



Contribution ID: 65

Type: Poster

Negative thermal expansion, thermodynamic properties and temperature dependent Raman scattering of a new metal-organic perovskite framework $[\text{C}(\text{NH}_2)_3][\text{Ca}(\text{HCOO})_3]$

Tuesday, 15 March 2022 16:17 (1 minute)

We will present the synthesis, crystal structure, thermal expansion, Raman spectra and heat capacity of Ca-guanidinium formate ($[\text{C}(\text{NH}_2)_3][\text{Ca}(\text{HCOO})_3]$), a new member of the family of metal-organic perovskites. Ca-guanidinium formate shows an extraordinary strong negative thermal expansion between 100 K and 400 K within the crystallographic (001) plane. Perpendicular to this plane, along a_3 , the crystal structure expands with increasing temperature very strongly.

Primary authors: HAUSSÜHL, Eiken; BAYARJARGAL, Lkhamsuren (DGK); Dr FRIEDRICH, Alexandra; Mrs LUCHITSKAIA, Rita; Mrs BÜSCHER, Julia

Presenter: HAUSSÜHL, Eiken

Session Classification: Postersession

Track Classification: Main conference: Solid State Physics and Crystal Physics