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

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 -
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>15:00-16:00</td>
<td><strong>Research Activities on Zero-Emission Energy Network</strong> &lt; Remo &gt;</td>
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<td><strong>Session 3</strong></td>
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<td>Chair: Tatsuya HINOKI</td>
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<td>16:30-16:55</td>
<td><strong>The Role of D-Li Neutron Sources in Fusion Materials Research and Development</strong>&lt;br&gt;Takeo MUROGA (National Institute for Fusion Science, Japan)</td>
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<td>16:55-17:25</td>
<td><strong>Unlocking Reductions in the Construction Costs of Nuclear: A Practical Guide for Stakeholders</strong>&lt;br&gt;Antonio VAYA SOLER (OECD Nuclear Energy Agency, France)</td>
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<td>17:25-17:40</td>
<td>- Break -</td>
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<td><strong>Session 4</strong></td>
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<td>Chair: Takashi MINAMI</td>
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<td>17:40-18:05</td>
<td><strong>JT-60SA, the project and the current status</strong>&lt;br&gt;Shunsuke IDE&lt;br&gt;(National Institutes for Quantum and Radiological Science and Technology, Japan)</td>
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<td>18:05-18:35</td>
<td><strong>Towards thermonuclear fusion with stellarator Wendelstein 7-X</strong>&lt;br&gt;Marcin JAKUBOWSKI (Max Planck Institute for Plasma Physics, Germany)</td>
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<td><strong>Closing Remarks</strong></td>
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<td>18:35-18:45</td>
<td>Toshiyuki NOHIRA (IAE, Kyoto University, Japan)</td>
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Satellite Meeting < online Zoom >

September 16 (Wednesday)

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

Exploring Broadband Energy Science

13:00-13:05 Opening address
Toshiyuki NOHIRA (IAE, Kyoto University)

Kazunari MATSUDA (IAE, Kyoto University)

13:30-13:55 Macroporous SiC formation in anodization triggered by irradiation-induced lattice defects
Kazuhiro FUKAMI (Graduate School of Engineering, Kyoto University)

13:55-14:20 Thermodynamic characteristics of laser ablation plasma in water and the analysis of clustering reactions
Tetsuo SAKKA (Graduate School of Engineering, Kyoto University)

14:20-14:45 Nanostructured Metal Sulfides for Solar Cells to Improve the Photovoltaic Performance
Takashi SAGAWA (Graduate School of Energy Science, Kyoto University)

14:45-15:10 Low temperature on-surface growth of graphene nanoribbons
Takahiro KOJIMA (IAE, Kyoto University)

15:10-15:35 What can we learn from the detection of bubbles?
Takashi NAKAJIMA (IAE, Kyoto University)

15:35-16:00 Present Status and Future Perspective in KU-FEL
Hideaki OHGAKI (IAE, Kyoto University)

16:00-16:25 Utilization of woody biomass with fungal enzymes
Masato KATAHIRA (IAE, Kyoto University)

16:25-16:50 Novel reaction characteristics of spatially organized assembly of enzymes
Takashi MORII (IAE, Kyoto University)

16:50-17:10 Electrodeposition of Crystalline Silicon Films in Molten Salts for Photovoltaic Applications
Toshiyuki NOHIRA (IAE, Kyoto University)

17:15-17:30 Future perspectives of the carbon negative projects
Kazunari MATSUDA (IAE, Kyoto University)