

Abstract Submitted
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Imaging divertor strike point splitting in RMP ELM suppression experiments¹ R.A. MOYER, I. BYKOV, D.M. ORLOV, J.S. LEE, UCSD, T.E. EVANS, General Atomics, R. NAZIKIAN, PPPL, M. MAKOWSKI, C.S. LASNIER, LLNL, H. WANG, T. ABRAMS, ORAU, J.G. WATKINS, SNL — Fast visible imaging of the lower divertor has been implemented at DIII-D to study the structure and dynamics of lobes induced by 3D fields in RMP ELM suppression experiments. The sharpest imaging was obtained with spatially localized molecular D2 emission indicative of the D flux to the surface. Multiple D2 emission peaks are readily resolved during RMPs, in contrast to the heat flux profile (from IR), which often shows little structure. The brightest D2 lobe is often farthest from the primary inner strike point (ISP). Mitigated ELMs perturb the position and intensity of the ISP lobes and spread the outer strike point emission into the far SOL, where it may be caused by ELM filament propagation. RMP current ramps affect the lobe locations and separations. Implications of the lobe dynamics for plasma response is being studied.

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