Contribution ID: **277** Type: **Poster presentation**

Cold atmospheric pressure plasma diagnostics using an UV-absorption spectroscopy

Wednesday, May 20, 2015 2:00 PM (3h 30m)

Cold atmospheric pressure plasma consisting of OH, O, O_3, NO, and NO_2 radicals is currently popular in biomedical applications. This is due to its ability on destroying microbes and stimulating on production of new cells. For such applications, development of techniques to measure density of any radical in the plasma is important. An optical emission spectroscopy (OES) technique, which is used in most laboratories, has a limitation for estimating the radical density on specific area. In this study, we develop a method to use an UV-absorption spectroscopy for measuring the density of the OH, NO, and NO_2 radicals on sample surfaces. Study on effect of the atmospheric jet with various conditions is performed. Principle and procedure of the UV-absorption spectroscopy technique as well as the experimental results will be reported and discussed in this contribution.

Primary author: Mr THANA, Yuthana (Department of Physics and Materials Science, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand)

Co-author: Dr BOONYAWAN, Dheerawan (Department of Physics and Materials Science, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand)

Presenter: Mr THANA, Yuthana (Department of Physics and Materials Science, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand)

Session Classification: Poster-1

Track Classification: Ion and Plasma Physics