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**Space Group Frequencies of Hydrogen Bonded Networks.** Joseph W. Lauher, Dept. of Chemistry, State Univ. of New York, Stony Brook, NY 11794 USA.

Crystal engineers and supramolecular chemists have achieved remarkable success in designing and preparing crystalline hydrogen bonded networks. These supramolecular constructs differ from normal molecules because they have one, two or three degrees of translational symmetry. Each network has its own symmetry group designation. A one-dimensional  $\alpha$ -network can be described by its rod group symmetry. A two dimensional  $\beta$ -network can be described by its layer group symmetry. A three dimensional  $\gamma$ -network can be described by its space group symmetry. In each case the symmetry group of the network must be a subgroup of the space group of the crystal. This requirement restricts the possible space group of any crystal that contains a given network. Software has been written to identify hydrogen bonded networks within the structures of the Cambridge Structural Database. The dimensionality of each network was determined and the appropriate rod, layer or space group was assigned. The results for each network were then correlated with the space group of the original crystals. Using this data new space group frequency tables have been constructed for crystals containing hydrogen bonded networks. Some significant differences are found when the numbers are compared to the standard frequency tables found for all organic molecules.