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MgZn₂-type {Ho, Er, Tm}FeGa rare earth compounds: crystal structure and magnetic properties

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Abstract

The crystal structure of new hexagonal MgZn₂-type {Ho, Tm}FeGa compounds (space group *P*6₃/*mmc*, N 194, *hP*12) has been established using powder X-ray diffraction studies. The magnetic properties of polycrystalline MgZn₂-type ErFeGa compound have been studied using bulk magnetization data. ErFeGa exhibits ferromagnetic ordering at $T_C = 77$ K and field sensitive antiferromagnetic-like ordering at $T_m \sim 58$ K in field of 100 Oe and $T_m \sim 10$ K in field of 5 kOe. The

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