

Abstract Submitted  
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**Effects of the instability enhanced friction on relative ion densities in a two-ion species low-temperature plasma** MIRKO VUKOVIC, Tokyo Electron, US Holdings — The instability enhanced friction theory of Baalrud & Hegna (Phys. Plasmas 18, 023505 (2011)) predicts that for comparable ion densities the ions nearly reach a common velocity near the sheath edge in a low temperature plasma. The theory was experimentally confirmed by Yip, Hershkowitz, & Severn (Phys. Rev. Letters 104, 225003 (2010)). We will explore the effects of the theory on relative ion densities in a numerical simulation of an Ar/Xe plasma. Results for a 0D plasma model (Lieberman, Lichtenberg, Principles of Plasma Discharges and Materials Processing, 2005) will be presented.

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