

Session Program

19, February (Mon)

Time

- 13:30 ~ 13:45 **Greetings**
Ryutaro OHTSUKA, D.Sc.
President of the National Institute for Environmental Studies (NIES)
- 13:45 ~ 13:55 **Opening Address**
Koya ISHINO
Councillor, Minister's Secretariat
Ministry of the Environment
- 14:00 ~ 14:50 **[Keynote 1]**
"Nanotechnologies, Advanced Materials and Environment in China"
Paul Ching-Wu Chu, Ph.D.
President of The Hong Kong University of Science and Technology
Executive Director
University of Houston, Texas Center for Superconductivity
<http://www.ust.hk/en/>
- 14:50 ~ 15:40 **[Keynote 2]**
"Environmental Technology for Sustainable Development"
Motoyuki SUZUKI
Professor Emeritus of The University of Tokyo
United Nations University Special Programme Advisor
Chair of The Central Environmental Council
- 15:40 ~ 16:00 *Break*
- 16:00 ~ 16:50 **[Keynote 3]**
"Environmental Nanotechnology from the European Union Viewpoint"
David G. Rickerby, Ph.D.
Senior Scientific Officer
Institute for Environment and Sustainability
European Commission, DG Joint Research Centre
<http://ies.jrc.cec.eu.int/>
- 16:50 ~ 17:40 **[Keynote 4]**
**"Potential of Environmental Nanotechnology in the Global Market
- from a VC Point of View"**
Masazumi ISHII
Managing Director
Noventi
<http://www.noventivc.com/>
- 18:00 ~ 20:00 **Reception Party**



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9:30 ~ 10:20 **[Keynote 5]**
"Applied Nanotechnology for Human Space Exploration"

Leonard L. Yowell, Ph.D.
Applied Nanotechnology Project Lead
NASA Johnson Space Center
<http://mmptdpublic.jsc.nasa.gov/jscnano/>



10:20 ~ 10:30 *Break*

10:30 ~ 10:50 **[Session 1]**
"Overview of Environmental Nanotechnology Projects Conducted by NIES"

Takatsugu UEHIRO
National Institute for Environmental Studies

10:50 ~ 11:40 **[Session 2]**
"Development of Environmental Monitoring System in Personal Space"

Masahiro UTIYAMA
National Institute for Environmental Studies

Sub Topic:
"High Sensitivity Semiconductor Gas Sensors Using Nano-design of Electrode Structure"
Jun TAMAKI
Ritsumeikan University

11:40 ~ 13:00 *Break*

13:00 ~ 13:50 **[Session 3]**
**"Development of a Compact Aerosol Monitoring System
Using Advanced Nano-carbon Materials"**

Hiroshi KUME
National Institute for Environmental Studies

Sub Topic-1:
"Emission Characteristics and Applications of Micro- or Nano-field Emitters"
Hidenori MIMURA
Shizuoka University

Sub Topic-2:
"High Brightness Electron Emission from Graphite Nanocrater Cold Cathode and Their Applications"
Takahiro MATSUMOTO
STANLEY ELECTRIC Co., LTD.

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13:50 ~ 14:40

[Session 4]

**"Outline of The Project on Development of
Selective Adsorption Media for Organic Pollutants"**

Kunimitsu KAYA
Tohoku University

Sub Topic-1:

"Development of Molecularly Imprinted Membranes"

Ken HOSOYA
Graduate School of Environmental Studies, Tohoku University

Sub Topic-2:

"Development of The Selective Separation Media for The Environmental Pollutants"

Takuya KUBO
Graduate School of Environmental Studies, Tohoku University

14:40 ~ 15:30

[Session 5]

**"A Research Outline for 'Application of Temperature-sensitive
Hydrophobic Interaction to Green Chromatography'"**

Seishiro HIRANO
National Institute for Environmental Studies

Sub Topic:

"Green Chromatography - Theory and Application -"

Teruo OKANO
Tokyo Women's Medical University

15:30 ~ 15:50

Break

15:50 ~ 16:40

[Session 6]

**"Development of Artificial Tissue-Nano Device Complex for Risk Assessment
-Development of pseudo-extracellular matrices for serving
as a functional interface between artificial tissues and nano devices"**

Katsumi MOCHITATE
National Institute for Environmental Studies

Sub Topic-1:

"Endothelial Sensing System for Qualified Analysis Using Cell Adhesive NO Sensor Matrix"

Tetsuya HARUYAMA
Kyushu Institute of Technology

Sub Topic-2:

"TiO₂/2DEG-FETs for Cell Activity Sensors"

Kazunari OZASA
RIKEN



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- 16:40 ~ 17:30 **[Session 7]**
**"Overview of Micro-nano Systems for Environmental Microbiology
and Management of Water Environment"**
Tomoaki ITAYAMA
National Institute for Environmental Studies
Sub Topic-1:
"Development of Electrochemical Systems for Microbiology and Cell Biology"
Tomokazu MATSUE
Tohoku University
Sub Topic-2:
"Development of Bio-MEMS Technologies"
Naoya ICHIMURA
KRI, Inc.

The 1st International Environmental Nanotechnology Workshop

Date: 2007, Feb. 19 (Mon.) and 20 (Tue.)

Venue: The Japan Science and Technology Corporation National Museum of Emerging Science and Innovation

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