

•The 15th International Symposium of Advanced Energy Science – Toward the Realization of Advanced and Carbon Negative Energy –

Timetable December 10th, 2024																
JP			DE		US											
JST(UTC+9)			CET(UTC+1)		CST(UTC-6)											
Start	Period	End	Start	End	Start	End	Venue	Session	Speakers	Specialized field	Univ./Institute	Title				
9:00	0:30	9:30	1:00	1:30	18:00	18:30	Kihada Hall,Obaku Plaza	Registration								
9:30	0:10	9:40	1:30	1:40	18:30	18:40		Opening	Masato KATAHIRA (Director of IAE, Kyoto University)							
9:40	0:50	10:30	1:40	2:30	18:40	19:30		Plenary Chair: Masato KATAHIRA	Nobuo TANAKA	Energy Security	International Energy Agency (IEA), Japan	Global Energy and Climate Crises: Winners and Losers				
10:30	0:20	10:50	2:30	2:50	19:30	19:50	Coffee Break (20 min) Venue : Kihada Hybrid Space									
10:50	0:30	11:20	2:50	3:20	19:50	20:20	Kihada Hall,Obaku Plaza	Oral Session 1 (Soft Energy) Chair: Yuhei MIYAUCHI	Geoff WEHMEYER	Heat Transfer	Rice University , USA	Switchable and Nonlinear Thermal Devices to Control Thermal Energy				
11:20	0:30	11:50	3:20	3:50	20:20	20:50			Takaya KUBO	Photovoltaics	Research Center for Advanced Science and Technology, The University of Tokyo, Japan	Colloidal Quantum Dots and Next Generation Photovoltaics				
11:50	0:30	12:20	3:50	4:20	20:50	21:20			Tomoko MATSUDA	Biocatalysis	Institute of Science Tokyo, Japan	Biocatalysis Effectively Utilizing Carbon Dioxide				
12:20	0:15	12:35	4:20	4:35	21:20	21:35		Photo								
12:35	1:40	14:15	4:35	6:15	21:35	23:15	Lunch (100 min)									
14:15	1:30	15:45	6:15	7:45	23:15	0:45	Kihada Hybrid Space	Symposium Poster Session 1								
15:45	0:15	16:00	7:45	8:00	0:45	1:00	Break (15 min)									
16:00	1:00	17:00	8:00	9:00	1:00	2:00	Kihada Hybrid Space	ZE Poster Session								
17:00	0:15	17:15	9:00	9:15	2:00	2:15	Break (15 min)									
17:15	1:30	18:45	9:15	10:45	2:15	3:45	Welcome Reception (90 min)	Venue : Kihada Hybrid Space								

Timetable December 11th, 2024														
JP			DE		US									
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Start	Period	End	Start	End	Start	End	Venue	Session	Speakers	Specialized field	Univ./Institute	Title		
9:30	0:30	10:00	1:30	2:00	18:30	19:00	Kihada Hall, Obaku Plaza	Oral Session 2 (Plasma & Quantum) Chair:Juro YAGI	Hiroshi GOTA	Magnetic Confinement Fusion	TAE technologies, USA	Aneutronic Fusion Research and Development at TAE Technologies		
10:00	0:30	10:30	2:00	2:30	19:00	19:30			Jonghyun KIM	Human Factors and AI Applications in Nuclear Operation	Department of Nuclear and Quantum Engineering, Korea Advanced Institute of Science and Technology (KAIST), Korea	AI Applications to the Operation of Nuclear Power Plants		
10:30	0:10	10:40	2:30	2:40	19:30	19:40	Coffee Break (10 min) Venue : Kihada Hybrid Space							
10:40	0:30	11:10	2:40	3:10	19:40	20:10	Kihada Hall, Obaku Plaza	Oral Session 2 (Plasma & Quantum) Chair:Juro YAGI	Toshiro KANEKO	Plasma Science	Tohoku University, Japan	Atmospheric Pressure Air Plasma for Sustainable Agriculture System Utilizing Ubiquitous Resources and Distributed Energy		
11:10	0:30	11:40	3:10	3:40	20:10	20:40			Koichi UOZUMI	Nuclear Engineering	Central Research Institute of Electric Power Industry, Japan	Pyroprocessing Technology Development for Metal Fuel Fast Reactor Cycle to Utilize Uranium Effectively while Reducing Environmental Burden		
11:40	0:30	12:10	3:40	4:10	20:40	21:10	Coffee Break (30 min) Venue : Kihada Hybrid Space							
12:10	0:20	12:30	4:10	4:30	21:10	21:30	Kihada Hall, Obaku Plaza	Oral Session 3 (ZE) Chair:Toshiyuki NOHIRA	Hiroyuki USUI	Electrochemistry	Tottori University, Japan	High-Performance Anode Materials Using Metal Compounds for Na-Ion Battery		
12:30	0:20	12:50	4:30	4:50	21:30	21:50			Ryuta KASADA	Nuclear Materials	Tohoku University, Japan	Irradiation3.0: A Next-Generation Irradiation Concept to Accelerate the Realization of Advanced Nuclear Fission and Fusion Energy and to Pioneer High-Flux Material Science		
12:50	1:30	14:20	4:50	6:20	21:50	23:20	Lunch (90 min)							
14:20	1:30	15:50	6:20	7:50	23:20	0:50	Kihada Hybrid Space	Symposium Poster Session 2						
15:50	0:20	16:10	7:50	8:10	0:50	1:10	Break (20 min)							
16:10	0:30	16:40	8:10	8:40	1:10	1:40	Kihada Hall, Obaku Plaza	Oral Session 4 (Soft Energy) Chair:Eiji NAKATA	Tatsuhiko YAMADA	Biomass Chemistry	Center for Advanced Materials, Forestry and Forest Products Research Institute, Japar	Forest Biorefinery to Produce High-Performance Lignin-based Materials		
16:40	0:30	17:10	8:40	9:10	1:40	2:10			Sudip CHAKRABORTY	Membrane Technology, Energy, Sustainability, Nanomaterials, Composite, Simulation	University of Calabria, Italy	Sustainable Energy:Can Membrane Be a Solution?		
17:10	0:30	17:40	9:10	9:40	2:10	2:40			Harald SCHWALBE	NMR Spectroscopy	Goethe-University Frankfurt, Germany	NMR-Based Antiviral Inhibitor Design		

Timetable December 12th, 2024														
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9:15	0:05	9:20	1:15	1:20	18:15	18:20	Kihada Hall, Obaku Plaza	Opening	Kazunari MATSUDA					
9:20	0:20	9:40	1:20	1:40	18:20	18:40	Kihada Hall, Obaku Plaza	Oral Session 5 (ICaNS) Chair:Surachada CHUAYCHOB	Toshiyuki NOHIRA	Electrochemistry	IAE, Kyoto University, Japan	Conversion of CO ₂ into Useful Substances		
9:40	0:20	10:00	1:40	2:00	18:40	19:00			Yuhei MIYAUCHI	Materials Science	IAE, Kyoto University, Japan	Solar Energy Utilization for CO ₂ Capture and Conversion		
10:00	0:20	10:20	2:00	2:20	19:00	19:20			Haruyuki ATOMI	Microbiology	Kyoto University, Japan	Biological Utilization of CO ₂		
10:20	0:30	10:50	2:20	2:50	19:20	19:50			Yoong Ahm KIM	Carbon Materials	Chonnam National University, Korea	Carbon Nanotubes in Electric Vehicle Batteries: Advances, Applications, and Future Potential		
10:50	0:10	11:00	2:50	3:00	19:50	20:00			Break (10 min)					
11:00	0:10	11:10	3:00	3:10	20:00	20:10	Kihada Hall, Obaku Plaza	Award Ceremony	Masato KATAHIRA					
11:10	0:10	11:20	3:10	3:20	20:10	20:20	Kihada Hall, Obaku Plaza	Closing	Yuhei MIYAUCHI					
13:00	4:35	17:35	5:00	9:35	22:00	2:35	Seminar I [Quantum Radiation Energy] The 31st FEL and High-Power Radiation Workshop, Venue : Seminar Room 4 and 5, Obaku Plaza							

Timetable December 13th, 2024										
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9:10	3:05	12:15	1:10	4:15	18:10	21:15	Seminar I [Quantum Radiation Energy] The 31st FEL and High-Power Radiation Workshop, Venue : Seminar Room 4 & 5, Obaku Plaza			
9:00	8:00	17:00	1:00	10:00	18:00	2:00	Seminar II [Carbon Negative Science] Symposium on Exploring Carbon Negative Energy Science 2024, Venue : Main Building 5F W-503E & Online			