

Multitechnique characterization of selected R - T magnetic nanomaterials synthesized by HEBM

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Nowadays rare earth based magnetic nanopowders prepared by high energy ball milling (HEBM) are widely studied. A variety of applied HEBM parameters lead to the modification of microstructure and magnetic properties simultaneously. Multitechnique characterization of selected R - T magnetic nanopowders synthesized by HEBM with comparison to their bulk parent compounds will be presented. The significant influence of milling duration on the final size and shape of as-milled crystallites/particles as well as the evident enhancement of coercivity and its variation over applied milling time will be demonstrated.