

JOURNAL OF PLASMA AND FUSION RESEARCH

The Journal of the Japan Society of Plasma Science and Nuclear Fusion Research

Vol. 92, No.1, January 2016

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A two-color pyrometer was developed for measuring a material temperature during an ELM-like plasma irradiation to tungsten (W) materials. The schematic shows a sample holder for the pyrometer measurements during the plasma irradiation on a magnetized coaxial plasma gun device (University of Hyogo). To suppress influence the measurement caused by emissions from the plasma and impurities, back-surface temperature of the thin W material (50 μm) was measured with 5 μs time resolution. (Ikko SAKUMA *et al.*, Plasma and Fusion Research Vol. 10, 1205089 (2015) <http://www.jspf.or.jp/PFR/>)



Published Monthly by

The Japan Society of Plasma Science and Nuclear Fusion Research

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