

**Cyclic Ion Accelerator with Bending and Focusing by Electrostatic Field,** B. BOGDANOVICH, N. GAVRILOV, A. NESTEROVICH, V. RASSADIN, A. SHALNOV, MEPhI - Calculated parameters of cyclic ion accelerator with separated orbits are presented. The bending of ions is realized by electrostatic field of spiral deflector, located inside duants. The form of deflector electrodes permits to create conditions for sign-alternating electrostatic focusing. The valuation of the installation parameters ensuring stability of the betatron oscillations with synchrotron stability saving oscillations are executed. It is shown, that considering accelerator can successfully be used for ion acceleration up to 10 MeV/nucleon at least. The realization of such installation will allow to decrease the weight and power feeding of bending and focusing system (with respect to cyclotron).