

Performance of Gliding Discharge in High Voltage Equipment containing Air gap^{*}

Dr. Ali. Al sayed^{}**

Abstract

The problem of gliding discharges on high voltage equipment is faced in practice, coith inclined interface, such as cable terminations, bushings.

Many researches present very important results about the relationship between the applied voltages and this partial discharge . But studies about the insulation systems that have small cross capacitor or that have air gaps are limited, considering many points, one of them: the discharge procedure looks like the partial discharge in insulators, with longitudinal interfaces.

Achieving precise relationships for such systems and finding the actual discharge behavior gives high scientific efficiency and important application for design of high voltages devices, especially when high voltages, which are changing with time voltage like alternatring and lightning voltages, are applied.

Keyword: Gliding discharge, bushing, high voltage cables terminations.

* For the paper in Arabic see pages (25-34)

** Electric Power Department, Faculty of Mech. & Elec. Engineering, Damascus University

References

[1] A. Kuchler, Hochspannungs technik, Springer 2004.

[2] M. Beyer, W. Bocet, K. Moller, W. Zaengl; Hochspannungs technik; Springer-verlag, Berlin-Heidelberg, 1986.

[3] Y. Julliard, R. Badent, A. J. Schwab; Behavior of Multiple Barrier Insulation Systems under Impulse conditions;IEEE2001.

[4]

(3+1)

:

.2005

[5] Rayes, M. N. Untersuchungen an Ueberschlagsanordnungen in luft mit Teilstrcken von unterschiedlichem Entladungsverhalten bei Wechselfpannung. Diss, TU Braunschweig, 1987.