

Geowissenschaftliches Kolloquium

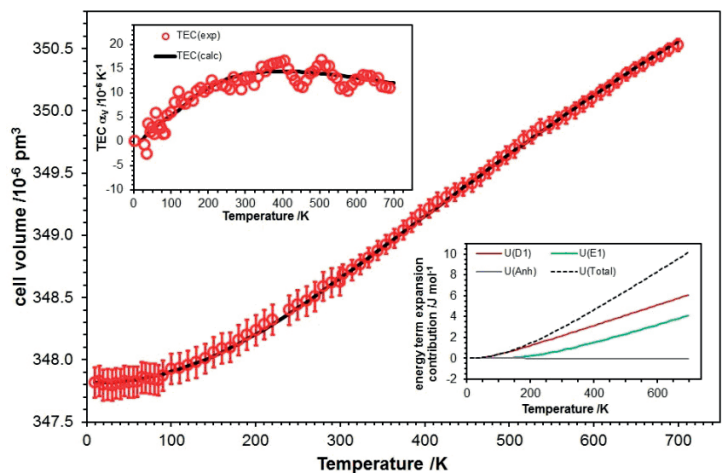
Properties and structural complexity of mullite-type compounds

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Mullite-type compounds are defined as oxides formed by a one-dimensional octahedral chain (parallel to the crystallographic c-axis) not connected by additional octahedrally coordinated atoms. The famous property of mullite is its high-temperature stability in combination with a very small thermal expansion coefficient which makes this material suitable as heat-shielding in space crafts.

Three different chemical groups of mullite type compounds named after their oxygen content as O₈-, O₉, and O₁₀ compounds will be discussed with respect to their properties.



Prof. Dr. Thorsten M. Gesing studied chemistry at the University Münster where he stayed also for his PhD thesis in solid state chemistry until 1995. As Post-Doc he went to the crystallography group of Prof. Buhl in Hannover where he finished his habilitation in 2000. After several guest lectureships at Dhaka university he came to Bremen in 2008 to work with Prof. Fischer. In 2011 he received a call as Heisenberg Professor for solid state chemical crystallography at Bremen University.

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