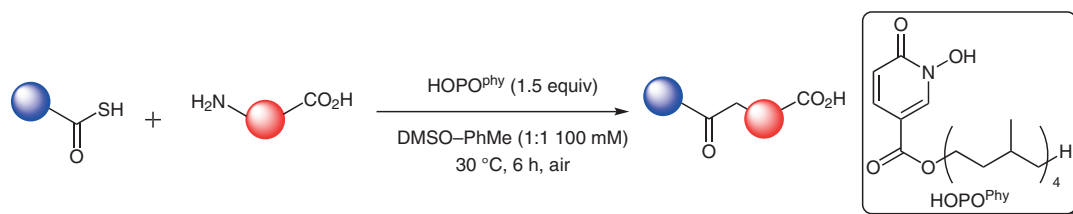


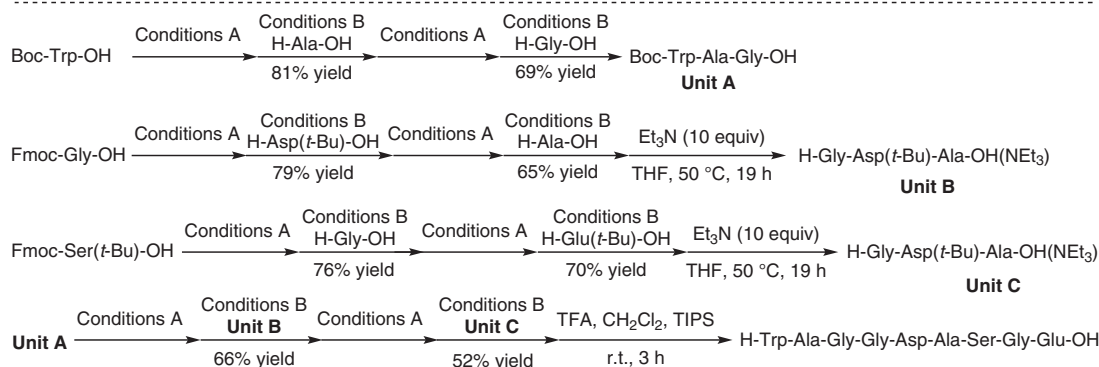
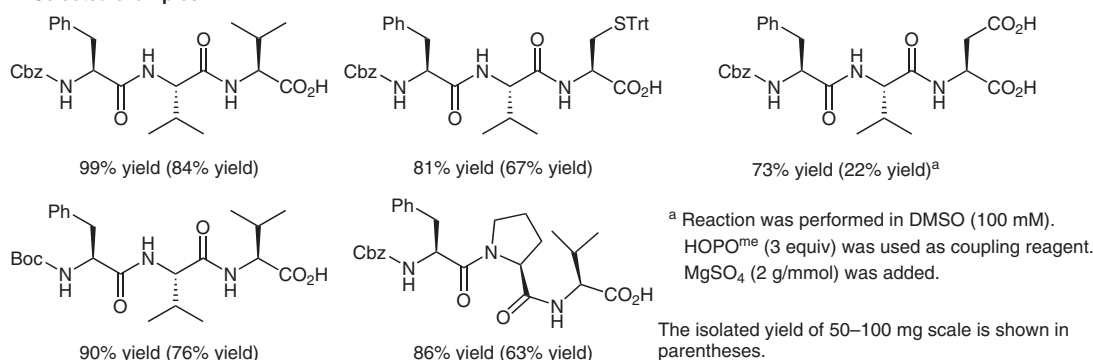
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Practical N-to-C Peptide Synthesis with Minimal Protecting Groups  
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## Atom-Economical N-to-C Peptide Elongation



### Selected examples:



Conditions A: AcSK (10 equiv), Ac<sub>2</sub>S (20 mol%), DMF, 3–6 h, 0 °C, Ar.

Conditions B: HOPO<sup>Phy</sup> (1.5 equiv), DMSO–PhMe (1:1), 40 °C, 2.5–4 h.

**Significance:** With growing applications of peptides, the development of efficient and atom-economical methods for their synthesis is highly desirable. The authors have demonstrated a sequence peptide elongation using unprotected amino acids or peptides with low waste.

**Comment:** The peptide synthesis, which proceed by N-to-C elongation, is performed in an atom-economical way and the only wastes produced are water and elemental sulfur. Furthermore, the strategy could be applied for nonapeptide synthesis.

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