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**ENERGY DEPENDENCE OF THE ${}^6\text{Li} + {}^{16}\text{O}$ SCATTERING
AND ISOTOPIC DIFFERENCES BETWEEN POTENTIALS OF THE ${}^{6,7}\text{Li} + {}^{16}\text{O}$ INTERACTIONS**

Experimental data of the ${}^6\text{Li} + {}^{16}\text{O}$ elastic scattering at $E_{\text{c.m.}} = 3.27 - 36.8$ MeV known from literature, were analyzed within the optical model and coupled-reaction-channels method. The ${}^6\text{Li} + {}^{16}\text{O}$ elastic and inelastic scattering as well as the reorientation of ${}^6\text{Li}$ and simplest transfer reactions were included in the coupled-channels-scheme. The ${}^6\text{Li} + {}^{16}\text{O}$ potential parameters at different energies as well as their energy dependence were deduced accounting dispersion relation between real and imaginary parts of the potential. Contributions of the ${}^6\text{Li}$ reorientation and transfer reactions to the ${}^6\text{Li} + {}^{16}\text{O}$ elastic scattering data were estimated at different energies. Real part of the ${}^6\text{Li} + {}^{16}\text{O}$ deduced potential and the ${}^6\text{Li} + {}^{16}\text{O}$ folding-potential are compared. The isotopic differences between the ${}^6\text{Li} + {}^{16}\text{O}$ and ${}^7\text{Li} + {}^{16}\text{O}$ were studied.

Keywords: heavy-ion elastic scattering, optical model, coupled-reaction-channels method, folding-model, spectroscopic amplitudes, optical potentials, reaction mechanisms.