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Investigation of strain-induced magnetization change in ferromagnetic microparticles

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Abstract

This work is devoted to investigation of magnetoelastic strain effect on the ferromagnetic microparticles of permalloy. An original method of sample fabrication with compressed microparticles is proposed. Magnetic force microscopy and magneto-optical Kerr experiments were carried out with unstrained and compressed microparticles. The domain walls transformation in compressed microparticles is in good agreement with numerical calculations. Hard axis of magnetization was observed on the compressed sample.

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