

Abstract Submitted  
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**Sensitivity of the Turbulence Kappa Constant to Molecular and Magnetic Field Parameters in Glow Discharge Plasmas<sup>1</sup>** MAREENA ROBINSON, ALONZO ALEXANDER, DELONIA WIGGINS, JERRY CLARK, JOSEPH JOHNSON III, Florida A&M University — Turbulent parameters in glow discharge plasma have been shown to be influenced by the axial magnetic fields. Specifically, critical turbulent energy is directly related to the changes in these magnetic fields. There is also a possible relationship between the masses of certain noble gases and critical turbulent energy. Using kappa, the universal turbulence constant, as a framework, we will report on the relationship between atomic mass, evolving magnetic field, and critical turbulent energy. We will also address the implications from these results for new turbulent physics.

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