

## ABSTRACT

Research has been carried out on Argon Jet Plasma Analysis as the Producer of Soluble Reactive Oxygen Compounds in Aquades and the Healing Potential of Wounds. The study uses a series of jet plasma generating reactors using the Dielectric Barrier Discharger (DBD) method and utilizes argon noble gas as a source for jet plasma generating. The researchers measured the longest plasma jet lengths by performing flowrate variations of 2L/min, 6L/Min, and 10L/ min using a voltage of 9.3 kV at each given flowrate, and obtained the longer plasma jet longitude at a flowrate of 10 L/min with a maximum length of 7cm. The concentration of dissolved ozone in aquades has been met for flowrates of 2 L/ Min, 6 L/Min and 10 l/Min at distances between the ends of the plasma of the jet to the surface of the aquades of 5 Cm and 10 Cm. Treatment times were 20 seconds, 40 seconds, 60 seconds and 120 seconds for each range and flow rate variation. Ozone concentrations were highest at 10L/min flowrate variations, 10cm distance and time 120 seconds with ozone concentrations of 0.06 mg/L. The researchers also measured the argon spectrum, and the measurements showed that the spectrum produced almost all wavelengths for argon plasma, and emission intensities were direct relative to the flowrate. To confirm the potential for wound healing by conducting this study is proved by the presence of other studies that support ozone as a wound-healing agent.

Keyword : Plasma, Plasma Jet, Argon, Dissolved Ozone Concentration