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Ditopic Ligands in A World Where Discrimination is Desirable: Studies in Organic Cocrystal Syntheses.

Christer B Aakerøy, John Desper, Michelle Smith, Dept. of Chemistry, Kansas State Univ., Manhattan, Kansas 66502.

A series of ditopic ligands have been synthesized equipped with two different hydrogen bond acceptor sites. These two sites are subtle in their differences, being geometrically similar, but electrostatically very different. In order to answer the question as to whether it is possible for a hydrogen bond donor such as a carboxylic acid or an oxime to be able to distinguish between, and hence discriminate against, one binding site over the other, cocrystallization experiments, X-ray crystallography, and a series of electrostatic surface potential calculations have been performed and are employed as tools in the study of these supramolecular reagents.

