

Magnetic properties of high pressure torsion ferromagnetic 4-*f* elements: Er and Ho

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As it shown in [1], severe plastic deformation has a great effect on magnetic properties of 4-*f* elements. In this work we report the influence of high pressure torsion on magnetic, structural and thermodynamic properties of Er and Ho samples treated with the help of HPT technique. High pressure torsion was performed under 5 GPa with 5 complete turns at room temperature. This feature is helpful for designing novel magnetic materials (especially hard magnetic materials). Special accent is made for modifying magnetic anisotropy of the HPT treated Er and Ho metals.

References:

[1] S. V. Taskaev, M. D. Kuz'min, K. P. Skokov, D. Yu.Karpenkov, A. P. Pellenen, V. D. Buchelnikov and O. Gutfleisch, *JMMM* **331**, 33 (2013).

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