

Carbamoyl Derivatives of a Pyridine-Based Tetraamine

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Dedicated to Professor Ulrich Zenneck on the occasion of his 60th birthday

The reaction of four equivalents of phenyl or *tert*-butyl isocyanate with the pyridine-derived tetraamine $2,6\text{-C}_5\text{H}_3\text{N}[\text{CMe}(\text{CH}_2\text{NH}_2)_2]_2$ in toluene gives high yields of the quadruply ureido substituted products $2,6\text{-C}_5\text{H}_3\text{N}[\text{CMe}(\text{CH}_2\text{R})_2]_2$ [$\text{R} = \text{-NH}(\text{CO})\text{NHPH}$ and $\text{-NH}(\text{CO})\text{NH}^t\text{Bu}$]. Full spectroscopic data for both compounds are given. A single crystal X-ray structure determination of the phenyl derivative reveals an intricate network of both intra- and intermolecular hydrogen bonds involving the C=O and both NH functionalities in all ureido groups.

Key words: Tetrapodal Pentadentate Ligand, Urea, Chelates, Hydrogen Bonding