CROSS SECTIONS OF THE ³H(d, ³He)nn REACTION AT THE DEUTERON BEAM ENERGY 37 MeV

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Inclusive ³He spectra and differential cross sections of the ³H(d, ³He)nn reaction measured at the deuteron beam energy of 37 MeV are presented. The shape of the inclusive ³He spectra can be reproduced by using a model that takes into account neutron - neutron Final State Interaction, Sequential Decay of the ⁴He* resonance ($E_x = 21,2$, $\Gamma = = 0,7$ MeV) and an interference of resonant amplitude and Watson - Migdal as well. Thus this way differential cross sections of the ³H(d, ³He)nn reaction followed by appearance of singlet nn pairs and angular distribution of singlet dineutrons are obtained. The results are compared to the supermultiplet potential model of the lightest nuclei interaction.