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ANALYSIS OF ISOTOPE COMPOSITION IN A SAMPLE OF HIGH-TEMPERATURE SUPERCONDUCTORS (HTS) AFTER THEIR IRRADIATION WITH PROTONS WITH AN ENERGY OF 660 MeV

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This report discusses one of the stages of work on the creation of artificial pinning centers in superconducting tapes, for the possible creation of a series of superconducting magnets based on them, operating at temperatures up to 65 K. The report describes the experimental setup and the results of irradiation of the HTS samples in the neutron-proton field of the lead converter, analyzes the gamma spectrum measured with HPGe detectors, and determines the composition of isotopes of the samples after irradiation. The yields of isotopes were determined, allowing us to quantify the percentage of the neutron component in the flux passing through the sample in order to optimize the conditions for obtaining the matrix of defects necessary for the emergence of stable vortex pinning in the electromagnetic field of the superconductor. ($I = 10^{13} \text{ p}^+/\text{cm}^2/\text{s}$) * 9000 s

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