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**Measurements of Striation Phenomena in Low Energy Atmospheric Pressure Plasma Using the Optical Emission Spectroscopy** HIROMASA YAMADA, University of Tsukuba, HAJIME SAKAKITA, Innovative Plasma Processing Group, Electronics and Photonics Research Institute, AIST, YUTAKA FUJIWARA, University of Tsukuba, YUZURU IKEHARA, Biotechnology Research Institute for Drug Discovery, AIST, JAEHO KIM, SATORU KIYAMA, SUSUMU KATO, MASANORI FUJIWARA, HIROTOMO ITAGAKI, TOMONORI HOTTA, Innovative Plasma Processing Group, Electronics and Photonics Research Institute, AIST, HAYAO NAKANISHI, Division of Oncological Pathology, Aichi Cancer Center Research Institute, NOBUYUKI SHIMIZU, SANNO Hospital (International University of Health and Welfare) — Plasma technology has been used in many fields. It is considered that reactive species produced by plasma play an important role on those plasma applications. There are many unknown phenomena in those application mechanisms. Recently, the striation phenomena was found along the plasma column ejected from a low energy atmospheric pressure plasma equipment using neon gas. In this work, the visible emission of neon plasma flare was measured by using the optical emission spectroscopy, and mainly neon atom and nitrogen molecule neutral lines were observed. Especially, the emission of neon atoms was dominant, and Ne I (683.3 nm) emission intensity of negative current phase was larger than that of positive current phase. Furthermore, the emission distribution of Ne I (683.8 nm) along the striation was measured, and it was found that Ne I also shows intermittent features along the plasma flare.

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