

# CARBON 2008 Conference Program (Tentative 08.04.15)

## Oral Sessions

### MONDAY. JULY 14, 2008

#### 14AM1 Metropolitan

8:00 – 9:00 Asama B,C **OPENING REMARKS**

Conference Chair **Morinobu. Endo (Shinshu Univ., Japan)**

9:00 – 9:50 Asama B,C **PLENARY LECTURE**

**Professor Takashi Kyotani (Tohoku Univ., Japan)**

“Templated Carbons - Nanostructure and Functions“

9:50 – 10:20 **BREAK** Metropolitan Foyer 3F, Asama B, Foyer 2F, Sunroute Foyer 3F

#### 14AM2 (ORAL SESSION 1)

##### Session A

Metropolitan Room Asama A

**BIOLOGICAL AND MEDICAL APPLICATIONS**

##### 14A-am-01 10:20 – 10:50 KEYNOTE LECTURE

**Biological (Immunological) Responses and Medical Application of Carbon Nanotube**

Prof. Shozo Koyama (Shinshu Univ., Japan)

##### 14A-am-02 10:50 – 11:10

**Chemical Modification of Nanodiamond Surface Aiming at Medicinal and Biological Applications**

Naoki Komatsu<sup>1</sup>, Tatsuya Takimoto<sup>1</sup>, Takahide Kimura<sup>1</sup>, Masahito Morita<sup>1</sup>, Toshiro Inubushi<sup>1</sup> (<sup>1</sup>Shiga Univ. of Medical Science, Japan)

##### 14A-am-03 11:10 – 11:30

**SWNH-Streptavidin: an Effective Anticancer Drug Delivery System**

Jianxun Xu<sup>1</sup>, Masako Yudasaka<sup>2</sup>, Minfang Zhang<sup>2</sup>, Sumio Iijima<sup>2,3</sup> (<sup>1</sup>Japan Science and Technology, Japan) (<sup>2</sup>Japan Science and Technology, c/o NEC, Japan) (<sup>3</sup>Meijo Univ., Japan)

##### 14A-am-04 11:30 – 11:50

**Targeted Removal of Bioavailable Metal as a Detoxification Strategy for Carbon Nanotubes**

Robert Hurt<sup>1</sup>, Xinyuan Liu<sup>1</sup>, Lin Guo<sup>1</sup>, Daniel Morris<sup>1</sup>, Agnes Kane<sup>1</sup> (<sup>1</sup>Brown Univ., USA)

##### 14A-am-05 11:50 – 12:10

**Application of Granular Carbon Materials on Micro-contaminations Removal: Case Study**

Chuan Chi Chien<sup>1</sup>, Chih Ming Kao<sup>2</sup>, Ying Pin Huang<sup>1</sup>, Ching Hui Chang<sup>1</sup> (<sup>1</sup>Industrial Technology Research Institute, Taiwan) (<sup>2</sup>National Sun Yat-Sen Univ., Taiwan)

##### 12:10 – 13:30 LUNCH

Metropolitan Asama B, C and Chikuma

##### Session B

Metropolitan Room Azusa

**ELECTROCHEMISTRY, BATTERIES AND CAPACITORS**

##### 14B-am-01 10:20 – 10:50 FEATURED LECTURE

**Nanoporous Carbons for Electric Double Layer Capacitor ~ Not only capacitance But also voltage**

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Prof. Soshi Shiraishi<sup>1</sup> (<sup>1</sup>Gunma Univ., Japan)

##### 14B-am-02 10:50 – 11:10

**Preparation and Characterization of W and Mo Carbides/Carbon Composites with High Specific Surface Area**

Yasushi Soneda<sup>1</sup>, Wei Liu<sup>1</sup>, Junya Yamashita<sup>1</sup>, Masaya Kodama<sup>1</sup>, Hiroaki Hatori<sup>1</sup> (<sup>1</sup>National Institute of Advanced Industrial Science and Technology (AIST), Japan)

##### 14B-am-03 11:10 – 11:30

**Correlations between Chemical Structure, Porosity and High Capacitance of AMN Materials**

Olga Drozdova<sup>1</sup>, Jiping Ye<sup>1</sup>, Masayuki Kawaguchi<sup>2</sup> (<sup>1</sup>Nissan Co, Ltd., Japan) (<sup>2</sup>Osaka Electro. Univ., Japan)

##### 14B-am-04 11:30 – 11:50

**Effect of Nitrogen and Boron Doping on EDLC Characteristics of Ordered Porous Carbon Materials**

Taeri Kwon<sup>1</sup>, Hiroto Nishihara<sup>1</sup>, Yu Fukura<sup>1</sup>, Taichi Kogure<sup>1</sup>, Peng-Xiang Hou<sup>1</sup>, Quan-Hong Yang<sup>2</sup>, Takashi Kyotani<sup>1</sup> (<sup>1</sup>Tohoku Univ., Japan) (<sup>2</sup>Tianjin Univ., China)

##### 14B-am-05 11:50 – 12:10

**EDLC Properties of Novel Type of Phenolic Resin Including Nitrogen Functionality by Using KOH Activation**

Yong Jung Kim<sup>1</sup>, Masaaki Kitani<sup>1</sup>, Tsuyoshi Kodama<sup>1</sup>, Keita Higuchi<sup>1</sup>, Naohiro Aoyama<sup>1</sup>, Takayuki Oka<sup>1</sup>, Akane Kobayashi<sup>1</sup>, Morinobu Endo<sup>1</sup> (<sup>1</sup>Shinshu Univ., Japan)

##### 14B-am-06 12:10 – 12:30

**Commercialisation of Biobased/Nano-Composite Materials for Supercaps**

Martin Cadek<sup>1</sup>, Mario Wachtler<sup>1</sup>, Encarnacion Raymundo-Pinero<sup>2</sup>, Francois Beguin<sup>2</sup> (<sup>1</sup>SGL, Germany)  
(<sup>2</sup>CNRS Orleans, France)

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**12:30 – 13:30 LUNCH**

**Metropolitan Asama B, C and Chikuma**

## **Oral Sessions MONDAY, JULY 14, 2008**

### **14PM1 (ORAL SESSION 2)**

#### **Session A**

**Metropolitan Room Asama A**  
**INDUSTRIAL APPLICATIONS**

#### **14A-pm-01 13:30 – 14:00 FEATURED LECTURE**

**Carbon Materials for Electromagnetic Interference Shielding**

Dr. Yasuhiro Yamada<sup>1</sup>, Deborah Chung<sup>2</sup> (<sup>1</sup>National Institute of Advanced Industrial Science and Technology(AIST), Japan) (<sup>2</sup>State Univ. of New York at Buffalo, USA)

#### **14A-pm-02 14:00 – 14:30 FEATURED LECTURE**

**Bulk Isotropic Pyrolytic Carbon – A High Performance Material for Mechanical Sealing**

Jun-Feng Wu<sup>1</sup>, Shuo Bai<sup>1</sup>, Hong-Jun Xu<sup>1</sup>, Xu-Ke Zhou<sup>1</sup>, Chuan Luo<sup>1</sup>, Hui-Ming Cheng<sup>1</sup> (<sup>1</sup>Chinese Academy of Sciences, China)

#### **14A-pm-03 14:30 – 14:50**

**The Properties of Basic Copper Carbonate Based Impregnation Recipes for the Optimization of Respirator Carbons**

Jock W. H. Smith<sup>1</sup>, Jeff Dahn<sup>1</sup>, Philippe Westreich<sup>1</sup> (<sup>1</sup>Dalhousie Univ., Canada)

#### **14A-pm-04 14:50 – 15:10**

**Powder Injection Molded Graphite for Tribological Applications**

Christian A Rottmair<sup>1</sup>, Michael Gruhl<sup>1</sup> (<sup>1</sup>Univ. of Erlangen, Germany)

#### **14A-pm-05 15:10 – 15:30**

**New Graphite Based Composite Materials for Low Emission Combustion Engines**

Javier Narciso<sup>1</sup>, Noelia Calderon<sup>1</sup>, Alejandro Rodriguez<sup>1</sup>, Segundo Sanchez<sup>1</sup>, Francisco Reinoso<sup>1</sup>, Rachel Rios<sup>1</sup>, Lenneart Ljungberg<sup>2</sup>, Enrique Louis<sup>1</sup> (<sup>1</sup>Alicante Univ., Spain) (<sup>2</sup>Skövde Univ., Sweden)

#### **14A-pm-06 15:30 – 15:50**

**Precise Manipulation of Magnetic Carbon Nanotubes by a Rotational Magnetic Field**

Toru Maekawa<sup>1</sup>, Hisao Morimoto<sup>1</sup>, Akitoshi Eto<sup>1</sup>, Yutaka Nagaoka<sup>1</sup>, Tomofumi Ukai<sup>1</sup>, Nicole Grobert<sup>2</sup> (Toyo Univ., Japan) (University of Oxford, UK)

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#### **15:50 – 16:00 Coffee Break**

**Metropolitan Foyer 3F, Asama B, Foyer 2F, Sunroute Foyer 3F**

#### **Session B**

**Metropolitan Room Azusa**  
**ELECTROCHEMISTRY, BATTERIES AND CAPACITORS**

#### **14B-pm-01 13:30 – 14:00 FEATURED LECTURE**

**Pure Single-walled Carbon Nanotube Electrodes for Supercapacitors**

Dr. Hiroaki Hatori<sup>1</sup>, Osamu Kimizuka<sup>1</sup>, Osamu Tanaike<sup>1</sup>, Junya Yamashita<sup>1</sup>, Don Futaba<sup>1</sup>, Kenji Hata<sup>1</sup>, Susumu Saeki<sup>2</sup>, Yoshio Yamada<sup>2</sup>, Kenji Mashida<sup>3</sup>, Shunzo Suematsu<sup>3</sup>, Kenji Tamamitsu<sup>3</sup> (National Institute of Advanced Industrial Science and Technology(AIST), Japan) (<sup>2</sup>Fukui Univ. Japan) (<sup>3</sup>Nippon Chemi-Con Corporation)

#### **14B-pm-02 14:00 – 14:20**

**Nitrogen-doped Carbons for Supercapacitors**

Denisa Hulicova Jurcakova<sup>1</sup>, Masaya Kodama<sup>2</sup>, Teresa Badosz<sup>3</sup>, Max Lu<sup>1</sup> (<sup>1</sup>Univ. of Queensland, Australia) (<sup>2</sup>National Institute of Advanced Industrial Science and Technology(AIST), Japan) (<sup>3</sup>The City College of New York, USA)

#### **14B-pm-03 14:20 – 14:40**

**Preparation of Ti/O/C/N Materials by Chemical Vapor Deposition Method and their Photo-electrochemical Characteristics**

Yuko Taniguchi<sup>1</sup>, Daizou Imai<sup>1</sup>, Masayuki Kawaguchi<sup>1</sup> (<sup>1</sup>Osaka Electro. Univ., Japan)

#### **14B-pm-04 14:40 – 15:00**

**Capacitor Performance of Carbon Fibers Prepared from Commercially Available Meta-aramid Fiber “Conex”**

Yutaka Kaburagi<sup>1</sup>, Akira Inoue<sup>1</sup> (<sup>1</sup>Musashi Institute of Technology, Japan)

#### **14B-pm-05 15:00 – 15:20**

**Enhanced Electrochemical Capacity Materials for Energy Storage Applications**

Anthony G. Pandolfo<sup>1</sup>, Gregory Wilson<sup>1</sup> (<sup>1</sup>CSIRO, Australia)

#### **14B-pm-06 15:20 – 15:40**

**Synthesis and Electrochemical Characterizations of MnO<sub>2</sub>-dispersed Carbon Aerogel as Supercapacitor Electrode Material**

Ruowen Fu<sup>1</sup>, Guifen Lv<sup>1</sup>, Dingcai Wu<sup>1</sup> (<sup>1</sup>Sun Yat-sen Univ., China)

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#### **15:40 – 16:00 Coffee Break**

**Metropolitan Foyer 3F, Asama B, Foyer 2F,**

## Sunroute Foyer 3

## **Oral Sessions MONDAY. JULY 14, 2008**

### **14PM2 (ORAL SESSION 3)**

#### **Session A**

**Metropolitan Room Asama A**  
**NANOFORMS**

#### **14A-pm-07 16:00 – 16:30 KEYNOTE LECTURE**

**Raman Scattering from Graphene and Narrow Graphene Ribbons**

Prof. Peter C. Eklund (Pennsylvania State Univ., USA)

#### **14A-pm-08 16:30 – 16:50**

**Carbon Nanospheres Derived via Sedimentation from Resorcinol-Formaldehyde Solutions**

Christian Scherdel<sup>1</sup>, Tobias Scherb<sup>1</sup>, Gudrun Reichenauer<sup>1</sup>,  
(<sup>1</sup>Bavarian Center for Applied Energy Research, Germany)

#### **14A-pm-09 16:50 – 17:10**

**Comparative Characterization of Porous Carbons Derived from Different Aromatic Compounds**

Arkadi Maisels<sup>1</sup>, Yves Stommel<sup>1</sup>, Frank Stenger<sup>1</sup>, Jutta Zimmermann<sup>1</sup>, Gudrun Reichenauer<sup>2</sup>, Christian Scherdel<sup>2</sup>  
(<sup>1</sup>Evonik Degussa, Germany) (<sup>2</sup>Bavarian Center for Applied Energy Research, Germany)

#### **14A-pm-10 17:10 – 17:30**

**Catalytic Activity of Carbon Nanofoams Supported Iron**

Michell S Francesconi<sup>1</sup>, Maibelin Rosales<sup>1</sup>, Juan Matos<sup>1</sup>  
(<sup>1</sup>Venezuelan Institute for Scientific Research, Venezuela)

#### **14A-pm-11 17:30 – 17:50**

**Incorporation of Organic Monomers within a Carbon Matrix via One Step Hydrothermal Carbonization**

Rezan Demir-Cakan<sup>1</sup>, Maria Titirici<sup>1</sup>, Markus Antonietti<sup>1</sup>  
(<sup>1</sup>Max-Planck Institute, Germany)

#### **14A-pm-12 17:50 – 18:10**

**Direct Fabrication of Bimodal Mesoporous Carbon by Nanocasting**

Dingcai Wu (Sun Yat-sen Univ., China)

#### **Session B**

**Metropolitan Room Azusa**  
**ELECTROCHEMISTRY, BATTERIES AND CAPACITORS**

#### **14B-pm-07 16:00 – 16:30 INVITED LECTURE**

**Electrochemical activation behavior of graphitic carbons**

Prof. S. M. Oh (Seoul National Univ., Korea)

#### **14B-pm-08 16:30 – 16:50**

**Understanding of the Electrochemical Process in Supercapacitor by Using Zeolite Templated Carbon as a Model Material**

Hiroto Nishihara<sup>1</sup>, Hiroyuki Itoi<sup>1</sup>, Taichi Kogure<sup>1</sup>, Peng-Xiang Hou<sup>1</sup>, Takashi Kyotani<sup>1</sup> (<sup>1</sup>Tohoku Univ., Japan)

#### **14B-pm-09 16:50 – 17:10**

**A Route to Evaluate the Contribution of Each Mechanism of Energy Storage to the Overall Capacitance of Supercapacitors**

Vanesa Ruiz<sup>1</sup>, I. Villar<sup>1</sup>, C. Blanco<sup>1</sup>, M. Granda<sup>1</sup>, R. Menéndez<sup>1</sup>, R. Santamaría<sup>1</sup> (<sup>1</sup>Institute of Nacional Carbon, Spain)

#### **14B-pm-10 17:10 – 17:30**

**Hierarchical Porous Carbon with Localized Graphitic Units for High Rate Electrochemical Capacitive Energy Storage**

Feng Li<sup>1</sup>, Da-Wei Wang<sup>1</sup>, Min Liu<sup>1</sup>, Hui-Ming Cheng<sup>1</sup>  
(<sup>1</sup>Institute of Metal Research, China)

#### **14B-pm-11 17:30 – 17:50**

**Electrochemical Intercalation of Solvated Lithium Ions into Carbon Nanotube Bundles and Their Expansion**

Osamu Tanaike<sup>1</sup>, Osamu Kimizuka<sup>2</sup>, Katane Yamada<sup>1</sup>, Hiroaki Hatori<sup>1</sup> (<sup>1</sup>National Institute of Advanced Industrial Science and Technology(AIST), Japan) (<sup>2</sup>Univ. of Fukui, Japan)

#### **14B-pm-12 17:50 – 18:10**

**Capacitor Performance of Nitrogen-enriched Carbons**

Masaya Kodama<sup>1</sup>, Junya Yamashita<sup>1</sup>, Yasushi Soneda<sup>1</sup>, Hiroaki Hatori<sup>1</sup>, Katsumi Kamegawa<sup>1</sup>, Naoya Miyajima<sup>2</sup>  
(<sup>1</sup>National Institute of Advanced Industrial Science and Technology(AIST), Japan) (<sup>2</sup>Yamanashi Univ., Japan)

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**18:20 – 21:00**

**POSTER SESSION 1**

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**18:20 – 21:00**

**POSTER SESSION 1**

## **Oral Sessions MONDAY, JULY 14, 2008**

### **14AM2 (ORAL SESSION 1)**

#### **Session C**

**Metropolitan Room Shiga**

#### ***CARBONIZATION AND GRAPHITIZATION***

##### **14C-am-01 10:20 – 10:50 INVITED LECTURE**

##### **Carbon Material Carbonization in Plastic Phase**

Prof. Sylvie A. Bonnamy (CRMD/CNRS-Univ., France)

##### **14C-am-02 10:50 – 11:10**

##### **Carbonization Behavior of Iodine Treated Carbonaceous Mesophase**

Eiichi Yasuda<sup>1</sup>, Takashi Nishizawa<sup>1</sup>, Tomohiro Furukawa<sup>1</sup>, Asao Oya<sup>1</sup>, Mitunao Kakuta<sup>1</sup>, Takashi Akatsu<sup>1</sup> (<sup>1</sup>Tokyo Institute of Technology, Japan)

##### **14C-am-03 11:10 – 11:30**

##### **Temperature-programed Oxidation Study of Carbons from Low Density Polyethylene Pyrolysis**

Noelia Alonso-Morales<sup>1</sup>, Miguel Gilarranz<sup>1</sup>, Semih Eser<sup>2</sup>, Juan Rodriguez<sup>1</sup> (<sup>1</sup>Universidad Autonoma de Madrid, Spain) (<sup>2</sup>Penn. State Univ., USA)

##### **14C-am-04 11:30 – 11:50**

##### **Microstructures and Porous Structures of Bituminous Coal in Heat-treatment**

Ying Bao<sup>1</sup>, Yun Chuan<sup>1</sup>, (<sup>1</sup>Peking Univ., China)

##### **14C-am-05 11:50 – 12:10**

##### **Highly Crystalline Carbon Films Produced from Benzimidazobenzophenanthroline Ladder-polymer**

Junya Yamashita<sup>1</sup>, Masatoshi Shioya<sup>2</sup>, Hiroaki Hatori<sup>1</sup> (<sup>1</sup>National Institute of Advanced Industrial Science and Technology(AIST), Japan) (<sup>2</sup>Tokyo Institute of Technology, Japan)

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**12:30 – 13:30 LUNCH**

**Metropolitan Asama B, C and Chikuma**

#### **Session D**

**Sunroute Room Hiten**

#### ***ADSORPTION, SURFACES AND POROUS MATERIALS***

##### **14D-am-01 10:20 – 10:40**

##### **Interaction between Hydrogen and the Surface of Foreign Atoms Doped Carbon.**

Haruo Kumagai<sup>1</sup>, Yosimi Kanematsu<sup>2</sup>, Jun-ichi Ozaki<sup>2</sup> (<sup>1</sup>Hokkaido Univ., Japan) (<sup>2</sup>Gunma Univ., Japan)

##### **14D-am-02. 10:40 – 11:00**

##### **Removal of Ammonia from Air on Molybdenum and Tungsten Oxide Modified Activated Carbons**

Teresa J. Bandoz<sup>1</sup>, Camille Petit<sup>1</sup> (<sup>1</sup>City College of New York, USA)

##### **14D-am-03. 11:00 – 11:20**

##### **TPD Study of Surface Structure of Activated Carbons Oxidized and Loaded with Platinum during Heat Treatment**

Hideyuki Takagi<sup>1</sup>, Hiroaki Hatori<sup>1</sup> (<sup>1</sup>National Institute of Advanced Industrial Science and Technology(AIST), Japan)

##### **14D-am-04. 11:20 – 11:40**

##### **Tailoring Regeneration of GAC for TOC and Benzene Removal**

Weifang Chen<sup>1</sup>, Adam Redding<sup>1</sup>, Tinina Thompson<sup>1</sup>, Fred Cannon<sup>1</sup> (<sup>1</sup>Pennsylvania State Univ., USA)

##### **14D-am-05. 11:40 – 12:00**

##### **Competitive Adsorption of Phenol and Heavy Metals in Aqueous Solution onto Bambu Type Nitrogen Doped Carbon Nanotubes**

Paola E Diaz-Flores<sup>1</sup>, J. Rangel-Mendez<sup>1</sup>, M. Terrones<sup>1</sup> (<sup>1</sup>IPICT, Mexico)

##### **14D-am-06. 12:00 – 12:20**

##### **Influence of the Recovery Procedure of Kraft Lignin over its Nickel Adsorption Capacity**

Luisa A Delgado<sup>1</sup>, Monica Krauter<sup>1</sup>, Carlos Urbaneja<sup>1</sup>, Ana Nunez<sup>1</sup>, Narciso Perez<sup>1</sup> (<sup>1</sup>Simon Bolivar Univ., Venezuela)

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**12:30 – 13:30 LUNCH**

**Metropolitan Asama B, C and Chikuma**

## **Oral Sessions MONDAY. JULY 14, 2008**

### **14PM1 (ORAL SESSION 2)**

#### **Session C**

**Metropolitan Room Shiga**

#### **CARBONIZATION AND GRAPHITIZATION**

**14C-pm-01 13:30 – 13:50**

**Effect of High Pressure and High Temperature on Detonation Nanodiamond and Microdiamond**

Sergey V. Kidalov<sup>1</sup>, Fedor Shakhov<sup>1</sup>, Alexander Vul<sup>1</sup>  
(<sup>1</sup>Ioffe Institute, Russia)

**14C-pm-02 13:50 – 14:10**

**Preparation and Characterization of Mesophase-pitch-based Foam/ Natural Graphite Composites**

Cheng-Yang Wang<sup>1</sup>, Mei-xian Wang<sup>1</sup>, Tong-Qi Li<sup>2</sup>, Zi-Jun Hu<sup>2</sup> (<sup>1</sup>Tianjin Univ., China) (<sup>2</sup>Aerospace Research Institute of Materials & Processing Technology, China)

**14C-pm-03 14:10 – 14:30**

**Synthesis of Functionalized Mesoporous Carbon via a One-pot Hydrothermal Carbonization Method**

Niki Baccile<sup>1</sup>, Maria Magdalena Titirici<sup>1</sup>, Markus Antonietti<sup>1</sup> (<sup>1</sup>Max-Planck Institute)

**14C-pm-04 14:30 – 14:50**

**Synthesis and Applications of Carbon Xerogel Microspheres and Fractal like Structures**

Chandra Shekhar Sharma<sup>1</sup>, Manish Kulkarni<sup>1</sup>, Ashutosh Sharma<sup>1</sup> (<sup>1</sup>Indian Institute of Technology, India)

**14C-pm-05 14:50 – 15:10**

**The Preparation of High Surface Area Granular Activated Carbon**

Mahnaz N. Asl<sup>1</sup>, Majid Abedinzadegan Abdi<sup>2</sup>, Alireza Mirhabibi<sup>3</sup>, Mohammad Mahdyarfar<sup>1</sup> (<sup>1</sup>RPI, Iran) (<sup>2</sup>Memorial Univ. of Newfoundland, Canada) (<sup>3</sup>Iran Univ. of Science and Technology, Iran)

**14C-pm-06 15:10 – 15:30**

**High Temperature Carbons from LPDE Chars**

Juan J. Rodriguez<sup>1</sup>, Noelia Alonso-Morales<sup>1</sup>, Miguel Gilarranz<sup>1</sup>, Semih Eser<sup>2</sup> (<sup>1</sup>Universidad Autonoma de Madrid, Spain) (<sup>2</sup>Pennsylvania State Univ., USA)

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**15:30 – 16:00 Coffee Break**

**Metropolitan Foyer 3F, Asama B, Foyer 2F,  
Sunroute Foyer 3F**

#### **Session D**

**Sunroute Room Hiten**

#### **ADSORPTION, SURFACES AND POROUS MATERIALS**

**14D-pm-01 13:30 – 13:50**

**Transition of ZnCl<sub>2</sub> from Hydrophobic Monolayer to Hydrophilic Aggregate when Impregnated on Activated Carbon and its Capacity for Ammonia Removal**

Philippe Westreich<sup>1</sup>, Hubert Fortier<sup>1</sup>, Stanley Selig<sup>1</sup>, Caleb Zelenietz<sup>1</sup>, Jeff Dahn<sup>1</sup> (<sup>1</sup>Dalhousie Univ., Canada)

**14D-pm-02 13:50 – 14:10**

**Reaction Mechanism of Chemical Activation of Phenol Formaldehyde Resin with Potassium Hydroxide for Producing High-surface-area Activated Carbon**

Hiroyuki Nakagawa<sup>1</sup>, Yoh Abe<sup>1</sup>, Itaru Johichi<sup>1</sup>, Kouichi Miura<sup>1</sup> (<sup>1</sup>Kyoto Univ., Japan)

**14D-pm-03 14:10 – 14:30**

**Investigation of Copper Oxide Impregnants for the Optimization of Respirator Carbons**

Jock W. H. Smith<sup>1</sup>, Jeff Dahn<sup>1</sup>, Philippe Westreich<sup>1</sup>  
(<sup>1</sup>Dalhousie Univ., Canada)

**14D-pm-04 14:30 – 14:50**

**Synthesis of Aluminium Phosphate and their Templated Ordered Porous Carbons**

Chunxia Zhao<sup>1</sup>, Yunxia Yang<sup>1</sup>, Wen Chen<sup>2</sup>, Huanting Wang<sup>1</sup>, Dongyuan Zhao<sup>3</sup>, Paul Webley<sup>1</sup> (<sup>1</sup>Monash Univ., Australia) (<sup>2</sup>Wuhan Univ. of Technology, China) (<sup>3</sup>Fudan Univ., China)

**14D-pm-05 14:50 – 15:10**

**The Controllable Synthesis of Mesoporous Carbon Materials**

Yu Wang<sup>1</sup>, Li Lin<sup>2</sup>, Bin Cai<sup>2</sup>, Yuexiang Zhu<sup>2</sup>, Youchang Xie<sup>2</sup> (<sup>1</sup>Beijing Univ., China) (<sup>2</sup>Peking Univ., China)

**14D-pm-06 15:10 – 15:30**

**Synthesis of Hollow Carbon Spheres**

Xuejun Zhang<sup>1</sup>, Zhiyong Zhang<sup>1</sup> (<sup>1</sup>Beijing Univ. of Chem. Technol., China)

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**15:30 – 16:00 Coffee Break**

**Metropolitan Foyer 3F, Asama B, Foyer 2F,  
Sunroute Foyer 3F**

## **Oral Sessions MONDAY, JULY 14, 2008**

### **14PM2 (ORAL SESSION 3)**

#### **Session C**

**Metropolitan Room Shiga**

**CARBONIZATION AND GRAPHITIZATION**

#### **14C-pm-07 16:00 – 16:30 INVITED LECTURE**

**Pathways of Tar Formation and Tar Degradation**

Prof. Wolfgang A Klose<sup>1</sup>, Arndt-Peter Schinkel<sup>1</sup>  
(<sup>1</sup>Univ. of Kassel, Germany)

#### **14C-pm-08 16:30 – 16:50**

**Kinetic Study of Controlled Oxidation of PVC and Pitch Chars**

Francisco G. Emmerich<sup>1</sup>, Gisele Altoe<sup>1</sup>, Jair Freitas<sup>1</sup>,  
Alfredo Cunha<sup>1</sup> (<sup>1</sup>Universidade Federal do Espirito Santo,  
Brazil)

#### **14C-pm-09 16:50 – 17:10**

**Temperature-programmed Oxidation Studies of High  
Temperature Carbons Prepared from Low Density  
Polyethylene**

Miguel A. Gilarranz<sup>1</sup>, Noelia Alonso-Morales<sup>1</sup>, Semih  
Eser<sup>2</sup>, Juan Rodríguez<sup>1</sup> (<sup>1</sup>Universidad Autonoma de  
Madrid, Spain) (<sup>2</sup>Pennsylvania State Univ., USA)

#### **14C-pm-10 17:10 – 17:30**

**Research on Porous Carbon Material from  
Compressed Wood for Silicon Carbide Woodceramic  
Fabrication**

Zili Yan<sup>1</sup>, Jie Liu<sup>1</sup>, Jianchun Zhang<sup>2</sup>, Tian Ma<sup>2</sup> (<sup>1</sup>Beijing  
Univ. of Chemical Technology, China) (<sup>2</sup>The  
Quartermaster Research Institute of the General Logistics  
Department of the PLA, China)

#### **14C-pm-11 17:30 – 17:50**

**Agave Bagasse as a Precursor to Produce Highly  
Microporous Activated Carbons**

César Nieto Delgado<sup>1</sup>, Jose Rangel-Mendez<sup>1</sup>, Mauricio  
Terrones<sup>1</sup> (<sup>1</sup>IPICT, Mexico)

#### **14C-pm-12 17:50 – 18:10**

**Creation of Carbon Nano/Micro Structures via the  
Interaction between UV Photons and Fluid Molecules  
Under Near-critical Conditions**

Toru Maekawa<sup>1</sup>, Takahiro Fukuda<sup>1</sup>, Takashi Hasumura<sup>1</sup>,  
Nami Watabe<sup>1</sup>, Nyrki Rantonen<sup>1</sup>, Raymond Whitby<sup>2</sup>  
(<sup>1</sup>Toyo Univ., Japan) (<sup>2</sup>University of Brighton, UK)

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**18:20 – 21:00**

**POSTER SESSION 1**

#### **Session D**

**Sunroute Room Hiten**

**ADSORPTION, SURFACES AND POROUS  
MATERIALS**

#### **14D-pm-07 16:00 – 16:30 KEYNOTE LECTURE**

**Nanopore Structure and Clean Gas Storage of  
C60-Pillared Single Wall Carbon Nanotube  
Bundles**

Prof. Katsumi Kaneko (Chiba Univ., Japna)

#### **14D-pm-08 16:30 – 16:50**

**Attribution of Microporous Structure in Activated  
Carbons to Methane Storage**

Yoshiteru Nakagawa<sup>1</sup>, Joaquin Silvestre-Albero<sup>1</sup>, Miguel  
Molina-Sabio<sup>1</sup>, Francisco Rodríguez-Reinoso<sup>1</sup> (<sup>1</sup>Univ. of  
Alicante, Spain)

#### **14D-pm-09 16:50 – 17:10**

**Nano-porous Carbon Produced by CDC  
(Carbide-derived Carbon) Method**

Nadejda Popovska<sup>1</sup>, Martina Kormann<sup>1</sup> (<sup>1</sup>Univ. of  
Erlangen-Nuremberg, Denmark)

#### **14D-pm-10 17:10 – 17:30**

**Accessibility of the Microporosity of Filtrasorb 400  
Activated Carbon to the Herbicide Imazamox and  
P-nitrophenol Molecules**

Catherine Morlay<sup>1</sup>, Michaela Pilshofer<sup>1</sup>, Etienne Quivet<sup>1</sup>,  
Insaf Zidi-Dhouieb<sup>1</sup>, Rene Faure<sup>1</sup>, Jean-Pierre Joly<sup>1</sup> (<sup>1</sup>Univ.  
of Lyon, France)

#### **14D-pm-11 17:30 – 17:50**

**Modelling Breakthrough Curves with the  
Dubinin-Astakhov isotherm and the Linear Driving  
Force Approximation**

Jean-Pierre Joly<sup>1</sup>, Alain Perrard<sup>1</sup>, Agnčsv Joly<sup>1</sup> (<sup>1</sup>Univ. of  
Lyon, France)

#### **14D-pm-12 17:50 – 18:10**

**Microtexture of Porous Carbons Studied in Contrast  
Matching by Small Angle Neutron Scattering**

Jean-Michel Guet<sup>1</sup>, Nathalie Cohaut<sup>1</sup>, Guy Furdin<sup>2</sup>,  
Philippe Burg<sup>3</sup>, Andrzej Albiniak<sup>4</sup> (<sup>1</sup>CNRS/Univ. Orleans,  
France) (<sup>2</sup>Univ. of Nancy, France) (<sup>3</sup>Univ. of Metz, France)  
(<sup>4</sup>Wroclaw Univ. of Technology, Poland)

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**18:20 – 21:00**

**POSTER SESSION 1**



## Oral Sessions

### TUESDAY. JULY 15, 2008

#### 15AM1 Metropolitan

8:00 - 8:30 Asama B,C INFORMATION

8:30 - 9:20 Asama B,C PLENARY LECTURE

**Professor Francois Beguin (CNRS, France)**

“Applications of Carbon Materials in Electrochemical Energy Storage Systems “

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9:20 – 9:50 BREAK Metropolitan Foyer 3F, Asama B, Foyer 2F, Sunroute Foyer 3F

#### 15AM2 (ORAL SESSION 4)

Session A

Metropolitan Room Asama A

**NANOFORMS**

15A-am-01 9:50 – 10:20 KEYNOTE LECTURE

**Geometry of Nanographene and its Unconventional Magnetic Properties**

Prof. Toshiaki. Enoki (Tokyo Institute of Technology, Japan)

15A-am-02 10:20 – 10:40

**Fine Nanostructure Analysis of Single-Wall Carbon Nanohorns by Surface Enhanced Raman Scattering**

Toshihiko Fujimori<sup>1</sup>, Koki Urita<sup>1</sup>, Yuusuke Aoki<sup>1</sup>, Hirofumi Kanoh<sup>1</sup>, Tomonori Ohba<sup>1</sup>, Masako Yudasaka<sup>2</sup>, Sumio Iijima<sup>2</sup>, Katsumi Kaneko<sup>1</sup> (<sup>1</sup>Chiba Univ., Japan) (<sup>2</sup>NEC Corporation, Japan)

15A-am-03 10:40 – 11:00

**Structure and Productivity of Graphenes from Different Raw Graphite by a Chemical Exfoliation Method**

Hui-Ming Cheng<sup>1</sup>, Zhong-Shuai<sup>1</sup> Wu<sup>1</sup>, Wen-Cai Ren<sup>1</sup>, Li-Bo Gao<sup>1</sup> (<sup>1</sup>Institute of Metal Research, CAS, China)

15A-am-04 11:00 – 11:20

**Oxidative Conversion of TiC-coated MWCNTs, Produced in a Molten Salt Reaction Medium, into TiO<sub>2</sub>-coated MWCNTs**

Aidan V K Westwood<sup>1</sup>, Graham Cooke<sup>1</sup>, Nicole Hondow<sup>1</sup>, Rik Brydson<sup>1</sup>, Richard Douthwaite<sup>2</sup>, Xuanke Li<sup>3</sup> (<sup>1</sup>Univ. of Leeds, UK) (<sup>2</sup>Univ. of York, UK) (<sup>3</sup>High Temperature Ceramic & Refractory Key Laboratory of Hubei Province, Wuhan University of Science & Technology, China)

15A-am-05 11:20 – 11:40

**Growth Process and Structures of Carbon Nanowalls by Plasma-enhanced Chemical Vapor Deposition**

Hirofumi Yoshimura<sup>1</sup>, Hironori Kitada<sup>1</sup>, Ikuo Kinoshita<sup>1</sup>, Ken-ichi Kobayashi<sup>2</sup>, Hiroshi Nakai<sup>3</sup>, Kenichi Kojima<sup>1</sup>, Masaru Tachibana<sup>1</sup> (<sup>1</sup>Yokohama City Univ., Japan) (<sup>2</sup>NISSAN ARC, LTD, Japan) (<sup>3</sup>IHI Corporation, Japan)

15A-am-06 11:40 – 12:00

**Formation of Fluorinated Carbon Nanoparticles Using Atmospheric-pressure Plasma**

Tomohiro Kobayashi<sup>1</sup>, Kastunori Suzuki<sup>2</sup> (<sup>1</sup>Riken, Japan) (<sup>2</sup>Saitama Univ., Japan)

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12:00 – 13:10 LUNCH

Metropolitan Asama B, C and Chikuma

Session B

Metropolitan Room Azusa

**ELECTROCHEMISTRY, BATTERIES AND CAPACITORS**

15B-am-01 9:50 – 10:20 FEATURED LECTURE

**Effect of Nitrogen on Pseudocapacitor Characteristics**

Prof. Elzbieta Frackowiak<sup>1</sup>, Grzegorz Lota<sup>1</sup> (<sup>1</sup>Poznan Univ., Poland)

15B-am-02 10:20 – 10:40

**Electrochemical Properties of Natural Graphite Fluorinated by ClF<sub>3</sub> and NF<sub>3</sub> in Propylene Carbonate – Containing Solvent**

Tsuyoshi Nakajima<sup>1</sup>, Xinqun Cheng<sup>1</sup>, Jianling Li<sup>1</sup>, Takashi Achiha<sup>1</sup>, Yoshimi Ohzawa<sup>1</sup>, Zoran Mazej<sup>2</sup>, Boris Zemva<sup>2</sup> (<sup>1</sup>Aichi Institute of Technology, Japan) (<sup>2</sup>Jozef Stefan Institute, Slovenia)

15B-am-03 10:40 – 11:00

**Influence of The Oxygen Functional Groups at the Graphite Surface on the Course of the First Intercalation of Lithium**

Cathie Vix-Guterl<sup>1</sup>, Roger Gadiou<sup>1</sup>, Philippe Bernardo<sup>1</sup>, Petr Novak<sup>2</sup>, S.H. Ng<sup>2</sup>, Michael.E Spahr<sup>3</sup>, Dietrich Goers<sup>3</sup> (<sup>1</sup>ICSI – CNRS, France) (<sup>2</sup>PSI Villigen, Switzerland) (<sup>3</sup>TIMACAL, Switzerland)

15B-am-04 11:00 – 11:20

**Pyrocarbon Coating on Carbonized Paper for Anode of Lithium-Ion Secondary Battery and its**

**Electrochemical Properties in Propylene Carbonate  
Base Electrolyte**

Yoshimi Ohzawa<sup>1</sup>, Tomohiro Suzuki<sup>1</sup>, Tsuyoshi Nakajima<sup>1</sup> (<sup>1</sup>Aichi Institute of Technology, Japan)

**15B-am-05 11:20 – 11:40**

**Decreasing Irreversible Capacity of Silicon-CNF Composites in Li-Secondary Battery**

Sang-min Jang<sup>1</sup>, Masaharu Tsuji<sup>1</sup>, Isao Mochida<sup>1</sup>, Seong-Ho Yoon<sup>1</sup> (<sup>1</sup>Kyushu Univ., Japan)

**15B-am-06 11:40 – 12:00**

**Coating of Pre-Formed Si Nanoparticles with Hydrothermal Carbon as Novel Anode Material for Lithium-Ion Batteries**

Rezan Demir-Cakan<sup>1</sup>, Yong-Sheng Hu<sup>2</sup>, Maria Magdalena Titirici<sup>1</sup>, Jens O. Muller<sup>3</sup>, Robert Schlogl<sup>3</sup>, Markus Antonietti<sup>1</sup>, Joachim Maier<sup>2</sup> (<sup>1</sup>Max-Planck Institute, Germany) (<sup>2</sup>Max Planck Institute for Solid State Research) (<sup>3</sup>Fritz Haber Institute of the Max Planck Society)

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**12:00 – 13:10 LUNCH**

**Metropolitan Asama B, C and Chikuma**

## **Oral Sessions TUESDAY, JULY 15, 2008**

### **15PM1 (ORAL SESSION 5)**

#### **Session A**

**Metropolitan Room Asama A**

#### ***NANOFORMS***

##### **15A-pm-01 13:10 – 13:40 INVITED LECTURE**

##### **Synthesis of Ferromagnetic Nanowires Filling Thin-Walled Carbon Nanotubes and their Properties**

Prof. Feiyu Kang, Ruitao Lv<sup>1</sup>, Xuchun Gui<sup>1</sup>, Wenxiang Wang<sup>1</sup>, Jialin Gu<sup>1</sup>, Kunlin Wang<sup>1</sup>, Dehai Wu<sup>1</sup> (<sup>1</sup>Tsinghua Univ., China)

##### **15A-pm-02 13:40 – 14:00**

##### **Effect of Growth Conditions on Carbon Nanofibers Grown on Fused Silica Substrates Using Nickel Thin-Film Catalyst**

Digvijay B. Thakur<sup>1</sup>, R. M. Tiggelaar<sup>1</sup>, K. Seshan<sup>1</sup>, J. G. E. Gardeniers<sup>1</sup>, L. Lerts<sup>1</sup> (<sup>1</sup>Univ. of Twente, Netherlands)

##### **15A-pm-03 14:00 – 14:20**

##### **Fluorination of Carbon Nanocones and Nanodiscs**

Marc Dubois<sup>1</sup>, Wei Zhang<sup>1</sup>, Katia Guérin<sup>1</sup>, André Hamwi<sup>1</sup>, Jérôme Giraudet<sup>2</sup>, Francis Masin<sup>2</sup> (<sup>1</sup>Clermont Univ., France) (<sup>2</sup>Univ. Pierre, France)

##### **15A-pm-04 14:20 – 14:40**

##### **On the Influence of Pore Size and Surface Properties on Proteins Adsorption in the Cavities of MWCNTs Prepared by the Template Method.**

Cathie Vix-Guterl<sup>1</sup>, Vijay Munusamy<sup>1</sup>, Karine Anselme<sup>1</sup>, Roger Gadiou<sup>1</sup>, Takashi Kyotani<sup>2</sup>, Hironori Orikasa<sup>1</sup> (<sup>1</sup>ICSI-CNRS, France) (<sup>2</sup>IMRAM – Tohoku, Japan)

##### **15A-pm-05 14:40 – 15:00**

##### **Templated Nanoporous Carbon as an Electrode Material for Electrochemical Double Layered Capacitor (EDLC)**

Qiang XU, Bo Liu, Hiroshi Shioyama (National Institute of Advanced Industrial Science and Technology(AIST, Japna)

##### **15A-pm-06 15:00 – 15:20**

##### **Electroconductive Plastics Using Electroconductivity of Nanometer Sized Exfoliated Carbon Fibers**

Masahiro Toyoda<sup>1</sup>, Satoshi Yoshinaga<sup>1</sup>, Tomoki tsumura<sup>1</sup> (<sup>1</sup>Oita Univ., Japan)

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##### **15:20 – 15:40 Coffee Break**

**Metropolitan Foyer 3F, Asama B, Foyer 2F, Sunroute Foyer 3F**

#### **Session B**

**Metropolitan Room Azusa**

#### ***ELECTROCHEMISTRY, BATTERIES AND CAPACITORS***

##### **15B-pm-01 13:10 – 13:40 INVITED LECTURE**

##### **LITHIUM-ION KINETICS AT GRAPHITE ELECTRODE**

Prof. Takeshi Abe (Kyoto Univ., Japan)

##### **15B-pm-02 13:40 – 14:00**

##### **Cyclic Performance of Silicon-Containing Materials for Lithium Ion Batteries**

Wenming Qiao<sup>1</sup>, Hong Peng Liu<sup>1</sup>, Rui Zhang<sup>1</sup>, Wenming Qiao<sup>1</sup>, Li Cheng Ling<sup>1</sup> (<sup>1</sup>East China Univ., China)

##### **15B-pm-03 14:00 – 14:20**

##### **Mild-Expansion Exfoliated Graphite with Sn Intercalation as Anode Material in Lithium Ion Batteries**

Lin Zou<sup>1</sup>, Fei Yu Kang<sup>1</sup>, Yong Ping Zheng<sup>1</sup>, Wan Ci Shen<sup>1</sup> (<sup>1</sup>Tsinghua Univ., China)

##### **15B-pm-04 14:20 – 14:40**

##### **Influence of the Electrolyte Composition and Graphite Particle Size on the Electrochemical Intercalation of Hexafluorophosphate Anions**

Wolfgang Maerkle<sup>1</sup>, Nicolas Tran<sup>1</sup>, Petr Novák<sup>1</sup>, Dietrich Goers<sup>2</sup>, Michael E. Spahr<sup>2</sup> (<sup>1</sup>Paul Scherrer Institute, Switzerland) (<sup>2</sup>TIMCAL SA, Switzerland)

##### **15B-pm-05 14:40 – 15:00**

##### **Electrochemical Characterization of Fluorinated Carbon Thin Films Prepared by Electron Cyclotron Resonance (ECR) Sputtering**

Akio Ueda<sup>1</sup>, Tomoyuki Kamata<sup>2</sup>, Dai Kato<sup>3</sup>, Naoyuki Sekioka<sup>4</sup>, Ryoji Kurita<sup>5</sup>, Shigeru Hirono<sup>6</sup>, Shigeru Umemura<sup>2</sup>, Fujio Okino<sup>7</sup>, Hidekazu Tohara<sup>7</sup>, Osamu Niwa<sup>4</sup> (<sup>1</sup>Tokyo Institute of Technology, Japan) (<sup>2</sup>Chiba Institute of Technology, Japan) (<sup>3</sup>JST-CREST, Japan) (<sup>4</sup>Univ. of Tsukuba, Japan) (<sup>5</sup>National Institute of Advanced Industrial Science and Technology(AIST, Japan) (<sup>6</sup>MES AFTY Corporation, Japan)(<sup>7</sup>Shinshu Univ., Japan)

##### **15B-pm-06 15:00 – 15:20**

##### **Metal Tracing Performance of Nitrogenated Diamond-like Carbon Films**

Nay Win Khun (Nanyang Technical Univ., Singapore)

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##### **15:20 – 15:40 Coffee Break**

**Metropolitan Foyer 3F, Asama B, Foyer 2F, Sunroute Foyer 3F**

## **Oral Sessions TUESDAY. JULY 15, 2008**

### **15PM2 (ORAL SESSION 6)**

#### **Session A**

#### **Metropolitan Room Asama A**

#### ***NANOTUBES***

#### **15A-pm-07 15:40 – 16:10 KEYNOTE LECTURE**

#### **Nanocarbons: Highly Active Catalysts for Chemical Reactions**

Dr. Dangsheng Su (Fritz Haber Institute, Germany)

#### **15A-pm-08 16:10 – 16:40 INVITED LECTURE**

#### **Selective Optical Property Modification of Double Walled Carbon Nanotubes by Fluorination**

Takuya Hayashi<sup>1</sup>, Daisuke Shimamoto<sup>1</sup>, Yoong Ahm Kim<sup>1</sup>, Hiroyuki Muramatsu<sup>1</sup>, Fujio Okino<sup>1</sup>, Hidekazu Touhara<sup>1</sup>, Takashi Shimada<sup>2</sup>, Yuhei Miyauchi<sup>2</sup>, Shigeo Maruyama<sup>2</sup>, Mauricio Terrones<sup>3</sup>, Mildred Dresselhaus<sup>4</sup>, Morinobu Endo<sup>1</sup> (<sup>1</sup>Shinshu Univ., Japan) (<sup>2</sup>Univ. of Tokyo, Japan) (<sup>3</sup>IPICyT, Mexico) (<sup>4</sup>MIT, USA)

#### **15A-pm-09 16:40 – 17:00**

#### **Thermal and Electrical Transport Properties of 1-mm-Thick Vertically Aligned Carbon Nanotubes**

Atsuto Okamoto<sup>1</sup>, Itaru Gunjishima<sup>1</sup>, Takashi Inoue<sup>1</sup>, Megumi Akoshima<sup>2</sup>, Hidenori Miyagawa<sup>3</sup>, Tetsuya Baba<sup>2</sup>, Gendo Oomi<sup>3</sup> (<sup>1</sup>Toyota Central R&D Labs., Inc.) (<sup>2</sup>National Institute of Advanced Industrial Science and Technology(AIST)) (<sup>3</sup>Kyushu Univ., Japan)

#### **15A-pm-10 17:00 – 17:20**

#### **Resistivity Reduction of Boron-doped Multi-Walled Carbon Nanotube**

Satoshi Ishii<sup>1</sup>, Tohru Watanabe<sup>1</sup>, Shunsuke Tsuda<sup>1</sup>, Takahide Yamaguchi<sup>1</sup>, Yoshihiko Takano<sup>1</sup> (<sup>1</sup>NIMS, Japan)

#### **15A-pm-11 17:20 – 17:40**

#### **First-Principles Characterisation of the Stability of Carbon Nanotubes: Structural Effects on Stability and Radial Breathing Mode**

Gemma L Ha enden<sup>1</sup>, Malcolm I Heggie<sup>1</sup>, Irene Suarez Martinez<sup>2</sup>, Gianluca Savini<sup>1</sup> (Univ. of Sussex, UK) (<sup>2</sup>IMN, Nantes, UK)

#### **15A-pm-12 17:40 – 18:00**

#### **Electronic Superstructures in Double-Walled Carbon Nanotubes**

Yann Tison<sup>1</sup>, Cristina E Giusca<sup>2</sup>, Jeremy Sloan<sup>2</sup>, Yasuhiko Hayashi<sup>3</sup>, S. Ravi P. Silva<sup>2</sup> (Technical Univ. of Denmark, Denmark) (<sup>2</sup>Univ. of Surrey, UK) (<sup>3</sup>Nagoya Institute of Technology, Japan)

#### **15A-pm-13 18:00 – 18:20**

#### **Preparation of Macro-porous Solid Foam from CNTs Using Ice-crystal Templates**

Napawon - Thongprachan<sup>1</sup>, Kyuyua Nakagawa<sup>2</sup>, Noriaki Sano<sup>2</sup>, Mitsutaka Kitamura<sup>2</sup>, Tawatchai Charinpanitkul<sup>1</sup>, Wiwut Tanthapanichakoon<sup>3</sup> (<sup>1</sup>Chulalongkorn Univ.,

Thailand)(<sup>2</sup>Univ. of Hyogo, Japan)(<sup>3</sup>National Nanotechnology Center, Thailand)

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#### **18:20 – 21:00**

#### **POSTER SESSION 2**

#### **Session B**

#### **Metropolitan Room Azusa**

#### ***ELECTROCHEMISTRY, BATTERIES AND CAPACITORS***

#### **15B-pm-07 15:40 – 16:10 KEYNOTE LECTURE**

#### **PAN/Pitch Blend Fibers from Electrospinning for EDLC Applications**

B. T. N. Ngoc<sup>1</sup>, C. Kim<sup>1</sup>, J. Ferraris<sup>2</sup>, Kap Seung Yang<sup>1</sup> (<sup>1</sup>Chonnam National Univ., Korea) (<sup>2</sup>University of Texas at Dallas, USA)

#### **15B-pm-08 16:10 – 16:30 FEATURED LECTURE**

#### **Effects of Surface Treatments on the Electrochemical Oxygen Reduction Activity of Nanoshell Carbon Electrode Catalysts**

Prof. Jun-ichi Ozaki<sup>1</sup>, Jun Yamazaki<sup>1</sup>, Masaaki Takei<sup>1</sup>, Susumu Sasaoka<sup>1</sup>, Keita Takakusaki<sup>1</sup>, (<sup>1</sup>Gunma Univ., Japan)

#### **15B-pm-09 16:30 – 16:50**

#### **Electrochemical Oxidation Reaction of Highly Oriented Pyrolytic Graphite in Sulfuric Acid Solution**

Taro Kinumoto<sup>1</sup>, Masahiro Toyoda<sup>1</sup>, Hyun-Suk Choo<sup>2</sup>, Masafumi Nose<sup>2</sup>, Yasutoshi Iriyama<sup>2</sup>, Takeshi Abe<sup>2</sup>, Zempachi Ogumi<sup>2</sup> (<sup>1</sup>Oita Univ., Japan) (<sup>2</sup>Kyoto Univ., Japan)

#### **15B-pm-10 16:50 – 17:10**

#### **Nanostructured Si/C Composites Based on Pitch Derived Carbons for Li-ion Batteries**

Krzysztof Kierzek<sup>1</sup>, Yasin Eker<sup>2</sup>, Jacek Machnikowski<sup>1</sup>, Encarnation Raymundo-Pinero<sup>2</sup>, François Beguin<sup>2</sup> (<sup>1</sup>Wroclaw Univ. of Technology, Poland) (<sup>2</sup>CRMD, CNRS-Univ., France)

#### **15B-pm-11 17:10 – 17:30**

#### **Preparation of PEFC Electrodes from Vertically Aligned Carbon Nanopillars with Tunable Sizes**

Hironori Orikasa<sup>1</sup>, Michiyasu Okada<sup>1</sup>, Takashi Kyotani<sup>1</sup>, Tatsuya Hatanaka<sup>2</sup>, Yoshiaki Fukushima<sup>2</sup> (Tohoku Univ., Japan) (<sup>2</sup>Toyota Central R&D Labs., Inc., Japan)

#### **15B-pm-12 17:30 – 17:50**

#### **Preparation and Characterization of Graphite Nanosheets as Catalyst Support for Fuel Cells**

Lin Gan<sup>1</sup>, Hongda Du<sup>1</sup>, Baohua Li<sup>2</sup>, Feiyu Kang<sup>3</sup> (<sup>1</sup>Tsinghua Univ., China) (<sup>2</sup>Institute of Advance, China) (<sup>3</sup>Tsinghua

Univ., China)

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**18:20 – 21:20**

**POSTER SESSION 2**

## **Oral Sessions TUESDAY, JULY 15, 2008**

### **15AM2 (ORAL SESSION 4)**

#### **Session C**

**Metropolitan Room Shiga  
DIAMONDS AND GICS**

#### **15C-am-01 9:50 – 10:20 INVITED LECTURE**

**Detonation Nanodiamonds as a New Nanocarbon Material for Nanotechnology**

Dr. Alexander Ya Vul' (Ioffe Physico-Technical Institute, Russia)

#### **15C-am-02 10:20 – 10:40**

**Simulation for Evaluating Superconductivity of Boron-doped Diamond**

Satoshi Nakamura<sup>1</sup>, Syogo Tejima<sup>1</sup>, Masashi Tachiki<sup>1,2</sup>, David Tomanek<sup>3</sup>, Hisashi Nakamura<sup>1</sup> (<sup>1</sup>RIST, Japan) (<sup>2</sup>Univ. of Tokyo, Japan) (<sup>3</sup>Michigan State Univ., USA)

#### **15C-am-03 10:40 – 11:00**

**Direct Fabrication of Adherent and Oriented Diamond Nanostructures on Steel Substrate**

Yuanshi Li (Univ. of Saskatchewan, Canada)

#### **15C-am-04 11:00 – 11:20**

**Surface Characterization of Diamond to be Used in Electronic Devices**

Noelia Rojo-Calderon<sup>1</sup>, Jose M Molina<sup>1</sup>, Richard Prieto<sup>1</sup>, Javier Narciso<sup>1</sup>, Enrique Louis<sup>1</sup> (<sup>1</sup>Univ. of Alicante, Spain)

#### **15C-am-05 11:20 – 11:40**

**Photoelectron Spectroscopic Analysis of Chemical Structure of Diamondlike Carbon with Different Electrical Resistivities**

Susumu Takabayashi<sup>1</sup>, Keishi Okamoto<sup>2</sup>, Kenya Shimada<sup>1</sup>, Kunihiro Motomitsu<sup>1</sup>, Hiroaki Motoyama<sup>1</sup>, Tatsuyuki Nakatani<sup>2</sup>, Hiroyuki Sakae<sup>1</sup>, Hitoshi Suzuki<sup>1</sup>, Takayuki Takahagi<sup>1</sup> (<sup>1</sup>Hiroshima Univ., Japan) (<sup>2</sup>Toyo Advanced Technologies Co., Ltd., Japan)

#### **15C-am-06 11:40 – 12:00**

**Sp-linear Chains and Photoexcited Trans-polyacetylene in Diamond-like Carbon**

Maksym Rybachuk<sup>1</sup>, John M Bell<sup>2</sup>, Anming Hu<sup>3</sup> (Queensland Univ. of Technology, Australia) (<sup>2</sup>Queensland Univ. of Technology, Canada) (<sup>3</sup>Univ. of Waterloo, Canada)

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**12:00 – 13:10 LUNCH**

**Metropolitan Asama B, C and Chikuma**

#### **Session D**

**Sunroute Room Hiten**

**ADSORPTION, SURFACES AND POROUS MATERIALS**

#### **15D-am-01 9:50 – 10:20 FEATURED LECTURE**

**Formation of Hydrogen and Carbon Nanotubes on Nanometal-Dispersed Single Wall Nanocarbons**

Hirofumi Kanoh<sup>1</sup>, Yusuke Aoki<sup>1</sup>, Ai Uematsu<sup>1</sup>, Koki Urita<sup>1</sup>, Daisuke Noguchi<sup>1</sup>, Tsutomu Itoh<sup>1</sup>, Tomonori Ohba<sup>1</sup>, Masako Yudasaka<sup>2</sup>, Sumio Iijima<sup>3</sup>, Katsumi Kaneko<sup>1</sup> (<sup>1</sup>Chiba Univ., Japan) (<sup>2</sup>JST/SORST, Japan) (<sup>3</sup>Meijo Univ., Japan)

#### **15D-am-02 10:20 – 10:40**

**Hydrogen Dimer Formation on the Graphite (0001) Surface Due to Preferential Sticking.**

Liv Hornekaer<sup>1</sup>, Eva Rauls<sup>2</sup>, Zeljko Sljivancanin<sup>1</sup>, Wei Xu<sup>1</sup>, Roberto Ortero<sup>3</sup>, Bjoerk Hammer<sup>1</sup>, Flemming Besenbacher<sup>1</sup> (<sup>1</sup>Univ. of Aarhus, Denmark) (<sup>2</sup>Univ. of Paderborn, Germany) (<sup>3</sup>Univ. of Madrid, Spain)

#### **15D-am-03 10:40 – 11:00**

**Hydrogen Storage on Ordered Microporous Carbon Molecular Sieves Containing Dispersed Platinum Nano-particles**

Yunxia Yang<sup>1</sup>, Chunxia Zhao<sup>1</sup>, Dongyuan Zhao<sup>1</sup>, Paul A. Webley<sup>1</sup> (<sup>1</sup>Monash Univ., Australia)

#### **15D-am-04 11:00 – 11:20**

**Preparation and Hydrogen Storage of High Surface Rayon Based Activated Carbon Fibers**

Dong-Lin Zhao<sup>1</sup>, Zeng-Min Shen<sup>1</sup> (<sup>1</sup>Beijing Univ. of Chemical Technology, China)

#### **15D-am-05 11:20 – 11:40**

**Enhanced Hydrogen Storage Capacity at Room Temperature of CNT/MOF-5 Hybrid Composites**

Seung Jae Yang<sup>1</sup>, Chong Rae Park<sup>1</sup> (<sup>1</sup>Seoul National Univ., Korea)

#### **15D-am-06 11:40 – 12:00**

**The Adsorption of Copper Acetate onto Pretreated Activated Carbons Over a Wide Concentration Range**

Amjad Farooq<sup>1</sup>, Philippe Westreich<sup>2</sup>, Naseem Irfan<sup>1</sup>, Je Dahn<sup>2</sup> (<sup>1</sup>Pakistan Institute of Engineering and Applied Sciences, Pakistan) (<sup>2</sup>Department of Physics and Atmospheric Science, Dalhousie University, Halifax, NS, Canada)

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**12:00 – 13:10 LUNCH**

**Metropolitan Asama B, C and Chikuma**

## **Oral Sessions TUESDAY, JULY 15, 2008**

### **15PM1 (ORAL SESSION 5)**

#### **Session C**

**Metropolitan Room Shiga**

**GICs AND CHEMICAL PROPERTIES**

#### **15C-pm-01 13:10 – 13:40 INVITED LECTURE**

**Lithium Metal : an Efficient Vector of Intercalation into Graphite**

Prof. Claire Hérold<sup>1</sup>, Nicolas Emery<sup>2</sup>, Jean-François Mareche<sup>2</sup>, Philippe Lagrange<sup>2</sup> (<sup>1</sup>Univ. of Henri Poincare, France) (<sup>2</sup>LCSM, France)

#### **15C-pm-02 13:40 – 14:00**

**Spins of Conduction Electrons as a Probe of Physical and Chemical Transformations in Graphite and Its Compounds**

Albert M. Ziatdinov (Russian Academy of Sciences, Russia)

#### **15C-pm-03 14:00 – 14:20**

**Characterization and Properties of Ternary System RbC<sub>24</sub> (C<sub>4</sub>H<sub>6</sub>)<sub>x</sub>**

Morio Chiwata<sup>1</sup>, Noboru Akuzawa<sup>1</sup>, Rika Matsumoto<sup>2</sup>, Yasushi Soneda<sup>3</sup> (<sup>1</sup>Tokyo National College of Technology, Japan) (<sup>2</sup>Tokyo Polytechnic Univ., Japan) (<sup>3</sup>National Institute of Advanced Industrial Science and Technology(AIST), Japan)

#### **15C-pm-04 14:20 – 14:40**

**Air-stable Alkali Metal-Graphite Intercalation Compounds**

Rika Matsumoto<sup>1</sup>, Kazuto Tatebayashi<sup>1</sup>, Kazunobu Tsurumi<sup>1</sup>, Noboru Akuzawa<sup>2</sup> (<sup>1</sup>Tokyo Polytechnic Univ., Japan) (<sup>2</sup>Tokyo National College of Technology, Japan)

#### **15C-pm-05 14:40 – 15:00**

**Plasma-chemical Functionalization of Expanded Graphite**

Asmus Meyer-Plath<sup>1</sup> (<sup>1</sup>Federal Institute for Materials Research and Testing, Germany)

#### **15C-pm-06 15:00 – 15:20**

**Modification of Carbon Microspheres in Different Acids**

Xuguang Liu<sup>1</sup>, Hongyan Liu<sup>1</sup>, Yongzhen Yang<sup>1</sup>, Mingcong Guo<sup>1</sup>, Bingshe Xu<sup>1</sup> (<sup>1</sup>Taiyuan Univ. of Technology, China)

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**15:20 – 15:40 Coffee Break**

**Metropolitan Foyer 3F, Asama B, Foyer 2F,  
Sunroute Foyer 3F**

#### **Session D**

**Sunroute Room Hiten**

**ADSORPTION, SURFACES AND POROUS MATERIALS**

#### **15D-pm-01 13:10 – 13:40 INVITED LECTURE**

**Surface Chemistry of Graphene: Implications for Electrochemical Properties and Behavior of Carbons**

Prof. Ljubisa Radovic (Penn. State Univ., USA)

#### **15D-pm-02 13:40 – 14:00**

**Adsorbed Water Vapour in High Surface Area Carbons**

Krisztina Laszlo<sup>1</sup>, Erik Geissler<sup>2</sup> (<sup>1</sup>Budapest Univ. Technol. Econ., Hungary) (<sup>2</sup>Univ. J. Fourier de Grenoble, France)

#### **15D-pm-03 14:00 – 14:20**

**Water Isotherms of Structurally Identical Carbons with Different Amounts of Surface Oxygen Groups.**

Peter Lodewyckx<sup>1</sup>, Encarnation Raymundo-Pinero<sup>2</sup>, Hilda Wullens<sup>3</sup>, Miroslava Vaclavikova<sup>1</sup>, François Béguin<sup>2</sup> (<sup>1</sup>Royal Mil. Acad., Belgium) (<sup>2</sup>CNRS Orléans, France) (<sup>3</sup>Belgian Defense – DLD, Belgium)

#### **15D-pm-04 14:20 – 14:40**

**Interactions of Polar Molecules with Carbon Surfaces**

Aurik Andreu<sup>1</sup>, Robert H Bradley<sup>1</sup>, Fritz Stoeckli<sup>2</sup> (Robert Gordon Univ., United Kingdom) (<sup>2</sup>Univ. of Neuchâtel, Switzerland)

#### **15D-pm-05 14:40 – 15:00**

**Surface Modification of Carbon Via Targeted Acylation Reactions and Free Radical Synthesis**

S.H.Teresa Bang<sup>1</sup>, Nicolas Cunningham<sup>2</sup> (<sup>1</sup>Royal Mil. Col., Canada) (<sup>2</sup>supervisor)

#### **15D-pm-06 15:00 – 15:20**

**Annealing Driven Reorganization of Graphene Layers in Ordered Microporous Carbons**

Quan-Hong Yang<sup>1</sup>, Zhen Su<sup>1</sup>, Feng-Min Jin<sup>1</sup>, Hiroto Nishihara<sup>2</sup>, Takashi Kyotani<sup>2</sup> (<sup>1</sup>Tianjin Univ., China) (<sup>2</sup>Tohoku Univ., Japan)

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**15:20 – 15:40 Coffee Break**

**Metropolitan Foyer 3F, Asama B, Foyer 2F,  
Sunroute Foyer 3F**

## **Oral Sessions TUESDAY. JULY 15, 2008**

### **15PM2 (ORAL SESSION 6)**

#### **Session C**

##### **Metropolitan Room Shiga**

##### ***GICs AND CHEMICAL PROPERTIES***

#### **15C-pm-07 15:40 – 16:10 INVITED LECTURE**

##### **Graphite Intercalation with Perfluoroalkyl anions**

Prof. M. M. Lerner (Oregon State Univ., USA)

#### **15C-pm-08 16:10 – 16:40 FEATURED LECTURE**

##### **Characterization and Reactions of Silylated Graphite Oxides**

Prof. Yoshiaki Matsuo<sup>1</sup>, Yoshimasa Sakai<sup>1</sup>, Tomokazu Fukutsuka<sup>2</sup>, Yosohiro Sugie<sup>1</sup> (Univ. of Hyogo, Japan) (<sup>2</sup> Kyoto Univ., Japan)

#### **15C-pm-09 16:40 – 17:00**

##### **The High Temperature Reaction of Ammonia with Carbon Materials and SiC+C Compounds**

Georges Chollon<sup>1</sup>, Maeva Lalanne<sup>1</sup>, Nicolas Capelle<sup>1</sup>, Maud Placide<sup>1</sup>, Herve Plaisantin<sup>1</sup>, Francis Langlais<sup>1</sup>, Georges Chollon<sup>1</sup> (<sup>1</sup> Laboratoire des Composites Thermostructuraux (LCTS), France)

#### **15C-pm-10 17:00 – 17:20**

##### **Semi-Hydrogenation of Phenylacetylene Catalyzed by Palladium Nanoparticles Supported on Carbon Materials**

Sonia Domínguez-Domínguez<sup>1</sup>, Angel Berenguer-Murcia<sup>1</sup>, Bhabendra K. Pradhan<sup>2</sup>, Angel Linares-Solano<sup>1</sup>, Diego Cazorla-Amorós<sup>1</sup> (<sup>1</sup>Univ. of Alicante, Spain) (<sup>2</sup>Columbian Chemicals Company, USA)

#### **15C-pm-11 17:20 – 17:40**

##### **The Role of Oxidation in Obtaining Nitrogen Enriched Active Carbons**

Robert Pietrzak<sup>1</sup>, Piotr Nowicki<sup>1</sup>, Helena Wachowska<sup>1</sup> (<sup>1</sup>Adam Mickiewicz Univ. in Poznan, Poland)

#### **15C-pm-12 17:40 – 18:00**

##### **Investigation of Tribochemical Reactions between Graphite and the Gas Atmosphere during Milling**

Jean-Christophe Rietsch<sup>1</sup>, Cathie Vix-Guterl<sup>1</sup>, Joseph Dentzer<sup>1</sup>, Roger Gadiou<sup>1</sup> (ICSI-CNRS, France)

#### **15C-pm-13 18:00 – 18:20**

##### **Magnetic and Conductive Carbon-based Nanocomposites and Nanolayers Prepared from Graphite Oxide**

Tamas Szabo<sup>1</sup>, Imre Dékány<sup>1</sup> (<sup>1</sup>Univ. of Szeged, Hungary)

#### **Session D**

##### **Sunroute Room Hiten**

##### ***ADSORPTION, SURFACES AND POROUS MATERIALS ; ENVIRONMENT AND ENERGY***

#### **15D-pm-07 15:40 – 16:00**

##### **A New Method for Calculating the Specific Surface Area of Activated Carbons**

Sarra Gaspard<sup>1</sup>, Nady Passé-Coutrin<sup>1</sup>, Sandro Altenor<sup>1</sup>, Daniel Cossement<sup>2</sup>, Corine Jean-Marius<sup>1</sup>, Alex Ouensanga<sup>1</sup> (<sup>1</sup>Univ. of Antilles et de la Guyane, France) (<sup>2</sup>Univ. du Québec, Canada)

#### **15D-pm-08 16:00 – 16:20**

##### **Surfactant Self-assembly to Form Mesoporous Carbons with Controlled Mesostructure**

Wenming Qiao<sup>1</sup>, Donghui Long<sup>1</sup>, Hongpeng Liu<sup>1</sup>, Rui Zhang<sup>1</sup>, Liang Zhan<sup>1</sup>, Wengming Qiao<sup>1</sup>, Licheng Ling<sup>1</sup> (<sup>1</sup>East China Univ. of Science and Technology, China)

#### **15D-pm-09 16:20 – 16:40**

##### **Preparation and Characterization of Carbon Aerogel Spheres**

Qing-han Meng<sup>1</sup>, Qing-han Meng<sup>1</sup>, Xiao-hong Xu<sup>1</sup>, Bing Cao<sup>1</sup> (<sup>1</sup>Beijing Univ. of Chemical Technology, China)

#### **15D-pm-10 16:40 – 17:00**

##### **Correlations between Activated Carbon Properties and Photocatalytic Activity of TiO<sub>2</sub> in 4-chlorophenol Degradation**

Juan Matos<sup>1</sup>, Tulyan Cordero<sup>1</sup>, Jean-Marc Chovelon<sup>2</sup>, Corinne Ferronato<sup>2</sup> (<sup>1</sup>Venezuelan Institute for Scientific Research, Venezuela) (<sup>2</sup>IRCELYON, France)

#### **15D-pm-11 17:00 – 17:20**

##### **Decoration of multi-walled carbon nanotube with well dispersion TiO<sub>2</sub>**

Shuo Wang<sup>1</sup>, Ji Liang<sup>1</sup>, Qian Ming Gong<sup>1</sup> (<sup>1</sup>Tsinghua Univ., China)

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#### **18:00 – 21:00**

#### **POSTER SESSION**

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#### **18:00 – 21:00**

#### **POSTER SESSION 2**



## Oral Sessions

### **WEDNESDAY, JULY 16, 2008**

#### **16AM1 Metropolitan**

**8:00 - 8:30 Asama B,C INFORMATION**

**8:30 - 9:20 Asama B,C PLENARY LECTURE**

**Professor David Tomanek (Michigan State Univ., USA)**

“ When Carbon Stops Being Carbon“

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**9:20 – 9:50 BREAK Metropolitan Foyer 3F, Asama B, Foyer 2F, Sunroute Foyer 3F**

#### **16AM2 (ORAL SESSION 7)**

##### **Session A**

**Metropolitan Room Asama A**

##### **NANOTUBES**

##### **16A-am-01 09:50 – 10:20 KEYNOTE LECTURE**

**Title”**

Prof. M. S. Strano (The Univ. of Illinois, USA)

##### **16A-am-02 10:20 – 10:40**

**Synthesis of Molybdenum Atomic Wires Incorporated within Double-Walled Carbon Nanotubes**

Hiroyuki Muramatsu<sup>1</sup>, Takuya Hayashi<sup>1</sup>, Yoong Ahm Kim<sup>1</sup>, Daisuke Shimamoto<sup>1</sup>, Morinobu Endo<sup>1</sup>, Mauricio Terrones<sup>2</sup>, Mildred S Dresselhaus<sup>3</sup> (<sup>1</sup>Shinshu Univ., Japan), (<sup>2</sup>IPICT, Mexico), (<sup>3</sup>MIT, USA)

##### **16A-am-03 10:40 – 11:00**

**Surface Modification and Polymeric Composites of BN Nanotubes**

Chunyi Zhi<sup>1</sup>, Bando Yoshio<sup>2</sup>, Chengchun Tang<sup>2</sup>, Dmitri Golberg<sup>2</sup>

(<sup>1</sup>National Institute for Materials Science, Japan), (<sup>2</sup>NIMS, Japan)

##### **16A-am-04 11:00 – 11:20**

**Nanofabrication of Single-wall Carbon Nanotubes using a Metal Nitrate**

Katsuyuki Murata<sup>1</sup>, Tatsuki Ataka<sup>1</sup> (<sup>1</sup>Olympus Co., Japan)

##### **16A-am-05 11:20 – 11:40**

**Evaluation of Residual Iron Compound in Isothermally Treated Catalytic Chemical Vapor Deposited MWNT**

Jin Chen<sup>1</sup>, Takayuki Tsukada<sup>1</sup>, Akihito Kuno<sup>2</sup>, Motoyuki Matsuo<sup>2</sup>, Yoong Ahm Kim<sup>3</sup>, Takuya Hayashi<sup>3</sup>, Morinobu Endo<sup>3</sup>

(<sup>1</sup>Nano Carbon Technologies Co., Japan), (<sup>2</sup>The Univ. of Tokyo, Japan), (<sup>3</sup>Shinshu Univ., Japan)

##### **16A-am-06 11:40 – 12:00**

**Purification and Assessment of Multi-walled Carbon Nanotubes Produced via Metal-catalysed CVD Synthesis**

Aidan V K Westwood<sup>1</sup>, Vinay Ranganathan<sup>1</sup>, Andy Brown<sup>1</sup>, Ali-Reza Mirhabibi<sup>2</sup>, Xuanke Li<sup>3</sup>

(<sup>1</sup>Univ. of Leeds, United Kingdom), (<sup>2</sup>Iran Univ. of Science and Technology, Iran), (<sup>3</sup>Wuhan Univ. of Science and Technology, P. R. China)

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##### **12:00 – 13:10 LUNCH**

**Metropolitan Asama B, C and Chikuma**

##### **Session B**

**Metropolitan Room Azusa**

##### **CARBON FIBERS AND COMPOSITES**

##### **16B-am-01 9:50– 10:10**

**Kinetics of Chemical Vapor Infiltration and Mechanical Properties of Carbon Nanofiber Reinforced Carbon/Carbon Composites**

Jin Song Li<sup>1</sup>, Rui Ying Luo<sup>1</sup> (Beijing University of Aeronautics and Astronautics, China)

##### **16B-am-02 10:10 – 10:30**

**Contact Deformations of Graphite Particulate Composites Applied to Sliding Components**

Takatashi Futami<sup>1</sup>, Eiichiro Ugumori<sup>1</sup>, Hiroyuki Muto<sup>1</sup>, Masahiko Ohira<sup>2</sup>, Mototsugu Sakai<sup>1</sup>

(<sup>1</sup>Toyohashi Univ. of Tech., Japan), (<sup>2</sup>Fuji Carbon Manufacturing Co., Japan)

##### **16B-am-03 10:30 – 10:50**

**Friction and Wear of Carbon/Carbon Composites: the Role of Mechanic and Physico-chemistry**

Sylvie Alice Bonnamy<sup>1</sup>, Haytam Kasem<sup>1</sup>, Bernard Rousseau<sup>1</sup>, Henriette Estrade-Szwarckopf<sup>1</sup>, Yves Berthier<sup>2</sup>, Pascale Jacquemard<sup>3</sup>

(<sup>1</sup>CRMD/CNRS-Univ., France), (<sup>2</sup>CNRS-INSA, France), (<sup>3</sup>Messier-Bugatti, USA)

##### **16B-am-04 10:50 – 11:10**

**Carbon Coating on the Surface of SiC-based Fibers**

Adrien Delcamp<sup>1</sup>, Rene Pailler<sup>1</sup>, Herve Plaisantin<sup>2</sup>, Laurence Maille<sup>1</sup>

(<sup>1</sup>Laboratoire des CompositesThermostructuraux (LCTS), France), (<sup>2</sup>SPS, France)

**16B-am-05 11:10 – 11:30**

**A Generalized Synthesis of Carbon / Metal or Metal Oxide Nanocomposites and their Corresponding Metal Oxide Hollow or Mesoporous Spheres using a Hydrothermal Approach**

Maria M Titirici<sup>1</sup>, Rezan Demir-Cakan<sup>1</sup>, Philippe Makowski<sup>1</sup>, Frederic Goettman<sup>1</sup>, Yong Sheng Hu<sup>2</sup>  
(<sup>1</sup>Max-Planck Institute, Germany), (<sup>2</sup>Max-Planck Institute for Solid State Research, Germany)

**16B-am-06 11:30 – 11:50**

**Purification and Modification of Carbon Nanocapsules as a Magnetic Carrier for Drug Delivery System**

SungHoon Kim (Tohoku Univ., Japan)

**16B-am-07 11:50 – 12:10**

**Polymer Coatings Hybridized with Highly Dispersive, Polymer-Grafted Carbon Nanotubes: Their Excellent Mechanical and Anti-corrosive Properties**

Takeshi Fukuda<sup>1</sup>, Shoji Kuroyama<sup>2</sup>, Takuma Nakao<sup>2</sup>, Senta Tojo<sup>2</sup>, Kohji Ohno<sup>1</sup> (<sup>1</sup>Kyoto Univ., Japan) (<sup>2</sup>Takenaka Seisakusho Co.,Japan)

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**12:00 – 13:10 LUNCH**

**Metropolitan Asama B, C and Chikuma**

## **Oral Sessions WEDNESDAY, JULY 16, 2008**

### **16PM1 (ORAL SESSION 8)**

#### **Session A**

**Metropolitan Room Asama A**

**NANOTUBES**

#### **16A-pm-01 13:10 – 13:40 KEYNOTE LECTURE**

##### **Self-Retracting Motion of Graphite Microflakes**

Prof. Quan-shui Zheng<sup>1</sup>, Bo Jiang<sup>1</sup>, Shou-peng Liu<sup>2</sup>, Jing Zhu<sup>1</sup>, Qing Jiang,<sup>3</sup> Yu-xiang Weng<sup>2</sup>, Li Lu<sup>2</sup>, Sheng Wang<sup>4</sup>, Qi-kun Xue<sup>2</sup>, Lian-mao Peng<sup>4</sup> (<sup>1</sup>Tsinghua Univ., China) (<sup>2</sup>Institute of Physics, Chinese Academy of Science, China) (<sup>3</sup>Univ. of California, USA) (<sup>4</sup>Peking Univ., China)

#### **16A-pm-02 13:40 – 14:00**

##### **Alignment of Vapor-Grown Carbon Fibers in Polymer by Magnetic or Electric Field and its Application**

Tatsuhiko Takahashi<sup>1</sup>, Hiroshi Awano<sup>1</sup>, Koichiro Yonetake<sup>1</sup>, Morinobu Endo<sup>2</sup> (<sup>1</sup>Yamagata Univ., Japan), (<sup>2</sup>Shinshu Univ., Japan)

#### **16A-pm-03 14:00 – 14:20**

##### **Synthesis and Application of Fe-filled Carbon Nanotubes Coated with FeCo Nanoparticles**

Chen Wang<sup>1</sup>, Feiyu Kang<sup>1</sup>, Ruitao Lv<sup>1</sup>, Jialin Gu<sup>1</sup>, Xuchun Gui<sup>1</sup>, Dehai Wu<sup>1</sup> (<sup>1</sup>Tsinghua Univ., China)

#### **16A-pm-04 14:20 – 14:40**

##### **Synthesis and Characterization of Carbon Nanotube/Magnesium Alloy Composites Well Dispersed by Using a Block Copolymer**

Qianqian Li<sup>1</sup>, Christian A. Rottmair<sup>1</sup>, Robert F. Singer<sup>1</sup> (<sup>1</sup>Univ. of Erlangen-Nuremberg, Germany)

#### **16A-pm-05 14:40 – 15:00**

##### **Fluorine Storage in Single-wall Carbon Nanohorns**

Hidekazu Touhara<sup>1</sup>, Ken Denuma<sup>1</sup>, Yoshio Nojima<sup>1</sup>, Yoshiyuki Hattori<sup>1</sup>, Fujio Okino<sup>1</sup>, Jun Sonobe<sup>2</sup>, Tomohiro Isogai<sup>3</sup>, Masako Yudasaka<sup>4</sup>, Sumio Iijima<sup>4,5</sup> (<sup>1</sup>Shinshu Univ., Japan), (<sup>2</sup>Air Liquide Labs., Japan), (<sup>3</sup>Daikin Industries, Japan), (<sup>4</sup>NEC Corp., Japan), (<sup>5</sup>Meijo Univ., Japan)

#### **16A-pm-06 15:00 – 15:20**

##### **Gigas Growth of Carbon Nanotubes from Camphor: A Step Toward Green Nanotechnology**

Mukul Kumar<sup>1</sup>, Kaushik Ghosh<sup>1</sup>, Yoshinori Ando<sup>1</sup> (<sup>1</sup>Meijo Univ., Japan)

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#### **15:20 – 15:40 Coffee Break**

**Metropolitan Foyer 3F, Asama B, Foyer 2F, Sunroute Foyer 3F**

#### **Session B**

**Metropolitan Room Azusa**

**CARBON FIBERS AND COMPOSITES**

#### **16B-pm-01 13:10 – 13:40 INVITED LECTURE**

##### **Title “ “**

Dr. G. G. Tibbetts (Applied Science, USA)

#### **16B-pm-02 13:40 – 14:00**

##### **CNx Based Nanocomposite as Adsorbent of Heavy Metals (Cd, Pb) Present in Aqueous Solution**

Nancy V Pérez-Aguilar<sup>1</sup>, Jose R. Rangel-Mendez<sup>1</sup>, Vladimir A. Escobar-Barrios<sup>2</sup>, Humberto Terrones<sup>1</sup>, Emilio Muñoz-Sandoval<sup>1</sup> (<sup>1</sup>IPICYT, Mexico) (<sup>2</sup>3M México S.A. de C.V., Mexico)

#### **16B-pm-03 14:00 – 14:20**

##### **CVD and CVI of Pyrolytic Carbon from Propylene and Hydrogen**

Weigang Zhang<sup>1</sup>, Wenjun Wu<sup>1</sup>, Shouquan Yu<sup>1</sup>, Xianghui Wang<sup>1</sup> (<sup>1</sup>Institute of Process Engineering, China)

#### **16B-pm-04 14:20 – 14:40**

##### **Effects of Carbon Nano-Fibers on Cell Morphology, Crush Strength, and Thermal Conductivity of Carbon Foam**

William E Fawcett<sup>1</sup>, Dinesh Shetty<sup>1</sup> (<sup>1</sup>Univ. of Utah, USA)

#### **16B-pm-05 14:40 – 15:00**

##### **Effects of the Carrier Gas in the Production of Carbon Nanofibers Using the Liquid Pulse Injection Technique**

Shin R Mukai<sup>1</sup>, Yoshihiko Hayashida<sup>1</sup>, Atsushi Ikeshita<sup>1</sup> (<sup>1</sup>Hokkaido Univ., Japan)

#### **16B-pm-06 15:00 – 15:20**

##### **Effect of the Molding Pressure on Compressive Strength of Pitch-based Carbon Materials**

Ling-jun Guo<sup>1</sup>, He-jun Li<sup>1</sup>, Ke-zhi Li<sup>1</sup>, Zheng-hai Shi<sup>1</sup>, Chuang Wang<sup>1</sup> (<sup>1</sup>Northwestern Polytechnical Univ., China)

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#### **15:20 – 15:40 Coffee Break**

**Metropolitan Foyer 3F, Asama B, Foyer 2F, Sunroute Foyer 3F**

## **Oral Sessions WEDNESDAY, JULY 16, 2008**

### **16PM2 (ORAL SESSION 9)**

#### **Session A**

**Metropolitan Room Asama A**  
**NANOTUBES**

#### **16A-pm-07 15:20 – 15:50 KEYNOTE LECTURE**

**Title “Carbon Nanotube Growth Mechanisms-  
“In-situ and ex-situ” Studies “**

Dr. Sivaram Arepalli (NASA, USA)

#### **16A-pm-08 15:50 – 16:10 INVITED LECTURE**

**Title “ “**

Dr. Marc Monthieux (CEMES, France)

#### **16A-pm-09 16:10 – 16:30**

**New Concepts in Organic Solar Cells using Carbon  
Nanomaterials**

Prakash R. Somani<sup>1</sup>, Savita P. Somani<sup>1</sup>, M. Umeno<sup>1</sup>  
(Chubu Univ., Japan)

#### **16A-pm-10 16:30 – 16:50**

**Lithium Ion Storage Property of Organic Molecules  
Encapsulated Single-walled Carbon Nanotubes**

Shinji Kawasaki<sup>1</sup>, Yuki Iwai<sup>1</sup>, Masahito Hirose<sup>1</sup> (Nagoya  
Institute of Technology, Japan)

#### **16A-pm-11 16:50 – 17:10**

**In-situ Raman Spectroelectrochemistry of Single-walled  
Carbon Nanotubes: Investigation of Materials Enriched  
with the (6,5) Tubes**

Ladislav Kavan<sup>1</sup>, Otakar Frank<sup>1</sup>, Alexander A. Green<sup>2</sup>, Mark  
C Hersam<sup>2</sup>, János Koltai<sup>3</sup>, Viktor Zólyomi<sup>4</sup>, Jenő Kürti<sup>3</sup>,  
Lothar Dunsch<sup>5</sup> (<sup>1</sup>J. Heyrovsky Institute of Physical  
Chemistry, Czech Republic), (<sup>2</sup>Northwestern Univ., USA),  
(<sup>3</sup>Eötvös Univ., Republic of Hungary), (<sup>4</sup>Research Institute  
for Solid State Physics and Optics of the Hungarian  
Academy of Sciences, Republic of Hungary), (<sup>5</sup>Leibniz  
Institute of Solid State and Materials Research, Germany)

#### **16A-pm-12 17:10 – 17:30**

**Catalytic Graphitization Occurring at High Temperature  
in Multi-walled Carbon Nanotubes Prepared with a CVD  
Method**

Yoshihiro Hishiyama<sup>1</sup>, Akira Yoshida<sup>1</sup>, Emi Shindou<sup>1</sup>,  
Yutaka Kaburagi<sup>1</sup>, Yoshio Yamasa<sup>2</sup>, Noriko Yoshizawa<sup>3</sup>,  
Hiroaki Hatori<sup>3</sup>  
(<sup>1</sup>Musashi Institute of Technology, Japan), (<sup>2</sup>Univ. of Fukui,  
Japan), (<sup>3</sup>National Institute of Advanced Industrial Science  
and Technology(AIST), Japan)

#### **16A-pm-13 17:30 - 17:50**

**Multiscale Modelling of Nanomaterials: Fundamentals  
and Applications for Molecular Manufacturing**

Elena Bichoutskaia (Univ. of Nottingham, United Kingdom)

#### **16A-pm-14 17:50 - 18:10**

#### **Catalytic Growth of Carbon Nanotubes on Zeolites**

Nadejda Popovska<sup>1</sup>, Katya Danova<sup>1</sup>, Nazret Telemicael<sup>1</sup>,  
Helmut Gerhard<sup>1</sup>, Wilhelm Schwieger<sup>1</sup> (<sup>1</sup>Univ. of  
Erlangen-Nuremberg, Germany)

#### **16A-pm-15 18:10 - 18:30**

**Molecular-level-dispersed carbon-nanotubes as dyes for  
dyeing-printing of fibers: a novel approach for  
mass-production of electrical-conductive multifilament  
yarns**

Bunshi Fugetsu<sup>1</sup>, Eiji Akiba<sup>2</sup>, Masaaki Hachiya<sup>3</sup>, Endo  
Morinobu<sup>4</sup>  
(<sup>1</sup>Hokkaido Univ., Japan)(<sup>2</sup>Kurary Living Co., LTD., Japan)  
(<sup>3</sup>Chakyu Dyeing Co., LTD., Japan)(<sup>4</sup>Shinshu Univ., Japan)

#### **18:00 – 21:00**

#### **POSTER SESSION 3**

#### **Session B**

**Metropolitan Room Azusa**

**CARBON FIBERS AND COMPOSITES**

#### **16B-pm-07 15:40 – 16:00**

**Enhancing the Through-thickness Thermal Conductivity  
of Carbon Fiber Polymer-matrix Composites by  
Nanostructuring the Interlaminar Interface**

Seungjin Han<sup>1</sup>, Jan T. Lin<sup>1</sup>, Yasuhiro Yamada<sup>1</sup>, Deborah D.L.  
Chung<sup>1</sup> (<sup>1</sup>State Univ. of New York at Buffalo, USA)

#### **16B-pm-08 16:00 – 16:20**

**The Effect of Chemical Modified PAN Precursor on the  
Preparation of Carbon Fiber**

Jie Liu<sup>1</sup>, Dayan Du<sup>1</sup>, Jieying Liang<sup>1</sup> (<sup>1</sup>Beijing Univ. of  
Chemical Technology, China)

#### **16B-pm-09 16:20 – 16:40**

**Flexible EL Device with CNTs Composites**

Mun Ja Kim<sup>1</sup>, Sung Min Park<sup>1</sup>, Dong-wook Shin<sup>1</sup>, Sang  
Hyun Park<sup>2</sup>, Jin Yong Kim<sup>1</sup>, Ji-beom Yoo<sup>1</sup>  
(<sup>1</sup>Sungkyunkwan Univ., Korea), (<sup>2</sup>Samsung Advanced  
Institute of Technology, Korea)

#### **16B-pm-10 16:40 – 17:00**

**Effects of carbon nanotubes addition on synthesis of  
mesocarbon microbeads**

Bin Wu<sup>1</sup>, Qianming Gong<sup>1</sup>, Ji Liang<sup>1</sup> (<sup>1</sup>Tsinghua Univ.,  
China)

#### **16B-pm-11 17:00 – 17:20**

**Characterization of 2D-C/C Composite for Application  
to In-core Structure of Very High Temperature Reactor  
(VHTR)**

Taiju Shibata<sup>1</sup>, Junya Sumita<sup>1</sup>, Eiji Kunimoto<sup>1</sup>, Kazuhiro  
Sawa<sup>1</sup> (<sup>1</sup>JAEA, Japan)

#### **16B-pm-12 17:20 – 17:40**

**Damage Fractography of Ceramic Fibre Composite at**

**Elevated Temperature under Loads**

Vijay Kumar Srivastava<sup>1</sup>, Shraddha Singh<sup>1</sup> (<sup>1</sup>Institute of Technology, BHU, India)

**16B-pm-13 17:40 – 18:00**

**Research on Oxidation Protection of Carbon/Carbon Composites Above 1750°**

Zhongwei Zhang<sup>1</sup>, Zhenghui Xu<sup>1</sup>, Junshan Wang<sup>1</sup>  
(<sup>1</sup>Aerospace Research Institute of Materials and Processing Technology Beijing, China)

**16B-pm-14 18:00 – 18:20**

**Thermodynamic Based Studies of Bonding and Stress Transfer in Carbon Fibre Reinforced Plastics**

Susan Osbeck<sup>1</sup>, Robert H Bradley<sup>1</sup>, Alex Baidak<sup>2</sup>, Isabelle Ammar-Khodja<sup>2</sup> (<sup>1</sup>Robert Gordon Univ.,UK) Cytac Engineered Materials Ltd., UK)

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**18:20 – 21:00**

**POSTER SESSION 3**

## **Oral Sessions WEDNESDAY, JULY 16, 2008**

### **16AM2 (ORAL SESSION 7)**

#### **Session C**

**Metropolitan Room Shiga**  
**CHEMICAL PROPERTIES**

#### **16C-am-01 9:50 – 10:20 FEATURED LECTURE**

**Intercalation Chemistry and Electronic Structure of Graphite-like Layered Material with Composition BC<sub>2</sub>N**

Prof. Masayuki Kawaguchi<sup>1</sup>, Katsuya Ohnishi<sup>1</sup>, Shinya Kuroda<sup>1</sup>, Yasuji Muramatsu<sup>2</sup> (<sup>1</sup>Osaka Electro-Communication Univ., Japan), (<sup>2</sup>Univ. of Hyogo, Japan)

#### **16C-am-02 10:20 – 10:40**

**Electronic Structure and Features of the Arene Molecules Oxidation in Elementary Textural Nanofragments of the Carbon Materials**

Victor P. Berveno<sup>1</sup>, Lev I. Shchukin<sup>1</sup>, Margarita V. Kornievich<sup>1</sup>, Sergey Yu. Lyrshchikov<sup>1</sup>, Vitaliy M. Grigoriev<sup>1</sup> (<sup>1</sup>Institute of Solid State Chemistry and Mechanochemistry, Russia)

#### **16C-am-03 10:40 – 11:00**

**Study of Activated Carbon Oxygen Groups by a New Fast Intermittent TPD Technique**

Jean-Pierre Joly<sup>1</sup>, François Gaillard<sup>1</sup>, Claude Descorme<sup>1</sup>, Michèle Besson<sup>1</sup>, Elena Polyanskaya<sup>2</sup>, Oxana Pestunova<sup>2</sup> (<sup>1</sup>Univ. of Lyon, France), (<sup>2</sup>Boreskov Institute of Catalysis, Russia)

#### **16C-am-04 11:00 – 11:20**

**Oxidation of Graphites for Future Nuclear Systems**

Baerbel Schloegl<sup>1</sup>, Hans K. Hinssen<sup>1</sup>, Rainer Moormann<sup>1</sup> (<sup>1</sup>Research Center Juelich, Germany)

#### **16C-am-05 11:20 – 11:40**

**Carbon Growth by the Atomic Carbon Insertion Reactions: The Simplest Carbon Reaction.**

Teruhiko Ogata<sup>1</sup>, Yoshio Tatamitani<sup>1</sup>, Yutaka Shibi<sup>1</sup> (<sup>1</sup>Sizuoka Univ., Japan)

#### **Session D**

**Sunroute Nagano Room Hiten**  
**ENVIRONMENT AND ENERGY**

#### **16D-am-01 9:50 – 10:20 INVITED LECTURE**

**Ozone Treated Carbon Surfaces for Enhanced Adsorption of Mercury Vapor**

Dr. Indrek Kulaots<sup>1</sup>, Natalie C. Johnson<sup>1</sup>, Shawn Manchester<sup>1</sup>, Yuming Gao<sup>1</sup>, Robert H. Hurt<sup>1</sup> (<sup>1</sup>Brown Univ., USA)

#### **16D-am-02 10:20 – 10:40**

**Adsorption of VOCs using Binderless-monolithic Activated Carbons Prepared from Petroleum Mesophase Pitch**

Joaquin Silvestre-Albero<sup>1</sup>, Ana Maria Silvestre-Albero<sup>1</sup>, Jose Manuel Ramos-Fernández<sup>1</sup>, Manuel Martínez-Escandell<sup>1</sup>, Antonio Sepúlveda-Escribano<sup>1</sup>, Francisco Rodríguez-Reinoso<sup>1</sup> (<sup>1</sup>Univ. of Alicante, Spain)

#### **16D-am-03 10:40 – 11:00**

**Diminish VOC Emission in Iron Foundries by a Cost Effective In-situ Pyrolyzed Carbon**

He Huang<sup>1</sup>, Yujue Wang<sup>1</sup>, Fred S Cannon<sup>1</sup> (<sup>1</sup>Pennsylvania State Univ., USA)

#### **16D-am-04 11:00 – 11:20**

**Hydrogen Evolution from Decalin over Precious Metal Catalysts Supported on Carbon Nanofibers and their Structured Composite**

Ping Li<sup>1</sup>, Yi-Li Huang<sup>1</sup>, De Chen<sup>2</sup>, Xing-Gui Zhou<sup>1</sup>, Tie-Jun Zhao<sup>2</sup>, Wei-Kang Yuan<sup>1</sup> (<sup>1</sup>East China Univ. of Science and Technology, China), (<sup>2</sup>Norwegian University of Science and Technology, Norway)

#### **16D-am-05 11:20 – 11:40**

**Preparation and Properties of PET-based Porous Carbon**

Jacek Przepiorski<sup>1</sup>, Antoni W Morawski<sup>1</sup>, Koichiro Tsumori<sup>2</sup>, Tomoki Tsumura<sup>2</sup>, Beata Tryba<sup>1</sup>, Masahiro Toyoda<sup>2</sup> (<sup>1</sup>Szczecin Univ. of Technology, Poland), (<sup>2</sup>Oita University, Japan)

#### **16D-am-06 11:40 – 12:00**

**Development of Charcoal for Castings by using Biomass Resources**

Kouhei Hasegawa<sup>1</sup>, Yuuichi Shinoda<sup>1</sup>, Kazuki Shiba<sup>1</sup>, Yasunori Doi<sup>2</sup>, Toyoshi Manabe<sup>3</sup>, Mitsuhiro Sakawa<sup>1</sup> (<sup>1</sup>Kochi Univ. of Technology, Japan), (<sup>2</sup>Tokushu Steelworks Company, Japan), (<sup>3</sup>Kochi Prefecture Industrial Technology Center, Japan)

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**12:00 – 13:10 LUNCH**

**Metropolitan Asama B, C and Chikuma**

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**12:00 – 13:10 LUNCH**

**Metropolitan Asama B, C and Chikuma**

## Oral Sessions WEDNESDAY, JULY 16, 2008

### 16PM1 (ORAL SESSION 8)

#### Session C

Metropolitan Room Shiga  
**PHYSICAL PROPERTIES**

#### 16C-pm-01 13:10 – 13:40 INVITED LECTURE

**Charge Transport in Chemically-Doped Carbon based Materials**

Dr. Stephan Roche (MINATEC, France)

#### 16C-pm-02 13:40 – 14:00

**Novel Physisorption-induced Magnetic Switching Phenomenon in Activated Carbon Fibers**

Toshiaki Enoki<sup>1</sup>, Katsunori Takahara<sup>1</sup>, Naoki Kawatsu<sup>1</sup>, Kazuyuki Takai<sup>1</sup>, Hirohiko Sato<sup>1</sup> (<sup>1</sup>Tokyo Institute of Technology, Japan)

#### 16C-pm-03 14:00 – 14:20

**Thermal Properties and Tribological Properties of Tetrahedral Amorphous Carbon (Ta-C) Films**

Seiichi Miyai<sup>1</sup>, Tomohiro Kobayashi<sup>2</sup>, Takayuki Terai<sup>1</sup> (<sup>1</sup>Univ. of Tokyo, Japan), (<sup>2</sup>RIKEN, Japan)

#### 16C-pm-04 14:20 – 14:40

**The Ballistic Phonon Drag of Electrons as a Cause of High Thermoelectric Effect in Nanocarbon**

Evgeny D. Eydelman<sup>1</sup>, Alexander Y. Vul<sup>1</sup> (<sup>1</sup>Ioffe Fisico-Technical Institute, Russia)

#### 16C-pm-05 14:40 – 15:00

**Magnetic Studies of Ultrananocrystalline Diamonds Intercalated by Copper**

Vladimir Yu Osipov<sup>1</sup>, Alexander I. Shames<sup>2</sup>, Alexander E. Aleksenskiy<sup>1</sup>, Alexander M. Panich<sup>2</sup>, Toshiaki Enoki<sup>3</sup>, Kazuyuki Takai<sup>3</sup>, Alexander Ya. Vul<sup>1</sup> (<sup>1</sup>Ioffe Fisico-Technical Institute, Russia), (<sup>2</sup>Ben-Gurion Univ. of the Negev, Israel), (<sup>3</sup>Tokyo Institute of Technology, Japan)

#### 16C-pm-06 15:00 – 15:20

**Modelling the Fracture of Nuclear Graphites With Scale**

Gareth B Neighbour<sup>1</sup>, Chris Lynch, Matt J. Holt<sup>1</sup> (<sup>1</sup>Univ. of Hull, United Kingdom)

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**15:20 – 15:40 Coffee Break**

Metropolitan Foyer 3F, Asama B, Foyer 2F,  
Sunroute Foyer 3F

#### Session D

Sunroute Nagano Room Hiten  
**ENVIRONMENT AND ENERGY**

#### 16D-pm-01 13:10 – 13:40 FEATURED LECTURE

**Application of Nitrogen-Rich Amino Acids to Active Site Generation in Oxygen Reduction Catalyst**

Dr. Jun Maruyama<sup>1</sup>, Nobutaka Fukui<sup>2</sup>, Masayuki Kawaguchi<sup>2</sup>, Ikuo Abe<sup>1</sup> (<sup>1</sup>Osaka MTRI, Japan) (<sup>2</sup>Osaka Electro-Communication Univ., Japan)

#### 16D-pm-02 13:40 – 14:00

**Development of a Zero-Emission Carbon Fuel Cell Using Hydrothermally Carbonized Biomass as Fuel**

Jens Peter Paraknowitsch<sup>1</sup>, Arne Thomas<sup>1</sup>, Markus Antonietti<sup>1</sup> (<sup>1</sup>Max-Planck Institute of Colloids and Interfaces, Germany)

#### 16D-pm-03 14:00 – 14:20

**Kinetics of Cellulose Pyrolysis under Mechanical Pressure**

Mingbo Wu<sup>1</sup>, Gabor Varhegyi<sup>2</sup>, Zsuzsanna Novák Czégény<sup>2</sup>, Kouichi Miura<sup>3</sup>, Ryuichi Ashida<sup>3</sup>, Zhonghao Hu<sup>4</sup>, Qingfang Zha<sup>1</sup>, Jian Zhang<sup>4</sup> (<sup>1</sup>China Univ. of Petroleum, China), (<sup>2</sup>Central Research Institute for Chemistry of the Hungarian Academy of Sciences, Hungary), (<sup>3</sup>Kyoto University, Japan), (<sup>4</sup>Shengli Oilfield, P. R. China)

#### 16D-pm-04 14:20 – 14:40

**Hydrothermal Carbonization of Plant Material: a Route to Nanostructured Carbonaceous Materials and an Efficient Chemical Process to Treat the CO<sub>2</sub> Problem**

Maria M. Titirici<sup>1</sup>, Arne Thomas<sup>1</sup>, Markus Antonietti<sup>1</sup> (<sup>1</sup>Max-Planck Institute of Colloids and Interfaces, Germany)

#### 16D-pm-05 14:40 – 15:00

**Development of Plant Cultivation Floor of Charcoal Produced from Used Paper Mixed with Unused Woody Resources**

Yasuhiro Shimase<sup>1</sup>, Tomoyuki Amano<sup>1</sup>, Syota Ishikawa<sup>1</sup>, Michiyasu Motoike<sup>1</sup>, Hiroko Yamamoto<sup>1</sup>, Mitsuhiro Sakawa<sup>1</sup> (<sup>1</sup>Kochi Univ. of technology, Japan)

#### 16D-pm-06 15:00 – 15:20

**A Chemical Microsystem for Selective Detection of Air Polluting Gases**

Marc Dubois<sup>1,2</sup>, Vicente Parra<sup>2</sup>, Alain Pauly<sup>2</sup>, Christelle Varenne<sup>2</sup>, Bernard Lauron<sup>2</sup>, Marcel Bouvet<sup>3</sup>, Katia Guérin<sup>2</sup>, André Hamwi<sup>2</sup>, Jérôme Brunet<sup>2</sup> (<sup>1</sup>Univ. Blaise Pascal, France), (<sup>2</sup>Clermont Univ., France), (<sup>3</sup>Univ. Pierre, France)

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**15:20 – 15:40 Coffee Break**

Metropolitan Foyer 3F, Asama B, Foyer 2F,

## Sunroute Foyer 3F



## **Oral Sessions WEDNESDAY, JULY 16, 2008**

### **16PM2 (ORAL SESSION 9)**

#### **Session C**

**Metropolitan Room Shiga**

#### **CHARACTERIZATION**

##### **16C-pm-07 15:40 – 16:10 INVITED LECTURE**

**Adsorption of Argon, Nitrogen and Water in Carbon Nanotube Bundles: Computer Simulation and Experiment Studies**

Duong D Do<sup>1</sup>, Atichat Wongkoblap<sup>1</sup> (<sup>1</sup>Univ. of Queensland., Australia)

##### **16C-pm-08 16:10 – 16:40 FEATURED LECTURE**

**TEM Observation and Microanalysis of the Surface Coating Films Formed on Carbon Nanospheres in the Negative Electrodes of Li ion Batteries**

Dr. Noriko Yoshizawa<sup>1</sup>, Yasushi Soneda<sup>1</sup>, Hiroaki Hatori<sup>1</sup>, Kazuo Yoshikawa<sup>2</sup>, Koji Miura<sup>2</sup>, Takeshi Abe<sup>3</sup>

(<sup>1</sup>National Institute of Advanced Industrial Science and Technology(AIST), Japan), (<sup>2</sup>Tokai Carbon Co., Japan), (<sup>3</sup>Kyoto Univ., Japan)

##### **16C-pm-09 16:40 – 17:00**

**Characterization of Catalyst Particles for Carbon nanotube synthesis by time-resolved laser-induced incandescence**

Alfred Leipertz<sup>1</sup>, Roland Sommer<sup>1</sup>, Katya Danova<sup>1</sup>, Nadejda Popovska<sup>1</sup> (<sup>1</sup>Univ. of Erlangen-Nuremberg, Germany)

##### **16C-pm-10 17:00 – 17:20**

**Dense-Gas Fractionation and MALDI-TOF Characterization of Petroleum Pitches**

Eduardo G Cervo<sup>1</sup>, Mark C Thies<sup>1</sup>, Bahram Fathollahi<sup>2</sup> (<sup>1</sup>Clemson Univ., USA), (<sup>2</sup>Univ. of California, USA)

##### **16C-pm-11 17:20 – 17:40**

**Structure of Glucose-derived Hydrothermal Carbon: an Advanced Solid-state MAS 13C NMR Study**

Niki Baccile<sup>1</sup>, Niki Baccile<sup>1</sup>, Guillaume Laurent<sup>2</sup>, Florence Babonneau<sup>2</sup>, Maria-Magdalena Titirici<sup>1</sup>, Markus Antonietti<sup>1</sup> (<sup>1</sup>Max-Planck Institute, Germany), (<sup>2</sup>LCMCP-UMPC, France)

##### **16C-pm-12 17:40 – 18:00**

**Amorphous Carbon Thin Films: Synthesis and Characterization**

Hare Ram Aryal<sup>1</sup>, Sudip Adhikari<sup>1</sup>, Dilip Chandra Ghimire<sup>1</sup>, Golap Kalita<sup>1</sup>, Ishwor Khatri<sup>2</sup>, Hideo Uchida<sup>1</sup>, Tetsuo Soga<sup>2</sup>, Masayoshi Umeno<sup>1</sup> (<sup>1</sup>Chubu Univ., Japan), (<sup>2</sup>Nagoya Institute of Technology, Japan)

##### **16C-pm-13 18:00 – 18:20**

**Interstellar Dust Grains Composition:the Hydrogenated Amorphous Carbon Contribution**

Emmanuel Dartois<sup>1</sup>, Guillermo M. Munoz-Caro<sup>2</sup>

(<sup>1</sup>CNRS, France), (<sup>2</sup>INTA-CSIC, Spain)

18:00 – 21:00

POSTER SESSION 3

#### **Session D**

**Sunroute Nagano Room Hiten**

#### **ENVIRONMENT AND ENERGY**

##### **16D-pm-07 15:40 – 16:00**

**Improvement in Crystallinity and Photocatalytic Activity of Titania by Carbon-Coating**

Prof. Tomoki Tsumura<sup>1</sup>, Kazuo Sogabe<sup>1</sup>, Michio Inagaki<sup>2</sup>, Masahiro Toyoda<sup>1</sup> (<sup>1</sup>Oita Univ., Japan), (<sup>2</sup>Aichi Institute of Technology, Japan)

##### **16D-pm-08 16:00 – 16:20**

**The Use of Fossil Hydrocarbons to Promote Renewable Energy and Carbon Sequestration**

Jorge Laine (IVIC, Venezuela)

##### **16D-pm-09 16:20 – 16:40**

**A New Class of Adsorbent with Dual Functions of Adsorptivity and Photoactivity: Hypernetworked Carbon/Titania Hybrid Composite**

Ji Hyuk Im<sup>1</sup>, Hyeon Gu Cho<sup>1</sup>, Chang Hoon Yoon<sup>2</sup>, Chong Rae Park<sup>1</sup> (<sup>1</sup>Seoul national Univ., Korea), (<sup>2</sup>LG Chem Research Park, Korea)

##### **16D-pm-10 16:40 – 17:00**

**Removal of Nickel (II) by Adsorption Using Treated Granular Activated Carbon: Batch and Column Studies**

Dilek Duranoglu Gulbayir<sup>1</sup>, Semiha Murat<sup>1</sup>, Ulker Gurbuz Beker<sup>1</sup> (<sup>1</sup>Yildiz Technical Univ., Turkey)

##### **16D-pm-11 17:00 – 17:20**

**Assessing the Influence of Pore Volume Distribution on the Adsorption of Organics in Column Tests**

Adam M. Redding<sup>1</sup>, Fred S Cannon<sup>1</sup> (<sup>1</sup>Pennsylvania State Univ., USA)

18:00 – 21:00

POSTER SESSION 3

## Oral Sessions

### **THURSDAY, JULY 17, 2008**

#### **17AM1 Metropolitan**

**8:00 - 8:30 Asama B,C INFORMATION (Announcement of coming international conferences)**

**8:30 - 9:20 Asama B,C PLENARY LECTURE**

**Professor Mauricio Terrones (IPICyT, Mexico)**

**" Defect Detection and Defect Engineering in Nano carbons: An Alternative Route to Novel Devices"**

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**9:20 - 9:50 BREAK Metropolitan Foyer 3F, Asama B, Foyer 2F, Sunroute Foyer 3F**

#### **17AM2 (ORAL SESSION 10)**

##### **Session A**

**Hotel Metropolitan Room Asama A  
NANOTUBES**

##### **17A-am-01 9:50 - 10:20 KEYNOTE LECTURE**

**Recent Advances in Carbon Nanotube Research**

**Prof. Mildred S. Dresselhaus and Prof. Gene Dresselhaus (MIT, USA)**

##### **17A-am-02 10:20 - 10:40**

**Characterization of the Surface Nature of Carbon Nanotubes by Inverse Gas Chromatography**

**Hyeon Gu Cho<sup>1</sup>, Chong Rae Park<sup>1</sup> (<sup>1</sup>Seoul National Univ., Korea)**

##### **17A-am-03 10:40 - 11:00**

**Temperature Effects in Raman Spectra from Single-walled Carbon Nanotubes and Assignments of their Chiral Indices at High Temperature**

**Takashi Uchida<sup>1,2</sup>, Akira Yamazaki<sup>1,3</sup>, Yoshihiro Kobayashi<sup>1,2</sup> (<sup>1</sup>NTT Basic Research Laboratories, Japan) (<sup>2</sup>CREST/JST, Japan) (<sup>3</sup>Meiji University, Japan)**

##### **17A-am-04 11:00 - 11:20**

**Dispersion and Individualization of Single Walled Carbon Nanotubes through an Alkali Vapor Intercalation Process**

**Brigitte Vigolo<sup>1</sup>, Claire Hérold<sup>1</sup>, Jean-François Maréché<sup>1</sup>, Patrice Bourson<sup>2</sup>, Samuel Margueron<sup>2</sup>, Jaafar Ghanbaja<sup>1</sup>, Edward McRae<sup>1</sup> (<sup>1</sup>du Solide Mineral, France) (<sup>2</sup>Laboratoire Matériaux Optiques, Photoniques et Systèmes, France)**

##### **17A-am-05 11:20 - 11:40**

**Manipulating the Current Conductivity of Halide-filled Multi-walled Carbon Nanotubes**

**Pedro MFJ Costa<sup>1</sup>, Dmitri Golberg<sup>1</sup>, Masanori Mitome<sup>1</sup>, Yoshio Bando<sup>1</sup> (<sup>1</sup>NIMS, Japan)**

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**12:30 - 17:00 Excursion (Lunch: Oginoya)**

**Special lectures (Suzaka Mesena Hall)**

**18:30 - 21:30 Banquet Metropolitan Asama A, B, C**

##### **Session B**

**Hotel Metropolitan Room Azusa  
CARBON FIBERS AND COMPOSITES**

##### **17B-am-01 9:50 - 10:20 INVITED LECTURE**

**Carbon-Carbon Composite Material as a Catalytic Reactor**

**Prof. De Chen<sup>1</sup>, Nina Hammer<sup>1</sup>, Magnus Rønning<sup>1</sup> (<sup>1</sup>NTNU, Norway)**

##### **17B-am-02 10:20 - 10:40**

**Resistance of Multi-walled Carbon Nanotube/Poly(p-phenylene) Composite for Toluene Detection**

**Adi Ilcham<sup>1</sup>, Tawatchai Charinpanitkul<sup>2</sup>, Mana Sriyuthsak<sup>1</sup>, Apinan Soottitantawata<sup>2</sup>, Amornwong Srisurichan<sup>2</sup>, Noriaki Sano<sup>3</sup> (<sup>1</sup>Chulalongkorn Univ., Thailand) (<sup>2</sup>Center of Excellence in Particle Technology, Thailand) (<sup>3</sup>Hyogo Univ., Japan)**

##### **17B-am-03 10:40 - 11:00**

**Study of Wettability and Reactive Infiltration of Carbon by AlSi Alloys**

**Javier Narciso<sup>1</sup>, Noelia Calderon<sup>1</sup>, Rayisa Voytovych<sup>2</sup>, Nicolas Eustathopoulos<sup>2</sup>, Francisco Reinoso<sup>1</sup> (<sup>1</sup>Alicante Univ., Spain) (<sup>2</sup>INP de Grenoble, France)**

##### **17B-am-04 11:00 - 11:20**

**Acid Modified Cup-Stacked-Type Carbon Nanofibers for Environmental Applications**

**Guillermo Abdrade-Espinosa<sup>1</sup>, Jose Rene Rangel-Mendez<sup>1</sup>, Emilio Muñoz-Sandoval<sup>1</sup>, Humberto Terrones-Maldonado<sup>1</sup>, Mauricio Terrones-Maldonado<sup>1</sup> (<sup>1</sup>Institute for Scientific and Technological Research of San Luis Potosi, Mexico)**

##### **17B-am-05 11:20 - 11:40**

**Effect of Carbonization Temperature on Emersion of Nano-structured Carbon Materials in Wood Treated with ACQ**

**Shuji Yoshizawa<sup>1</sup>, Michio Ohata<sup>1</sup> (<sup>1</sup>Meisei Univ., Japan)**

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**12:30 - 17:00 Excursion (Lunch: Oginoya)**

**Special lectures (Suzaka Mesena Hall)**  
**18:30 - 21:30 Banquet Metropolitan Asama A, B, C**

## Oral Sessions THURSDAY, JULY 17, 2008

### 17AM2 (ORAL SESSION 10)

#### Session C

Metropolitan Room Shiga  
**CHARACTERIZATION**

#### 17C-am-01 9:50 – 10:20 FEATURED LECTURE

**Synthesis of Porous Carbons: a Microscopic View of Physical and Chemical Activation**

Dr. Juan M. D. Tascon<sup>1</sup>, Juan Paredes<sup>1</sup>, Fabian Suarez-Garcia<sup>1</sup>, Amelia Martinez-Alonso<sup>1</sup> (<sup>1</sup>Instituto Nacional del Carbon, Spain)

#### 17C-am-02 10:20 – 10:40

**X-Ray Tomography for the Investigation of Carbon and Graphite Materials**

Felix Eckstorff<sup>1</sup>, Christoph Mohr<sup>1</sup>, Wilhelm Frohs<sup>1</sup>, Franz Fendt<sup>1</sup>, (<sup>1</sup>SGL Carbon GmbH, Germany)

#### 17C-am-03 10:40 – 11:00

**Variations of Electrical Resistance and Thermal Diffusivity of Carbon Blocks during Graphitization**

Norio Iwashita (National Institute of Advanced Industrial Science and Technology(AIST), Japan)

#### 17C-am-04 11:00 – 11:20

**Pyrocarbon Deposit on Flexible Graphite Ribbon: Reactivity with Molten Silicon**

Mathieu R. Monville<sup>1</sup>, Sylvie Bonnamy<sup>1</sup>, Marco Schowalter<sup>2</sup>, Christian Belouet<sup>3</sup> (<sup>1</sup>CNRS-Orleans, France) (Univ. of Bremen, Germany) (<sup>3</sup>Solarforce, France)

#### 17C-am-05 11:20 – 11:40

**Extra-terrestrial Carbons and Possible Earth Analogues**

Jean-Noel M Rouzaud<sup>1</sup>, Corentin LE Guillou<sup>1</sup> (<sup>1</sup>CNRS, France)

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12:30 – 18:00 Excursion (Lunch: Oginoya)

18:30 - 21:30 Banquet Metropolitan Asama A, B, C

#### Session D

Sunrute Room Hiten  
**ENVIRONMENT AND ENERGY**

#### 17D-am-01 9:50 – 10:20 FEATURED LECTURE

**Carbon Modified TiO<sub>2</sub> Photocatalysts for Water Purification**

Dr. Antoni Morawski<sup>1</sup>, Magdalena Janus<sup>1</sup>, Beata Tryba<sup>1</sup> (<sup>1</sup>Szczecin Univ., Poland)

#### 17D-am-02 10:20 – 10:40

**High Performance PCM-Graphite Heat Storage Systems**

Martin U Christ<sup>1</sup>, Oswin Oettinger<sup>1</sup>, Wolf Steinmann<sup>2</sup>, Rainer Tamme<sup>2</sup> (<sup>1</sup>SGL Carbon GmbH, Germany) (<sup>2</sup>DLR Stuttgart, Germany)

#### 17D-am-03 10:40 – 11:00

**Effect of Carbon Coating and Metal Doping for the Photoactivity of W<sub>18</sub>O<sub>49</sub>**

Hany Hussein Hemida<sup>1</sup>, Michio Inagaki<sup>2</sup>, Tomoki Tsumura<sup>1</sup>, Masahiro Toyoda<sup>1</sup> (<sup>1</sup>Oita Univ., Japan) (<sup>2</sup>Aichi Institute of Technology, Japan)

#### 17D-am-04 11:00 – 11:20

**Titanate Nanotube-two Dimensionally Deposited Carbon Nanosheet Composite**

Wen-Qin Peng<sup>1</sup>, Yong-Jun<sup>1</sup>, Mami Aizawa<sup>1</sup>, Zheng-Ming Wang<sup>1</sup>, Noriko Yoshizawa<sup>1</sup>, Hiroaki Hatori<sup>1</sup>, Takahiro Hirotsu<sup>1</sup> (<sup>1</sup>National Institute of Advanced Industrial Science and Technology(AIST), Japan)

#### 17D-am-05 11:20 – 11:40

**Improvement of Fe/Activated Carbon Catalysts for CWPO upon Oxidative Treatment**

Juan Zazo<sup>1</sup>, Jose Casas<sup>1</sup>, Angel Mohedano<sup>1</sup>, Juan Rodriguez<sup>1</sup> (<sup>1</sup>Universidad Autonoma de Madrid, Spain)

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12:30 – 18:00 Excursion (Lunch: Oginoya)

18:30 - 21:30 Banquet Metropolitan Asama A, B, C

## Special Session THURSDAY, JULY 17, 2008

Special Lecture (Suzaka Mesena Hall)

16:00 – 17:00

***Mechanisms of Self Assembly at Nanoscale Dimensions***

**Sir Harold W. Kroto**

**The Florida State Univ., USA**

## *Oral Sessions*

**FRIDAY, JULY 18, 2008**

**18AM1 Metropolitan**

**8:00 - 8:30 Asama B,C INFORMATION (Announcement of coming international conferences)**

**8:30 - 9:20 Asama B,C PLENARY LECTURE**

**Dr. Frederick S. Baker (Oak Ridge National Laboratory, USA)**

“A Carbon Cycle: Use of Biomass-based Carbon Fiber Materials for Reduction of Carbon Emissions to the Environment”

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**9:20 – 9:50 BREAK Metropolitan Foyer 3F, Asama B, Foyer 2F, Sunroute Foyer 3F**

### **18AM2 (ORAL SESSION 11)**

**Session A**

**Metropolitan Room Asama A**

***NANOTUBES***

**18A-am-01 9:50 – 10:20 KEYNOTE LECTURE**

**Dark and Bright Exciton Energies of Carbon Nanotubes**

Prof. Riichiro Saito (Tohoku Univ., Japan)

**18A-am-02 10:20 – 10:40**

**Growth of Vertical Aligned Carbon Nanotubes Arrays with Layer Catalysts: a Step Closer to Commercial Realization**

Qiang Zhang<sup>1</sup>, Mengqiang Zhang<sup>1</sup>, Jiaqi Huang<sup>1</sup>, Yi Liu<sup>1</sup>, Weizhong Qian<sup>1</sup>, Yao Wang<sup>1</sup>, Guohua Luo<sup>1</sup>, Fei Wei<sup>1</sup>,  
(<sup>1</sup>Tsinghua Univ., China)

**18A-am-03 10:40 – 11:00**

**Optical Resolution of SWNTs through Extraction with Chiral Diporphyrin Nanotweezers**

Naoki Komatsu<sup>1</sup>, Xiaobin Peng<sup>1</sup>, Takahide Kimura<sup>1</sup>, Atsuhiko Osuka<sup>2</sup> (<sup>1</sup>Shiga Univ. of Medical Science, Japan) (<sup>2</sup>Kyoto University, Japan)

**18A-am-04 11:00 – 11:20**

**Dispersion of Elementary Excitations in Carbon Nanotubes, Graphene Sheets and Graphite Crystals**

Victor O.Gubanov<sup>1</sup>, Mykola Biliy<sup>1</sup>, Larysa O. Komarova<sup>1</sup>, Sergij V. Kovrygin<sup>1</sup>, Ludmyla Yu.Matzui<sup>1</sup>, Yevgen Melnychuk<sup>1</sup> (<sup>1</sup>Kiev National Taras Shevchenko Univ., Ukraine)

**18A-am-05 11:20 – 11:40**

**Atomic and Electronic Structure in Collapsed Carbon Nanotubes Evidenced by Scanning Tunneling Microscopy**

Cristina E Giusca<sup>1</sup>, Yann Tison<sup>2</sup>, S. Ravi Silva<sup>1</sup> (<sup>1</sup>Univ. of Surrey, United Kingdom) (<sup>2</sup>Technical University of Denmark, Denmark)

**18A-am-06 11:40 – 12:00**

**One-step and Two-step Self-assembly: Fully Isolated Short SWCNT-DNA Hybrids and Controllably Rebundled Short SWCNT Ropes**

Quan-Hong Yang<sup>1</sup>, Qi Wang<sup>1</sup>, Dong-Ya Xiang<sup>1</sup>, Takashi Kyotani<sup>2</sup> (<sup>1</sup>Tianjin Univ., China) (<sup>2</sup>Tohoku University, Japan)

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**12:10 – 12:30 Closing Address Metropolitan Asama B, C**

**Session B**

**Metropolitan Room Azusa**

***CARBON FIBERS AND COMPOSITES***

**18B-am-01 9:50 – 10:30 INVITED LECTURE**

**Matrix Microstructure and Properties of Carbon-Carbon Composites made with Hybrid (Carbon Fiber-Carbon Nanomaterials) as Reinforcement**

Prof. Lalit Mohan Manocha<sup>1</sup>, Satish Manocha<sup>1</sup>, R. Pande<sup>1</sup>, Vishal Mankadia<sup>1</sup> (<sup>1</sup>Sardar Patel Univ., India)

**18B-am-02 10:30 – 10:40**

**Development of Ti-doped 3D Carbon/Carbon Composites**

Alba Centeno Perez<sup>1</sup>, C. Blanco<sup>1</sup>, R. Santamaria<sup>1</sup>, M. Granda<sup>1</sup>, R. Menéndez<sup>1</sup> (<sup>1</sup>Instituto Nacional del Carbon, Spain)

**18B-am-03 10:40 – 11:00**

**Thermal Conductivity Measurements for Carbon Fibers**  
Amod A Ogale<sup>1</sup>, Rebecca Alway-Cooper<sup>1</sup>, Merlin Theodore<sup>2</sup>, David Anderson<sup>3</sup> (<sup>1</sup>Clemson Univ., USA) (<sup>2</sup>UTC, USA) (<sup>3</sup>UDRI, USA)

**18B-am-04 11:00 – 11:20**

**In situ Synthesis of Carbon Nanotubes within Carbon Fibre Cloth**

Bojan O Boskovic<sup>1</sup>, Toby Hutton<sup>1</sup> (<sup>1</sup>Dunlop Aerospace Braking Systems, UK)

**18B-am-05 11:20 – 11:40**

**The Influence of Transport Modes on Numerical Analysis of Chemical Vapor Infiltration for Synthesis of C/C Composites**

Aijun Li<sup>1</sup>, Olaf Deutschmann<sup>1</sup>, (<sup>1</sup>Univ. of Karlsruhe, Germany)

**18B-am-06 11:40 – 12:00**

**Electron Diffraction Analysis for Turbostratic-Stacking Structure in Highly-Graphitized Pyrocarbon in**

**Carbon-Carbon Composites**

Lian Long He<sup>1</sup>, Yuan Yuan Zhu<sup>1</sup> (<sup>1</sup>Institute of Metal Research, China)

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**12:10 – 12:30 Closing Address Metropolitan Asama  
B, C**

## **Oral Sessions FRIDAY, JULY 18, 2008**

### **18AM2 (ORAL SESSION 11)**

#### **Session C**

#### **Metropolitan Room Shiga CHARACTERIZATION**

##### **18C-am-01 9:50 – 10:20 INVITED LECTURE**

##### **The World of Dislocations in Graphite**

Prof. Malcolm Heggie<sup>1</sup> Irene Suarez-Martinez<sup>2</sup>, Gemma Haffenden<sup>1</sup>, Calvin Davidson<sup>1</sup> (<sup>1</sup>Univ. Sussex, UK) (<sup>2</sup>IMN Nantes, France)

##### **18C-am-02 10:20 – 10:40**

##### **Re-Evaluation of the Pore Size Distribution in Microporous Carbons by Quenched Solid Density Functional Theory**

Alexander V. Neimark<sup>1</sup>, Matthias Thommes<sup>2</sup> (<sup>1</sup>Rutgers Univ., USA) (<sup>2</sup>Quantachrome Instruments, USA)

##### **18C-am-03 10:40 – 11:00**

##### **Application of Coconut Shell Activated Carbon Containing Additives for Electrical Grounding System**

Nabihah Binti Hashim Hashim<sup>1</sup>, Mohamad Deraman<sup>2</sup>, Ahmadun Nijar Zainal Abidin<sup>1</sup>, Annuar Ramli<sup>1</sup>, Fakhrulrazi Mahtar<sup>1</sup>, Wan Razli Wan Abdullah<sup>1</sup>, Mohd Norfallah Md Isa<sup>1</sup>, (<sup>1</sup>Telekom Malaysian Research and Development, Malaysia) (<sup>2</sup>Universiti Kebangsaan, Malaysia)

##### **18C-am-04 11:00 – 11:20**

##### **A Refined Method of Porous Structure Analysis of Activated Carbons with N<sub>2</sub> Adsorption Isotherms**

Eugene A. Ustinov<sup>1</sup>, Julia Kukushkina<sup>1</sup>, Vasiliy Sokolov<sup>1</sup>, Alexander Kravchik<sup>1</sup>, Gennady Tereshchenko<sup>1</sup>, Maxim Melgunov<sup>2</sup>, Peter Eletski<sup>2</sup>, Vadim Yakovlev<sup>2</sup>, Vladimir Fenelonov<sup>2</sup> (<sup>1</sup>Ioffe Physicotechnical Institute, Russia) (<sup>2</sup>Boreskov Institute of Catalysis, Russia)

##### **18C-am-05 11:20 – 11:40**

##### **Sulfuric Acid Intercalation of Wood Charcoals Heat-Treated at Various Temperatures**

Yukie Saito<sup>1</sup>, Kodai Kuwata<sup>1</sup>, Satoshi Shida<sup>1</sup>, Masamitsu Ohta<sup>1</sup> (<sup>1</sup>Graduate School of Agricultural and Life Sciences, The Univ. of Tokyo, Japan)

##### **18C-am-06 11:40 – 12:00**

##### **Effect of Inorganics on Porosity Development of Activated Carbons Produced from Biomass**

Esin A. Varol<sup>1</sup>, Ersan Pütün<sup>1</sup>, Ayşe Pütün<sup>1</sup> (<sup>1</sup>Anadolu Univ., Turkey)

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**12:10 – 12:30 Closing Address Metropolitan Asama B, C**

#### **Session D**

#### **Sunroute Room Hiten ENVIRONMENT AND ENERGY**

##### **18D-am-01 9:50 – 10:20 FEATURED LECTURE**

##### **Novel Hybrid Adsorbents with Dual Functions of High Adsorptive and Photocatalytic Activities**

Prof. Chong R. Park<sup>1</sup>, Hyeon Gu Cho<sup>1</sup>, Chang Hun Yun<sup>2</sup>, Ji Hyuk Im<sup>1</sup> (<sup>1</sup>Seoul National Univ., Korea) (<sup>2</sup>Engineering Plastics R&D, LG Chem, Ltd., Korea)

##### **18D-am-02 10:20 – 10:40**

##### **Palladium-doped Nanoporous Carbon Fibers for Hydrogen Storage**

Nidia C Gallego<sup>1</sup>, Cristian Contescu<sup>1</sup>, Vinay Bhat<sup>1</sup>, Halil Tekinalp<sup>2</sup>, Dan Edie<sup>2</sup> (<sup>1</sup>Oak Ridge National Laboratory, USA) (<sup>2</sup>Clemson University, USA)

##### **18D-am-03 10:40 – 11:00**

##### **Carbon-Supported Metallic Catalysts for the Improvement of MgH<sub>2</sub> Decomposition Kinetics**

Maria Angeles Lillo-Rodenas<sup>1</sup>, Z. Xiao Guo<sup>2</sup>, K. François Aguey-Zinsou<sup>2</sup>, Diego Cazorla-Amoros<sup>1</sup>, Angel Linares-Solano<sup>1</sup> (<sup>1</sup>Univ. of Alicante, Spain) (<sup>2</sup>University College London, United Kingdom)

##### **18D-am-04 11:00 – 11:20**

##### **Ni/Pd Nanoparticles Supported on Carbon as Catalysts for MgH<sub>2</sub> Decomposition**

Diego Cazorla-Amoros<sup>1</sup>, Sonia Dominguez-Dominguez<sup>1</sup>, Maria Angeles Lillo-Rodenas<sup>1</sup>, Angel Berenguer-Murcia<sup>1</sup>, Joseph Calo<sup>2</sup> (<sup>1</sup>Univ. of Alicante, Spain) (<sup>2</sup>Brown University, USA)

##### **18D-am-05 11:20 – 11:40**

##### **Hydrogenation Properties of Hydride-Containing Carbon Materials**

Cathie Vix-Guterl<sup>1</sup>, Renato Campesi<sup>1</sup>, Fermin Cuevas<sup>1</sup>, E. Leroy<sup>1</sup>, Mickael Hirscher<sup>2</sup>, Stephen Knopf<sup>1</sup>, Roger Gadiou<sup>1</sup>, Cathie Vix-Guterl, Michel Latroche (<sup>1</sup>ISIC/CNRS, France) (<sup>2</sup>MPI-MF, Germany)

##### **18D-am-06 11:40 – 12:00**

##### **Preparation of Novel Platinum-Supported Carbon Catalysts from Ion Exchange Resin and Its Application to the Combustion of Toluene**

Kouichi Miura<sup>1</sup>, Satoshi Ido<sup>1</sup>, Hiroyuki Nakagawa<sup>1</sup> (<sup>1</sup>Kyoto Univ., Japan)

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**12:10 – 12:30 Closing Address Metropolitan Asama B, C**