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CRYOGENIC SOURCES OF IRRADIATION

ABSTRACT *In the paper are described cryogenic sources of irradiation, basing on the case of large accelerator system of the Nuclotron, built in JINR in Dubna, Russia. In this device beams of light ions, protons and of heavy ions are accelerated, while their collisions with appropriate targets allow for investigation various nuclear reactions, improving in this way our basic knowledge. On the other side ions irradiation is more and more useful now in medical applications, in therapy of the oncology diseases, especially at anti-cancer therapy. This topic is considered in the paper in more details basing on future, perspective program of using Nuclotron at this aim.*

Keywords: *irradiation, radiotherapy, accelerator, superconductivity*