

Abstract Submitted
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A Laser Scattering Diagnostic for Real-Time Measurements of Dust in Alcator C-Mod¹ AARON BADER, ROBERT GRANETZ, MIT Plasma Science and Fusion Center — We assembled a prototype diagnostic for future installation inside Alcator C-Mod to detect large particles (dust) in the scrape off layer. The diagnostic will use a photomultiplier tube to detect scattered laser light from particles in the beam path. The laser beam will be introduced into the vessel using fiber optics and similarly the scattered light will exit the vessel through fiber optics and an optical filter. We present the design for the diagnostic and initial lab results indicating limits on particle size detection. Additionally, we present issues dealing with the installation including background bremsstrahlung noise and places in the vessel that the diagnostic may be installed.

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