

Abstract Submitted
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Dust Impact Studies in Regard to Dust/Wall Interactions in Fusion Research JAMES CREEL, JORGE CARMONA-REYES, MIKE COOK, JIMMY SCHMOKE, TRUELL HYDE, CASPER - Baylor University — Particulate contamination has long been an area of concern within the fusion community. Past research has focused primarily on decreasing dust production as well as placing limits on overall dust retention. Unfortunately, due to the increased surface area and higher operating temperatures proposed for ITER, it is assumed that dust production within this environment will be particularly pronounced. The dynamics (and the underlying physics) for dust particles within such an environment are not yet well understood, particularly the manner in which dust interactions occur with the wall. We will discuss an experimental technique, which applying dust and wall parameters from current fusion devices, provides experimental impact data utilizing a single stage light gas gun. The resulting data will be used to discuss dust production methods, dust accretion on the walls, and dust/wall durability.

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