

**France-Japan Symposium**

# **Advanced Materials for Energy Future**

**Towards reliable, durable and safe materials  
for energy production and storage**

**Date:**

**June 30th 2014 - 9h15-17h05**

**July 1st 2014 - 9h15-17h45**

**Conference Venue:**

**Science Council of Japan in Tokyo**



Ambassade de France au Japon



**France-Japan Symposium on**  
**Advanced Materials for Best Energy Future:**  
***Towards reliable, durable and safe materials for energy production***  
***and Storage***

**The Auditorium, Science Council of Japan, Tokyo,**

**June 30<sup>th</sup>-July 1<sup>st</sup> 2014**

In an international context of energy transition, France and Japan are seeking the optimal energy mix. The latter, combining conventional and alternative pathways, should be able to meet the demand for energy while protecting the environment. Secure, competitive and sustainable, the optimal energy mix requires significant research and innovation efforts in two directions: (1) improving thermal energy technologies and (2) development and smart integration and storage of reliable renewable energies.

These energy technologies require more and more efficient materials, usable under extreme conditions (high pressure, high temperature and corrosive environment) and allowing high service life, while increasing the reliability and safety of structures and facilities. The success of research and development activities rely on the design of new materials adapted to the environmental constraints, leading to sustainable technology solutions.

This first France-Japan symposium aims to bring together specialists in Energy and Materials for Energy to address the following topics: (1) energy policy in France and Japan in the context of the energy transition, (2) advanced materials significance for the future of conventional and renewable energy technologies.

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France-Japan Symposium on Advanced Materials for Energy Future

Towards reliable, durable and safe materials for energy production and storage:

Some of the information may change from now on.

Tentative Time Table as of 25 Jun, 2014

Monday, June 30, 2014

9:00 9:15 Registration

Opening				
9:15	9:25	Takashi Onishi	President, Science Council of Japan; President, Toyohashi University of Technology	welcome address
9:25	9:35	Jacques Maleval	Councilor for Science and Technology, Embassy of France,	welcome address
9:35	9:45	Yasuhiro Iye	Vice President, Science Council of Japan; Professor, The University of Tokyo	introduction
Global Issues and energy transition (Chair: Yasuhiro Iye)				
9:45	10:10	Koichi Yamada	Deputy Director-General, Center for Low Carbon Society Strategy (LCS), Japan Science and Technology Agency (JST); Executive Advisor, Office of the President, The University of Tokyo	Importance of the renewal energy R&D for global warming mitigation – Cost and CO2 emissions of future power generation –
10:10	10:35	Yves Brechet	High Commissioner for Atomic Energy, Member of Sciences Academy, Professor of material sciences at Grenoble Institute of Technology	Analyzing Energy Mix: Consequences on Material's Issues
10:35	11:00	Jan Van Der Lee	Director, EDF/Materials Ageing Institute	Industrial Challenges for Secure and Affordable Electricity Supply in a Changing World
Break				
Advanced materials for nuclear energy (Chair: )				
11:20	11:45	Clara Desgranges	Head of Laboratory of Modeling, Thermodynamics, Thermochemistry, CEA (French Alternative Energies and Atomic Energy Commission)	Advanced Materials for the Future of Nuclear Energy and Development of Modeling Tools for the Study of Accidental Conditions
11:45	12:10	Michel Vilasi	Professor at the University of Lorraine, Head of the CP2S Department of the IJL(Chimie et Physique des Solides et des Surfaces)	A physico-chemical approach of the vitrification process of nuclear wastes
12:10	12:35	Tetsuo Shoji	Council Member (Section III), Science Council of Japan; Professor, Frontier Research Initiative (FRI), New Industry Creation Hatchery Center (NICHe), Tohoku University	Proactive Materials Aging Issues and a Role of Hydrogen for Safe and Reliable Operation of Nuclear Power Plants
12:35	13:00	Nicolas Devictor	Deputy program manager "Generation IV Reactors", CEA (ASTRID programme)	ASTRID program and related R&D needs on materials

Lunch Break

Advanced materials for renewable energies (Chair: )				
14:10	14:35	Ronan Stephan	Chief Innovation Officer, Alstom	Systematic challenges for smart and sustainable territories
14:35	15:00	Kazunari Sasaki	Distinguished Professor & Director, Next-Generation Fuel Cell Research Center; International Research Center for Hydrogen Energy, International Institute for Carbon-Neutral Energy Research (I2CNER); Faculty of Engineering, Kyushu University	Materials Research for Next-Generation Fuel Cells: Current status and future perspectives
15:00	15:25	Patrick Ginet	Materials Science Group Manager, Air Liquide Laboratories, Tsukuba, Japan	Materials Challenges for Hydrogen Energy Technologies
Break				
15:50	16:15	Kenichiro Saitoh	Senior Fellow, JX Nippon Oil & Energy Corporation Central technical research laboratory	Toward FCV/H2 Infrastructure Deployment
16:15	16:40	Jean-François Guillemoles	Director NEXTPV, Ecole nationale supérieure de chimie de Paris	Solar Energy in France: Current situation and future developments
16:40	17:05	Hiroshi Segawa	Professor, Research Center for Advanced Science and Technology, The University of Tokyo	Organic and Hybrid Photovoltaics, Electrochemistry, Photochemistry

Tuesday, July 1, 2014

National Energy Policy and STI (Science, Technology and Innovation) Strategy (Chair: Nobuhide Kasagi: Professor Emeritus, The University of Tokyo; Deputy Director-General, Center for Research and Development Strategy, Japan Science and Technology Agency)				
9:15	9:45	Takao Kashiwagi	Distinguished Professor, Tokyo Institute of Technology, Center Director, Advanced Energy Systems for Sustainability(AES)	
9:45	10:15	Ait Aïssa		
10:15	10:30	Discussion		
Break				
Advanced materials for power storage and distribution (Chair: )				
10:50	11:15	Noritaka Mizuno	Professor, Department of Applied Chemistry, School of Engineering, The University of Tokyo	Innovative Basic Research Toward Creation of High-performance Battery
11:15	11:40	Patrice Simon	Inter-university Material Research and Engineering Centre (CIRIMAT), University of Toulouse III	Materials for batteries and supercapacitors: Recent advances at the French level
11:40	12:05	Sataro Yamaguchi	Professor, Chubu University, Director, Center of Applied Superconductivity and Sustainable Energy Research	Superconducting DC power transmission line as the most efficient energy transports
12:05	12:30	Nouredine Hadjsaid	Deputy Director, Grenoble Electrical Engineering Laboratory/G2ELAB	Smartgrids: stakes, research needs and opportunities for advanced energy materials

Lunch Break

Advanced materials for thermal energy - waste to energy (Chair: )				
13:45	14:10	Michio Kondo	Deputy Director-General, Fukushima Renewable Energy Institute, NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY (AIST)	Silicon or not Silicon ? - Materials for Solar Photovoltaics To Come.
14:10	14:35	Jean-Michel Brossard	"Material for technologies" Research Group Manager, Veolia Environnement Research and Innovation (VERI SNC)	Energy from Waste and bio-solid fuel : key role of material in asset management
14:35	15:00	Minoru Suzuki	Senior Researcher , General Manager, Residential Energy System Development Dept, Osaka Gas Co., Ltd.	Development and Commercialization start-up of Solid Oxide Fuel Cell residential CHP system
15:00	15:25	Yuzou Kawahara	General Manager, DHF Bi-met DIVISION, DAI-ICHI HIGH FREQUENCY CO., LTD.	Innovations on Material and Coating Technologies for High Efficiency Waste/Biomass-to-Energy Plants
Break				
Advanced materials for thermal energy - waste to energy (Chair: )				
15:45	16:25	Jean-Yves Guedou	Conseiller scientifique matériaux, SNECMA Groupe Safran	Turbo-engines: From Aeronautical Industry to Power Generation
16:25	16:50	Kazuo Tomida	Manager, Development Design Group, Fuel Cell Business Department, Mitsubishi Hitachi Power Systems, Ltd.	Recent Progress of SOFC-GT Combined Cycle System with Segmented-in-series Tubular Type Cell Stack at MHPS
16:50	17:15	Hideyuki Murakami	Group Leader, Surface Kinetics Group, High Temperature Materials Unit, National Institute for Materials Science (NIMS)	materials for extreme conditions
Closing				
17:15	17:45	Yves Brechet Yasuhiro Iye		

<Inquiries>

For inquiries about Venue and General Information

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(ACCESS)

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