Category

Peptide Chemistry

Key words

dehydroamino acids asymmetric synthesis cyclic sulfamidites phomopsin hydroxyamino acids elimination



M. M. STOHLMEYER, H. TANAKA, T. J. WANDLESS* (STANFORD UNIVERSITY, USA) A Stereospecific Elimination to Form Dehydroamino Acids: Synthesis of the Phomopsin Tripeptide Side Chain *J. Am. Chem. Soc.* **1999**, *121*, 6100–6101.

Synthesis of Dehydroamino Acids through Stereospecific Elimination

Synthesis of dehydroamino acids from tertiary alcohols:

Synthesis of dehydroamino acids from secondary alcohols:

Synthesis of tripeptide side chain of phomopsin A:

Significance: Dehydroamino acids are present in various biologically active natural products. The authors have developed an efficient and stereoselective method for the synthesis of tri- or tetrasubstituted α,β -dehydroamino acids from readily available β -hydroxyamino acids.

Comment: Cyclic sulfamidites, derived from readily available β -hydroxyamino acids, are efficient substrates for the stereoselective synthesis of α , β -dehydroamino acids. The developed method was used in a synthesis of the tripeptide side chain of phomopsin A.

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