CYCLING OF Ni-Mn-Ga BY MAGNETIC FIELD AS A METHOD OF FERROMAGNETIC SHAPE MEMORY ALLOYS TRAINING

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The dependence of deformation of Ni-Mn-Ga polycrystals versus temperature and magnetic field is investigated. Ingots were prepared by arc-melting of high-purity initial elements in argon on a cold bottom. The ingots were being annealed at 1100 K for 9 days. A training procedure (cycling across the martensitic transition point) for the two-way shape memory effect was performed with $Ni_{2.16}Fe_{0.04}Mn_{0.80}Ga$ samples. Changes in samples deformations were noticed with changing the field at constant temperature. The first cycle deformation increment as compared with the initial value (in austenitic state, at zero field) in the course of the martensitic transition was 0.21%, and 0.31% and 0.37% for the second and third cycles respectively.

5. Phase Transitions and Critical Phenomena
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