

# *Preparation of a double polarity dc experiment at the High Voltage Padova Test Facility*

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*In the MITICA research program for the construction of the ITER Neutral Beam Injector prototype, a laboratory for the investigation on high voltage holding in vacuum has been set up and operated since 2010. This Laboratory - HVPTF: High Voltage Padova Test Facility - is presently capable of experiments up to 800 kV dc in double polarity configuration. The mission of HVPTF is the support of the MITICA electrostatic design and the investigation of the physical phenomena governing the HVdc breakdown in high and medium vacuum. The present contribution describes the general structure of the laboratory and the preparation of a specific test to study the different role of cathode and anode on the breakdown onset.*

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