

Publication

(4R)- and (4S)-Azidoprolines : conformation directing amino acids and sites for functionalization

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An 'azido gauche effect' determines the conformation of (4S)- and (4R)-azidoproline (Azp) derivatives and affects the s-cis:s-trans conformer ratio of Xaa-Azp bonds. The article summarizes our research on the conformational analysis of monomers as well as oligomers derived from (4S)Azp and (4R)Azp. We show that (4S)Azp and (4R)Azp can be used to tune the stability of the polyproline II (PPII) helix. In addition we demonstrate that Azp containing oligoprolines are attractive molecular scaffolds with a well-defined helical conformation that can be readily further functionalized using e.g. click chemistry.

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