

18. MODELING OF IONS TRAJECTORIES IN THE SYSTEM OF IONS SOURCE EXTRACTION

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The PTRACK code, which has been designed at KINR, National Academy of Sciences of Ukraine, is considered. Results of numerical calculations performed by the PTRACK code for optimization of the extractor geometry are discussed. Since the electric field distribution near electrodes is non-linear, one needs to take into account the influence aberration effects on the beam parameters. Therefore, we use a method of particles tracking, which is rather precise for modeling of the beam behavior of the charged particles at low energies. In this case, the equation of motion for macro-particles in the PTRACK code is solved with high accuracy.