

# DIMENSIONLESS $\rho_*$ SCALING OF PARTICLE TRANSPORT IN DIII-D L-MODE DISCHARGES

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**ABSTRACT:** The scaling of the transport rate of particles with normalized gyroradius has been measured for low confinement mode (L-mode) discharges in the DIII-D tokamak. Both the helium diffusivity and the effective electron particle diffusivity were measured. In these L-mode discharges, the particle diffusivities tend to scale like the ion thermal diffusivity which scales between Bohm-like and Goldston-like. Non-zero inward pinch velocities are measured. Like the diffusivities, the pinch velocities increase with gyroradius.

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