



Plasma Technologies and Advanced Materials for Sustainable Development

Seminar organized in connection with the project:

Nitrogen fixation using plasma bubble: increased bioavailability for the needs of precision agriculture (Nitro4Agri)

Seminar will be conducted in English

Building C-7, room 504, 5th floor

Wrocław University of Science and Technology

Faculty of Civil Engineering pl. Grunwaldzki 11, Wrocław

**28th
September
2026
13:15-14:55**

> GUEST LECTURES



Prof. Renwu Zhou, Xi'an Jiaotong University, China
Plasma-Liquid Interactions for Sustainable Nitrogen Fixation

Prof. Rusen Zhou, Xi'an Jiaotong University, China
Gas-liquid discharge plasma for CO₂ reduction into organic acids and water activation

PROGRAMME:

- 13:15 - 13:20** Opening of the seminar
Prof. Łukasz Sadowski and Prof. Anna Dzimitrowicz
- 13:20 - 13:40** Guest lecture: *Plasma-Liquid Interactions for Sustainable Nitrogen Fixation*
Prof. Renwu Zhou
- 13:40 - 14:00** Guest lecture: *Gas-liquid discharge plasma for CO₂ reduction into organic acids and water activation*
Prof. Rusen Zhou
- 14:00 - 14:10** Cold Atmospheric Plasma as a Tool for Tailoring the Properties of Nano-hydroxyapatite, Preludium 24 project
MSc Angelika Banaszak
- 14:10 - 14:20** Reduction of contaminants from fruit juices using non-thermal plasma, Opus 23 project
MSc Eng. Karina Lenard
- 14:20 - 14:30** Cold atmospheric pressure plasma-assisted synthesis of ruthenium catalysts using a 3D-printed reactor, Opus 25 project
MSc Eng. Angelika Nowak
- 14:30 - 14:40** Development of ferrisilicate binders from iron-rich laterites blended with agricultural and quarry waste for sustainable matrices in ecological applications
Dr Achile Nana
- 14:40 - 14:50** Sustainable Ultra-High-Performance Cementitious Composites: From Waste Materials to High Performance
Dr Hassan Abdolpour
- 14:50 - 14:55** Closing of the seminar
Prof. Piotr Jamróż and Prof. Łukasz Sadowski

