

Title (times new roman 14pt, bold, centred)

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Text for the abstract (times new roman, 12 pt). (Example text shown below).

Pulsed radiofrequency plasmas are widely used in the semiconductor and materials processing industry. In this work, we investigated the ignition/reignition phase of these plasmas with the aim of tailoring plasma properties.

Imaging measurements were made in capacitively-coupled rf discharges generated in a Gaseous Electronics Conference (GEC) reference reactor. Measurements were made in discharges with gas pressure in the range 100-500 mTorr, rf power in the range 1-50 W and pulse durations in the range of 10 μ s - 100 ms.

Preliminary results show that the time evolution of the optical emission depends both on rf power and on the “off time” (i.e. the part of the period that rf power was turned off). At low power, the optical emission had a smooth rise (Fig 1(a)), but at higher power there was a sharp peak in the first 10 μ s of the optical emission rise (Fig 1(b)). The intensity and the shape of the peak depended both on the power of pulses and off time.

We plan in future experiment to measure the evolution of electron density and temperature, not only in argon but also in electronegative gases, and to apply these results for the improvement of negative ion production in pulsed electronegative plasmas.

References: (times new roman, 11pt)

1. first reference
2. second reference

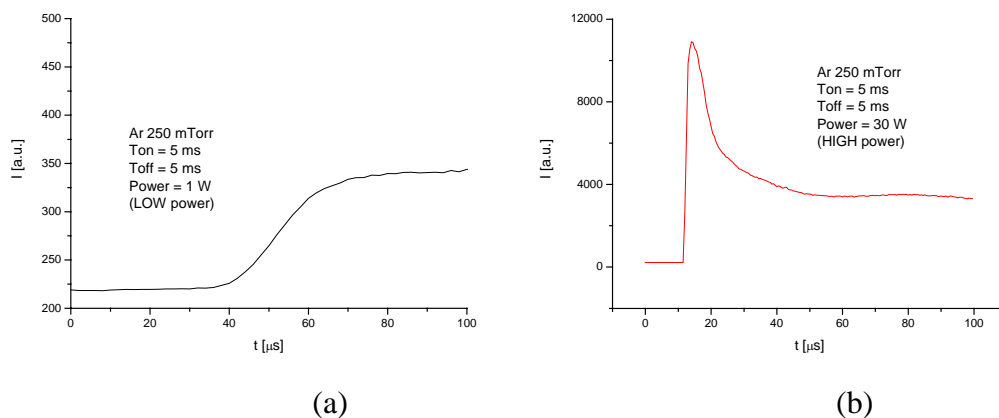


Figure 1: Time dependence of total optical emission intensity for (a) low power and (b) high power.