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## **RADIATION DAMAGE STUDIES ON TITANIUM ALLOYS AS HIGH INTENSITY PROTON ACCELERATOR BEAM WINDOW MATERIALS**

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Titanium alloys are used as beam windows in several high-intensity proton accelerator facilities. Although there are wide variety of Titanium alloys, knowledge on the radiation damage effects on different alloys are quite limited.

At the BLIP irradiation during 2017 to 2018, wide variety of the titanium alloy specimens were provided. Accumulated radiation damage was reached to about 1.5 DPA (NRT) at maximum, which is much more than existing data (0.2~0.3DPA) and close to the value for future MW facility beam window operation in a year. The Post-Irradiation Examinations, both macro-scale tensile tests and micro-scale examinations, are being conducted at PNNL. In this presentation, progress and plan of radiation damage studies on these Titanium alloys are reported.

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