



Contribution ID: 445

Type: **Poster**

## Spin Reorientation and Rare-earth ordering in Rare-earth Orthoferrites and Orthochromites

*Monday, 20 March 2023 16:00 (2 hours)*

Temperature-induced spin reorientation in orthoferrites ( $\text{RFeO}_3$ ) and orthochromites ( $\text{RCrO}_3$ ) has recently attracted a lot of attention because of its various potential applications. Spin reorientation in these oxides can be utilized to design functional devices like magnetic switches, magnetic read/write heads, etc.

This work presents the results of spin reorientation and rare-earth ordering in rare-earth orthoferrites and orthochromites. The magnetic structure of different orthoferrites and orthochromites has been analyzed using neutron diffraction measurements. Role of Fe(Cr)-Fe(Cr), R-Fe(Cr), and R-R exchange interactions is identified to understand the complex magnetic structures.

**Primary author:** MALIK, Vivek (Indian Institute of Technology Roorkee)

**Presenter:** MALIK, Vivek (Indian Institute of Technology Roorkee)

**Session Classification:** Poster Session MONDAY

**Track Classification:** Magnetism, Superconductivity, Topological Systems, Magnetic Thin Films and other electronic phenomena