

# A Study of the Behavior of Water Droplets Under The Influence of Non-Uniform Electric Field in Silicon Rubber

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**Abstract :** Water droplets on the surface of silicon rubber were investigated under the influence of non-uniform electric fields. Several parameters of water droplets were investigated, such as the positioning of the droplets regarding the electrodes. The most striking conclusion is that the flashover voltage and electric field distribution depends on the positioning of the droplets from the electrodes.

**Keywords :** water droplets, non uniform Electric field, COMSOL, finite element, insulating barrier, silicon rubber