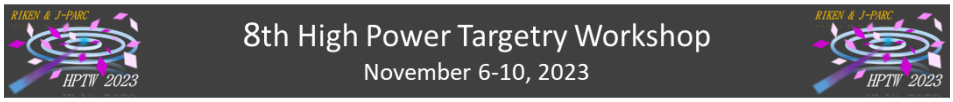

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Development of radiation-resistant distance-sensor for rotating-disk-type target at J-PARC Hadron Experimental Facility.

Tuesday, 7 November 2023 17:31 (1 minute)

At J-PARC Hadron Experimental Facility, 30-GeV primary proton beam up to 95 kW irradiates the fixed-type target to produce secondary particles for the particle and nuclear experiment. In order to increase the beam intensity up to 150 kW, a rotating-disk-type target is now under development. Although the rotating target is advantageous in terms of cooling capability and long lifetime compared to the current fixed target, it is challenging to monitor the temperature, rotation speed, and eccentricity of the target in long period without maintenance under the high radiation environment. Thus, we have been developing a radiation-resistant capacitive-type distance sensor. In this poster, the design and the development status of the distance sensor are presented.

Themes for the contribution

7 Operation of targets and beam dumps:

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