

^8B Coulomb dissociation

Ya. Alekseev, N.B. Shulgina

*Dept. of Experimental Physics, Chalmers University of Technology,
S-41296 Göteborg, Sweden*

^8B Coulomb dissociation on the ^{208}Pb target at beam energy about 936 MeV/nucleon has been studied in the eikonal approximation and the first order perturbation for electromagnetic interaction. Three-body ground state wave function of the ^8B has been used in the calculations. The final state wave function has been taken as a pure Coulomb continuum. The $E1$ and $E2$ transitions have been taken into account. The total cross section, longitudinal momentum distributions and energy distribution have been obtained. The model demonstrates a good agreement with the results of other calculations and with experimental data. The model allows to consider ^8B Coulomb breakup to the ground and excited state (429 keV) of ^7Be in a self consistent way.