

## Poster Presentation

MS67.P08

### *Novel solid forms of the analgesic drug ethenzamide*

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The interest in multicomponent solid forms has increased in the last years within the pharmaceutical industry and also the solid-state community due to the possibility of obtaining materials with new properties [1]. Crystallization strategies, supported by solvent- and solid-based techniques, have also received attention in the search and development of methodologies for the screening of multicomponent crystals. In this work, ethenzamide, an anti-inflammatory and analgesic drug, was selected as a model drug to develop cocrystals on the basis of the synthon types using a series of phenolic cofomers. Ethenzamide cocrystals and cocrystal solvates have been reported recently [2,3]. Liquid Assisted Grinding (LAG) and solution methods were used as synthetic tools. Attempts to produce cocrystals by LAG and Reaction Crystallization led to the formation of polycrystalline material. The solids obtained were then characterized by powder X-ray diffraction (PXRD), FT-IR and Raman spectroscopy. Recrystallization by slow solvent evaporation was carried out when the above-referred techniques strongly suggest the formation of a new solid form. The structure of five new multicomponent solids has been determined by single crystal X-ray diffraction. Additional stability studies have been performed at controlled relative humidity conditions and followed by PXRD.

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**Keywords:** cocrystals, ethenzamide