

Invention relates to gas-discharge plasma physics and lighting technology and can be used in nanoelectronics, photochemistry, photobiology, and photomedicine, as well as for sterilizing medical instruments, purifying air of bacteria, and sterilizing foodstuffs in the canning industry. The invention consists of two metal electrodes - copper and zinc - with a working section radius of 3 mm, a dielectric housing, a source of high-voltage nanosecond pulses, and a working mixture of argon at a pressure of 200 kPa. A bipolar nanosecond discharge is initiated at an interelectrode distance of 2 mm with a pulse repetition frequency of up to 1000 Hz. Radiation is generated at the transitions of copper and zinc atoms and monovalent ions. The technical result of the invention is the provision of pulsed-periodic ultraviolet radiation in the narrow spectral range of 200–330 nm, covering the main absorption maximum of DNA molecules.