NEW METHOD FOR CALCULATION OF IMPLANTED IONS DISTRIBUTION. 1. ALGORITHM AND CUMULANTS

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S u m m a r y

A new method of solution of the LSS-equation for the distribution function of total ranges of implanted ions is proposed basing on the obtained integral equation for the first derivations of cumulants and the integral representation of the distribution function. The analytic approximations and numetical solutions for the first six cumulants of some ion-target combinations are investigated. The behavioural pattern of its energy dependence is ascertained. The method has no limitations by the energy of ions. The precision of its calculations is similar to that of the results of statistical model packages, and time of calculation is less by some orders. The possibility of its application for searching for the distribution of projective ranges is emphasized.