Effects of triplet pairing amplitudes in hybrid junctions of superconductor, ferromagnet, and normal metal. NA YOUNG LEE, HAN-YONG CHOI, HYEONJIN DOH — We calculate the critical temperature $T_c$ and pairing amplitude of the hybrid junctions of superconductor (S), ferromagnet (F), and normal metal (N) by solving the Usadel equation in the dirty limit. S is a conventional singlet s-wave superconductor like Nb. The interface between S and N is modeled in terms of the interface resistance without the spin flips, while the interface between F and S or F and N is modeled by both the interface resistance and spin flip scatterings, parameterized by, respectively, $\gamma_b$ and $\gamma_m$. The spin flip scatterings induce the triplet pairing components from the singlet component. The $T_c$ of the junction is determined by the critical order parameter, i.e., the singlet pairing component. The $\gamma_b$ or $\gamma_m$ changes the $T_c$ of the junctions indirectly by altering the singlet component by modifying the boundary conditions at the interfaces. We calculate the $T_c$ and pairing amplitudes of S/N/F and F/S/F trilayers including $\gamma_b$ and $\gamma_m$ and investigate the effects of the triplet pairing components on the $T_c$ and pairing amplitudes of the trilayers.

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