ABSTRACT

The present invention relates to a method for the synthesis of peptides, peptide mimetics and/or proteins and/or for the selective N-terminal modification of peptides, peptide mimetics and/or proteins, with the steps of:

a) providing an amino component, said amino component having at least one amino acid,

b) providing a carboxyl component, said carboxyl component having a leaving group on the carboxyl group, and said carboxyl component being a compound having at least one amino acid or a compound having at least one label or reporter group,

c) reacting said amino component and said carboxyl component in a reaction medium which has one or more ionic liquids, in the presence of a protease, peptidase and/or hydrolase, to form a peptide bond between the amino component and the carboxyl component with elimination of the leaving group.