

Abstract Submitted
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SOL Width Studies for ITER Ramp-up¹ D.L. RUDAKOV, J.A. BOEDO, R.A. MOYER, UCSD, R.A. PITTS, ITER, A.W. LEONARD, G.L. JACKSON, General Atomics, C.J. LASNIER, LLNL, P.C. STANGEBY, UTIAS, J.G. WATKINS, SNL, L. ZENG, UCLA — The present ITER scenarios contain limiter phases in Ohmic or L-mode for ramp-up and ramp-down. Dependencies of scrape-off layer (SOL) density and temperature e-folding lengths on discharge parameters were studied in inner-wall limited (IWL) and lower single null (LSN) discharges on DIII-D in order to benchmark the currently used power flux scaling based on divertor measurements from a number of tokamaks. Scans of the plasma current (q_{95}), density, and heating power have been performed. The power flux e-folding lengths derived from the reciprocating probe measurements near the outboard midplane in the IWL configuration are on the average a factor of ~ 2 larger than those predicted by the scaling for an outer-wall limited configuration. Probe measurements in LSN configuration were also benchmarked against infrared camera data from the lower divertor.

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