

Program

May 25 Friday

18:00 – 20:00 **Reception**
Mielparuque Nagano (Hotel)

May 26 Saturday

Place: SASTec Building 3F, School of Engineering, Shinshu University

8:30 – 10:00 **Registration**

Session 26-M1

10:00 – 10:10 **K. Kaneko** Welcome and Brief introduction of research
Shinshu University

10:10 – 10:40 **F. Rodriguez-Reinoso**
Novel nanoporous carbons for the adsorption of CH₄ or CO₂
Universidad de Alicante, Spain

10:40 – 11:10 **F. Y. Kang**
NO_x Removal at Room Temperature over Carbon Nanofibers Fabricated by Electrospinning
Tsinghua University, China

Coffee Break

Session 26-M2

11:30 – 12:00 **T. Machida**
Monitoring of Atmospheric CO₂, its temporal changes and global distribution
National Institute for Environmental Studies, Japan

12:00 – 12:15 **Y. Hattori**
Carbon nanosheets for use in high-power energy storage devices
Shinshu University, Japan

12:15 – 12:30 **F. Sotomayor**
Evaluation of the Metal-Organic Framework ELM-11 in Various CO₂ Gas Separation Applications
University of Michigan, USA

Lunch

Session 26-A1

- 14:00 – 14:40 **A. H. Fuchs**
Structural Transitions in Metal-Organic Framework (MOF) Materials Upon Fluid Adsorption. A Theoretical Approach
Centre National de la Recherche Scientifique, France
- 14:40 – 15:10 **L. Carlucci**
FROM β -DIKETONATE COMPLEXES TO POROUS HETEROMETALLIC COORDINATION NETWORKS
Universita degli Studi di Milano, Italy
- 15:10 – 15:25 **H. Kajiro**
Structures and Functions of Two-Dimensional Square-Grid Coordination Polymers
Nippon Steel Corporation, Japan
- 15:25 – 15:55 **M. Yudasaka**
High Uptake Cytotoxicity of Single-Walled Carbon Nanohorns in Murine Macrophage RAW264.7
National Institute of Advanced Industrial Science and Technology, Japan

Coffee break

Session 26-A2

- 16:20 – 16:50 **F. Kapteijn**
Catalysis Engineering of Metal Organic Frameworks
Delft University of Technology, Netherlands
- 16:50 – 17:10 **R. Matsuda**
Stimuli Responsive Porous Coordination Polymers Having Selective Guest Sorption Functions
ERATO, Kyoto University, Japan
- 17:10 – 17:40 **Y. Iwasawa**
The Structure and behavior of core-shell Pt-M(Au, Pd) nanoparticles on carbon in polymer electrolyte fuel cells under voltage operating conditions characterized by in situ x-ray absorption fine structure(XAFS)
The University of Electro-Communications, Japan
- 17:40 – 17:55 **T. Ohkubo**
Nano-Restricted Hydration Structure around a Divalent Ion Formed in Carbon Nanospace
Okayama University, Japan
- 17:55 – 18:25 **M. Abe**
Photo-Switchable Surfactant Solution
Tokyo University of Science, Japan
- 18:25 – 18:40 **T. Sakai**
Poly(ethylene oxide)-Poly(propylene oxide)-Amines as Media for Gold Nanoparticle Synthesis in Aqueous Solutions
Shinshu University, Japan
- 19:00 – 20:00 **Poster with snacks**

May 27 Sunday

Place: SASTec Building 3F, School of Engineering, Shinshu University

Session 27-M1

8:30 – 9:00

P. A. Monson

Fluids in Porous Materials with Partial Wetting: Implications for Carbon Adsorbents

University of Massachusetts, USA

9:00 – 9:15

H. Tanaka

Hydrogen Isotope Separation in Zeolite-Carbon Complex

Kyoto University, Japan

9:15 – 9:30

T. Ohba

Facilitation of Water Penetrations through Zero-Dimensional Nanospaces on Graphene Sheet of Single Walled Carbon Nanohorn

Chiba University, Japan

9:30 – 10:00

S. K. Bhatia

Understanding the Diffusion of Water in Disordered Carbons

The University of Queensland, Australia

10:00 – 10:30

M. T. Miyahara

Critical Point of Simple Fluid Confined in Carbon Nanopores

Kyoto University, Japan

Coffee break

Session 27-M2

11:00 – 11:30

K. E. Gubbins

Under Pressure: Quasi-High Pressure Effects in Nano-Pores

North Carolina State University, USA

11:30 – 11:45

K. Urita

Protection effect of single-walled carbon nanotube to introduced nanoparticles against external environment

Nagasaki University, Japan

11:45 – 12:00

M. Sliwinska-Bartkowiak

Structure of water confined in nanocarbons - pressure enhancement effects

A.Mickiewicz University, Poland

12:00 – 12:30

M. Matsukata

Perspective on energy-saving with membrane separation: Nanoporous materials are attractive candidates as novel membrane

Waseda University, Japan

Lunch

Session 27-A1

- 14:00 – 14:30 **M. Endo**
Carbon Nanotube, Past, Present, and Future
Shinshu University, Japan
- 14:30 – 15:00 **S. H. Yoon**
Enhancement of rate performance of anodic materials for Li-ion batteries
Kyushu University, Japan
- 15:00 – 15:15 **Z. M. Wang**
Reduced Graphene Oxide-Periodic Mesoporous Silica Sandwich Nanocomposites with Vertically Aligned Mesochannels
National Institute of Advanced Industrial Science and Technology, Japan
- 15:15 – 15:30 **Y. A. Kim**
Substitutionally Boron-Doped Single-Layer Graphene
Shinshu University, Japan

Coffee break

Session 27-A2

- 16:00 – 16:30 **M. Terrones**
The Role of Defects and Doping in Graphene-like Materials
Shinshu University, Japan/The Pennsylvania State University, USA
- 16:30 – 16:45 **J. Miyawaki**
Quantitative Analyses of Adsorption Characteristics of Ions in EDLC System by Solid-state NMR
Kyushu University, Japan
- 16:45 – 17:05 **T. Iiyama**
Intermolecular-Structure Change of Confined Organic Electrolytic Solution on Application of Electric Potential
Shinshu University, Japan
- 17:05 – 17:30 **H. Kanoh**
Confinement Effect of Carbon Nanospaces on Structures of an Ionic Liquid
Chiba University, Japan
- 17:30 – 18:00 **C. H. Lee**
High Pressure Adsorption Behaviors of CO₂/CH₄/H₂O mixture on Anthracite Coal for ECBM
Yonsei University, Korea
- 18:00 – 18:15 **M. Kimura**
VOC Detection by Microcantilever Sensor Arrays using TiO₂ Porous Films covered with Polythiophene Monolayers
Shinshu University, Japan
- 19:00 – 21:30 **Banquet**
Mielparque Nagano (Hotel)

May 28 Monday

Place: Hakuba Highland Hotel

8:30 – 10:00 **Transportation to Hakuba Highland Hotel by chartered bus**

Session 28-A1

- 14:00 – 14:30 **J. Jagiello**
Effect of Energetically Heterogeneous and Curved Pore Walls on Adsorption in Porous Carbons
Micromeritics Instrument Corporation, USA
- 14:30 – 14:45 **M. Yoshida**
High resolution N₂ adsorption isotherms from extremely low relative pressure at 77.4 K and 87.3 K -Analysis of porous texture of activated carbon fibers by as-method-
BEL JAPAN Inc., Japan
- 14:45 – 15:00 **D. Minami**
Quantum Sieving Effect for Methane Isotopes on Nanoporous Materials
Shinshu University, Japan
- 15:00 – 15:15 **R. Futamura**
Anomaly in Density Change of Water in Carbon Micropores over Wide Temperature Range
Shinshu University, Japan
- 15:15 – 15:30 **M. Martinez-Escandell**
Very high surface area nanostructured porous carbons from petroleum pitch
Universidad de Alicante, Spain
- 15:30 – 16:00 **A. Matsumoto**
Effect of Pillar Ligand Rigidity on Adsorption Characteristics of MOF materials
Toyohashi University of Technology, Japan

Coffee break

Session 28-A2

- 16:30 – 17:00 **Y. Tao**
Effect of O₂ Plasma, H₂O₂ and KClO₃ Treatments on the Surface Properties of Vapor Grown Carbon Nanofibers
Fujian Institute of Research on the Structure of Matter, China
- 17:00 – 17:15 **T. Fujimori**
Metallic Phase of One-Dimensional Sulfur Chain in Carbon Nanospaces
Shinshu University, Japan
- 17:15 – 17:30 **F. Tristan-Lopez**
Graphene Oxide/MWNT Hybrid Films via Self-Assembly from Aqueous Solutions
Shinshu University, Japan

17:30 – 18:00	H. Wagata <i>Highly Crystalline, One-Dimensional Metal Oxides Grown by Nanocarbon Material-Assisted Flux Method</i>	Shinshu University, Japan
18:00 – 18:15	A. Morelos-Gómez <i>Graphene Nanoribbons Synthesized by Unzipping Nanotubes via Abrupt Thermal Expansion of Molecular Nitrogen</i>	Shinshu University, Japan
18:15 – 18:30	L. Song <i>Characterization and Adsorption Properties of Nanodiamond</i>	Shinshu University, Japan
After dinner	Discussion with snacks	

May 29 Tuesday

Place: Hakuba Highland Hotel

Session 29-M1

8:30 – 8:45	T. Itoh <i>Surface Modification of Single Wall Carbon Nanotube by Adding Treatment of Aromatic Hydrocarbons</i>	Shinshu University, Japan
8:45 – 9:00	F. Khoerunnisa <i>Enhanced CO₂ Adsorptivity of Partially Charged Single Wall Carbon Nanotubes by Methylene Blue Encapsulation</i>	Shinshu University, Japan
9:00 – 9:15	H. Sakamoto <i>Characterization of Water Molecules Accommodated in An Activated Carbon</i>	Shinshu University, Japan
9:15 – 9:30	K. V. Kumar <i>Molecular Simulations of the Effect of Pore Morphology on the Adsorption of CH₄/H₂ Mixtures on Carbon Micropores</i>	Universidad de Alicante, Spain
9:30 – 9:45	S. Wang <i>Ni-Dispersed Single Wall Carbon Nanohorn Catalysts for CH₄ Decomposition</i>	Shinshu University, Japan
9:45 – 10:00	K. Kaneko Future subjects	Shinshu University, Japan

JST Japan-Spain Meeting

10:10 – 10:30

F. Rodriguez-Reinoso

Universidad de Alicante, Spain

10:30 – 10:40

K. Kaneko

Discussion

Shinshu University, Japan

Adjourn

Poster Session

May 26(Saturday) 19:00-20:00

Place: SASTec Building 3F, Faculty of Engineering, Shinshu University

- P01** *Application of mesophase pitch-based carbon fibers to anode of lithium ion capacitors*
S. Kamiya, A. Iwata, T. Kitano, F. Okino
- P02** *Synthesis of Holey Graphene from Graphene Oxide Sheets Decorated with Silver Nanoparticles*
S. M. Vega-Díaz, A. Morelos-Gómez, F. Tristán-López, F. Khoerunnisa, V. J. González, S. Nimura, H. Sakamoto, R. Cruz-Silva, K. Kaneko, M. Endo, and M. Terrones
- P03** *Systematic mechanochemical preparation of a series of coordination pillared-layer frameworks*
H. Sakamoto, R. Matsuda, and S. Kitagawa
- P04** *CO₂ Adsorption Properties of Activated Carbon Fibers at Ambient Conditions*
Y. Nakahigashi, H. Kanoh, T. Ohba, M. Baba, Y. Hattori, N. Inoue, and M. Morimoto
- P05** *Mechanical Properties and Surface Structure of Nanocarbon Films Supported on Plastic Substrates*
S. Utsumi, K. Arai, K. Nishiyama, T. Ohba, H. Kanoh, and K. Kaneko
- P06** *Na ion adsorption properties of carbon nanotubes and related materials*
T. Matsushita, Y. Ishii and S. Kawasaki
- P07** *Intermolecular Structure of Carbon Dioxide Adsorbed in Carbon Nanospaces of Single Wall Carbon Nanohorn*
T. Hara, T. Ohba, **D. Minami**, T. Itoh, T. Fujimori, H. Kanoh, M. Yudasaka, S. Iijima, K. Kaneko
- P08** *Red-Fluorescence from Azupyrene-encapsulated Metallic Single-Wall Carbon Nanotubes in Bundled State*
T. Fujimori and K. Kaneko
- P09** *Anomaly in Density Change of Water in Carbon Micropores over Wide Temperature Range*
R. Futamura, T. Iiyama, A. Hamasaki and S. Ozeki
- P10** *Surface Modification of Single Wall Carbon Nanotube by Adding Treatment of Aromatic Hydrocarbons*
T. Itoh, T. Fujimori, K. Fujisawa, S.-Y. Hong, Y.-C. Choi, M. Endo, and K. Kaneko
- P11** *Porosity and Electronic Properties Control of SWCNT with Naphthalene Derivatives Adsorption*
F. Khoerunnisa, T. Fujimori, T. Itoh, S. Y. Hong, Y. C. Choi, M. Endo, K. Kaneko
- P12** *Ni-Dispersed Single Wall Carbon Nanohorn Catalysts for CH₄ Decomposition*
S. Wang, T. Itoh, T. Fujimori, M. M. Castro, A. Silvestre-Albero, F. Rodríguez-Reinoso, T. Ohba, H. Kanoh, M. Endo, K. Kaneko
- P13** *Graphene produced by chemical and thermal reduction of graphite oxide: Spectroscopic and thermal study.*
A. Castro, S. Sepulveda-Guzman, **R. Cruz-Silva**, L. Albanil, W. de la Cruz, F. Tristan, S. Vega-Diaz, M. Endo, M. Terrones