

MS36-P130 - LATE | COCRYSTALS OF CYCLOPENTYLAMINE WITH ALCOHOLS. SYNTHESIS AND STRUCTURAL STUDIES.

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Cyclopentylamine is a primary aliphatic amine, containing five carbon atoms ring. There has been known a number of structures containing cyclopentylamine mostly in cationic form as salts or as neutral ligand. However, up-to-now there has been reported only one hydrate with 1:1 water:amine stoichiometry [1]. The aim of the work was to crystallize and determine structures cocrystals containing cyclopentylamine with the following alcohols: methanol, ethanol, isopropanol, cyclopentanol and cyclohexanol. Because all these compounds, including also amine, are liquids at room temperature and ambient pressure, samples suitable for single crystal X-ray diffraction experiments were grown using IR laser assisted *in situ* method [2]. All of the obtained cocrystals crystallize in the *P* space group with the molecules arranged in ribbons with the same motif of hydrogen bonds present. Such reproducible behaviour towards alcohols makes cyclopentylamine very useful structural agent leading to similar and well defined 1D hydrogen-bonded networks.

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[1] D. R. Allan, "Cyclopentylamine monohydrate", *Acta Cryst.*, 2006, E62, o1064-o1066.

[2] R. Boese, "Special issue on In Situ Crystallization", *Z. Kristallogr.*, 2014, 229, 595-601.