J. Chem. Soc. C 1971, 2890-2896, DOI: 10.1039/j39710002890.

Category

Key words

assistance

peptide bond formation

pyridyl thio esters

Peptide Bond Formation by Using 2-Pyridyl Thio Esters

Amino-Acids and Peptides. Part XXXIV. Anchimerically Assisted Coupling Reactions: The Use of 2-Pyridyl Thiolesters

dioxane, 60 min

83% yield

Significance: Anchimerically assisted coupling methods have been used in peptide synthesis. These reactions usually start from active esters, such as 8-hydroxyquinoline esters or o-methoxyphenyl esters. In 1971, Lloyd and Young reported a method that used active 2-pyridyl thio esters and amines to form peptide bonds with anchimeric assistance.

dioxane, 60 min

89% yield

Comment: With the 2-pyridyl thio esters, various dipeptides can be synthesized without the use of classical peptide-coupling reagents. The yields of the target peptides are moderate to excellent, and the reaction time is short.

dioxane, 60 min

85% yield

SYNFACTS Contributors: Hisashi Yamamoto, An Wu Synfacts 2021, 17(04), 0469 Published online: 18.03.2021 **DOI:** 10.1055/s-0040-1706150; **Reg-No.:** H01421SF