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S- to N-Acyl transfer in S-acylcysteine isopeptides via 9-, 10-, 12-, and 13-membered cyclic transition states

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Abstract

S-Acyl cysteine peptides containing alpha-, beta- or gamma-amino acid residues undergo long-range S- to N-acyl transfer to give analogs of native tripeptides and tetrapeptides containing additional carbon atoms in the chain. The ease of intramolecular S -> N-acyl transfer relative to intermolecular transacylation is favored increasingly for 9- to 13-membered cyclic transition states; the observed order is explained on conformational and intermolecular interaction considerations. Copyright (c) 2012 European Peptide Society and John Wiley & Sons, Ltd.

Keywords

Author Keywords: S- to N-acyl transfer; peptides; cysteine; N-acylbenzotriazoles; S-acylation

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