所属	一般教育科	氏名	クラペット タネット KLADPHET, Thanet	
学位	修士(エ学)	職名	特命助教	2 (
分野等	大気圧プラズマ			
e-mail/URL	thanet[at]nagaoka-ct.ac.jp ※[at]を@に変えてください			
キーワード	Electrical, Plasma dynamics, Numerical simulation,			

Main area of my study relates with numerical investigation through simulations for experimental observations on atmospheric pressure plasma applications. For this purpose, I collaborate my work with the Plasma Dynamics Laboratory at Nagaoka University of Technology. Even though I didn't conduct any experiments as primary investigator, I will join some of the experiments to get idea of the experimental conditions before perform simulation work.

Chemical species in plasma are a more complex process that provides crucial data for optimizing their applicability. Furthermore, investigations of chemical distribution properties is a challenging process. Consequently, numerous studies were conducted using numerical.



Fig. Prediction results (a) Population density along with plasma jet (b) Distribution of T_{exc} and T_e against the position from nozzle exit (c) Predicted normalized density of chemical specimens in the APP with ambient air. [Ref. Plasma and Fusion Research 16, 2401060 (2021) DOI: 10.1585/pfr.16.2401060]

Research publications:

- 1. **Thanet, K**., Thai V. P., Fernando, W. T., Takahashi, K., Kikuchi, T., & Sasaki, T. **(2022)**. Using numerical analysis of ordinary differential equation systems to predict the chemical concentration after plasma irradiation. AIP Advances 12, 055116.
- 2. **Thanet, K**., Fernando, W. T., Takahashi, K., Kikuchi, T., & Sasaki, T. (2021). Determination of Helium-Discharge Atmospheric-Pressure Plasma Parameters and Distribution Using Numerical Simulation. Plasma and Fusion Research, 16, 2401060-2401060.

 Atmospheric pressure plasma can be used to obtain chemically reactive plasma quickly. Power supply development. I have demonstrated the effects of atmospheric pressure plasma by conducting plasma reactor development, plasma measurement, and evaluating objects as part of the process.

興味のあること

研究分野

- Atmospheric pressure plasma
 - Control of wettability and adhesiveness of sample surface
 - Atmospheric pressure CVD by sample gas control
 - Gas treatment system using special electrode shape
 - Control of microbial activity / inactivity
 - Adhesive control of human iPS cells

特別設備	 Fundamentals of programming languages such as Python and C++. Optical emission spectrometer.
企業との連携実績	 For 14 years of working with a Japanese company. (2001-2013) NOK corporation (2017-2019) Toray group Experience work on overseas projects such as in Singapore, China, and Japan. Knowledge skill: Kaizen, QCC, Group work, Leadership and so on. 3rd Thailand Kaizen Award 2010 in Automation Kaizen & Karakuri Kaizen from Prime Minister of Thailand. (Reduce the loss of copper in production) President of Thai student association (TSAJ) in Nagaoka University of Technology, Niigata (2015).
企業へ向けて	 I am engaging in a wide range of research with the keyword "plasma", from basic physics to engineering applications, experiments to numerical simulations. Relationship of plasma dynamics laboratory.