

Abstract Submitted
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The effect of poloidal asymmetries on impurity transport driven by electrostatic microinstabilities A. MOLLÉN, S. MORADI, T. FÜLÖP, I. PUSZTAI, Department of Applied Physics, Nuclear Engineering, Chalmers University of Technology and Euratom-VR Association, Sweden — Poloidal asymmetries of impurities in tokamaks can arise due to toroidal rotation, neoclassical effects, asymmetry in impurity source location or the presence of radio frequency (RF) heating. If the density of the impurity ions is poloidally asymmetric then the zero-flux impurity density gradient (the peaking factor) can be reduced. The convective impurity flux can even change sign if the asymmetry is sufficiently large. This effect is most effective in low-shear plasmas with the impurity density peaking on the inboard side and may be a contributing factor to the observed outward convection of impurities in the presence of radio frequency heating.

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