

Measurement and analysis of three-dimensional magnetic field distribution of prototype compact permanent magnet for C-band magnetron

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We have researched a structure designed to enhance magnetic field strength using a CST program and have fabricated a mock-up magnet (M-magnet) with neodymium magnets. The field strength of the M-magnet is measured using a Gauss meter (TM-197, Tenmars, Taiwan) at 1 mm intervals. The position is precisely controlled by the 3D-magnetic field scanning system and a LabVIEW program developed in DIRAMS (Dongnam Institute of Radiological and Medical Sciences). The magnetic field data obtained with the scanning system were reconstructed into 3D images using Python code. This measured result of the distributed magnetic field will contribute to the permanent magnet fabrication for the C-band magnetron.

Paper submission Plan

Best Presentation

Contribution track

ICABU WG4. Applications of Particle Beams

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