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Optical Characteristics Investigation of the Cold Argon Plasma Jet for the Medical Applications SHI NGUYEN-KUOK, YURY MALAKHOV, SY MINH BACH, IVAN KOROTKIKH, None — The medical setup was designed for the treatment of wounds, disinfection of inflammation, for the destruction of damaged cells. The results of experimental determination of the optical characteristics of Argon cold plasma at atmospheric pressure are presented in the paper. The main components of the experimental setup are plasma torch, spectrometer, photoelectron multiplier, oscilloscope, gas consumption $Q_{\text{Ar}} = 1\text{--}20$ l/min. Spectrum of the plasma jet is obtained using the grating spectrometer Spectra with radiometric calibration, operating in the visible range $\lambda = 380\text{--}760$ nm. The sun-blind photodetector was used for determination of the intensity of radiation in the UV range $\lambda = 190\text{--}380$ nm. The emission spectrum consists of a continuous radiation and the emissions of atoms and ions ArI and ArII. The analysis of spectral lines was carried out.

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None

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