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(57) Abstract
Shock-Free Electrical Circuit for Gas Discharge Plume for Biomedical Applications A high-frequency high voltage power supply is designed and developed that can generate an electrical shock-free gas discharge plume. Eventually, a shock-free Ar gas discharge plume is generated by a high-frequency high voltage power supply. The Ar gas flow is optimized at a 7 L/min rate and the discharge plume temperature is measured. The author himself applied this discharge plume on his finger, forearm, and tongue (without anesthesia) to check the instant effect of electrical shock and the post sensational effect. The current voltage of this circuit is measured and the optical emission spectrum (OES) confirms the presence of excited argon (Ar) with OH and O2 species in the discharge plume. This circuit may find future prospects in prevention, disinfection and elimination of bacterial, fungal infections including the sterilization of viral species. Figure 1

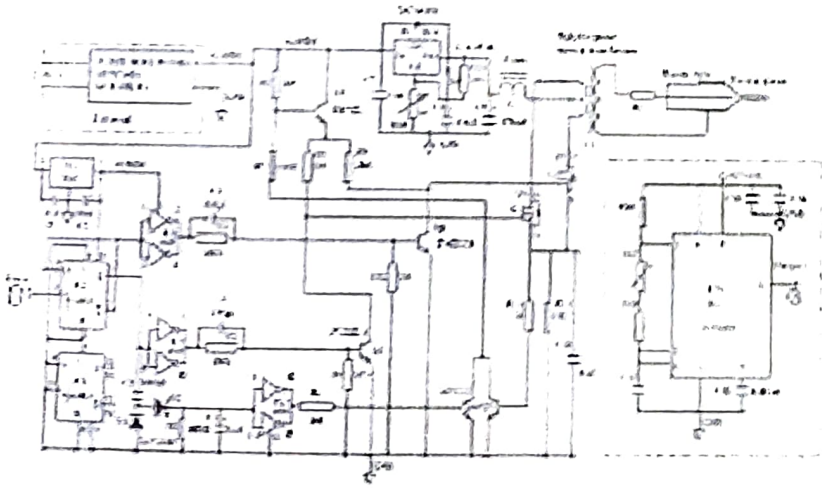

Figure 1

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