

ON THE PHASE SHIFT PARAMETRIZATION
OF DIFFRACTION HADRON-NUCLEUS
SCATTERING

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S u m m a r y

A method of calculation of nuclear elastic scattering cross sections is proposed for incident hadrons at medium and high energies in the diffraction approximation. This method is based on the using of scattering phase shifts which are evaluated directly from the hadron-nuclear interaction potential in the quasi-classic approximation. The calculations have done for proton-nucleus elastic scattering cross sections from 182 MeV to 1 GeV. We propose the profile function parametrization for small-energy neutrons when the diffraction approach is still correct and evaluate neutron-nucleus elastic scattering cross sections. The calculated angular dependences of cross sections describe satisfactorily the experimental data in the secondary maxima neighbourhood.