

Abstract Submitted
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Bi-ionic Dust Solitary Waves¹ JULIO PUERTA, PABLO MARTIN,
Universidad Simon Bolivar — Propagation of nonlinear solitary waves in dusty plasmas with two ions is analyzed. In the present treatment the mass of one of ions is assumed to be much smaller than the other one, in such way that there is enough time for ions to reach quasi thermal equilibrium. Maxwell Boltzmann factors are therefore applied for the ions and the whole dynamic is on the grain. Now we use the method of the pseudo-potential taking into account temperature effects in function of the density of the heavy ion. In the limit where the heavy ion density tends to zero we recover effects found by other authors. Several numerical calculations for different values of the characteristic parameters will be shown using dimensionless variables.

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