

Abstract Submitted  
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**The effect of the ion-enhanced field emission on the  $CF_4$  discharges in microgaps**<sup>1</sup> MARIJA RADMILOVIC-RADJENOVIC, BRANISLAV RADJENOVIC, Institute of Physics, Belgrade-Serbia — Recently, much attention has been paid to studies on  $CF_4$  due to its practical utility as a feed gas for plasma etching in the semiconductor industry. In order to reduced feature sizes on micro-electronic devices, it is necessary to determine the breakdown voltage in microgaps. In this paper, semi-empirical expression for the breakdown voltage based on the numerical solutions of the equation that describes the DC breakdown criteria in  $CF_4$  microdischarges has been suggested.

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