

17. CALCULATION OF THREE-BODY REACTION KINEMATIC AND DATA PROCESSING BY USING MONTE-CARLO METHOD

O. M. Povoroznyk

Method of calculation of the three-body reaction kinematic and treatment procedure of two-dimensional coincidence spectra for kinematically-complete investigation of the three-body reactions by using Monte-Carlo method is developed. Two-dimensional tt-coincidences spectra obtained from experimental research of three-body ${}^3\text{H}(\alpha, \text{t})\text{p}$ reactions for studies of the excited states of ${}^4\text{He}$ with a t + p cluster structure are analyzed by these approaches. The excitation energies and widths for four lowest excited states of ${}^4\text{He}$ are found.