

Characterizing the breakdown behavior of rod-plane air gap under impulse over-voltage

ABSTRACT

Experimental test has been done due to realize the characteristics of the behavior of voltage-time in the case of rod-plane air gap of 70mm and 100mm. Impulse voltage has been applied in this regard to find out the voltage at breakdown level, time to breakdown value, time to complete discharge, comparison of trajectory of the waveshape and the significant points of the increasing the gap distance. The results depicted that, the breakdown voltage was dependent on the integral of applied voltage and discharge time was more dependent on the gap value compared to other conditions.