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The new type of Plasma Spray Discharge for COVID-19 disinfection. E.E. SON, A.V. DYRENKOV, Moscow Institute of Physics and Technology, School of Air Space Technologies — Cleaning and disinfection of environmental rooms and surfaces are an essential part of control infections. Plasma-based systems might be capable of rapidly disinfecting rooms and surfaces. Compared to current disinfection methods based on wet chemistry, the plasma-based technique would be much more effective. The efficiency of the plasma disinfection systems is determined by the fact that the plasma is capable of acting on COVID-19 viruses by the electric field and active radicals produced by the plasma. To date, no effective plasma systems have been created. A device for the aerosol spray of radicals and excited states of molecules and atoms produces the volume disinfection contains a nozzle for spraying liquid, placed on the flow path a ring electrode with symmetrically located six tips, oriented so that the flow passes through the ring without touching it. High voltage is applied to the sprayed liquid, and the ring, characterized in that between the ring electrode and the flow of sprayed liquid, a volumetric electric discharge with liquid electrodes is generated, described in that chemically active free radicals. Compounds are sprayed with the useful liquid chemical components into the room. 1. Son E. Plasma spray discharge to kill viruses in the volume. Patent Application, Russia, June 2020. 2. Gulyaev Yu.V., Cherepenin V.A. On the possibility of using powerful electromagnetic pulses to disinfect bacteriologically contaminated objects. J. Radio Electronics. 2020. No.4. http://jre.cplire.ru/jre/apr20/13/text.pdf._DOI 10.30898 / 1684-1719.2020.4.13

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