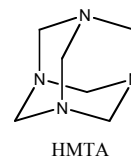


W0379

**Cocrystallization Tendencies of Hexamethylenetetramine.** K.A. Wheeler, P. Daka, Dept. of Chemistry, Eastern Illinois Univ., Charleston, IL 61920 USA.

The controlled construction of multimolecular arrays has progressed over the last several years due in part to our improved understanding of non-bonded contacts. The extension of these efforts to cocrystalline systems is a current topic of interest that frequently follows the rational selection of fundamental components with complementary molecular features. Although studies in this area effectively produce predictable low dimensional molecular assemblies with discrete and 1D motifs, extending these patterns to yield 3D supramolecular frameworks has proven to be a challenging task.

In many ways hexamethylenetetraamine (HMTA) is a model candidate for use in cocrystallization studies. The hydrogen bond ability and tetrahedral arrangement of the four tertiary nitrogen atoms provides attractive features that could, in principal, form extended molecular architectures via cocrystallization with various donor molecules. Inspection of the Cambridge Structural Database (CSD) reveals a diverse collection of structure with HMTA/donor assemblies; even so, very few involve all HMTA nitrogen atoms in non-bonded contacts.



This paper reports on the utility of HMTA as a functional building-block for controlled cocrystallization studies. The combination of both crystallographic studies of new HMTA/donor complexes and data retrieved from the CSD suggests important supramolecular tendencies.