

Special Lecture 1 & 36th Lecture Meeting on Biology and Medicine for Fluid Science

Organizer: Institute of Fluid Science, Tohoku University

Co-Organizer: Health, Welfare and Medical Care Cluster, Institute of Fluid Science,
Tohoku University

Schedule: Wednesday, November 17, 2021, 15:00~16:00 (JST)

Distribution Method: Webex

URL: <https://tohokuuniversity-zdb.my.webex.com/tohokuuniversity-zdb.my/j.php?MTID=m7aaa7a48c61e049613e6029347a71071>

Meeting ID: 2517 089 3761

Password: YrFTmQjp246

Lecturer: Yun-Chien Cheng (Associate Professor, National Yang Ming Chiao Tung University, Taiwan (Visiting Associate Professor, Institute of Fluid Science, Tohoku University, Japan))

Lecture Title: Introduction of Plasma medicine

Abstract:

This talk includes the basic introduction about the plasma related medical applications that are currently in use, including argon plasma coagulation (APC), sterilization, surface modification. My work about plasma polymerized coating for biosensor fabrication will also be reported. The aerosol-assisted dielectric-barrier-discharge atmospheric-pressure plasma deposition (AAAPPD) involves depositing plasma-polymerized ethylene (ppE) with grafted hydroxyl functional groups and embedding the protein in the ppE in one step, making the protein entrapment faster than conventional methods and without using reagents. The immunostaining results of AAAPPD protein was close to that of covalent-bonded protein. This method is a rapid and reagent-free method to entrap proteins on different substrates for biosensor fabrication.

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