

SPIN -MIXING INTERFACE CONTRIBUTION TO MAGNETORESISTANCE IN TRILAYER

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We discuss the transport properties of trilayer $A(n)/A_cB_{1-c}/B(p)/A_cB_{1-c}/A(n)$ including the structure with two mixed interfaces $A_cB_{1-c}(S^A = 1, S^B = 1/2)$ for arbitrary concentration c of A-spins. The existence of enhanced or diminished interface magnetism leads to a strong inhomogeneity of the potential in the interface region. The complex interface potential behaviour constitutes the additional source of electron scattering at the interface and contributes significantly to GMR-effect in trilayer. The matching conditions for electron distribution functions as well as the value of the magnetoresistance are presented. The obtained results are compared with those of different model results accessible in literature.

13.4 cm

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9.7 cm