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Quasi-elastic knock-out of the nucleon from short-range correlated NN pair in the reaction $^{12}\text{C}(p,2pN)^{10}\text{A}$

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Theoretical model of the reaction $^{12}\text{C}(p,2pN)^{10}\text{A}$ is developed in the plane wave approximation assuming pole mechanism of quasi-elastic knock-out of the nucleon from the short-range correlated (SRC) NN-pair. Spectroscopic factors for two nucleons in a definite spin (S) and isospin (T) states in the ^{12}C nucleus are calculated within the translationally-invariant shell model. High momentum part of the internal wave function of the NN-pair is replaced by the realistic wave function of the deuteron ($ST = 10$) or singlet (1S_0) deuteron ($ST = 10$). Numerical calculations for distributions over momentum of the nucleon spectator and c.m. momentum of the NN-pair are performed at proton beam energy 4 GeV.

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