ABSTRACT

This invention relates to a regulated adjustable power generator and its methodology for producing colloidal silver nanoparticle (AgNPs) within a size range of 5-50 nm via electrolysis. The said generator comprises five main sections: a 12-volt switch power source (SPS), a DC-to-DC converter with adjustable voltage and current output, a polarity exchanger, a timer with adjustable timing and silver electrodes. The regulated adjustable power supply generator and its methodology allows precise control of voltage, current, and polarity, enabling efficient and reliable operation of the silver generator. Two silver electrodes are linked to the positive and negative ends of the mentioned generator immersed in an electrolyte solution positioned atop of a magnetic stirrer.

“No Suitable Figure”