Z. WANG, X. WANG, P. WANG, J. ZHAO* (GUANGZHOU MEDICAL UNIVERSITY, NORTHWESTERN POLYTECHNICAL UNIVERSITY, XI'AN, JIANGXI NORMAL UNIVERSITY, NANCHANG, AND NANKAI UNIVERSITY, TIANJIN, P. R. OF CHINA)
 Allenone-Mediated Racemization/Epimerization-Free Peptide Bond Formation and Its Application in Peptide Synthesis
J. Am. Chem. Soc. **2021**, *143*, 10374–10381, DOI: 10.1021/jacs.1c04614.

Allenone-Mediated Formation of Peptide Bonds

Selected examples:

94% yield in 2 steps, de > 99%

82% yield in 2 steps, de > 99%

86% yield in 2 steps, de > 99%

90% yield in 2 steps, de > 99%

Significance: The development of an efficient method for amide bond formation is important in peptide drug discovery. The authors have developed an allenone-mediated peptide synthesis.

Comment: This allenone-mediated amidation reaction affords peptides containing a variety of amino acid residues in high yields without any epimerization.

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Peptide Chemistry

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