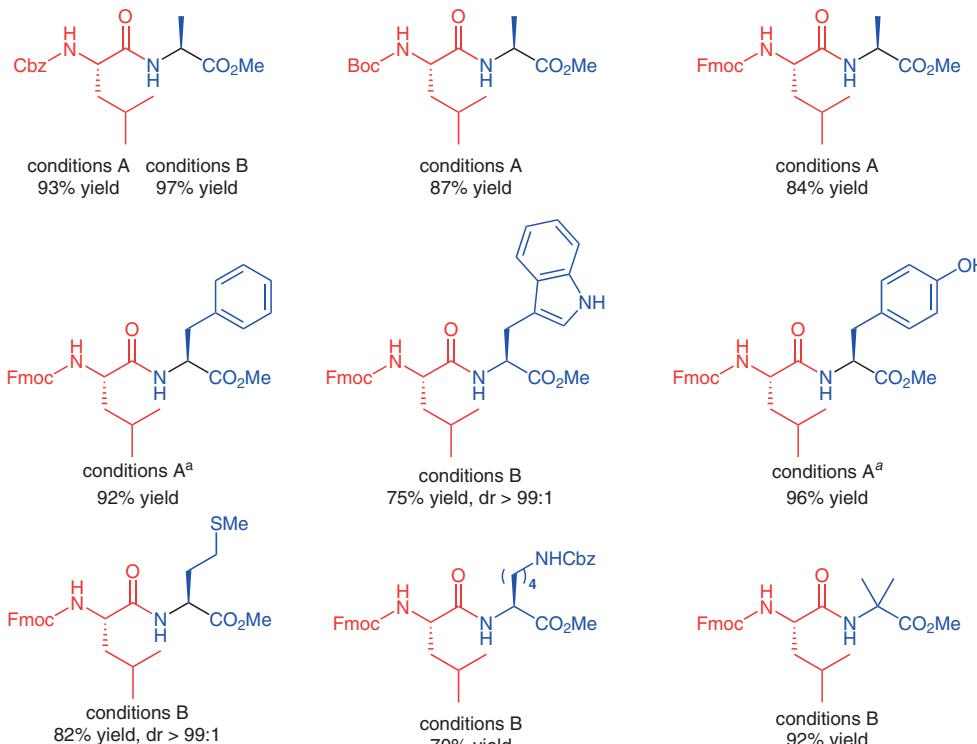


Recyclable Bicyclic Benziodazolone-Mediated Peptide Coupling Reaction



Selected examples:



^a H-AA-OMe was used instead of HCl•H-AA-OMe, without Et₃N.

Significance: The coupling reaction between carboxylic acids and amines using coupling reagents is generally used for the synthesis of peptides. However, this reaction generates a large amount of waste derived from the coupling reagent. The authors have developed a peptide coupling using recyclable bicyclic benziodazolones.

Comment: This coupling reaction using bicyclic benziodazolones **A** or **B** produced various dipeptides in high to good yield. After the reaction, **A** and **B** could be recovered as I(I) species. Also, electrochemical oxidation of this I(I) species reproduced **A** and **B**, and these regenerated **A** and **B** promoted a peptide coupling reaction.

Category
Peptide Chemistry
Key words
peptide coupling
bicyclic benziodazolones
recyclable reagent
triarylphosphines

