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Testing the Paleoclassical Based Pedestal Model Against Measured DIII-D Pedestal Profiles,* S.P. Smith, R.J. Groebner, T.H. Osborne, A.W. Leonard, *GA*; J.D. Callen, *U Wisc* – The accurate prediction of kinetic profiles (densities and temperatures) in the pedestal is important in predicting the performance of future burning plasma experiments. A recently developed predictive model of the kinetic profiles includes the paleoclassical mechanism as the main, albeit minimum, cause of electron transport in the pedestal. The predictions of this model are compared to a database of measured DIII-D pedestal profiles to provide a quantitative test of the dominance of paleoclassical transport in the pedestal. The tests are performed at the symmetry point of the pedestal electron temperature profile (from a tanh fitting). The average ratio across the database of paleoclassical prediction to experimental measurement for the various quantities is: ∇T_e 1.1±0.6; $\nabla n_e/n_e$ 2.2±0.9. These results indicate that other processes besides paleoclassical are contributing to pedestal particle density transport. In probing the sensitivity of the temperature predictions to experimental inputs, it is found that the correlation of temperature prediction to measurement improves significantly by distributing the total power flow equally between the electron and ion channels.

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