Isochronous cyclotron U-120M
Status report

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Isochronous cyclotron U-120M is the biggest experimental facility of the Nuclear Physics Institute of the Academy of Sciences of the Czech Republic. The accelerator has been continuously upgraded and now, it can be operated in both negative and positive regimes [1]. The main modernization steps will be shortly outlined together with current R&D activities (i.e. cyclotron mathematical model, beam parameters and trajectories simulations [2]). The basic parameters i.e. energy ranges of the accelerated ions (p, H^-, D^+, D^-, $^3He^{+2}$, $^4He^{+2}$) and their dynamic parameters will be specified together with the survey of the accelerator utilization during the last five years. In a short review, several generations of fast neutron targets and their parameters will be shown [3] as well as the selected targets for production non-commercial radioisotopes on internal [4] and external beams.

[1] J. Štursa *et al*., Proceedings of the 15th Int. Conf. on Cycl. and Appl., 108 -111 (1998)
[2] M. Čihák *et al.,* Biennial Report, Nuclear Physics Institute, 81, (2001- 2002)
[3] P. Bém *et al.*, Fus. Eng. and Design, **75-79,** 829 (2005)
[4] O. Lebeda *et al.,* Applied Radiation and Isotopes **63**, 49 – 53 (2005)