

1. ENERGY DEPENDENCE OF THE ${}^7\text{Li} + {}^{16}\text{O}$ INTERACTION

A. A. Rudchik, A. T. Rudchik, K. W. Kemper, V. M. Kyryanchuk, O. A. Ponkratenko

Data of the ${}^7\text{Li} + {}^{16}\text{O}$ elastic and inelastic scattering at $E_{\text{c.m.}} = 6.26 - 34.78$ MeV were analyzed within the optical model (OM) and coupled-reaction-channels method. The elastic and inelastic scattering as well as the reorientation of ${}^7\text{Li}$ were included in the coupled-channels-scheme. The contributions of the ${}^7\text{Li}$ reorientation to the elastic scattering data was estimated. The energy dependence of the ${}^7\text{Li} + {}^{16}\text{O}$ OM parameters was deduced. The dispersion relation between the real and imaginary parts of the OM potential was taken into account.