## **DGK conference 2022**



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## Determination of the crystal structure of magnesium stearate hydrate using micrometre size single crystals

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Crystalline magnesium stearate has been extensively used in pharmaceutical and other industries for decades. However, its crystal structure was not known. We present here the structure of the magnesium stearate trihydrate as determined from X-ray diffraction data of a micron-size single-crystal measured at a 4th generation synchrotron facility. Despite the small size of the single-crystals and the weak diffraction, it was possible to reliably determine the positions of the non-hydrogen atoms.

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