

Oral Session: Forum on Materials Engineering for Sustainable Energy and Environment

Keynote/Invited	Presentation NO	Presentation date	Time to start	Time to finish	Account: First name	Account: Middle	Account: FAMILY	Account: Affiliation	Abstract title
"CO₂ Engineering" Chairperson: (Naoki Kishimoto, National Institute for Materials Science), Moderator (Louis Schlapbach, Prof.Em. Physics ETH/ NIMS)									
Keynote	F-1-K24-001	24 Sep.	12:15	12:40	Xianhong		Wang	Changchun Institute of Applied Chemistry (CIAC), CAS	How to Make CO ₂ a Viable Raw Material for Polymer Industry
Keynote	F-1-K24-002	24 Sep.	12:40	13:05	Peter		Fritz	Karlsruhe Institute of Technology (KIT)	Strategies for the Reduction of CO ₂ Emission from Technical Processes
Invited	F-1-I24-003	24 Sep.	13:05	13:20	Jacques		Amouroux	University Pierre and Marie Curie/ENSCP	CO ₂ Recycling in a Chemical Fuel for Energy Storage
Invited	F-1-I24-004	24 Sep.	13:20	13:35	Kazuhito		Hashimoto	The University of Tokyo	Artificial Photosynthesis: Importance of Multiple-Electron Catalysts
Invited	F-1-I24-005	24 Sep.	13:35	13:50	Shigeru		Takahashi	Japan Cement Association	Energy Consumption and Saving in the Cement Industry of Japan
Invited	F-1-I24-006	24 Sep.	13:50	14:05	Kazuhiko		Takeuchi	National Institute of Advanced Industrial Science and Technology (AIST)	CO ₂ Fixation in Polymeric Materials as a Building Block
Open Discussion		24 Sep.	14:05	14:35					
Wrap-up		24 Sep.	14:35	14:45					
"Thermal Energy Engineering" Chairperson: (Naoki Kishimoto, National Institute for Materials Science), Moderator (Louis Schlapbach, Prof.Em. Physics ETH/ NIMS)									
Keynote	F-1-K25-007	25 Sep.	12:15	12:45	Gianluca		Ambrosetti	Airlight Energy Manufacturing SA	High-Temperature Industrial Process Heat from Concentrated Solar Power
Invited	F-1-I25-008	25 Sep.	12:45	13:05	Mark		Zimmermann	EMPA Swiss Federal Laboratories for Materials Science and Technology	New European Approaches for Holistic Renewal and Energy Efficiency in the Existing Building Stock
Invited	F-1-I25-009	25 Sep.	13:05	13:20	Yutaka		Kagawa	The University of Tokyo	High Temperature Thermal Managing Environmental Barrier Coatings: Concept and Future Applications
Invited	F-1-I25-010	25 Sep.	13:20	13:35	Toshiyuki		Mori	National Institute for Materials Science (NIMS), Battery Materials Unit	Design of Interface and Bulk Structure in the Fuel Cell Materials for Development of Intermediate Temperature Operation Fuel Cells
Invited	F-1-I25-011	25 Sep.	13:35	13:50	Takao		Mori	National Institute for Materials Science (NIMS), MANA & TIA	Development of Viable Thermoelectric Materials
Invited	F-1-I25-012	25 Sep.	13:50	14:05	Qiang		Feng	University of Science and Technology Beijing (USTB)	Progress and Prospective of Ni-base Superalloys in Land-base Gas Turbine Systems of Power Generation Industry in China
Open Discussion		25 Sep.	14:05	14:35					
Wrap-up		25 Sep.	14:35	14:45					
"Electronic Device Energy Engineering" Chairperson: (Louis Schlapbach, Prof.Em. Physics ETH/ NIMS) , Moderator (Toyohiro Chikyow, National Institute for Materials Science)									
Keynote	F-1-K26-013	26 Sep.	12:15	12:45	Sakae		Tanaka	AQUABIT Corporation	Future Prospect 2012-2025 - What is Required for Energy Management in the NEXT Society? –
Invited	F-1-I26-014	26 Sep.	12:45	13:00	Keiji		Takeuchi	NTT Data Institute of Management Consulting, Inc.	Energy Harvesting, Autonomous Devices and Internet of Things
Invited	F-1-I26-015	26 Sep.	13:00	13:15	Toyohiro		Chikyow	National Institute for Materials Science (NIMS)	Materials Design and Required Aspect for Power Saving in Nano Electronics
Invited	F-1-I26-016	26 Sep.	13:15	13:30	Kazuya		Terabe	National Institute for Materials Science (NIMS)	Atomic Switch Realized by Local Ion Migration and Electrochemical Reaction
Invited	F-1-I26-017	26 Sep.	13:30	13:45	Junji		Tominaga	National Institute of Advanced Industrial Science and Technology (AIST)	Interfacial Phase-change Memory (iPCM) with Giant Magnetoresistance Effect
Invited	F-1-I26-018	26 Sep.	13:45	14:00	Horst		Hahn	Karlsruhe Institute for Technology (KIT)	Nano-Electronic Devices for Energy Engineering
Open Discussion		26 Sep.	14:00	14:30					
Wrap-up		26 Sep.	14:30	14:40					
"Water Materials Engineering" Chairperson: (Naoki Kishimoto, National Institute for Materials Science), Moderator (Louis Schlapbach, Prof.Em. Physics ETH/ NIMS)									
Keynote	F-1-K27-019	27 Sep.	12:15	12:45	Philippe		Corvini	University of Applied Sciences Northwestern Switzerland	Nanocatalytic weapons to take on the micropollutant challenge in the wastewater
Invited	F-1-I27-020	27 Sep.	12:45	13:00	Qian		Feng	Hohai University	Application of Membrane Filtration Technologies in Water Treatment - Some Examples in China
Invited	F-1-I27-021	27 Sep.	13:00	13:15	Winson		Lay	Technology Department, Public Utilities Board, Singapore	Research and Development of Water Supply Management in Singapore
Invited	F-1-I27-022	27 Sep.	13:15	13:30	Keisuke		Fukushi	Kanazawa University	Uptake of Toxic Trace Elements from Solutions by Minerals Composed of Ubiquitous Elements
Invited	F-1-I27-023	27 Sep.	13:30	13:45	Ken'ichi		Ito	University of Miyazaki	Countermeasures Against Water Contamination
Invited	F-1-I27-024	27 Sep.	13:45	14:00	Hirohisa		Yamada	National Institute for Materials Science (NIMS)	Database of Remediation Materials for Fukushima Problems
Open Discussion		27 Sep.	14:00	14:30					
Wrap-up		27 Sep.	14:30	14:40					