

Films solid solution based on Fe and Ge as elements of microelectronics

In work the structure, phase composition and magnetoresistive properties of three-layer films based on Fe and Ge were investigated. Established in them with a total concentration of Ge atoms from 5 to 20 at.% at the temperature range 300 - 870 K is the formation of a dilute solid solution of Ge atoms in the layers of Fe, which does not substantially affect the value of the magnetoresistance and is related to the diffusion of Ge atoms in lattice α -Fe, decreasing the efficiency of the exchange interaction Fe atoms and disorder domain structure.

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