

Sultam and Sultim Structures, Part 5 [1]. Weak Hydrogen Bonds in Molecular Networks of 2-Hetaryl-3-oxosultams in Comparison with 2-Aryl-3-oxosultams

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Dedicated to Professor Gerhard Maas on the occasion of his 60th birthday

Stable 3-oxosultams were synthesized by oxidation of the 2-hetaryl-substituted isothiazolium salts. X-Ray crystal structure analyses of the sultams reveal the existence of strong and weak hydrogen bonds, which lead to different interaction combinations and solid state structures. While the bond lengths and angles in the isothiazol rings of the sultams are similar, the dihedral angles between the isothiazol rings and the hetaryl substituents are influenced by the position of the nitrogen atom in the pyridine ring and its substituents. The sultams form chain structures, dimeric head-to-tail structures or two-dimensional networks.

Key words: Sultams, Intermolecular Hydrogen Bonds