



Contribution ID: 105

Type: **Talk**

Influence of radiation damage on the crystal structure of monazite

Wednesday, 16 March 2022 15:50 (20 minutes)

Understanding the structural change caused by radiation damage is an essential element in the development of strategies for the safe disposal of radioactive waste. For this purpose, monazite crystals of different chemical composition were synthesized and irradiated with 1.7 GeV Au ions to simulate the radiation damage caused by radioactive decay. Subsequently, the single crystals were characterized by Raman spectroscopy, secondary electron microscopy and single crystal X-ray diffraction.

Primary authors: MARQUARDT, Julien (Goethe Universität Frankfurt); BAYARJARGAL, Lkhamsuren (Goethe-Universität Frankfurt am Main); HAUSSÜHL, Eiken; TRAUTMANN, Christina; PETERS, Lars (Institute of Crystallography, RWTH Aachen University, Germany); WINKLER, Björn (Goethe-Universität Frankfurt am Main)

Presenter: MARQUARDT, Julien (Goethe Universität Frankfurt)

Session Classification: Solid State and Materials Chemistry II

Track Classification: Main conference: Structure property relationships