

# Nanoobjects microscopy

## Structural and magnetic properties of Gd-Fe films

**V.I. Prisyazhnyuk, O.G. Mykolaychuk**

*Departments of Metal Physics, Faculty of Physics, Ivan Franko National University of Lviv, Kyrylo and Mefodiy St., 8, Lviv-79005, Ukraine.*

*Web: <http://physics.lnu.edu.ua/department/fizyky-metaliv>*

*E-mail: prysjan@i.ua*

Electron diffraction examinations of structure of films of Gd-Fe system specify that the given films are condensed in amorphous-crystalline state. Structure formation essentially depends on requirements of condensation of films. Substrate rise in temperature leads to magnification of a polycrystalline phase [1].

It is known that the given compounds belong to the class soft magnetic material. We had been spent measurements of some magnetic performances of films and massive samples of Gd-Fe system. Hysteresis curves and numerical values of a coercive force are gained for massive and thin films samples. For this samples the Curie temperature also is determined. Influence of formation of a polycrystalline phase on absolute value of a coercive force is studied. Temperature dependences of magnetic saturation and curve magnetisations for films and compounds of Gd-Fe system are gained [2-4].

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