

Polyoxometalate crystals exhibiting twinning by merohedry**Tomoji Ozeki***Nihon University, Tokyo, Japan;**ozeki@chs.nihon-u.ac.jp*

Twinning prevents straightforward crystal structure analyses. Especially, for twinning by merohedry, the existence of the twinning can never be detected during the measurement. Although this kind of twinning is not a rare case for simpler crystals, a typical example of which is the Dauphine law twin of quartz, twinning by merohedry observed in the crystals of more complex compounds has been less commonly known. We have recently analyzed crystals of polyoxometalates and related compounds that show twinning by merohedry. Examples include a series of compounds of $\text{SiW}_{12}\text{O}_{40}^{4-}$ with lanthanide elements that crystallize in the space group type $P4_2/m$. Another example is a crystal of a silver coordination compound that crystallizes in the space group type of $I4_1/a$. Details of the analyses of these crystal structures will be presented.

Keywords: polyoxometalate twinning

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