

**Influence of plastic deformation on magnetic transition
in soft magnetic amorphous alloys**

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The influence of the intensive plastic deformation on the structure of ferromagnetic amorphous alloys has been studied by means of thermoanalytical methods. It was shown, that the work of plastic deformation leads to the local heating in thin shear band layer and the dissipation of the energy causes structural changes in the region around these bands. The magnetic properties of these alloys are structural sensitive, therefore the plastic deformation influences the structural sensitive magnetic properties. In the addition, the fractographic observations of fractured surfaces have shown the manifestation of high local heating in the shear bands volume and the influence the mechanism of failure of these materials and the fracture surface morphology.

9.7 cm

13.4 cm

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