MAGNETIC CHARACTERISTICS OF THE SYSTEM OF EXCHANGE COUPLED LAYERS

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The interlayer exchange coupling of ferromagnetic transition metal layers through nonmagnetic spacer has been intensively studied over the last decade. In comparison, little work was devoted to the magnetic characteristics of such systems. In presented contribution the temperature dependence of magnetizations and their distributions in constituent layers is investigated by means of Green function method. It is shown that the enhancement of the Curie temperature of the system is related to the absolute value of the interlayer coupling parameter. The dependence of the spin wave stiffness parameter and magnetization distribution across the layer on the thickness of nonmagnetic spacer has been also found. The influence of surface and interface anisotropy on the investigated characteristics as well as the case of different thicknesses of ultrathin constituent layers is discussed in detail.

9.7 cm

13.4 cm

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