

A SINGLE ELECTRODE PLASMA DISCHARGE TUBE DEVICE

Shouguo Wang

Qilu University of Technology, China

A discharge tube device has a replaceable discharge tube and a hand-held shell into which the replaceable discharge tube is plugged. There is a single electrode inside of the tube and no other electrodes outside. This electrode is connected to an output of a power supply and another output of the power supply is connected to the ground. The input of the power supply is a 12V or lower, DC (direct current) source, or a battery. The plasma is generated via a contact-tube outside discharge, or a plasma jet from the tube, that uses working inert gas. The plasma discharge tube will produce atmospheric pressure, cold quasi-glow plasma, which can be used for sensitive surface disinfection, sterilization, as well as facial skin rejuvenation, treatment of skin tissue infections and destruction of cancer cells.

Biography

Shouguo Wang is the Director of Cross Institute of Science, Qilu University of Technology, China. He has completed his PhD in June 1997, from Institute of Plasma Physics, CAS. He worked as Professor in Institute of Optoelectronics (2003-2008), Microelectronic Institute (2008-2013) and Institute of Plasma Physics (2013-2017) respectively. He was a Visiting Scholar in Institute of Laser and Plasma Physics (2000-03). His research areas include Plasma medicine, power supply, DBD, PECVD, Plasma boost, Plasma applications.

wangshouguo@aoe.ac.cn