

ON A METHOD OF CALCULATION OF CROSS
SECTIONS FOR DIFFRACTION SCATTERING
OF PROTONS IN THE NUCLEAR
AND COULOMB FIELDS

V. I. Kovalchuk, V. K. Tartakovsky

Taras Shevchenko Kyiv National University,
Faculty of Physics
(6, Academician Glushkov Prosp., Kyiv 03127, Ukraine)

S u m m a r y

Within the diffraction approximation, we propose the cross section calculation method for scattering of charged hadrons by nuclei when the nuclear and the Coulomb interactions are taking into account. The method has been used for the description of elastic scattering of relativistic protons from ^{40}Ca , ^{58}Ni , ^{90}Zr , ^{208}Pb . The computed angular distributions of the cross sections fit satisfactorily the experimental data.