

Abstract Submitted  
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**Variation of Argon Impurity Assimilation with Runaway Electron Current in DIII-D**<sup>1</sup> ERIC HOLLMANN, University of California - San Diego, I. BYKOV, R.A. MOYER, D.L. RUDAKOV, UCSD, A. BRIESEMEISTER, D. SHIRAKI, J.L. HERFINDAL, ORNL, M.E. AUSTIN, UA Texas, C.J. LASNIER, LLNL, T.N. CARLSTROM, N.W. EIDIETIS, C. PAZ-SOLDAN, M. VAN ZEELAND, GA — Measurements of the effect of runaway electron (RE) pressure upon argon impurity assimilation in DIII-D are reported. Intentionally created post-disruption RE beams are ramped to different plasma currents to vary the RE pressure, while impurity levels are varied by injecting argon gas (in addition to Ar already present from the small pellet used to create the disruption). Based on comparisons of current decay rates and hard x-ray, spectroscopic, interferometer, and Thomson scattering data, it is found that argon is not mixed uniformly through the plasma radially but appears to be preferentially moved out of the center of the plasma toward the walls, relative to the main species (deuterium). This exclusion appears to be stronger at higher plasma current, indicating that this force originates from the runaway electrons.

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