

Axial Focusing in Acceleration Gaps of the VINCY Cyclotron, D. TOPREK, REK, Lj. MILINKOVIC, VINCA Institute of Nuclear Sciences, P.O. Box 522, 11001 Belgrade - In this paper we compared analytical and numerical results of axial focusing in the acceleration gaps in the central region of the VINCY cyclotron. In the case of analytical method we consider only the electrical focusing properties of the acceleration gaps. In the case of numerical method we analysed the ion trajectories which include both the electric and magnetic fields data. The electrical field distribution in the four acceleration gaps has been numerically calculated by program RELAX3D. The numerical orbit computations carried out by means of the computer code CYCLONE. the analytical and numerical calculation was done for protons and $h = 1$ mode of acceleration.