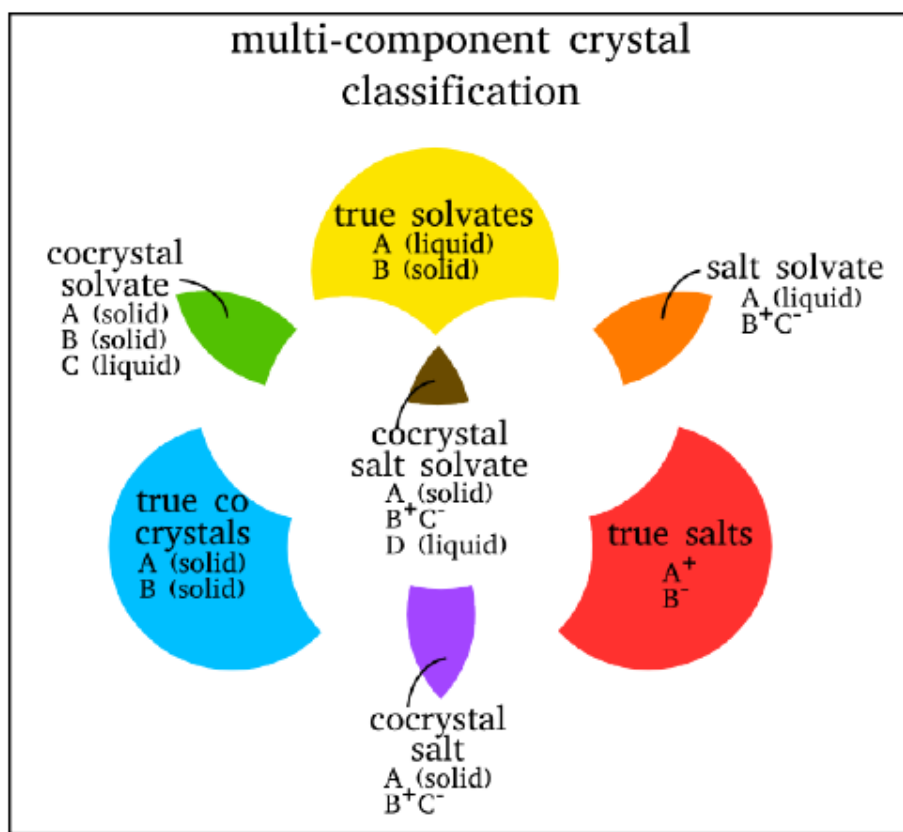


Seminar Friday 2019/12/20 at NTU

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“Multi-Component Molecular Crystals: Diversity, Complexity, Threats and Opportunities”.

The vast set (virtually infinite) of organic compounds leads to a diversity of their packing in the solid state. From the three classical families: Salts – Cocrystals - Solvates, more complex associations can be found by mixing two by two those three types. The recent classification by Grothe et al. (CGD 2016, 16, 3237–3243; see the schematic representation below) is an attempt to categorize this diversity.



Unfortunately, there are more possible associations between partners than this classification accounts for. Clathrates, Host-Guest associations and other oddities have to be considered as well.

Screens of these associations (likewise polymorphism) are usually performed with particular aims but successes in finding the 'right' phase (i.e. for: resolution, purification, opto-electronic, cosmetic, bioavailability, energetic, ... properties) can turn to be a disaster if actually this phase disappears. Some examples regarding those threats will be given.