EFFECT OF ELECTOHYDRAULIC DISCHARGE (EHD) ON VISCOSITY OF HUMAN BLOOD

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The plasma arc produces a pressure shock wave, electromagnetic radiations, ozone and free radicals. The electrohydraulic discharge reactor consists of high voltage point discharge electrode above blood surface and cylindrical ground copper electrode containing the blood (in the same time act as the vessel reactor). The discharge could produce both arc discharges in gas and liquid phases.

The aim of this work is to examine the use of electrohydraulic discharge (EHD) system and the capability of pulsed plasma arc discharge directly on viscosity of the human blood. The data demonstrate that, the whole blood viscosity was increased with extended duration of exposure. It was found that, the ratio of the blood viscosity under the influence magnetic field hmag to the viscosity in the absence of magnetic field h is directly proportional to the applied magnetic field H.

Keywords: electrohydraulic, shock wave, viscosity, blood, electromagnetic radiations