

SPIN-DEPENDENT ANDREEV-REFLECTION PROCESSES IN HYBRID FERROMAGNET-SUPERCONDUCTOR BILAYERS

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Abstract

Coherent spin polarized transport across proximitized ferromagnet-superconductor and superconductor-ferromagnet bilayers has been studied. Using the scattering-like approach, we have calculated probabilities of spin-dependent Andreev-reflection processes in multilayered structures formed by a normal counter-electrode, a potential barrier and a hybrid bilayer. Related experiment aimed to reveal correlation between the two long-range-order phenomena through their coupling at the hybrid interface is proposed.

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