

PHOTODIODES SPECTRAL SENSITIVITY INFLUENCE ON THE TWO FOILS SOFT X-RAY TECHNIQUE IN THE URAGAN TORSATRONS.

Soft X-ray (SXR) diagnostics is routinely used in URAGAN-3M and URAGAN-2M torsatrons. One of the SXR diagnostic applications is based on the plasma temperature estimation. The ratio of the SXR signals passed through two different foils is used for the temperature estimation. The spectral sensitivity of the photodiode itself can affect the temperature measurement in addition to the spectral dependence of the foil absorption function. Set of different modeling spectral sensitivity functions was used for numerical calculation of the SXR signals ratio. The influence is negligible in the case of the flat sensitivity in the energy range 5-500eV in the case of thin Al foils (for example in the AXUV-20EL photodiodes case)

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