

Abstract Submitted  
for the GEC10 Meeting of  
The American Physical Society

**The application of electro-acoustic metrology to atmospheric pressure plasma ablation of gelatine** VICTOR LAW, NIALL DURHAM, Dublin City University, NCPST TEAM — Atmospheric pressure plasma jets are finding increasing use in hard surface engineering applications and the treatment of selected biological soft-tissues: For example, wound healing, removal of skin blemishes and the ablation and sterilization of irreversibly hydrolyzed collagen (gelatine) scaffold material. This paper reports upon a helium atmospheric pressure plasma ablation process of gelatine (beef) and the real-time electro-acoustic plasma metrology of the process. It is shown that the acoustic signal emerging from the plasma interaction with soft tissue material can be used to monitor the process, along with electrical feedback from the plasma power supply. The plasma process is compared to the treatment of a solid glass surface to reveal the acoustic signal from the gelatine soft tissue.

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Date submitted: 17 May 2010

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