9.7 cm

INTERLAYER COUPLING IN MAGNETIC SUPERLATTICES WITH ELECTRON DENSITY INHOMOGENEITIES

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We discuss the influence of spatial inhomogeneities of the free electron density on the magnetic interaction between magnetic layers of the superlattice, mediated across non-magnetic, metallic specer. Using the modified total energy approach, we prove that the TM or RE superlettices the additional scattering of free electrons on magnetic ion multipole moment increases the ferroquadrupolar biquadratic coupling between magnetic layers. We show that this novel mechanism, should manifest itself in the anisotropy of the magnetoresistivity.

13.4 cm

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