

## The T2K optical transition radiation proton beam monitor: updates and future plans

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For fixed-target experiments, final proton beam monitoring is key to controlling the properties of the particle flux exiting the target. The T2K experiment makes use of an Optical Transition Radiation (OTR) monitor for this purpose. In support of the J-PARC 750kW beam power upgrade, this monitor has undergone a series of changes targeted at increasing its tolerance to the higher beam intensity and repetition rate. The design and performance of these upgrades, including redesigned titanium foils in the beam path and a new DAQ system, will be discussed with reference to data collected during the recent T2K run 12 period. Finally, a new apparatus to investigate the beam-induced background light contribution is described. This intends to make use of an optical fiber and a PMT in order to better understand the time dependence of the beam-induced background light seen in the OTR data.

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