I8: Magnetism of manganite perovskites

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Perovskites are materials with the same type of crystal structure as calcium titanium oxide $CaTiO_3$. Their physical properties can be exploited for different applications. For example, halide perovskites are used in optoelectronic and for photovoltaic applications [1], while oxide perovskites are proposed for memristive devices [2] or as fuel cells [3]. Manganite perovskites show interesting magnetic properties due to mixed-valence manganese ions in the structure. Magnetic properties of $LaMnO_3$ and $LaMnO_3$ doped with calcium and strontium will be presented [4]. As the temperature of the magnetic phase transition (Figure 1) can be finely tuned around the room temperature by the concentration of dopant ions, the material has been proposed for magnetic refrigeration and for infra-red radiation detection.

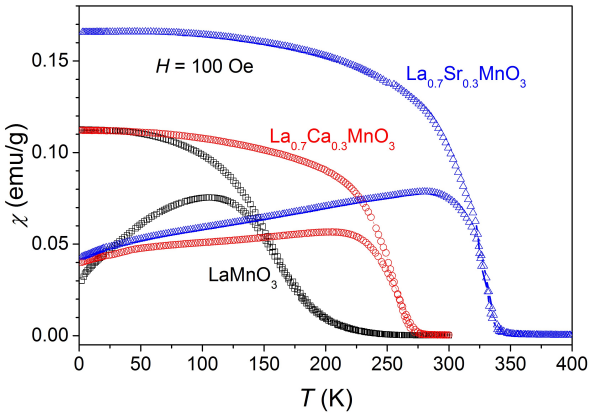

Figure 1 Zero field cooled and field cooled susceptibility measured in 100 Oe.

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[2] N. Hussein et al. *Adv. Funct. Mater*. **24** (2014) 6741.
[3] Y. Zhou et al. *Nature* **534** (2016) 231.
[4] G. Branković et al. *Adv. Appl. Ceram.* **108** (2009) 267.