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Thematic Course: Kinetics and mechanism of acyl transfer reactions. Part 5.

Dipeptides and amino acids reactivity in sulfamide bond formation processes

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Abstract

The kinetics of reactions of α - and β -alanine, dipeptides on their basis, glycile-glycine, L-proline and Lasparagine with chlorides of benzenesulfonic, 3-nitro benzenesulfonic and 4-methyl benzenesulfonic acids is studied in the solvent water-1,4-dioxane. Correlations are established between amino acids and dipeptides arensulfonylation rate constants and rate constants of their interaction with carbonyl compounds: benzovl chloride and picryl benzoate, pointing out the amino acids and dipeptides amino groups basicity as the main factor which determine their nucleophilic reactivity.