

Abstract Submitted
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Applications of Inductively Coupled Plasma Mass Spectroscopy to the Isotopically Enriched Tungsten Metal Ring Campaign at DIII-D¹ D.C. DONOVAN, C. ELEY, A. MAAN, J. DURAN, J. AUXIER II, UTK, E.A. UNTERBERG, ORNL, D.L. RUDAKOV, UCSD, P. STANGEBY, UTIAS, C. CHROBAK, GA, W.R. WAMPLER, SNL — Inductively Coupled Plasma Mass Spectroscopy (ICP-MS) was used to measure isotopic ratios of deposited W on collector probes inserted during the metal ring campaign. Two toroidal rings of 5 cm wide W-coated TZM inserts were installed in the lower divertor. The inner ring was coated in natural-W and the outer ring was coated with 93% isotopically enriched W-182. A triplet set of replaceable graphite collector probes were mounted at the outboard mid-plane. Over 100 collector probes were exposed. ICP-MS analysis of the collector probes has yielded isotopic ratios of the deposited W, which have been used with the Stable Isotope Mixing Model (SIMM) to estimate the amount of W from each of the divertor rings that contributed to the total W deposition on the probe. Comparisons in strike-point positioning, H-mode/L-mode, and Forward/Reverse B_t are reviewed.

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