

SIMULATION OF DISTORTED WAVES  
FOR THE OPTICAL POTENTIAL  
WITH SPIN-ORBITAL INTERACTION

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S u m m a r y

By means of studying the behavior of a three-dimensional distorted wave generated by the optical potential with spin-orbital interaction, we suggested a convenient analytic parameterization of all its components that approximates fairly well the exact components in a broad region of space, beginning from the energies of several tens of MeV. Methods to find these parameters are suggested directly from the optical potential and experimental data on angular distribution and polarization under elastic scattering and integral cross section. As an example, we consider  $p - {}^{12}\text{C}$  elastic scattering at the energy of 150 MeV. Both methods are shown to lead to practically the same results. Our model functions can be used in studies of the inelastic processes involving polarized protons.