

MONITORING SYSTEM FOR CONTROL THE IRRADIATION FIELD HOMOGENEITY AT TRACK MEMBRANES PRODUCTION AT CYCLOTRON DC-60 IN ASTANA

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During polymeric films irradiation for track membranes production at heavy ion accelerators, the significant parameter characterizing product quality is spatial track distribution homogeneity over membrane surface. Measuring of irradiation field homogeneity is concerned with difficulties caused by low average beam current and duty factor of current at each point of irradiation. Measurement system of ion flow spatial distribution is proposed. This sistem is unexceptionable from secondary electron emission and residual pressure stripping effects and allows measure incident ion flow in wide range of intensities. The system is based on measuring of count rate of X-ray quanta, emitted by intermediate target under incident heavy ions influence. The report involves description of ion flow density measuring device and its performance attributes.