

On the $K^+ - {}^6\text{Li}$ Elastic Scattering

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Abstract: Total and differential cross sections for $K^+ - {}^6\text{Li}$ elastic scattering are calculated using the folding optical potential model, in which the influence of three factors is considered including the recoil of target nucleus, the loosely bounded nuclear density and the unusual spin of ${}^6\text{Li}$ ground state. The theoretical results are found in pretty good accordance with the existing experimental data at $P_K=715$ MeV/c.

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Key words: recoil effects of target, L-S coupling potential, differential cross sections of $K^+ - {}^6\text{Li}$ scattering

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