

Vacuum Breakdown Initiation and Development

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A review of mechanisms of the initiation of vacuum breakdown is presented and role of anode surface contaminations in enhancement of prebreakdown current and initiation of breakdown is emphasized.

The experimental investigation of vacuum breakdown and prebreakdown phenomena is described. Experiments presented herein show the desorption of anode contaminations under electron bombardment to be an essential factor of stimulation of electrical breakdowns. Possible influence of desorbed gases on prebreakdown state of electrodes is analysed.