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STEREOSPECIFIC ROUTES TO FLUORINATED AMINOACIDS

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Fluorinated Amino acids are of continuing interest as chemotherapeutic and diagnostic agents, and recently also as sensitive tools in modern imaging devices. While many of the fluorinated aromatic amino acids have through the years become available, the preparati of the aliphatic family represents still a major challenge.
In this account an overview will be given of the methods developed for the preparation of fluorinated, aliphatic amino acids , with emphasis on those procedures which are characterized by high stereospecificity. Using selected protecting groups and mild fluorinating agents, both α- and β - amino acids with fluorine substituents at defined locations may now be obtained. The mechanistic aspects of some of these reactions will be discussed , and the application of the novel procedures for the preparation of fluorinated peptide hormones indicated.