

MODERN POSSIBLE APPLICATION OF DBD SPECIAL DISCHARGE

Dielectric-barrier discharges (DBD) are characterized by the presence of one or more insulating layers on the current path between metal electrodes in addition to the discharge space. Different planar or cylindrical configurations are common. Closely related are surface discharge configurations in which discharges are initiated at a dielectric surface due to strong electric fields generated by imbedded metal electrodes. The presence of the dielectric(s) precludes DC operation. Although DBD configurations can be operated between line frequency and microwave frequencies the typical operating range for most technical DBD applications lies between 500 Hz and 500 kHz. The creation of biodegradable polymer materials with high biocompatibility, which perform a temporary function and decompose in the body is the subject of future research.

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