

MS36-P141 | MULTICOMPONENT CRYSTALS OF 2,2'-BIPYRIDINE WITH ALIPHATIC DICARBOXYLIC ACIDS: STRUCTURE-PROPERTY CORRELATIONS

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Co-crystallization as a form of crystal engineering has been successfully employed in the preparation of pharmaceutical cocrystals with improved physical and chemical properties. Structure-property studies form a very important part of pharmaceutical co-crystal research. For example, the relationship between the supramolecular structure of a pharmaceutical co-crystal and some of its physical properties is not yet fully understood. The focus of this study is to investigate the relationship between melting point and the supramolecular structure of six model co-crystals of aliphatic dicarboxylic acids with 2,2'-bipyridine. The co-crystals were prepared by the solvent evaporation method and characterized using single crystal X-ray diffraction (SCXRD), powder X-ray diffraction (PXRD) and differential scanning calorimetry (DSC). The crystal structures were further analysed using Crystal Explorer and the results correlated with the melting points. The relationship between melting points and supramolecular structures is discussed.