

Fixation of Neutral Molecules in the Binding Cavity of Nonplanar Porphyrins – A Third Dodecaphenylporphyrin Modification with NH-Solvent Hydrogen Bonding

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A third crystalline modification of dodecaphenylporphyrin is described in which the pyrrole nitrogen atoms are hydrogen-bonded to two ethanol molecules. This is the first crystallographic proof for the accessibility of nitrogen atoms in saddle-distorted free base porphyrins for hydrogen bonding. No such coordination is possible in either planar or ruffled porphyrins. Thus, the possibility exists to utilize conformationally distorted porphyrins for the binding of neutral molecules.