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Boundary Conditions in Hydrodynamic Modeling of the Plasma in a Dusty RF Plasma Reactor ALTHEA WILSON, BABAK SHOTORBAN, The University of Alabama in Huntsville — Selection of the boundary conditions (BC) for a numerical plasma modeling is an important consideration. Two popular BC's in hydrodynamic plasma simulations are the zero number density BC and the thermal flux BC. They both neglect secondary electron emission; however, it has been suggested that secondary emission may be important for some discharges. This study compares the three different BC's applied to a hydrodynamic simulation of an RF dusty plasma reactor and examines the effect of the BC on the plasma and dust variables. Dust grains are individually traced in the Lagrangian frame.

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