

Abstract Submitted  
for the DPP13 Meeting of  
The American Physical Society

**Characterization of an atmospheric pressure air plasma source for polymer surface modification**<sup>1</sup> SHUJUN YANG, Alabama A&M University, JIANSHENG TANG, Hunan First Normal College — An atmospheric pressure air plasma source was generated through dielectric barrier discharge (DBD). It was used to modify polyethyleneterephthalate (PET) surfaces with very high throughput. An equivalent circuit model was used to calculate the peak average electron density. The emission spectrum from the plasma was taken and the main peaks in the spectrum were identified. The ozone density in the down plasma region was estimated by Absorption Spectroscopy.

<sup>1</sup>NSF and ARC-ODU

Shujun Yang  
Alabama A&M University

Date submitted: 10 May 2013

Electronic form version 1.4