

**Characteristic of a Magnetocaloric Refrigerator
with New Magnetocaloric Materials**

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The aim of this study is a practical use of a cooling technology by a magnetocaloric effect for air conditioners of railway vehicles in order to save energy. New magnetocaloric materials which have larger magnetocaloric effect compared with Gd have been developed in the region of room temperature. Nevertheless, it has not been discussed so much how the new materials affect properties of a magnetocaloric cooler system. Therefore, characteristics of the cooling system with Gd and La $(\text{Fe}_{0.84}\text{Co}_{0.06}\text{Si}_{0.10})_{13}$ have been studied experimentally and analytically.