RESIDUAL RADIOACTIVITY OF COPPER INDUCED BY ARGON BEAM IRRADIATION*

A. Fertman, A. Golubev, B. Sharkov, ITEP, 117218 Moscow, Bol.Cheremushkinskaya 25

M. Prokouronov, RIPT, 115304 Moscow, Luganskaya 9

G. Fehrenbacher, R.W. Hasse, I. Hofmann, D.H.H. Hoffmann, E. Mustafin, D. Schardt, K. Weyrich, Planckstr. 1, 64291 Darmstadt

Results of the measurement of the residual radioactivity produced by Argon beam with energies of E = 300,500,800 MeV/u in the copper target are presented. The spatial distributions of residual nuclei along the ion beam trajectory were obtained by measuring the gamma-ray activities of 1 mm thick foils inserted in the target with a high purity Ge detector. Long-time prediction of dose rates around the accelerator equipment is calculated on the base of the experimental data.

* This work performed under the support of INTAS Grant -N.03-54-3588