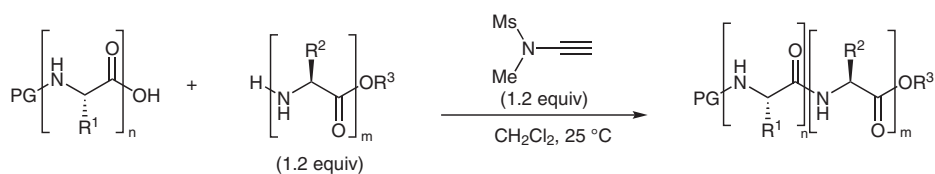


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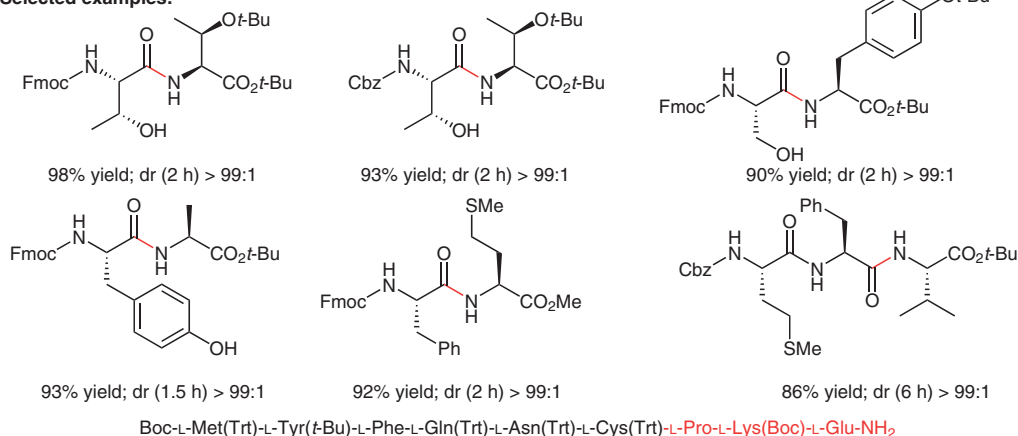
Ynamide-Mediated Peptide Bond Formation: Mechanistic Study and Synthetic Applications

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Ynamide-Mediated Peptide Synthesis



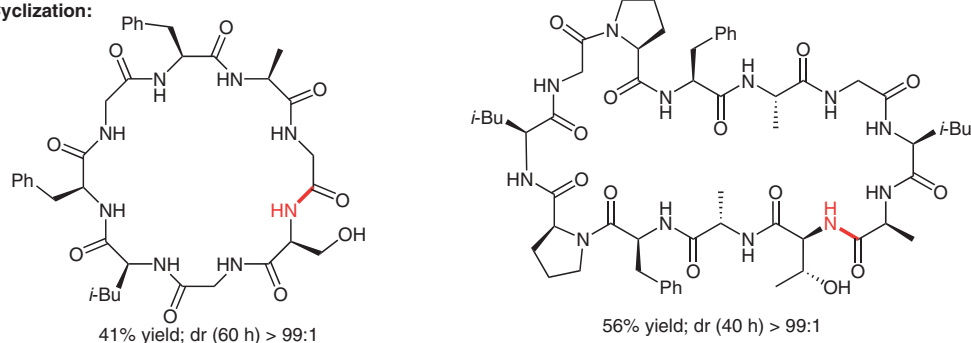
Selected examples:



Boc-L-Met(Trt)-L-Tyr(*t*-Bu)-L-Phe-L-Gln(Trt)-L-Asn(Trt)-L-Cys(Trt)-L-Pro-L-Lys(Boc)-L-Glu-NH₂

88% yield; dr (10 h) > 99:1

Cyclization:



Significance: The development of promising coupling reagents is important, especially methods that can be used for amino acids that have a reactive functional group, even such as a hydroxyl group, without protecting it. The authors have developed an ynamide-mediated peptide-bond formation.

Comment: The ynamides were smoothly formed in the presence of *N*-methylmethanesulfonamide. The ynamides could be used as excellent substrates for peptide-bond formation. Furthermore, the system could be applied to the peptide cyclization.

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