**First results of a multi-energy hard x-ray camera on the WEST tokamak**

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The WEST tokamak recently completed its first experimental campaign with the new water-cooled full tungsten divertor, which enables long pulse operation. Heating is provided by radiofrequency systems, including lower hybrid current drive (LHCD). In this context PPPL has operated for the first time a compact multi-energy hard x-ray camera (ME-HXR) for energy and space-resolved measurements of the electron temperature, the fast electron tail density produced by LHCD and runaway electrons, and the beam-target emission of tungsten at the edge due to fast electron losses interacting with the target.

The diagnostic is a pinhole camera based on a 2D pixel array detector equipped with a CdTe sensor. The novelty of this diagnostic technique is the detector capability of adjusting the threshold energy at pixel level. This innovation provides a great flexibility in the energy configuration allowing simultaneous space, time and energy resolved x-ray measurements.

This contribution presents first measurements of the new diagnostic on the WEST tokamak. Line-integrated measurements of hard x-rays were acquired during LHCD discharges along ~80 lines-of-sight covering most of the plasma cross section including the lower divertor. 4-6 discreet energy threshold settings were used over the range of 10-100keV. Radial position of LH power deposition was identified from the slope of the HXR profiles. Beam-target emission was observed along the lines-of-sight intersecting the lower divertor.

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