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【115】Murunskite: A Bridge Between Cuprates and Pnictides

Tuesday 5 September 2023 18:00 (15 minutes)

Exploring novel materials as the candidates for unconventional superconductors can help to understand the mechanism of this exotic phenomenon but also lead to synthesis of compounds with important technological applications. The main compound of interest is murunskite, a material isostructural to iron-based superconductors with iron and copper occupying the same crystal site. I will discuss the synthesis methods of single crystals and measurements of structural, electronic and magnetic properties. [1]
Murunskite structure has been successfully altered by substitution and doping on all three crystallographic positions. Effects on the electronic and magnetic properties towards the metallization will be discussed.

References
[1]. D. Tolj, et al. Appl. Mater. Today **24**, 101096 (2021).

Theoretical Work

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