

Conference Program

Oral Session < online Zoom Webinar >

September 15 (Tuesday)

Opening

09:00-09:10 Yasuaki KISHIMOTO (Director of IAE, Kyoto University)

Plenary Talk

Chair: Yasuaki KISHIMOTO

09:10-10:00 **Future Technologies Opened by Low-temperature Plasma Sciences**
Masaru HORI
(Nagoya University, Japan)

10:00-10:15 - Break -

Session 1

Chair: Toshiyuki NOHIRA

10:15-10:45 **Insights on the Premise of Growing Crystalline Silicon Solar Cells on the Benchtop**
Stephen MALDONADO
(University of Michigan, USA)

10:45-11:10 **Fuel Cell Research for Carbon Recycling Society**
Hironori NAKAJIMA (Kyushu University, Japan)

11:10-11:40 **Probing the unique electrical and optical properties in one-dimensional carbon nanotubes and nanoribbons**
Sihan ZHAO (University of California at Berkeley, USA)

11:40-13:10 - Break -

Session 2

Chair: Takashi NAGATA

13:10-13:35 **Degradation of Cellulose Aggregate by using Infrared Free Electron Laser**
Takayasu KAWASAKI (Tokyo University of Science, Japan)

13:35-14:05 **Bioethanol: Current Status and Perspectives**
Sadat Mohamed Rezk KHATTAB
(Kyoto University, Japan, Al-Azhar University, Egypt)

14:05-14:30 **Fundamental characteristics of biomass pyrolysis to improve pyrolysis-based technologies**
Haruo KAWAMOTO (Kyoto University, Japan)

14:30-15:00 - Break -

Poster Session

15:00-16:00 **Research Activities on Zero-Emission Energy Network < Remo >**

Session 3

Chair: Tatsuya HINOKI

16:30-16:55 **The Role of D-Li Neutron Sources in Fusion Materials Research and Development**

Takeo MUROGA (National Institute for Fusion Science, Japan)

16:55-17:25 **Unlocking Reductions in the Construction Costs of Nuclear: A Practical Guide for Stakeholders**

Antonio VAYA SOLER (OECD Nuclear Energy Agency, France)

17:25-17:40 - Break -

Session 4

Chair: Takashi MINAMI

17:40-18:05 **JT-60SA, the project and the current status**

Shunsuke IDE

(National Institutes for Quantum and Radiological Science and Technology, Japan)

18:05-18:35 **Towards thermonuclear fusion with the stellarator Wendelstein 7-X**

Marcin JAKUBOWSKI (Max Planck Institute for Plasma Physics, Germany)

Closing Remarks

18:35-18:45 Toshiyuki NOHIRA (IAE, Kyoto University, Japan)

Satellite Meeting < online Zoom >

September 16 (Wednesday)

Satellite Meeting : Symposium on Exploring Broadband Energy Science 2020

< Main Building 5F: W-503E & Online >

Exploring Broadband Energy Science

- 13:00-13:05 **Opening address**
Toshiyuki NOHIRA (IAE, Kyoto University)
- 13:05-13:30 **Optical Physics and Potential Applications in Atomically thin Materials for Light Energy Utilization**
Kazunari MATSUDA (IAE, Kyoto University)
- 13:30-13:55 **Confinement of high energy density plasma using structured medium irradiated by high intensity laser based on "ultra-broadband energy science"**
Yasuaki KISHIMOTO (IAE, GES, Plasma UNIT, Kyoto University)
- 13:55-14:20 **Macroporous SiC formation in anodization triggered by irradiation-induced lattice defects**
Kazuhiro FUKAMI (Graduate School of Engineering, Kyoto University)
- 14:20-14:45 **Thermodynamic characteristics of laser ablation plasma in water and the analysis of clustering reactions**
Tetsuo SAKKA (Graduate School of Engineering, Kyoto University)
- 14:45-15:10 **Nanostructured Metal Sulfides for Solar Cells to Improve the Photovoltaic Performance**
Takashi SAGAWA (Graduate School of Energy Science, Kyoto University)
- 15:10-15:25 - Break -
- 15:25-15:50 **Low temperature on-surface growth of graphene nanoribbons**
Takahiro KOJIMA (IAE, Kyoto University)
- 15:50-16:15 **What can we learn from the detection of bubbles?**
Takashi NAKAJIMA (IAE, Kyoto University)
- 16:15-16:40 **Present Status and Future Perspective in KU-FEL**
Hideaki OHGAKI (IAE, Kyoto University)
- 16:40-17:05 **Utilization of woody biomass with fungal enzymes**
Masato KATAHIRA (IAE, Kyoto University)
- 17:05-17:30 **Novel reaction characteristics of spatially organized assembly of enzymes**
Takashi MORII (IAE, Kyoto University)
- 17:30-17:55 **Electrodeposition of Crystalline Silicon Films in Molten Salts for Photovoltaic Applications**
Toshiyuki NOHIRA (IAE, Kyoto University)
- 17:55-18:00 **Closing address**
Kazunari MATSUDA (IAE, Kyoto University)