

## **Analysis for ${}^6\text{Li}+{}^{12}\text{C}$ elastic scattering using different potentials**

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Experimental angular distributions for the elastic scattering of  ${}^6\text{Li}$  projectile on a  ${}^{12}\text{C}$  target have been re-analyzed in the energy range 4.5- 60 MeV. The projectile-target optical potential was calculated phenomenologically with optical model (OM) of Woods-Saxon (WS) potential shape for real and imaginary parts and semi-microscopically using both of double folding approach based on energy dependent São Paulo potential (SPP) and double-folding cluster (DFC) potential. The generated cluster folding potentials is based on the ( $\alpha$ -d) structure of  ${}^6\text{Li}$ . The theoretical calculations using the different concerned potentials reproduce fairly well the experimental data in the whole energy range.

**Primary author:** AMER, Ahmed (National Research Nuclear University "MEPhI")

**Presenter:** AMER, Ahmed (National Research Nuclear University "MEPhI")

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