

DEPOLARIZATION RESONANCES IN  
AN ISOCHRONOUS CYCLOTRON U-240

*N.I. Zaika, V.N. Zaika, M.I. Magal*

Scientific Center "Institute for Nuclear Research",  
Nat. Acad. Sci. of Ukraine  
(47, Nauky Prosp., Kyiv 03680, Ukraine)

S u m m a r y

An approach for analysis of the ion beam depolarization in an isochronous cyclotron with three sectors is developed. Conditions of depolarization and limits of disturbing fields for range of ions between  $\vec{H}^+$  and  $^{23}\vec{Na}^{9+}$ , when depolarization resonances do not destroy or destroy a polarization of ions, are identified. Acceleration of polarized ions in an isochronous cyclotron U-240 of the Institute for Nuclear Research of the NAS of Ukraine is considered in detail.