Effect of applied frequency on the number of micro-discharge in dielectric barriers discharge

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Dielectric plasma discharge is used as a plasma reactor for surface modification, sterilization, germination, and ozone generation. The importance thing is plasma power controlling that is done by several ways such as voltage, frequency and pulse density of applying signal for plasma electrodes. This research is focus on the number of micro-discharge at difference frequency of applying signal. The measured resistor is installed between the electrode and negative port of power supply for measuring the signal of micro-discharge. The frequency is adjusted for 5 kHz, 8 kHz, 10 kHz, 12 kHz and 14 kHz and the number of micro-discharge are 75.75, 60.50, 110.25, 270.25 and 297.25, respectively.