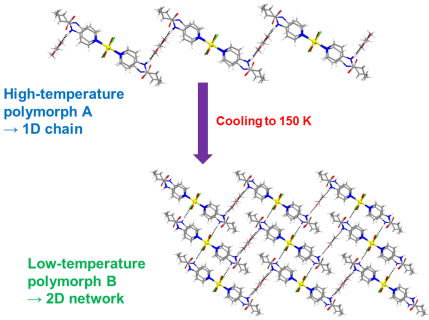

Figure 1. SCSC transformation of high-temperature polymorph A of $[Cd_2Cl_4(4\text{-Propy})_6](CH_3CH_2COO)_2$ (1) into low-temperature polymorph B by cooling to 150 K

Keywords: single-crystal-to-single-crystal transformation, polymorph, cadmium(II) trimer

MS32-P10 Polymorphism, what it is and how to identify it.

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Polymorphism is a very important phenomenon not only in basic research, but certainly in pharmaceutical industry and materials science. Polymorphs possess different properties, for instance the solubility or the mechanical resistance can differ dramatically from one polymorph to the other – properties which can be crucial for their application. Hence, it is important to be able to control the formation of polymorphs and to understand their formation. We here gave some insights into the basic knowledge of polymorph formation and their identification and characterization in order to give an overview on the current state of the art. In order to give interested peoples a tool in hand to test their compounds for polymorphism, we established a series of flow sheets to follow, depending on the class of compounds, hoping that they are useful for many scientists who are not so well acquainted with polymorphism. The presented schemes resume thus the identification steps for polymorphs. It should also help to use the term polymorph correctly in order to reduce the number of publications in which this term is not used in a correct way.

References: J-P. Brog, C-L. Chanez, A. Crochet, K. M. Fromm, *RSC Adv.*, **2013**, 3, 16905-16931.

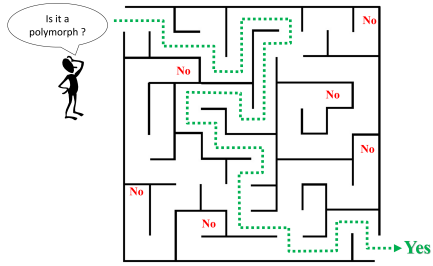

Figure 1.

Keywords: Polymorphism, organic, organometallic, inorganic.