

CARBON 2008 Conference Program Poster

Poster Sessions MONDAY, JULY 14, 2008

18:30 – 21:00 POSTER SESSION 1

Hotel Metropolitan Room Asama C:
14P-I

ENVIRONMENT AND ENERGY

14P-I-01 Applied Study of Carbon Fibers Biofilm Carriers in Two-phase Anaerobic Reactors

Zhaokun Ma¹, Hui Song¹, Jieying Liang¹, Jie Liu¹ (¹Beijing Univ. of Chemical Technology, China) 144

14P-I-02 Sowing Fossil Hydrocarbons to Offset Global Warming

Jorge Laine (I.V.I.C., Venezuela) 145

14P-I-03 Adsorption of Methane over Activated Carbons at 50 Bar Pressure

Tamas Szabo¹, Dániel Sebok¹, Ágnes Patzkó¹, András Erdohelyi¹, Imre Kiricsi¹, Imre Dékány¹ (¹Univ. of Szeged, Hungary) 145

14P-I-04 Adsorption of Dibenzothiophene on Activated Carbons in Hydrocarbon Solvents

Seiji Kumagai¹, Hirotaka Ishizawa¹, Junya Sasaki¹, Koichi Takeda¹, Yasuhiro Toida² (¹Akita Prefectural Univ., Japan) (²Japan Energy Co., Japan) 146

14P-I-05 Molecular Sieving Property of Porous Carbon Prepared from Phenol-formaldehyde Resin

Takumi Nishii¹, Takefumi Ishikura¹, Jun'ichi Hayashi² (¹Tokyo Gas Co. Ltd, Japan) (²Kansai Univ., Japan) 146

14P-I-06 VOCs Removal Using Activated Carbon: Effect of Porosity and Surface Chemistry

Joaquin Silvestre-albero¹, Ana Maria Silvestre-Albero¹, Zinap Abdelouahab-Reddam¹, Antonio Sepúlveda-Escribano¹, Francisco Rodríguez-Reinoso¹ (¹Univ. de Alicante, Spain) 147

14P-I-07 The Diamond Like Carbon (DLC) Deposited on Metal Plate for Polymer Electrolyte Membrane (PEM) Fuel Cell Bipolar Plate

Yu-Lin hsin¹ (¹Industrial Technology Research Institute, Taiwan) 147

14P-I-08 Fullerene Derivatives in PEMFC Electrocatalyst

Hiroshi Shioyama¹, Atsushi Ueda¹, Nobuhiro Kuriyama¹ (¹AIST, Japan) 148

14P-I-09 Preparation of Activated Carbons from a Food Waste of Carbohydrate and Their Electrochemical Performance

Yutaka Kaburagi¹, Yuji Hattori¹, Akira Yoshida¹ (¹Musashi Institute of Technology, Japan) 148

14P-I-10 Structure and Thermoelectric Properties of Porous SiC from Carbonized Wood

Masashi Fujisawa¹, Toshimitsu Hata², Hiroyuki Kitagawa³, Paul Bronsveld⁴, Yasuji Kurimoto¹, Yuji Imamura² (¹Akita Prefectural Univ., Japan) (²Kyoto Univ., Japan) (³Shimane Univ., Japan) (⁴Univ. of Groningen, Netherlands) 149

14P-I-11 Effect of the Humidity on the Photocatalytic Oxidation of VOC at Low Concentration Using TiO₂/C Based Materials

Maria Angeles Lillo-Rodenas¹, Nadia Bouazza¹, Ange Linares-Solano¹ (¹Univ. of Alicante, Spain) 149

14P-I-12 Effect of N, B, F and C Doping of Titanium Dioxide Prepared by Sol-gel Process on the Photodegradation

Sang Jin Kim¹, Ji-Sun Im¹, Young-Seak Lee¹ (¹Chungnam National Univ., Korea) 150

14P-I-13 Formation Mechanism of Polycyclic Aromatic Hydrocarbons in the Benzene Flame: Density Functional Tight Binding Molecular Dynamics Simulations

Biswajit Saha¹, S. Irle², K. Morokuma¹ (¹Kyoto Univ., Japan) (²Nagoya Univ., Japan) 150

14P-I-14 High Activity PtRu Supported on Mass-Produced Multi-Walled Carbon Nanotubes for the Anode of Direct Methanol Fuel Cells

In Young Jang¹, Yong Jung Kim¹, Ki Chul Park¹, Morinobu Endo¹ (¹Shinshu Univ., Japan) 151

ADSORPTION, SURFACES AND POROUS MATERIALS

14P-I-15 A Study of Adsorption-desorption Mechanism of Ions in Electrosorption Desalination

Hirokazu Oda¹, Takaya Nakamura¹, Masaki Yamamoto¹, Kohei Mizutaki¹ (¹Kansai Univ., Japan) 151

14P-I-16 Porous Carbons From Poly(p-phenylene Benzobisoxazole)

Juan M. D. Tascon¹, Beatriz Vazquez-Santos¹, Amelia Martinez-Alonso¹, (¹Instituto Nacional of Carbon, CSIC, Spain) 152

14P-I-17 Surface Modification of Graphite by Dielectric Barrier Discharge Plasma

Juan M. D. Tascon¹, Pablo Solis-Fernandez¹, Juan I. Paredes¹, Amelia Martinez-Alonso¹ (¹Instituto Nacional del Carbon, CSIC, Spain) 152

CARBON 2008 Conference Program Poster

14P-I-18 NO Adsorption on Activated Carbon Fibers from Iron-containing Pitch

Maria Angeles Lillo-Rodenas¹, Juan Alcaniz-Monge¹, Agustin Bueno-Lopez¹, Maria Jose Illan-Gomez¹ (¹Univ. of Alicante, Spain) 153

14P-I-19 Preparation of Electrode for EDLC from Commercial Activated Carbon

Ikpyo Hong¹, Jingyu Wu², Sei-Min Park³, Seong-Young Lee³, Myung-Soo Kim² (¹Research Institute of Industrial Science & Technology, Korea) (² Myongji Univ., Korea) (³RIST, Korea) 153

14P-I-20 Heat-treated Phthalocyanines as Surrogate Carbon Catalysts: Initial Insights into Oxygen-transfer Catalysis

Fernando E. Vallejos-Burgos¹, Shigenori Utsumi², Yoshiyuki Hattori³, Ximena Garcia¹, Alfredo L Gordon¹, Katsumi Kaneko², Hirofumi Kanoh², Ljubisa R Radovic⁴ (¹Univ. de Concepcion, Chile) (²Chiba Univ., Japan) (³Shinshu Univ., Japan) (⁴Penn State University, USA) 154

14P-I-21 Ab Initio and Density Functional Theory Potential Energy Curves for the Reaction of Atomic Hydrogen with Coronene

Ying Wang (Nagoya Univ., Japan) 154

14P-I-22 Effect of Pyrolysis Conditions on the Porosity of PPTA-derived Activated Carbon Fibers

Alberto Castro-Muñiz¹, Amelia Martínez-Alonso¹, Juan M D Tascon¹, (¹Instituto Nacional of Carbon, CSIC, Spain) 155

14P-I-23 PPTA-Derived Activated Carbon Fibers. Effect of Phosphoric Acid as an Additive in their Preparation

Alberto Castro-Muñiz¹, Amelia Martínez-Alonso¹, Juan M D Tascon¹ (¹Instituto Nacional del Carbón, CSIC, Spain) 155

14P-I-24 Stable Dispersion of Graphite Nanoplatelets in Organic Solvent

Wei Tong (Harbin Engineering Univ., China) 156

14P-I-25 Relaxation of Porous Hard Carbons Upon Water Adsorption

Gudrun Reichenauer¹, Philipp Eitelwein¹, Stefan Braxmeier¹, Christian Scherdel¹ (¹Bavarian Center for Applied Energy Research, Germany) 156

14P-I-26 Synthesis and Properties of Amorphous Carbon Material for Various Application

Alexey P. Kozlov¹, Chingiz N. Barnakov¹, Zinfer R. Ismagilov², Mikhail A. Kerzhentsev² (¹Institute of Coal and Coal Chemistry SB RAS, Russia) (²Boreskov Institute of Catalysis SB RAS, Russia) 157

14P-I-27 Graphite Oxide Based Materials as Adsorbents of Small Molecule Gases

Teresa J Bandosz¹, Mykola Seredych¹ (¹The City College of New York, USA) 157

NANOTUBES

14P-I-28 External Electric Field Enhancement by Carbon Nanotubes

Leonid Grigorian¹, Alex E Moser¹ (¹YTC America Inc., USA) 158

14P-I-29 The Influence of Carbon Support on the Structure and the Productivity of Carbon Nanofibers

Ali Rinaldi¹, Jean-Philippe Tessonniere¹, Norly Abdullah², Dang Sheng Su¹, Robert Schlögl¹, Sharifah Bee Abdul Hamid² (¹Fritz-Haber-Institut der Max-Planck- Gesellschaft, Germany) (²CombiCat University Malaya, Malaysia) 158

14P-I-30 Determination of Functional Groups after Nitric Acids Oxidation of Multi-walled Carbon Nanotubes and the Significance of Fulvic Acids

Zhaowei Wang¹, Raymond L.D. Whitby¹, Steven T. Meikle¹, Sergey V. Mikhalkovsky¹ (¹Univ. of Brighton, United Kingdom) 159

14P-I-31 Dispersion of MWCNT with and without Polyaniline for Transparent Conductive Thin Layer

Teruya Goto¹, Hiroki Arai¹, Hiroshi Awano¹, Tatsuhiro Takahashi¹, Koichiro Yonetake¹, Osamu Haba¹, Noriyuki Kuramoto¹ (¹Yamagata Univ., Japan) 159

14P-I-32 Microwave Absorption and Complex Permittivity and Permeability of Continuous Ni-layer Coated Carbon Nanotubes

Dong-Lin Zhao¹, Zeng-Min Shen¹ (¹Beijing Univ. of Chemical Technology, China) 160

14P-I-33 Synthesis of Highly Aligned Carbon Nanotubes by One-step Process in Liquid-phase

Kiyofumi Yamagiwa¹, Yoshihiro Yamaguchi¹, Tsuneharu Takeuchi¹, Morihiko Saito¹, Jun Kuwano¹ (¹Tokyo Univ. of Science, Japan) 160

14P-I-34 Fabrication of Carbon Nanotube Reinforced Aluminium Alloy Composites by High Pressure Die Casting

Qianqian Li¹, Christian A. Rottmair¹, Robert F. Singer¹ (¹Univ. Erlangen-Nuremberg, Germany) 161

14P-I-35 Structure - Properties - Performance Relationship of Carbon Nanofiber Supported Pt Catalysts

De Chen¹, Ingvar Kvande¹, Magnus Rønning¹ (¹NTNU, Norway) 162

14P-I-36 Synthesis of Platinum Nanowire Networks Using a Carbon Nanotube Template

Jong Hak Lee¹, Sung Min Park¹, Do-Yoon Kim¹, Jae-Hong Park¹, S. P. Patole¹, Ji Beom Yoo¹ (¹Sungkyunkwan Univ., Korea) 163

14P-I-37 Process Gas Species Induced Structural Effects on Carbon Nanotube Growth

Fumitaka Ohashi¹, Guan Yow Chen², Vlad Stolojan³, Ravi Silva³ (¹Univ. of Surrey, United Kingdom) (²Surrey Nanosystems, United Kingdom) (³Advanced Technology Institute, United Kingdom) 163

CARBON 2008 Conference Program Poster

14P-I-38 Novel Self-templated Growth Mode in Catalytic Synthesis of Carbon Nanostructures

Tiejun Zhao¹, Jun Zhu², Zhixin Yu¹, Ingvar Kvande¹, De Chen¹, Xinggui Zhou² (¹Norwegian Univ. of Science and Technology, Norway) (²East China University of Science and Technology, China) 164

14P-I-39 Catalytic Growth of Carbon Nanofibers Using Co-precipitated Ni-Mg and Co-Mg Catalysts

Ting-Yu Wu (Tatung Univ., Taiwan) 164

14P-I-40 A Simple Method to Prepare Carbon Nanotube Film by Inkjet Printing

Fan Zhuang Jun (Harbin Engineering Univ., China) 165

14P-I-41 Manufacturing and Properties of Carbon Nanotube Actuator

Yong Chae Jung¹, Hyang Hwa So², Hye Jin Yoo², Jae Whan Cho² (¹Shinshu Univ., Japan) (²Konkuk Univ., Korea) 165

14P-I-42 Electroactive Shape Memory Effect of Polyurethane-carbon Nanotube Nanocomposites

Yong Chae Jung¹, Sun Young Lee², Hyun Hee Kim², Jae Whan Cho² (¹Shinshu Univ., Japan) (²Konkuk Univ., Korea) 166

14P-I-43 Boron Nitride Microtubes Exhibiting Intense Near-band-gap UV Emission

Yang Huang¹, Yoshio Bando¹, Chengchun Tang², Chunyi Zhi², Takeshi Terao¹, Takashi Sekiguchi¹, Dmitri Golberg¹ (¹Univ. of Tsukuba, Japan) (²Nanoscale Materials Center, Japan) 166

14P-I-44 Carbon Nanotubes Inhibit Cell Proliferation by Adsorption of Essential Micronutrients from Cell Culture Medium

Robert H Hurt¹, Lin Guo¹, Annette Von Dem Bussche¹, Agnes Kane¹ (¹Brown Univ., USA) 167

14P-I-45 TPGS an Active Antioxidant Surfactant for Green Processing of Carbon Nanotubes and Fullerenes

Robert H Hurt¹, Aihui Yan¹, Annette Von Dem Bussche¹, Agnes Kane¹ (¹Brown Univ., USA) 167

14P-I-46 Structures of Activated Carbon Nanotubes Prepared by Two-step Activation

Yunfang Liu¹, Bo Liu¹, Weidong Chi¹, Zengmin Shen¹ (¹Beijing Univ. of Chemical Technology, China) 168

14P-I-47 A Facile Method for Fe₃O₄ on Carbon Nanotubes

Yunfang Liu¹, Bo Liu¹, Weidong Chi¹, Zengmin Shen¹, Lin Hu¹ (¹Beijing Univ. of Chemical Technology, China) 168

14P-I-48 The Preparation and Characteristics of Oxyfluorinated MWCNT/epoxy Composites by E-beam Irradiation Cure Method

Seok-Min Yun¹, Sang Jin Kim¹, Ju-Wan Kim¹, Young Chang Nho², Phil Hyun Kang², Young-Seak Lee¹ (¹Chungnam National Univ., Korea) (²Korea Atomic Energy Research Institute, Korea) 169

NANOFORMS

14P-I-49 Growth of Carbon Nanofibers on Carbon Fiber Cloth Using Electrodeposited Catalysts

Shinn-Shyong Tzeng¹, Po-Kai Chuang¹, Mei-Hsueh Nien¹ (¹Tatung Univ., Taiwan) 169

14P-I-50 Difference of the Pre-oxidation Mechanism between Electrospun PAN Fibers and Common PAN Fibers

Jie Liu¹, Peixun ZHOU¹, Hao FENG², Zhaokun Ma¹, Jieying Liang¹ (¹Beijing Univ. of Chemical Technology, China) (²South Dakota School of Mines and Technology Rapid City, USA) 170

14P-I-51 Orbicular Graphite in Oshirabetsu, Hokkaido, Japan

Chuan Xiu Yun (Peking Univ., China) 170

14P-I-52 Synthesis and Photocatalytic Effects for the Pt-Fullerene/TiO₂ Composites Derived from Pt Treated Fullerene and TNB

Won-Chun-Oh¹, Ah-Reum Jung¹, Weon-Bae Ko² (¹Hanseo Univ., Korea) (²Sahmyook Univ., Korea) 171

14P-I-53 Solution Synthesis of Carbon Nanoparticles from Deoiled Asphalt

Xuguang Liu¹, Hairong Wen¹, Yongzhen Yang¹, Wenfang Ren¹, Xingmei Guo¹, Bingshe Xu¹ (¹Taiyuan Univ. of Technology, China) 171

14P-I-54 Hollow Carbon Nanospheres Prepared by Carbonizing PMMA/PAN Core-shell Polymer Particles

Wenming Qiao¹, Guangzhi Yang¹, Risheng Xu¹, Licheng Ling¹, Junhe Yang² (¹East China Univ. of Science and Technology, China) (²Shanghai Institute of Technology, China) 172

14P-I-55 Template Synthesis of Cross-linked Fullerene like Nanocarbon with Three-dimensional Regularity

Hirotomo Nishihara¹, Katsuaki Imai¹, Juan I Paredes², Amelia Martínez-Alonso², Juan M.D. Tascon², Takashi Kyotani¹ (¹Tohoku Univ., Japan) (²Instituto Nacional del Carbón, Spain) 172

14P-I-56 Preparation of Carbon-encapsulated Iron Nanoparticles from Mesophase Pitch and Ferrocene

Huaihe Song¹, Wentao Lian¹, Huaihe Song¹, Xiaohong Chen¹, Junping Huo¹ (¹Beijing Univ. of Chemical Technology, China) 173

CARBON 2008 Conference Program Poster

ELECTROCHEMISTRY, BATTERIES AND CAPACITORS

14P-I-57 Electrochemical Properties of Surface Fluorinated Graphite in Propylene Carbonate Containing Solvent

Takashi Achiha¹, Seiko Shibata¹, Tsuyoshi Nakajima¹, Yoshimi Ozawa¹, Alain Tressaud², Etienne Durand² (¹Aichi Institute of Technology, Japan) (²Univ. Bordeaux I, France)

173

14P-I-58 Preparation and Performances of Pitches-based Carbon Aerogel Electrodes for the Application of Electrochemical Capacitor

Ruowen Fu¹, Xianhua Zeng¹, Dingcai Wu¹ (¹Sun Yat-sen Univ., China)

174

14P-I-59 Pre- and Post-Combustion Carbon Capture Using Latent Porous Crystal Copper-Organic Framework Adsorbents

Christian M Lastoskie¹, Christian M Lastoskie¹, Craig M Tenney¹, Tran D Trinh¹, Katsumi Kaneko² (¹Univ. of Michigan, USA) (²Chiba Univ., Japan)

174

14P-I-60 Performance of B-C and B-C-N Composites as Electrodes for Electrochemical Capacitors

Hidetaka Konno¹, Teruhiko Ito¹ (¹Hokkaido Univ., Japan)

175

14P-I-61 Concerning of More Precise System to Clarify the Size Effect on Capacitance Uptake of Supercapacitors

Yong Jung Kim¹, Cheol-Min Yang², Masaaki Kitani¹, Tsuyoshi Kodama¹, Keita Higuchi¹, Naohiro Aoyama¹, Takayuki Oka¹, Akane Kobayashi¹, Morinobu Endo¹ (¹Shinshu Univ., Japan) (²Chiba Univ., Japan)

175

14P-I-62 Influence of the Electrolyte on Capacitive Properties of the C/N Materials Prepared by Pyrolysis of Organic Molecular Crystals

Yoshiki Hayashi¹, Youichi Yano¹, Masayuki Kawaguchi¹ (¹Osaka Electro-Communication Univ., Japan)

176

14P-I-63 Charge/discharge Properties of Chars Derived from the Polyimide Containing Hetero-atoms

Hidetaka Konno¹, Mariko Ushiro¹, Atsuo Yoneda¹ (¹Hokkaido Univ., Japan)

176

14P-I-64 Single-walled Carbon Nanotubes with High Surface Area and Their Capacitor Properties

Osamu Kimizuka¹, Susumu Saeki¹, Yoshio Yamada¹, Osamu Tanaike², Junya Yamashita², Futaba Don², Kenji Hata², Hiroaki Hatori², Kenji Machida³, Shunzo Suematsu³, Kenji Tamamitsu³ (¹Univ. of Fukui, Japan) (²AIST, Japan) (³Nippon Chemi-Con Corporation, Japan)

177

14P-I-65 Structure and EDLC Performance of Oxidized Carbons and Pyrolyzed Carbons

Ick Jun Kim¹, Sunhye Yang¹, Min Je Jeon¹, Seong In Moon¹, Hyun Soo Kim¹, Kye Hyeok An² (¹Korea Electrotechnology

Research Institute, Korea) (²Jeonju Machinery Research Center, Korea)

177

14P-I-66 Influence of Metal Plating Treatment in the Electrochemical Performance of Activated Carbon Fabric Electrodes for Electrical Double Layer Capacitors

Yongming Tian¹, Yan Song¹, Yu Geng¹, Zhihong Tang¹, Quangui Guo¹, Lang Liu¹ (¹Institute of Coal Chemistry, Chinese Academy of Sciences, China)

178

14P-I-67 Anode Performance of Poly(p-phenylene terephthalamide)-based Carbon Electrodes as Secondary Li Ion Battery

Alberto Castro-Muñiz¹, Yong J Kim², Morinobu Endo², Amelia Martínez-Alonso¹, Juan M D Tascón¹ (¹Instituto Nacional de Carbón, Spain) (²Shinshu Univ., Japan)

178

14P-I-68 Graphite with Enhanced Surface Area for Capacitor Electrode

Yasushi Soneda¹, Hiroaki Hatori¹ (¹AIST, Japan)

179

14P-I-69 Structural and Electrochemical Characteristics of Hard-carbon Particles Coated with Pyrocarbon at Several Temperatures

Yoshimi Ohzawa¹, Hideki Sakakibara¹, Tsuyoshi Nakajima¹ (¹Aichi Institute of Technology, Japan)

179

14P-I-70 Electrochemical Property of Sulfur-Containing Carbon Microsphere

Miyuki Arai¹, Michiya Ota¹, Takanori Tago¹, Yoshihiro Takizawa¹, Masaya Kodama² (¹Gunma College of Technology, Japan) (²AIST, Japan)

180

14P-I-71 The Effect of Surface Functional Groups of Porous Carbon Materials on Its Electrochemical Properties

Yanhong Tian¹, Jiaoping Yang¹ (¹Beijing Univ. of Chemical Technology, China)

180

CARBON FIBERS AND COMPOSITES

14P-I-72 Silicon Carbide and Carbon Open-cell Foams: CVD Processing and Characterization

Sophie Delettrez¹, Francis Langlais¹, Georges Chollon¹, Gerard Vignoles¹ (¹LCTS, France)

181

14P-I-73 Fabrication of Carbon Nano-fiber/alumina Composites by Vacuum Sintering and Hot Isostatic Pressing

Seiichi Taruta¹, Tomohiro Yamaguchi¹, Kunio Kitajima¹, Yuki Usui¹, Kaoru Aoki¹, Morinobu Endo¹, Naoto Saito¹ (¹Shinshu Univ., Japan)

181

14P-I-74 Effect of Impregnating Precursor and Carbonization Temperature on Tribological Behavior of Carbon -Carbon Composites

Kuo-Jung Lee¹, Min-Jet Tsai¹, Huy Zu Cheng¹ (¹I-SHOU Univ., Taiwan)

182

14P-I-75 Hydrophylic Ordered Mesoporous Carbon Materials and Their Surface Functionalization

Maria M Titirici¹, Rezan Demir-Cakan¹, Farnoosh Rohi¹, Markus Antonietti¹ (¹Max-Planck Institute for Colloids and Interfaces, Germany) 182

14P-I-76 The Problems of Intercalation of Nanographites - Structural Blocks of Activated Carbons

Albert M. Ziatdinov (Far-East Branch of the Russian Academy of Sciences, Russia) 183

14P-I-77 Influence of Gas Partial Pressure on the Density and Texture of C/C Composites Prepared by Microwave Pyrolysis Chemical Vapor Infiltration

Jizhao Zou¹, Xierong Zeng¹, Xiaohua Li¹, Xinbo Xiong¹ (¹Shenzhen Univ., China) 183

14P-I-78 Oxidation Behavior of SiC/LaCrO₃ Multi-layer Coated Carbon/Carbon Composites at 1650°C

Long Li¹, Xierong Zeng¹, Xinbo Xiong¹, Shenghui Xie¹, Jizhao Zou¹ (¹Shenzhen Univ., China) 184

14P-I-79 Investigation of Stress Graphitization of Carbon-Carbon Composites Using Raman Spectroscopy

Shinn-Shyong Tzeng¹, Yu-Hun Lin¹, Horng-Yu Lin², Mei-Hsueh Nien¹, Jin-Chein Lin² (¹Tatung Univ., Taiwan) (²Technology and Science Institute of Northern Taiwan, Taiwan) 184

14P-I-80 Study on the Electrical Conductivity of Copper-coated Graphite Fibers

Zechao Tao (Institute of Coal Chemistry, Chinese Academy of Sciences, China) 185

14P-I-81 Silicon Carbide Foams Produced by Siliciding Carbon Foams Derived from Mesophase Pitch

Yu Yang¹, Quangui Guo¹ (¹Institute of Coal Chemistry, Chinese Academy of Sciences, China) 185

14P-I-82 Thermal and Nanomechanical Characteristics of Multi-walled Carbon Nanotubes Reinforced PLA Nanocomposites

Sheng-Rui Jian¹, I-Ju Teng², Cheng-Tzu Kuo³, Wei-Ming Chiu⁴, Huy-Zu Cheng¹ (¹I-Shou Univ., Taiwan) (²National Chiao Tung Univ., Taiwan) (³Ming Dao Univ., Taiwan) (⁴National Chin-Yi Univ., Taiwan) 186

14P-I-83 Study on Effect of Electrochemical Oxidation Modification on Physical and Chemical State of Carbon Fiber Surface

YuLi Tian¹, Jie Liu¹, Yujia Chen¹, Jieying Liang¹, Zhaokun Ma¹ (¹Beijing Univ. of Chemical Technology, China) 186

14P-I-84 Carbon Nanotube Inorganic Nanowires Core-shell Heterostructures: Synthesis, Properties and Prospects

Ujjal K. Gautam¹, Yoshio Bando¹, Pedro M. F. J. Costa¹, Dmitri Golberg¹ (¹National Institute for Materials Sciences, Japan) 187

14P-I-85 Methane Storage Using Chemically Activated Electrospun Carbon Fibers

Min-il Kim¹, Ji-Sun Im¹, Young-Seak Lee¹ (¹Chungnam National Univ., Korea) 187

14P-I-86 ESR of Activated Carbon Fibers with Different Sorbates

Maxim A. Ziatdinov¹, Vladimir V. Kainara¹ (¹Institute of Chemistry, Far-East Branch of the Russian Academy of Sciences, Russia) 188

14P-I-87 Lasersynthesized Nanocarbons in Some Polymerbased Composites for Industrial Applications

Ion Voicu¹, Lavinia Gavrila-Florescu¹, Iuliana Soare¹, Ion Sandu¹, Ion Dinca², Constantin Serghei², Liviu Dumitrasche³, Zina Vuluga³, Gabriel Prodan⁴, Ion Morjan¹, Ion Voicu¹ (¹National Institute for Lasers, Plasma and Radiation Physics, Romania) (²National Institute for Aerospace Research, Romania) (³National Institute for Chemical Research, Romania) (⁴Ovidius Univ. of Constanta, Romania) 188

14P-I-88 The Effect of Oxidized PAN Fiber Modification on the Structure and Properties of Carbon Fiber

Jie Liu¹, Xiaoguang Sun¹, Zhaokun Ma¹, Jieying Liang¹ (¹Beijing Univ. of Chemical Technology, China) 189

14P-I-89 The Effect of Tension on PAN-based Stabilization Fiber during Low Temperature Carbonization

Jie Liu¹, Feng Lian¹, Zhaokun Ma¹, jieying liang¹ (¹Beijing Univ. of Chemical Technology, China) 189

14P-I-90 Effect of Modification of Electrolyte Temperature on Surface Properties Carbon Fiber

Jie Liu¹, Yujia Chen¹, Yuli Tian¹, Jieying Liang¹, Zhaokun Ma¹ (¹Beijing Univ. of Chemical Technology, China) 190

14P-I-91 The Investigation of Nylon-12/Carbon Black Nano Composites for High Temperature Positive Temperature Coefficient

Tsao Keng-Yu¹, Huang Chi-Yuan¹, Tsai Ching-Shan¹ (¹Tatung Univ., Taiwan) 190

14P-I-92 The Improvement of Mechanical Strength for LDPCF with Limited Shrinkage during Oxidation

Song Zhao¹ (¹Institute of Coal Chemistry, Chinese Academy of Sciences, China) 190

CARBON 2008 Conference Program Poster

Hotel Metropolitan Room Kurohime: 14P-II

DIAMOND AND GICS

14P-II-01 Intercalation of Potassium into Graphite-like Layered Material of Composition BC₂N

Katsuya Ohnishi¹, Masayuki Kawaguchi¹ (¹Osaka Electro-Communication Univ., Japan) 191

14P-II-02 Preparation of Pillared Carbons from Graphite Oxide Silylated by 3-aminopropylethoxysilanes

Yoshimasa Sakai¹, Yoshiaki Matsuo¹, Tomokazu Fukutsuka², Yosohiro Sugie¹ (¹Univ. of Hyogo, Japan) (²Kyoto Univ., Japan) 191

14P-II-03 Graphite Intercalation Compounds as Potential Thermoelectric Materials

Rika Matsumoto¹, Yutaro Hoshina¹, Noboru Akuzawa² (¹Tokyo Polytechnic Univ., Japan) (²Tokyo National College of Technology, Japan) 192

14P-II-04 Change of Electrical Resistivity of Cathode Graphite during Electrolysis in Alumina Molten Salt

Morio Chiwata¹, Noboru Akuzawa¹, Hayato Nambu¹, Hiroshi Imagawa² (¹Tokyo National College of Technology, Japan) (²SEC Carbon, Ltd., Japan) 192

14P-II-05 SR Structure Analysis of New Detonation Nanodiamonds and Method of Their Production

Valery Yurievich Dolmatov¹, Gennadiy Stepanovich Yuriev², Marina Viktorovna Veretennikova¹ (¹FSUP SCTB "Technolog", Russia) (²Institute of Inorganic Chemistry SB RAS, Russia) 193

14P-II-06 Scanning Tunneling Microscopy Studies of Superconducting CaC₆

Kaveh C Rahnejat¹, Christopher Howard¹, Benjamin Bryant¹, Katsuya Iwaya¹, Mark Ellerby¹ (¹Univ. College London/London Centre for Nanotechnology, United Kingdom) 194

14P-II-07 Structural and Adsorptive Properties of C_{14n}AsF₆ Prepared by the Reaction of O₂AsF₆ with Graphitic Carbons

Fujio Okino¹, Shohei Nakamura¹, Yoshiyuki Hattori¹, Masanori Tomita², Takashi Yanagisawa² (¹Shinshu Univ., Japan) (²GSI Creos Corporation., Japan) 194

14P-II-08 Single Nano Size Diamond Separated from Powdered HPHT Diamond

Naoki Komatsu¹, Yo Morita¹, Tatsuya Takimoto¹, Shuji Aonuma², Takahide Kimura¹ (²Shiga Univ. of Medical Science, Japan) (²Osaka Electro.Univ., Japan) 195

14P-II-09 Synthesis of Ca-GIC Using Various Carbon Materials and Its Superconductivity

Asami Takenaka¹, Yoshihiko Takano², Noboru Akuzawa³, Akira Yoshida⁴, Yutaka Kaburagi⁴, Tomoki Tsumura¹, Masahiro Toyoda¹ (¹Oita Univ., Japan) (²National Institute

for Materials Science, Japan) (³Tokyo National College of Technology, Japan) (⁴Musashi Institute of Technology, Japan) 195

BIOLOGICAL AND MEDICAL APPLICATIONS

14P-II-10 Cytotoxicity and Reactivity of Carbon Nanotubes

Yuriy I. Prylutskyy¹, S. V.Prylutskaya², I.I.Grynyuk², O.P.Matyshevska², O. V.Remenyaka², A.P.Burlaka³ (¹Kiev National Shevchenko Univ., Ukraine) (²Kyiv National Shevchenko University, Dept. of Biochemistry, Kiev, Ukraine) (³R.E. Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology, Kiev, Ukraine)

196

14P-II-11 Nanocarbon Materials for Noninstrumental Immunochemical Diagnosticums

Valery Y. Dolmatov¹, Irina Shugalei², Nataliya Zhdanova², Andrey Ivanov³, Eiji Osawa⁴, Nataliya Rozhkova⁵, Veronika Sokolova², Tatjana Ilyushina², Valery Marchukov¹ (¹FSUP SCTB, Russia) (²Saint-Petersburg State Technology Institute (Technical University), Saint-Petersburg, Russia) (³Saint-Petersburg Army Medical College, Saint-Petersburg, Russia) (⁴Nanocarbon Research Institute Asama Research Extension Center, Shinshu University, Japan) (⁵Institute of Geology of Karelian scientific center, Russia) 197

14P-II-12 Adsorption of Double-stranded DNAs onto Multi-walled Carbon Nanotubes

Toru Maekawa¹, Koji Ishii¹, Takahiro Fukuda¹, Mio Kojima¹, Akira Inoue¹ (¹Toyo Univ., Japan) 198

14P-II-13 Study on the Biocompatibility of SiC Coated Carbon/Carbon Composites in Vitro

Lei Lei Zhang¹, He Jun Li, Qian Gang Fu, Xin Tao Li (Northwestern Polytechnical Univ., China) 198

14P-II-14 Evaluation of Protein Expressions on Multi-walled Carbon Nanotubes by Proteomics Approach

Hisao Haniu¹, Shozo Koyama¹, Yoong Ahm Kim¹, Takuya Hayashi¹, Kenji Takeuchi¹, Morinobu Endo¹ (¹Shinshu Univ., Japan) 199

14P-II-15 The Influence of Silver Content and Biologically Active Layers on the Changes of Porous Structure and Sorption Capacity of Carbon Dressing Material

Krzysztof Babel¹, Krzysztof Maria Babel², Izabella Krucinska³, Eulalia Gliscinska³ (¹Institute of Chemical Technology of Wood, Academy of Agriculture, Poland) (²Agricultural Academy of Poznan, Poland) (³Technical Univ. of Lodz, Poland) 199

14P-II-16 Sorption of LRS Toxic Shock by Nanoparticles on Base of Carbonized Vegetable Raw Materials

Zulhair A Mansurov¹, G Artmann², A Artmann², I Digel², A Zhubanova¹, A Kozhalakova¹ (¹Al-Farabi Kazakh National

Univ., Kazakhstan) (²Aachen Univ. of Applied Sciences, Germany) 200

14P-II-17 New Nanostructural Carbon-silica Sorbent for Bioregulators Purification

Zulkhair A Mansurov¹, A R Kerimkulova¹, M A Biisenbaev¹, S A Ibragimova², Zh N Basygaraev², M K Gilmanov²
(¹Al-Farabi Kazakh National Univ., Kazakhstan) (²Institute of molecular biology and biochemistry, Almaty, Kazakhstan)

200

14P-II-18 Micropatterned Fullerene C60 and Hybrid C60/Ti Films as Substrates for Directed Cell Adhesion and Growth

Lucie Bacakova¹, Marta Vandrovova¹, Jiri Vacik¹, Lubica Grausova¹, Vaclav Svorcik², Petr Slepcka², Nikola Kasalkova², Vladimir Vorlicek¹, Vasily Lavrentiev¹, Vaclav Vosecek¹, Vera Lisa¹ (¹Academy of Sciences of the Czech Republic, Czech Republic) (²Institute of Chemical Technology, Czech Republic)

201

14P-II-19 Influence of Nanostructured and Hierarchically Micro-nanostructured Diamond Layers on the Growth and Differentiation of Osteoblast-like MG 63 Cells.

Lucie Bacakova¹, Lubica Grausova¹, Alexander Kromka¹, Milan Vanecek¹, Vera Lisa¹ (¹Academy of Sciences of the Czech Republic, Czech Republic)

202

CHARACTERIZATION

14P-II-20 Quantitative and Qualitative Analysis Method of Surface Oxygen on Carbon Materials by Total-Electron-Yield Soft X-ray Absorption Spectroscopy Using Synchrotron Radiation

Yasuji Muramatsu¹, Satoshi Ueda¹, Keishi Kamamoto¹, Eric Gullikson² (¹Univ. of Hyogo, Japan) (²Lawrence Berkeley National Laboratory, USA)

202

14P-II-21 Structural Analysis of PPP-based Carbons for Electrode of Li Ion Batteries by High Energy X-ray
Kyoichi Oshida¹, Kozo Osawa¹, Tatsuo Nakazawa¹, Katsuyuki Fujiwara¹, Takuya Hasegawa² (¹Nagano National College of Technology, Japan) (²Shinshu Univ., Japan)

203

14P-II-22 Electrical Resistance and Thermal Diffusivity of Isotropic Graphite Blocks under a High Temperature
Norio Iwashita¹, Fumito Morikawa² (¹AIIST, Japan) (²Nippon Techno-Carbon Co., Ltd, Japan)

203

14P-II-23 Multivariate Analysis Applied to Ftir Spectroscopy of Petroleum Pitches

Alexandre T Castro (Centro Tecnológico do Exército, Brazil)

204

14P-II-24 Raman Frequency of the G Band of Carbon Material Viewed as a Parameter for Graphitization

Akira Yoshida¹, Yutaka Kaburagi¹, Yoshihiro Hishiyama¹
(¹Musashi Institute of Technology, Japan)

204

14P-II-25 Boron Doping of Multi-walled Carbon Nanotubes as Studied by EELS

Emi Shindou¹, Akira Yoshida¹, Yutaka Kaburagi¹, Yoshihiro Hishiyama¹ (¹Musashi Institute of Technology, Japan)

205

Poster Sessions TUESDAY, JULY 15, 2008

18:00 – 21:00 POSTER SESSION 2

Hotel Metropolitan Room Asama C: 15P-I

ENVIRONMENT AND ENERGY

15P-I-01 Comparison of the Emissivity Changes due to Oxidation of Nuclear Graphites IG-11, IG-110 and PCEA

Seung Kuk Seo¹, Gyeong Hwa Kim¹, Jae Seung Roh¹, Se-Hwan Chi², Eung Seon Kim² (¹Kumoh National Institute of Technology, Korea) (²Korea Atomic Energy Research Institute (KAERI), Korea) 206

15P-I-02 Measuring Cycle Efficiency and Capacitance of Chemically Activated Carbons

Diego Cazorla-Amoros¹, Dolores Lozano-Castello¹, Emilia Morallón¹, Angel Linares-Solano¹, Soshi Shiraishi² (¹Univ. of Alicante, Spain) (²Gunma Univ., Japan) 207

15P-I-03 Activated Carbon Fiber for Super-capacitor Electrode

Xuejun Zhang¹, Qiufei Chen¹ (¹Beijing Univ. of Chemical Technology, China) 207

15P-I-04 Capacitive Deionization of NaCl Solution with Carbon Aerogel-phenolic Resin Composite Electrodes

Qing-han Meng¹, Ling Liu¹ (¹Beijing Univ. of Chemical Technology, China) 208

15P-I-05 Preparation of Activated Carbon from Industrial Wastewater Treatment Sludge and its Possible Use in Retention of Cr(VI) and Pb (II)

Juan Moreno¹, Liliana Giraldo², Nestor Rojas³, Tomas Uribe³, Vanessa Garcia³ (¹Andes Univ., Colombia) (²Universidad Nacional de Colombia, Colombia) (³Universidad de Los Andes, Colombia) 208

15P-I-06 Synthesis of Magnetically Separable Porous Carbon from Oil Residues

Zheng-Hong Huang¹, Can Li¹, Feiyu Kang¹, Jifeng Liang², Yuzhen Zhang² (¹Tsinghua Univ., China) (²China National Offshore Oil Corporation, China) 209

15P-I-07 Titania Nanocrystal-bridged Carbon Nanosheet Composites

Zheng-Ming Wang¹, Yong-Jun Liu¹, Mami Aizawa¹, Wen-Qin Peng¹, Hiroaki Hatori¹, Hirofumi Kanoh², Takahiro Hirotsu¹ (National Institute of Advanced Industrial Science and Technology, Japan) (²Chiba Univ., Japan) 209

15P-I-08 Carbon Nanosheet-titania Nanoparticle Composite with Controlled Growth of Single Anatase Phase

Yong-Jun Liu¹, Mami Aizawa¹, Wen-Qin Peng¹, Zheng-Ming Wang¹, Hiroaki Hatori¹, Hirofumi Kanoh²,

Takahiro Hirotsu¹ (¹National Institute of Advanced Industrial Science and Technology, Japan) (²Chiba Univ., Japan) 210

15P-I-09 Improvement of Soil Quality around Red Pines in Forest by Sowing Biomass Charcoal Powder

Shuji Yoshizawa¹, Michio Ohata¹, Satoko Tanaka¹, Teiko Omori² (¹Meisei Univ., Japan) (²Toho Univ., Japan) 210

15P-I-10 Carbon/Graphite Composites from Carbonized Wood for Thermal Management Application of Solar Power Satellite

Joko Sulistyo¹, Toshimitsu Hata¹, Masashi Fujisawa², Kozo Hashimoto¹, Yuji Imamura¹ (¹Kyoto Univ., Japan) (²Akita Prefectural University, Japan) 211

15P-I-11 A New Preparation Method of Carbon-Supported Platinum-Ruthenium Alloyed Nanoparticles for Direct Methanol Fuel Cells

Ki Chul Park¹, Shingo Morimoto², Morinobu Endo¹ (¹Shinshu Univ., Japan) (²Nagano Techno Foundation, Japan) 211

15P-I-12 Density Functional Simulation on Hydrogen Adsorption to Transition-metal-decorated Carbon Nanotube

Syogo Tejima¹, Terumi Huruta², Hisashi Nakamura¹ (¹Research Organization for Information Science and Technology (RIST), Japan) (²HONDA R&D Co.,LTD, Japan) 212

ADSORPTION, SURFACES AND POROUS MATERIALS

15P-I-13 The Effect of Acid Treatment of AECFs on Hydrogen Storage

Ji Sun Im¹, Ohseob Kwon¹, Soo-Jin Park², Young-Seak Lee¹ (¹Chungnam National Univ., Korea) (²Inha Univ., Korea) 212

15P-I-14 The Preparation and Characterization of Carbide-Derived Carbon Produced Using Metal Carbide for Hydrogen Storage

Jeongmin Lee¹, Ji Sun Im¹, Young-seak Lee¹ (¹Chungnam National Univ., Korea) 213

15P-I-15 Preparation of PAN-based Porous Carbon Nanofibers Using MgO as the Substrate

Min-Jung Jung¹, Jeong-Min Lee¹, Young-Seak Lee¹ (¹Chungnam National Univ., Korea) 213

15P-I-16 Surface Modification of ACFs for Hydrogen Storage

Ohseob Kwon¹, Ji Sun Im¹, Soo-Jin Park², Young-Seak Lee¹ (¹Chungnam National Univ., Korea) (²Inha Univ., Korea) 214

15P-I-17 Characterization of Polymer Carbon Sieves and

Graphitized Polymer Carbons for Sample Preparation Applications
William R. Betz¹, Michael Keeler¹, Leonard Sidisky¹
 (¹Supelco, USA) 214

15P-I-18 Adsorption of Hidroxilated Phenols from Activated Carbons. Reaction between Adsorption Isotherms and Immersion Enthalpies
Juan C Moreno¹, Diego Blanco², Liliana Giraldo² (¹Andes Univ., Colombia) (²Universidad Nacional De Colombia, Colombia) 215

15P-I-19 Preparation and Characterization of Carbon/TiO₂ Composites
Won-Chun-Oh¹, Ming-Liang Chen¹, Young-Shin Ko¹
 (Hanseo Univ., Korea) 216

15P-I-20 Synthesis and Characterization of Fe Containing C/TiO₂ Composites and Their Degradation Effect for the Piggery Waste
Won-Chun-Oh¹, Wei-Wei Lu¹, Chong-Hun Jung² (¹Hanseo Univ., Korea) (²KAERI, Korea) 216

15P-I-21 Characterization of Metal (Cu₂₊, Zn₂₊)Carbon/TiO₂ Composites Derived from Metal Containing Phenolic Resin and Their Photocatalytic Effects
Won-Chun-Oh¹, Yu-Ri Na¹, Jang-Sooon Bae² (¹Hanseo Univ., Korea) (²Dankook Univ., Korea) 217

15P-I-22 Thermodynamic Approach to Study Methane Adsorption on Microporous Carbons.
Diego Cazorla-Amoros¹, Juan Alcaniz-Monge¹, Dolores Lozano-Castello¹, Angel Linares-Solano¹ (¹Univ. of Alicante, Spain) 217

15P-I-23 A Simple Method to Disperse Graphene Sheets in Alcohol
Bryan Tsu-Te Chu¹, Vivian Chang¹, Gordon Lee¹, Edman Tsang¹, Malcolm Green¹ (¹Univ. of Oxford, UK) 218

15P-I-24 How to Get Highly Concentrated Salt Solutions into Activated Carbon Pores: the Influence of Ion Size and Type on Their Interactions with Activated Carbon Surfaces
Philippe Westreich¹, Paul Filbee-Dexter¹, Mark McArthur¹, Ing-Jye Lan¹, Jock Smith¹, Jeff Dahn¹ (¹Dalhousie Univ., Canada) 218

15P-I-25 Removal of Zinc from Aqueous Solution by Adsorption onto Carbonaceous Materials Activated Using Oyster Shell
Takashi Asada¹, Masayuki Takano², Yuri Igari², Kuniaki Kawata², Kikuo Oikawa²

(¹Fukushima Univ., Japan) (²Niigata Univ. of Pharmacy and Applied Life Sciences, Japan) 219

15P-I-26 Removal of Free Chlorine and Chloramine with Bamboo Charcoal -Influence of Carbonization Temperature and pH of Solution-
Takashi Asada¹, Ayako Okazaki², Kuniaki Kawata², Kikuo

Oikawa² (¹Fukushima Univ., Japan) (²Niigata Univ. of Pharmacy and Applied Life Sciences, Japan) 219

15P-I-27 Adsorption and Transport Properties of Carbon Dioxide Methane Water Mixtures in Coal-like Structures by Molecular Simulation
Alaaeldin Salih¹, Erich A Muller¹ (¹Imperial College London, United Kingdom) 220

NANOTUBES

15P-I-28 Comparative Photoluminescence Studies of Single- and Double-Wall Carbon Nanotube Suspensions
Daisuke Shimamoto¹, Yoong Ahm Kim¹, Hiroyuki Muramatsu¹, Takuya Hayashi¹, Morinobu Endo¹, Takuo Imanaga², Takashi Kawasaki², Teruyoshi Kita² (¹Shinshu Univ., Japan) (²Honda R&D Co.,Ltd.Automobile R&D Cente, Japan) 220

15P-I-29 Surface Chemical and Textural Properties of Fluorinated MWCNTs at Various Temperatures
Seung Hun Jeong¹, Seok Min Yun¹, Young-Seak Lee¹
 (¹Chungnam National Univ., Korea) 221

15P-I-30 Fabrication of Carbon Nanotubes Through Metal-free Chemical Vapor Deposition
Jarrn-Horng Lin¹, Ching-Shiun Chen² (¹National Univ. of Tainan, Taiwan) (²Chang Gung Univ., China) 221

15P-I-31 Totally Dry Processing Purification of Arc-generated Single-wall Carbon Nanotubes
Takashi Inoue¹, Yuji Takimoto¹, Naoto Ohta¹, Tetsuro Tojo¹
 (¹ToyoTanso Co., Ltd., Japan) 222

15P-I-32 MP2 and SCC-DFTB-D Studies of Acetone Adsorption on Pristine and Oxidized SWNTs
Yoshifumi Nishimura¹, Stephan Irle¹ (Nagoya Univ., Japan)
 222

15P-I-33 Polymeric Composite Films Containing Modified BN Nanotubes as Fillers
Takeshi Terao¹, Yoshio Bando¹, Masanori Mitome², Chunyi Zhi², Chengchun Tang², Dmitri Golberg¹ (¹Univ. of Tsukuba and National Institute for Materials Science, Japan)
 (²National Institute for Materials Science, Japan) 223

15P-I-34 Control of Orientation of Carbon Nanotubes Using High Magnetic Fields
Akio Katsuki¹, Hiromi Yamamoto², Yoshihisa Fujiwara², Masao Fujiwara², Morinobu Endo¹, Yoshifumi Tanimoto²
 (¹Shinshu Univ., Japan) (²Hiroshima Univ., Japan) 223

15P-I-35 Application of Multi-walled Carbon Nanotubes (MWCNTs) for Heterojunction Photovoltaic Device

Golap Kalita¹, Sudip Adhikari¹, Hare Ram Aryal¹, Rakesh Afre², Tetsuo Soga², Maheshwar Sharon³, Masayoshi Umeno¹ (¹Chubu Univ., Japan) (²Nagoya Institute of Technology, Japan) (³Birla College, India) 224

15P-I-36 Characterization and Dispersion Properties of Single-Walled Carbon Nanotubes/Poly(ethylene oxide) Composites

Yong Chae Jung¹, Yoong Ahm Kim¹, Daisuke Shimamoto¹, Hiroyuki Muramatsu¹, Morinobu Endo¹ (¹Shinshu Univ., Japan) 224

15P-I-37 Study the Growth Mechanisms of Y-type Carbon Nanotubes

Yongzhen Wang (College of Materials Science and Engineering, Taiyuan Univ. of Technology, China) 225

15P-I-38 Simulations of Continuous Flow through Carbon Nanotubes

James J Cannon¹, Ortwin Hess¹ (¹Univ. of Surrey, UK) 225

15P-I-39 Visible Luminescence of Functionalized Single Walled Carbon Nanotubes

Kazuhiro Kainuma¹, Yoshiyuki Hattori¹, Fujio Okino¹, Kunimitsu Takahashi², Tomonori Ohba³, Hirofumi Kanoh³, Katsumi Kaneko³ (¹Shinshu Univ., Japan) (²Institute of Research and Innovation, Japan) (³Chiba University, Japan) 226

15P-I-40 Novel CVD Growth of Boron-doped Multi-walled Carbon Nanotubes

Tohru Watanabe¹, Satoshi Ishii¹, Syunsuke Tsuda¹, Takahide Yamaguchi¹, Yoshihiko Takano¹ (¹National Institute for Material Science, Japan) 226

15P-I-41 Probing the Structural and Electronic Properties of HgTe-filled SWNTs by Scanning Tunneling Microscopy and Spectroscopy

Yann Tison¹, Cristina Giusca², Daniel Henwood², David Carey², Jeremy Sloan², S. Ravi P. Silva² (¹Technical Univ. of Denmark, Denmark) (²Univ. of Surrey, UK) 227

15P-I-42 Kinetics Study on the SWNTs Synthesis by the CVD of Methane on a Nanoporous CoMo/MgO Supported Catalyst

Ali Morad Rashidi¹, Nosrat Ezadi¹, Bahman Amini Horri¹ (¹Research Institute of Petroleum Industry, Iran) 227

15P-I-43 Platinum Nanoparticles Decorated Multi-walled Carbon Nanotubes as Electrodes for Polymer Electrolyte Membrane Fuel Cell

Savita P Somani¹, Prakash Somani¹, A. Sato¹, Masayoshi Umeno¹ (¹Chubu Univ., Japan) 228

15P-I-44 Thermal Stability of Peapod-derived Double Walled Carbon Nanotubes.

Hiroyuki Muramatsu¹, Yoong Ahm Kim¹, Takuya Hayashi¹,

Morinobu Endo¹ (¹Shinshu Univ., Japan) 228

15P-I-45 A Computational Approach to Reduce the

Time for Innovative Finding of Nano Carbon Field
Kazuo Minami¹, Syogo Tejima¹, Mikio Iizuka¹, Hisashi Nakamura¹ (¹RIST, Japan) 229

15P-I-46**15P-I-47 Laser Enhanced Dispersion of Carbon Nanotubes in Acetonitrile**

Nobuaki Tanaka¹, Hiromasa Nishikiori¹, Atsushi Iinuma¹, Morinobu Endo¹, Tsuneo Fujii¹ (Shinshu Univ., Japan) 230

15P-I-48 CdSe Nanoparticles Decorated on Fluorinated Double Walled Carbon Nanotubes

Yoong Ahm Kim¹, Hiroyuki Muramatsu¹, Daisuke Shimamoto¹, Ki Chul Park¹, Takuya Hayashi¹, Yasunori Saito¹, Morinobu Endo¹, Fujino Okino¹, Hidekazu Touhara¹, Mauricio Terrones², Mildred Dresselhaus³ (¹Shinshu Univ., Japan) (²IPICYT, Mexico) (³MIT, USA) 230

NANOFORMS**15P-I-49 The Atmospheric Effect on the Nano-Structuring of Graphite during Milling**

Takayuki Ichikawa¹, Wataru Ishida¹, Shigehito Isobe¹, Hiroki Miyaoka¹, Yoshitsugu Kojima¹ (¹Hiroshima Univ., Japan) 231

15P-I-50 Electrical Transport and Superconductivity in Reduced Dimension: Studies of Graphitic Nanostructures

Nicholas E Shuttleworth¹, Mark Ellerby¹, Paul Warburton¹ (¹UCL, UK) 231

15P-I-51 Iron Effect for Hydrogen Absorption and Desorption Properties of Ball-milled Graphite

Hiroki Miyaoka¹, Takayuki Ichikawa¹, Shigehito Isobe¹, Yoshitsugu Kojima¹ (¹Hiroshima Univ., Japan) 232

15P-I-52 Creation of C₆₀-clusters in Near-critical Fluids

Toru Maekawa¹, Takahiro Fukuda¹, Shunji Kurosu¹, Raymond Whiting² (¹Toyo Univ., Japan) (²School of Pharmacy and Biomolecular Sciences, Brighton) 232

15P-I-53 Preparation and Characterization of Lignin-Based Pt-Carbon Nanofibers

Jose Rodriguez-Mirasol¹, Ramiro Ruiz-Rosas¹, Jorge Bedia¹, Tomás Cordero¹, Manuel Lallave², Ignacio Loscertales¹, Antonio Barrero³ (¹Univ. of Málaga, Spain) (²YFLOW S.L., Parque Tecnológico de Andalucía, Málaga, Spain) (³Univ. of Sevilla, Spain) 233

15P-I-54 Effect of Series Resistance on Field Emission Characteristics of Nanocarbon Film

Kiichi Kamimura¹, Kei Miyazaki¹, Yoshiyuki Taguchi¹, Tomohiko Yamakami¹, Rinpei Hayashibe¹, Katsuya Abe¹ (¹Shinshu Univ., Japan) 233

CARBON 2008 Conference Program Poster

15P-I-55 In-situ Synthesis of Magnetically Separable Ordered Mesoporous Carbons from F₁₂₇/[Ni(H₂O)₆](NO₃)₂/resorcinol-formaldehyde Composites

Huaihe Song¹, Jingyuan Yao¹, Huaihe Song¹, Lixia Li¹, Changyi Liu¹, Xiaohong Chen¹ (¹Beijing Univ. of Chemical Technology, China)

234

ELECTROCHEMISTRY, BATTERIES AND CAPACITORS

15P-I-56 Novel Carbon-based Monoliths as Attractive Electrode for Supercapacitors

Vanesa Ruiz¹, C. Blanco¹, R. Santamaría², J. Ramos-Fernández², M. Martínez-Escandell², F. Rodríguez-Reinoso² (¹Instituto Nacional de Carbon, CSIC, Spain) (²Universidad de Alicante, Spain)

234

15P-I-57 An Attempt to Apply Si-C-O Glass-like Compounds for Lithium Ion Hybrid Capacitors

Hidetaka Konno¹, Takashi Kasashima¹ (¹Hokkaido Univ., Japan)

235

15P-I-58 An Investigation on the Oxygen Diffusion in Carbon Materials

Hongda Du¹, Baohua Li¹, Feiyu Kang¹ (¹Tsinghua Univ., China)

235

15P-I-59 Study of Electrochemical Characteristics of Supercapacitor Using Nanogate Carbon

Wenming Qiao¹, Guo Cheng¹, Na Teng¹, Yingbo Xie¹, Rui Zhang¹, Licheng Ling¹ (¹East China Univ. of Science and Technology, China)

236

15P-I-60 Effect of Ball-milling on the Pore Structure and Electrochemical Properties of Activated Carbon

Wenming Qiao¹, Liang Zhan¹, Liming Zhang¹, Rui Zhang¹, Xiaoyi Liang¹, Licheng Ling¹ (¹East China Univ. of Science and Technology, China)

236

15P-I-61 Effect of High Temperature Treatment on the Pore Texture and Electric Properties of Activated Carbon

Wenming Qiao¹, Liang Zhan¹, Liming Zhang¹, Rui Zhang¹, Xiaoyi Liang¹, Licheng Ling¹ (¹East China Univ. of Science and Technology, China)

237

15P-I-62 The Effect of Surface Chemistry of Activated Carbon on its Electrochemical Properties

Wenming Qiao¹, Yingbo Xie¹, Rui Zhang¹, Liang Zhan¹, Licheng Ling¹ (¹East China Univ. of Science and Technology, China)

237

15P-I-63 Electrochemical Performance of Carbon Nanofiber Anode for Lithium Ion Batteries

Wenming Qiao, Hongpeng Liu, Ruihang, Liang Zhan, Licheng Ling (East China Univ. of Science and Technology, China)

238

15P-I-64 Properties of Carbon Nano-composites for Electrodes of Lithium Ion Battery

Kozo Osawa¹, Kyoichi Oshida¹, Tatsuo Nakazawa¹, Takuya Hasegawa², Morinobu Endo², Sylvie Bonnamy³ (¹Nagano National College of Technology, Japan) (²Shinshu Univ., Japan) (³CNRS-Univ. Orléans, USA)

238

15P-I-65 Formation of Cathodic Oxygen Reduction Catalyst with FeNx Active Site Using a Raw Material for Phthalocyanine Synthesis

Nobutaka Fukui¹, Jun Maruyama², Masayuki Kawaguchi¹, Ikuo Abe² (¹Osaka Electro-Communication Univ., Japan) (²Osaka Municipal Technical Research Institute, Japan)

239

15P-I-66 Performance of Carbon Supercapacitors Using RTIL Electrolytes

Anthony G. Pandolfo, Claude Sacchetta, Graeme Snook, Gregory Wilson (CSIRO - Energy Technology, Australia)

239

15P-I-67 Preparation and Characterization of High-Power Anode Materials Using

Myung Soo Kim, Dae-Yong Park, Yun-Soo Lim (Myongji Univ., Korea)

240

15P-I-68 Electrochemical Properties of a New Kind of Fluorocarbon Materials Prepared by ECR Sputtering Method

Yoshiyuki Hattori¹, Yuji Tamai¹, Yuta Okuno¹, Yuki Hosoda¹, Yukari Shibuya¹, Fujio Okino¹, Tomoyuki Kamata², Shigeru Umemura², Shigeru Hiroto³, Osamu Niwa⁴, Hidekazu Touhara¹ (¹Shinshu Univ., Japan) (²Chiba Institute of Technology, Japan) (³MES AFTY Corporation, Japan) (⁴National Institute of Advanced Industrial Science and Technology (AIST), Japan)

240

15P-I-69 The Performance of DMFC Anode Catalysts Supported on High Dispersed Very Thin Carbon Nanofibers using Nano-dispersion Apparatus.

Munsuk Jun¹, Seong-Hwa Hong¹, Seong-Ho Yoon¹, Masaharu Tsuji¹, Isao Mochida¹ (¹Kyushu Univ., Japan)

241

CARBON FIBERS AND COMPOSITES

15P-I-70 Preparation and Performance of Mesophase Pitch Based Graphite Foam

Wenming Qiao¹, Liang Zhan¹, Xiaojun Wang¹, Junhe Yang², Rui Zhang¹, Xiaoyi Liang¹, Licheng Ling¹ (¹East China Univ. of Science and Technology, China) (²Shanghai Institute of Technology, China)

241

15P-I-71 Nanostructured Carbon Nanotubes/Organic Semiconductor Hybrid Multilayers Prepared Using Layer-by-Layer Self-Assembly Approach

Akira Baba¹, Yoshinori Kanetsuna¹, Taihei Matsuzawa¹, Yasuo Ohdaira¹, Kazunari Shinbo¹, Keizo Kato¹, Futa Kaneko¹ (¹Niigata Univ., Japan)

242

CARBON 2008 Conference Program Poster

15P-I-72 Size Effect of Palladium Particles on Carbon Nanofiber for Heck Reaction

Jun Zhu¹, Tiejun Zhao², Jinghong Zhou¹, Xinggui Zhou¹, De Chen², Weikang Yuan¹ (¹East China Univ. of Science and Technology, China) (²Norwegian University, Norway)

242

15P-I-73 Characterization Textural, Structural and Calorimetric of Activated Carbons Cloths Prepared from Cotton Textiles

Juan C Moreno¹, Gyovanny Rodriguez², Liliana Giraldo² (¹Andes Univ., Colombia) (²Universidad Nacional de Colombia, Colombia)

243

15P-I-74 One-dimensional Array of Graphitic Cones in Vertically Aligned Carbon Nanofibers

Akira Koshio¹, Yuta Tango¹, Takayuki Yamasaki¹, Kentaro Suzuki¹, Fumio Kokai¹ (¹Mie Univ., Japan)

243

15P-I-75 Rheostructural Studies of Mesophase Pitch Using WAXD and Microscopy

Amod A Ogale¹, Santanu Kundu¹, Sungho Lee¹, David Anderson² (¹Clemson Univ., United States) (²UDRI, USA)

244

15P-I-76 Thermal Characteristics and Electrical Resistivity of Carbon Nanofiber Web/Polymer Composites

Donghwan Cho¹, Sung Hwan Kim¹, Chae Wook Cho¹, Jae Young Lee¹, Oh-Hyeong Kwon¹ (¹Kumoh National Institute of Technology, Korea)

244

15P-I-77 Influence of Chemical Cross-linking on the Over Voltage Positive Temperature Coefficient of Linear Low Density Polyethylene/Carbon Black/Aluminum hydroxide Composites

Tsai Ching-Shan¹, Huang Chi-Yuan¹, Tsao Keng-Yu¹ (¹Tatung Univ., Taiwan)

245

15P-I-78 Application of Micro-capsulation Technology in the Preparation of a Carbon Foam

Kezhi Li¹, Zhenhai Shi¹, Hejun Li¹, Zhuo Tian¹, Chuang Wang¹ (¹Northwestern Polytechnical Univ., China)

245

15P-I-79 Synergistic Effect of Carbon Fibers and Dicyclopentadienyl Iron on the Electromagnetic Interference of Carbon-cement Composites

Kezhi Li¹, Chuang Wang¹, Hejun Li¹, Gengsheng Jiao¹ (¹Northwestern Polytechnical Univ., China)

246

15P-I-80 Synthesis and Properties of VGCF Composites with Metal Nanoparticles

Katsuyuki Fujiwara¹, Tomoyuki Itaya¹, Kyoichi Oshida¹ (¹Nagano National College of Technology, Japan)

246

15P-I-81 Tube-like Carbon Fiber Fabricated by Carbonization of Wood

Michio Ohata¹, Noriko Yoshizawa², Shuji Yoshizawa¹ (¹Meisei Univ., Japan) (²AIST, Japan)

247

15P-I-82 Coating of Short Carbon Fibers with Silicon Carbide and Pyrolytic Carbon Layers

Haibo Ouyang¹, Hejun Li¹, Lehua Qi¹, Zhengjia Li¹, Jian Wei¹, Jianfeng Wei¹ (¹Northwestern Polytechnical Univ., China)

247

15P-I-83 Pullout Behavior of Carbon Nanotube-attached Carbon Fibers

Wen-Shyong Kuo¹, Tse-Hao Ko¹, Kai-Hsuan Hung¹, Ciao-Fang Yan¹ (¹Feng Chia Univ., Taiwan)

248

15P-I-84 Mechanical Interfacial Properties of Oxyfluorinated Carbon Fibers-reinforced Composites

Woong Ki Choi¹, Byung-Gak Min², Soo-Jin Park³ (¹KRICT, Korea) (²Chungju National Univ., Korea) (³Inha Univ., Korea)

248

15P-I-85 A Novel Synthesis of Carbon Precursors by Suspension Polymerization

Jung Min Lee¹, Joon Hyung Kim¹, Shin Jae Kang¹, Soo-Jin Park² (¹Jeonju Machinery Research Center, Korea) (²Inha Univ., Korea)

249

15P-I-86 High Thermal Performance Nanocomposite with Polybenzimidazole (PBI) and VGNF

Qing-Qing Ni¹, Li Zhang, Toshiaki Natsuki¹, Akihiko Shiga², (¹Shinshu Univ., Japan) (²AZ Electronic Materials, Japan)

249

15P-I-87 Development of CNFs/Natural Rubber Composite

Qing-Qing Ni¹, Hongxia Jiang¹, Toshiaki Natsuki¹ (¹Shinshu Univ., Japan)

250

15P-I-88 High Frequency Viscoelastic Properties of Nanocomposites by Ultrasonic Measurement

Qing-Qing Ni¹, Tetsuya Kunizawa¹ (¹Shinshu Univ., Japan)

250

15P-I-89 Development of Functionally Graded Al/CNTs Composite

Qing-Qing Ni¹, Kouhei Kubota¹, Isao Nakamura¹ (¹Shinshu Univ., Japan)

250

15P-I-90 Free Standing Thin Webs of Porous Carbon Nanofibers of Polyacrylonitrile Containing Iron-oxide by Electrospinning

S. K. Nataraj¹, Bo-Hey Kim¹, B. T. N. Ngoc¹, J. Ferraris², T.M. Aminabhavi², K. S. Yang¹ (¹Chonnam National University, Korea) (²University of Texas at Dallas, USA)

251

15P-I-91 Morphology and Thermal Properties of MWCNT/Elastomer Nanocomposites

Hiroyuki Ueki¹, Shigeki Inukai¹, Akira Magario¹, Toru Noguchi¹, Morinobu Endo² (¹Nissin Kogyo Co., Ltd., Japan) (²Shinshu Univ., Japan)

251

15P-I-92 Application to High Damping Material of MWNT/elastomer Nanocomposites

Yuichi Nakamura¹, Takashi Yazaki¹, Katsuo Okamoto¹,

CARBON 2008 Conference Program Poster

Hiroyuki Ueki², Akira Magario², Toru Noguchi³, Morinobu Endo³(¹Miyasaka Rubber Co. Ltd., Japan) (²Nissin Kogyo Co. Ltd., Japan) (³Shinshu Univ., Japan) 252

Hotel Metropolitan Room Kurohime: 15P-II

PHYSICAL PROPERTIES

15P-II-01 The Rheological Behavior of Petroleum Pitches during Pyrolysis

Alexandre T Castro¹, Carolina P Braga¹, Carlos Henrique MC Dutra¹, Luiz D Castro¹, Cristina T Andrade²
(¹Centro Tecnológico do Exército, Brazil) (²Federal do Rio de Janeiro Univ., Brazil) 252

15P-II-02 Quantification of Mesophase in Pitches by Centrifugation

Alexandre T Castro¹, Carlos Henrique MC Dutra¹, Luiz C Freitas¹, Fabio F Pereira¹ (Centro Tecnológico do Exército, Brazil) 253

15P-II-03 Synthesis and Performance of Powdered Fe/C Composite from Oil Residues

Chen Wang¹, Can Li¹, Zheng-Hong Huang¹, Feiyu Kang¹, Jialin Gu¹ (¹Tsinghua Univ., China) 253

15P-II-04 Effects of Ion Acceleration Voltages on the Synthesis of Conductive and Hard Fluorinated Carbon Thin Films in Electron Cyclotron Resonance Plasma Sputtering

Tomoyuki Kamata¹, Hirokazu Kawase¹, Tetsuya Itagaki¹, Yukihiko Kawashima¹, Shigeru Uemura¹, Shigeru Hirono², Hidekazu Touhara³, Fujio Okino³, Yoshiyuki Hattori³, Osamu Niwa³ (¹Chiba Institute of Technology, Japan) (²MES AFTY Corporation, Japan) (³Shinshu Univ., Japan) 254

15P-II-05 Metastable Melting of Graphite under Diamond Stable P-T Region

Motohiro Togaya (Osaka Univ., Japan) 254

15P-II-06 Tribological Properties of Carbon Onions as Lubricant Additives

Xiaomin Wang¹, Yanli Yao¹, Junjie Guo¹, Bingshe Xu¹
(¹Taiyuan Univ. of Technology, China) 255

15P-II-07 Effect of Fast Neutron Irradiation on the Superconducting Characteristics of Rb₃C₆₀

Toshiharu Kubo¹, Takayuki Terai¹, Akihiro Suzuki¹, Noriko Tikumoto² (¹The Univ. of Tokyo, Japan) (²Superconductivity Research Laboratory, ISTEC, Japan) 255

15P-II-08 Electrical and Structural Properties of Metal Incorporated Amorphous Carbon Films

Sudip Adhikari¹, Golap Kalita¹, Hare Ram Aryal¹, Dilip Chandra Ghimire¹, Hideo Uchida¹, Masayoshi Umeno¹
(¹Chubu Univ., Japan) 256

15P-II-09 Unpaired Electrons Relaxation Characteristics and the Pitch-based Fibers Basic Units Adjustment
Alexander A. Blizniy¹, Victor P. Berveno¹, Lyudmila V. Bryuhoveckaya¹ (¹ISSCM, SB RAS, Russia) 256

15P-II-10 Synthesis and Morphology of Carbon Microcoils Produced from Methane

Shaoming Yang¹, Xiuqin Chen², S. Motojima¹ (¹Gifu Univ., Japan) (²Tokyo Univ of Science, Japan) 257

15P-II-11 Properties of Light Metal Infiltrated Graphites

Joachim Metz¹, Matthias Wimmler¹
(¹Schunk Kohlenstofftechnik GmbH, Germany) 257

15P-II-12 Shear Microscopy of Mesophase Pitch

Brian Rand¹, Walter Focke², Lesego Moitsheki², Thabani Mhlongo² (¹Univ. of Leeds, United Kingdom) (²Univ. of Pretoria, UK) 257

15P-II-13 Defects in Graphite and Their Effect on Phonon Spectra

Thomas E Weller¹, Steven M Bennington¹, Ayano Chiba¹, Daniele Pontiroli² (¹ISIS, RAL, United Kingdom) (²Univ. of Parma, Italy) 258

15P-II-14 Micro and Mesoporous Activated Carbon Made from Rice Husk and Beet Sugar

Hirotaka Ishizawa¹, Junya Sasaki¹, Seiji Kumagai¹, Koichi Takeda¹, Yasuhiro Toida² (¹Akita Prefectural Univ., Japan) (²Japan Energy Corporation, Japan) 258

15P-II-15 Hydrogen Storage Properties of Space-confined NaAlH₄ Nanoparticles in Ordered Mesoporous Silica

Dalin Sun¹, Guorong Chen¹, Huahua Xu¹, Min Dong¹, Qian Zhang¹ (Fudan Univ., China) 259

15P-II-16 Effect of Surface Corrugation on Optical Phonon Lifetime in Graphene Films

Awnish K. Gupta¹, Timothy J. Russin¹, P.C. Eklund¹
(¹The Pennsylvania State Univ., USA) 259

INDUSTRIAL APPLICATIONS

15P-II-17 Application of Metal-impregnated Carbon-carbon Composite to Contact Strips of Pantograph of Electric Railway Vehicles

Shunichi Kubo¹, Hiroshi Tsuchiya¹, Yoshitaka Kubota¹
(¹Railway Technical Research Institute, Japan) 260

15P-II-18 Electroconductive Properties of Wood Char Prepared by Nickel- and Iron-catalyzed Carbonization

Tsutomu Suzuki¹, Hiroshi Matsuzaki¹, Kyoko Suzuki¹, Yukie Saito² (¹Kitami Institute of Technology, Japan) (²The Univ. of Tokyo, Japan) 260

15P-II-19 Fabrication and Properties of Graphite Flakes/Metal Composites for Thermal Management Applications

Javier Narciso¹, Jose M Molina¹, Richard Prieto¹, Enrique Louis¹ (¹Alicante Univ., Spain) 261

15P-II-20 Adherent Carbon-based Films Exhibiting High Electrical Conductivity

Yasuhiro Yamada¹, Deborah D.L. Chung¹ (¹Univ. of New York, U.S.A) 261

15P-II-21 Mesophase Development in a Coal Gasification Pitch and Subsequent Coke Microstructure

Brian Rand¹ (¹Univ. of Leeds, United Kingdom) 262

15P-II-22 A Study on PTC/NTC Behaviors of CBs/Ionomer/HDPE Composites

Jeon-Mo Choi¹, Jae-Rock Lee², Soo-Jin Park³ (¹Chungnam National Univ., Korea) (²Korea Research Institute of Chemical Technology, Korea) (³Inha Univ., Korea) 262

15P-II-23 The Characterization of the Resin Bonded Graphite Composite Bipolar Plate Using Isotropic Graphite Powder for PEM Fuel Cell

Kwang Youn - Cho¹, Doh Hyung - Riu¹, Seung Hun - Huh¹, Dong Guen - Shin¹ (¹Korea Institute of Ceramic Engineering and Technology, Korea) 263

CHARACTERIZATION

15P-II-24 Preparation of Activated Carbon from Industrial Wastewater Treatment Sludge and Its Possible Use in Retention of Cr (6) and Pb (2)

Juan C Moreno¹, Liliana Giraldo², Nestor Rojas³, Tomas Uribe³, Vanessa S Garcia³ (¹Andes Univ., Colombia) (²Universidad National de Colombia., Colombia) (³Universidad de Los Andes., USA) 263

15P-II-25 Surface Characterization of Carbon Nanoribbon

Yu Okuno¹, Tomonori Ohba¹, Hirofumi Kanoh¹, Jessica R Campos Delgado², José M Romo Herrera², Humberto Terrones², Mauricio Terrones², Kastsumi Kaneko¹ (¹Chiba Univ., Japan) (²IPICYT, Mexico) 264

15P-II-26 Solid State NMR Study of Carbon Nanodiamonds Produced by Detonation Technique

Marc Dubois¹, Naoki Komatsu², Katia Guérin³, André Hamwi³ Jérôme Giraudeau⁴, Francis Masin⁴ (¹Université Blaise Pascal, Clermont-Ferrand, France) (²Shiga Univ., Japan) (³Clermont Université, France) (⁴Université Libre de Bruxelles, France) 264

15P-II-27 The Characterization of out-of-order Structure in Carbon Fiber Paper by Fractal Dimension

Xuejun Zhang¹, Hao Pei¹, Zengmin Shen¹ (Beijing Univ. of Chemical Technology¹, China) 265

15P-II-28 Microstructural Changes of Nuclear Graphites due to a 3 MeV Proton Irradiation

Eung-Seon Kim¹, Yong-Wan Kim¹ (¹Korea Atomic Energy Research Institute, Korea) 265

15P-II-29 Using the Density Functional Theory for the Pore Structure Analysis of Ordered Microporous Carbons: Effects of the Pore Walls Curvature

Jacek Jagiello¹, Roland J.-M. Pellend² (¹The Univ. of Kentucky, U.S.A) (²CNRS, France) 266

Poster Sessions WEDNESDAY, JULY 16, 2008

18:00 – 21:00 POSTER SESSION 3

Hotel Metropolitan Room Asama C: 16P-I

ENVIRONMENT AND ENERGY

16P-I-01 Structure, Surface Chemistry and Adsorption Properties of Nanostructured Microporous Carbon Materials

Roger Gadiou¹, Antoine Didion¹, Cathie Vix-Guterl¹
(¹Institute of Chemistry of Surfaces and Interfaces, France)

267

16P-I-02 Carbon Modified Anatase TiO₂ (TiO₂/C) Obtained by Pressure Technique for Phenol and Azo Dyes Decomposition

Beata Tryba¹, Magdalena Janus¹, Ewelina Kusiak¹, Antoni W Morawski¹ (¹Szczecin Univ. of Technology, Poland)

268

16P-I-03 Efficiency of Texture-Tailored Carbon Xerogels for the Removal of Organic Vapours

Angelique Leonard¹, Maria Del Carmen Almazan-Almazan², Emeline Verdin¹, Ivonne Escalona³, Hilda Wullens⁴, Claudio Olivera-Fuentes³, Silvia Blacher², Francisco J Lopez Garzon¹, Nathalie Job¹, Peter Lodewyckx⁵, Angélique Léonard¹ (¹Univ. of Liège, Belgium) (²Univ. of Granada, Spain) (³University Simon Bolivar, Venezuela) (⁴Defence Laboratoria Department, Belgium) (⁵Royal Military Academy, Belgium)

268

16P-I-04 Regeneration of Activated Carbon Saturated with Chromium (VI)

Dilek Duranoglu Gulbayir¹, Ulker Gurbuz Beker¹
(¹Yildiz Technical Univ., Turkey)

269

16P-I-05 Effects of The Kind of Bamboo on The Basic Properties and Absorbability of WoodsCeramics

Ying Pin Huang¹, Chuan Chi Chien¹ (¹ITRI, Taiwan)

269

16P-I-06 Controlled Removal of Ionogenic Pesticides on Activated Carbon Textiles

Sandrine Delpeux-Ouldriane¹, Sandrine Delpeux-Ouldriane¹, Nathalie Cohaut¹, Francois Beguin¹, (¹CNRS-CRMD, France)

270

16P-I-07 The Influence of Electrode Density on the Electrochemical Performance of Highly Crystalline Graphites in Li-Ion Batteries

See How Ng¹, Fabio La Mantia¹, Wolfgang Maerkle¹, Michael E. Spahr², Cathie Vix-Guterl³, Petr Novak¹ (¹Paul Scherrer Institute, Switzerland) (²TIMCAL SA, Switzerland) (³Institut de Chimie des Surfaces et Interfaces,

France)

270

16P-I-08 Wastewater Treatment System Applying Charcoal as Biological Media

Michio Ohata¹, Satoko Tanaka¹, Shuji Yoshizawa¹ (¹Meisei Univ., Japan)

271

16P-I-09 Influence of Mixed Acid Ratio on Hydrogen Storage Behaviors of Graphites

Byung-Joo KIM¹, Young-Seak LEE², Soo-Jin PARK³

(¹Univ. of Science and Technology, Korea) (²Chungnam National Univ., Korea) (³Inha Univ., Korea)

271

16P-I-10 Resonance Effect of Electromagnetic Waves on a Single Walled Nanotube

Mikio Iizuka¹, Satoshi Nakamura¹, Hisashi Nakamura¹

(¹Research Organization for Information Science and Technology (RIST), Japan)

272

16P-I-11 Sorption of Radioactive Isotopes and Toxic Metal Ions by Nanostructural Carbon Materials

Zulkhair A Mansurov¹, Mikhail M Yemuranov¹, Nurzhamal K Zhylybaeva¹, Makhmut A Bijsenbaev¹

(¹Kazakh National Univ., Republic of Kazakhstan)

272

16P-I-12 Anode Performance of Herringbone-type Carbon Nanofiber in Lithium Ion Secondary Batteries

Takuya Hasegawa¹, Hideaki Ishikawa¹, Ryo Hisayama¹, Naoki Saeki¹, Takumi Miyamori¹, Yoong-Ahm Kim¹, Takuya Hayashi¹, Morinobu Endo¹ (¹Shinshu Univ. Japan)

273

16P-I-13 Analysis of CNT T-junction Formation

Hirokazu Suzuki¹, Yuta Shiba¹, Ozora Yoshino¹, Takuya Hayashi¹, Morinobu Endo¹ (¹Shinshu Univ., Japan)

273

ADSORPTION, SURFACES AND POROUS MATERIALS

16P-I-14 Preparation of Porous Carbons by Defluorination of Perfluorooctane and Octafluorotoluene and Enhanced Porosity Obtained by Mixing them

Osamu Tanaike¹, Jun Kawabuchi², Hiroaki Hatori¹, Ryoei Asakura³, Naoya Miyajima⁴, Yoahio Yamada²

(¹AIST Tsukuba, Japan) (²Fukui Univ., Japan) (³Fukuoka Prefectural Institute of Technology, Japan) (⁴Yamanaahi Univ., Japan)

274

16P-I-15 The Surface Structure of Nitrogen-doped Carbon Aerogels Synthesized by Sol-gel Process

Wenming Qiao¹, Donghui Long¹, Rui Zhang¹, Liang Zhan¹, Licheng Ling¹ (¹East China Univ. of Science and Technology, China)

274

CARBON 2008 Conference Program Poster

16P-I-16 Surface Modification of Pitch-based Spherical Activated Carbon to Enhance Uric Acid Adsorption	Laboratories, Vietnam)	279
<u>Wenming Qiao</u> ¹ , Chaojun Liu ¹ , Xiaoyi Liang ¹ , Xaojun Liu ¹ , Qin Wang ¹ , Liang Zhan ¹ , Licheng Ling ¹ (¹ East China Univ. of Science and Technology, China)	275	
16P-I-17 Wettability Modification of Pitch-based Spherical Activated Carbon and Its Phenol Adsorption Study		
<u>Wenming Qiao</u> , Chaojun Liu ¹ , Xaojun Liu ¹ , Liang Zhan ¹ , Xiaoyi Liang ¹ , Licheng Ling ¹ (¹ East China Univ. of Science and Technology, China)	275	
16P-I-18 Effects of different metals and their dispersibility of metal-loaded polystyrene-based activated carbon spheres on adsorption of dibenzothiophene		
<u>Qing-han Meng</u> ¹ , Qin Wang ¹ , Xiaoyi Liang ¹ , Chaojun Liu ¹ , Xaojun Liu ¹ , Liang Zhan ¹ , Wenming Qiao ¹ , Licheng Ling ¹ (¹ East China Univ. of Science and Technology, China)	276	
16P-I-19 Removal of Heavy Metal Ions from Aqueous Solution by Bamboo Charcoals Nested with Carbon Nanotubes		
<u>Zheng-Hong Huang</u> ¹ , Jiangnan Zhang ¹ , Feiyu Kang ¹ (¹ Tsinghua Univ., China)	276	
16P-I-20 Physical Activation of Russian Stone		
<u>Murat Kılıç</u> ¹ , Esin Apaydin Varol ¹ , Basak Burcu Uzun ¹ , Ayse Eren Pütün ¹ (¹ Anadolu Univ., Turkey)	277	
16P-I-21 Modification of the Adsorption Capacity of Kraft's Lignin by Changing the Flocculation Conditions During Its Preparation		
<u>Luisa A Delgado</u> ¹ , Rafael Urbina ¹ , Narciso Perez ¹ , Jenny Fernandez ¹ (¹ Univ. Simon Bolivar, Venezuela)	277	
16P-I-22 Hydrogen Adsorption of Metal/Organic/CNT Hybrid Material: First Principal Calculation		
<u>Jung Hyun Cho</u> ¹ , Chong Rae Park ¹ (¹ Seoul National Univ., Korea)	278	
16P-I-23 Changes in I_2/CO separation efficiency in the oxidized and reduced molecular sieve carbon fibers		
<u>Alexander V. Berveno</u> ¹ , Victor P. Berveno ¹ , Sergey Yu. Lyrshchikov ¹ (¹ Kemerovo State Univ., Russia)	278	
16P-I-24 Adsorption Behavior of Wood Charcoal - Selectivity of Toluene from the Mixed Gas with Alpha-pinene		
<u>Rie Yamashita</u> ¹ , Yukie Saito ² (¹ Industrial Research Institute of Shizuoka Prefecture, Japan) (² Univ. of Tokyo, Japan)	279	
NANOTUBES		
16P-I-25 Nano Structure of Carbon Nano Tube Products		
<u>Khe C. Nguyen</u> ¹ , Tv Le ² , Cdt Nguyen ² , P T Huynh ² , Tnn Nguyen ² , D V Nguyen ² , Atm Mai ² (¹ KTube Technology LLC, San Jose CA, USA) (² Saigon Hi Tech Park Research		
16P-I-26 Synthesis and Structure Characterization of Thin Multi-walled Carbon Nanotubes by a Catalytic Chemical Vapor Deposition Method		
<u>Takuya Ichiki</u> ¹ , Yoong Ahm Kim ¹ , Hiroyuki Muramatsu ¹ , Daisuke Shimamoto ¹ , Yuki Kakegawa ¹ , Hiroshi Kakegawa ¹ , Kazunori Fujisawa ¹ , Takuya Hayashi ¹ , Moronobu Endo ¹ (¹ Shinshu Univ., Japan)	280	
16P-I-27 Properties and Dispersion of the MWNT Produced by a Floating Reactant Method		
<u>Naohiro Tarumoto</u> ¹ , Takayuki Tsukada ¹ (¹ Nano Carbon Technologies Co., Ltd., Japan)	280	
16P-I-28 Isolation of Double Walled Carbon Nanotubes via Single Stranded DNA		
<u>Jin Hee Kim</u> ¹ , Masakatsu Kataoka ¹ , Daisuke shimamoto ¹ , Hiroyuki Muramatsu ¹ , Yoong AhmKim ¹ , Takuya Hayashi ¹ , Morinobu Endo ¹ (¹ Shinshu Univ., Japan)	281	
16P-I-29 Atomic Hydrogen Interaction with SWCNT		
<u>Liv Hornekaer</u> ¹ , Saoud Baouche ¹ , Bjarke Joergensen ¹ , Wei Xu ¹ , Louis Nilsson ¹ , Flemming Besenbacher ¹ (¹ Univ. of Aarhus, Denmark)	281	
16P-I-30 Studies on Thermal, Mechanical, and Electrical Properties of CBs/MWNTs/Polyimide Nanocomposites		
<u>Sung-Won Chae</u> ¹ , Kyong-Yop Rhee ² , Soo-Jin Park ³ (¹ Chonbuk National Univ., Korea) (² Kyunghee Univ., Korea) (³ Inha Univ., Korea)	282	
16P-I-31 Bending Deformation of Carbon Nanotubes Caused by a Five-seven Pair Couple Defect		
<u>Kei Wako</u> ¹ , Tatsuki Oda ² , Maasaru Tachibana ¹ , Kenichi Kojima ¹ (¹ Yokohama City Univ., Japan) (² Kanazawa Univ., Japan)	282	
16P-I-32 Transport Property of Boron Doped Multi-Walled Carbon Nanotubes		
<u>Yuki Kakegawa</u> , Yoong Ahm Kim ¹ , Hiroyuki Muramatsu ¹ , Daisuke Shimamoto ¹ , Takuya Ichiki ¹ , Hiroshi Kakegawa ¹ , Kazunori Fujisawa ¹ , Takuya Hayashi ¹ , Morinobu Endo ¹ (¹ Shinshu Univ., Japan)	283	
16P-I-33 Inner-Tube Chirality Determination for Double-Walled Carbon Nanotubes by Scanning Tunneling Microscopy		
<u>Cristina E Giusca</u> ¹ , Yann Tison ² , Vlad Stolojan ¹ , S. Ravi P. Silva ¹ (¹ Univ. of Surrey, United Kingdom) (² Univ. of Denmark, Denmark)	283	
16P-I-34 New Generation of Carbon-carbon Composites with Carbon Nanotubes		
<u>Bojan O Boskovic</u> ¹ , Krzysztof K Koziol ² , Ian A Kinloch ³ , Alan H Windle ² (¹ Dunlop Aerospace Braking Systems, Meggitt PLC, United Kingdom) (² Univ. of Cambridge, United Kingdom) (³ Univ. of Manchester, United Kingdom)	284	

CARBON 2008 Conference Program Poster

16P-I-35 Effect of Rubidium Fluoride on the field Emission Properties of Carbon Nanostructures
Sandeep Chhoker¹, Vasant D Vankar¹ (¹IIT Delhi, Hauzkhaz, India) 284

Ueki², Akira Magario², Toru Noguchi², Morinobu Endo³
(¹Kyoto Institute of Technology, Japan), (²Nissin Kogyo Co. Ltd., Japan), (³Shinshu Univ., Japan) 289

16P-I-36 Development of Multiwalled Carbon Nanotubes and Polyaniline Based Hybrid Material
Sippy Kalra Chauhan¹, Dr Lalit Mohan Bharadwaj²
(¹Traffic Planning and environment division, Central Road Research Laboratory, India) (²BEND, Biomolecular Electronics & Nanotechnology, Chandigarh, India) 285

16P-I-37 Patterned Growth of CNTs by AFM Nano-oxidation
Chien-Chao Chiu¹, Masamichi Yoshimura¹, Kazuyuki Ueda¹
(¹Toyota Technological Institute, Japan) 285

16P-I-38 Carbon arc Synthesis of SWCNTs and Plasma Diagnostics
Hubert Lange¹, Michal Bystrzejewski¹, Andrzej Huczko¹
(¹Warsaw Univ., Poland) 286

16P-I-39 The Surface and Dispersion Properties of Modified MWCNT by Acid Treatment
Se Ho Cho¹, Ji Sun Im¹, Young-Seak Lee¹ (¹Chungnam National Univ., Korea) 286

16P-I-40 Low Cost and Large Scale production Method of Multi-walled Carbon Nanotubes by Natural Resources
Tomoyuki Fukuyo¹, Kenji Takeuchi², Takuya Ichiki², Satoshi iinou², Ki Chul Park², Y.A. Kim², Takuya Hayashi², Morinobu Endo² (¹MEFS Co. Ltd., Japan) (²Shinshu Univ., Japan) 287

16P-I-41 Ultrasonic Vibration of Fluid-Filled Double-walled Carbon Nanotubes
Toshiaki Natsuki¹, Qing-Qing Ni¹, Morinobu Endo¹
(¹Shinshu Univ., Japan) 287

16P-I-42 Mechanical Properties of Carbon Nanotubes under Hydrostatic Pressure
Naoki Fujita¹, Toshiaki natsuki¹, Qing-Qing Ni¹ (¹Shinshu Univ., Japan) 288

16P-I-43 An Investigation of Iron Nanoparticle Formation by Ferrocene Pyrolysis for CNTs Production
Keisuke Watanabe¹, Tomonori Sato¹, Taku Shindoh¹, Yohsuke Matsusita¹, Hideyuki Aoki¹, Takatoshi Miura¹, Fuminori Munekane² (¹Tohoku Univ., Japan) (²Nano Carbon Technologies Co., Ltd., Japan) 288

16P-I-44 Molecular Dynamics Simulation on Nitrogen Doping in Carbon Nanotube
Ozora Yoshino¹, Yuta Shiba¹, Hirokazu Suzuki¹, Takuya Hayashi¹, Morinobu Endo¹ (¹Shinshu Univ., Japan) 289

16P-I-45 Three-dimensional Structure of Multi Wall Carbon Nano-tube in Natural Rubber Studied by Transmission Electron Microtomography
Ken-ichi Niihara¹, Hiroshi Jinnai¹, Shigeki Inukai², Hiroyuki

Ueki², Akira Magario², Toru Noguchi², Morinobu Endo³
(¹Kyoto Institute of Technology, Japan), (²Nissin Kogyo Co. Ltd., Japan), (³Shinshu Univ., Japan) 290

16P-I-47 Application of Polymer Blend to Construct Concentric Multiple-layered Hollow Shell Carbons
Terukazu Sandou¹, Jun-ichi Ozaki¹ (¹Gunma Univ., Japan) 290

16P-I-48 Self-assembling, Hierarchy and Architectures of Carbon Nanoobjects
Sergey V. Kozyrev¹, Alexey E. Madison¹ (¹Petersburg State Polytechnical Univ., Russia) 291

16P-I-49 Synthesis of Fullerenes and Carbon Nanotubes in Flames
Zulkhair A Mansurov¹, Bakhytzhhan T Lesbaev¹, Dmitriy I Chenchik¹, Nikolay G Prikhodko¹, Esen E Dilmukhambetov¹, S T Kazakbaev¹ (¹Kazakh National Univ.) 292

16P-I-50 Synthesis of Carbon-silicon Nanocomposite
Zulkhair A Mansurov¹, Tat'yana A Shabanova¹, Rosa G Abdulkarimova¹, Nina N Mofa¹, Makhmut A Bijsenbaev¹
(¹Kazakh National Univ.) 292

16P-I-51 Small-angle Scattering Measurement of Highly Ordered Pyrolytic Graphite and Nano-scale Defects caused by Neutron Irradiation
Ayano Chiba¹, Thomas E Weller², Anuj Shukla³, Daniele Pontiroli⁴, Sanjay Rastogi⁵, Stephen M Bennington²
(¹Keio Univ., Japan) (²Rutherford Appleton Laboratory, UK) (³European Synchrotron Radiation Facility, France) (⁴Univ. of Parma, Italy) (⁵Loughborough University, UK) 293

ELECTROCHEMISTRY, BATTERIES AND CAPACITORS

16P-I-52 Electrochemical Oxygen Reduction Activity of Nanoshells Formed in Confined Space of Electrospun PAN Nanofibers

Takeaki Kishimoto¹, Shin-ichi Horiguchi¹, Kazuo Saito¹, Jun-ichi Ozaki² (¹Nissinbo Industries, Inc., Japan) (²Gunma Univ., Japan) 293

16P-I-53 Influence of Some Dimensional Parameters of CNT at Aligned MWCNT Sheet Electrode
Yuichi Honda¹, Masayuki Takeshige¹, Hideki Shiozaki², Takharu Kitamura², Kenji Yoshikawa², Masashi Ishikawa¹
(¹Kansai Univ., Japan) (²Hitachi Zosen Corp., Japan) 294

16P-I-54 Improvement of Electrode/electrolyte Interface Resistance at Activated Carbon/DNA Composite Electrodes for Aqueous EDLC

CARBON 2008 Conference Program Poster

Shigeaki Yamazaki¹, Kazushi Nitta¹, Keigo Obata², Yoshiaki Okuhama², Yoshiharu Matsuda³, Masashi Ishikawa¹
(¹Kansai Univ., Japan) (²Daiwa Fine Chemicals Co., Ltd., Japan) (³Kensei Inc., Japan) 294

16P-I-55 On the Contribution of Heteroatoms to the Capacitance Properties of Nitrogen Enriched Carbons

Jacek Machnikowski¹, Helena Machnikowska², Grzegorz Lota², Elzbieta Frackowiak² (¹Wroclaw Univ. of Technology, Poland) (²Poznan University of Technology, Poland) 295

16P-I-56 Preparation of N- and/or B-doped Carbons by Copolymerization and their Catalytic Activity for Electrochemical Reduction Reaction

Guang Feng Liu¹, Jun-ichi Ozaki¹, Naofumi Kimura¹
(¹Gunma Univ., Japan) 295

16P-I-57 Correlation of Hydrogen Capacity into Carbon

Krzysztof Jurewicz¹, Grzegorz Lota¹, Elzbieta Frackowiak¹
(Poznan Univ., Poland) 296

16P-I-58 Electroactivity of Platinum Alloy Nanoclusters on Carbon Supports Prepared by Electrochemical Deposition

Seok Kim¹, Jae-Rock Lee¹, Soo-Jin Park² (¹Korea Research Institute of Chemical Technology, Korea) (²Inha University, Korea) 296

16P-I-59 Platinum and Ruthenium Alloy Electrocatalysts for Direct Methanol Fuel Cells

Hee Jin Sohn¹, Seok Kim¹, Jae-Rock Lee¹, Soo-Jin Park²
(Korean Research Institute of Chemical Technology, Korea)
(²Inha Univ., Korea) 297

16P-I-60 Effect of Surface Functionality on the Electrochemical Hydrogen Storage Properties of Nanoporous Carbons

Krzysztof Kierzek¹, Marie-Pierre Bichat², Jacek Machnikowski¹, Encarnation Raymundo-Pinero², Elzbieta Frackowiak³, François Beguin², (¹Wroclaw Univ. of Technology, Poland) (²CNRS, France) (³Poznan Univ. of Technology, Poland) 297

16P-I-61 Pore-dependence of Capacitance in the Typical Pitch and PAN-based ACFs

Taeagon Kim¹, Masaharu Tsuji¹, Isao Mochida¹, Seong-Ho Yoon¹ (¹IMCE, Kyushu Univ., Japan) 298

16P-I-62 Carbon Nanowalls as a Negative Electrode in Lithium-ion Battery

Norihiro Kitada¹, Hirohumi Yoshimura¹, Osamu Tanaike², Kenichi Kobayashi³, Hiroshi Nakai⁴, Kenichi Kojima¹, Masaru Tachibana¹ (¹Yokohama City Univ., Japan) (²AIST, Japan) (³NISSAN ARC, LTD., Japan) (⁴IHI Corporation, Ltd., Japan) 298

16P-I-63 Effect of Addition of Surfactants to Acid or Alkaline Aqueous Solutions on Performance of Electric Double Layer Capacitor

Akinori Muto¹, Yoshiki Sasada¹, Thallda Bhaskar², Yusaku Sakata¹ (¹Okayama Univ., Japan) (²Indian Institute of Petroleum, India) 299

16P-I-64 The Application of Vapor Grown Carbon Fiber (VGCF™) to Lithium Ion Battery Technology
Chiaki Sotowa¹, Masataka Takeuchi¹ (¹Showa Denko K.K., Japan) 299

16P-I-65 Preparation of Oxidation-treated of Oxidized Carbons and Its Electrochemical Performance for Electric Double Layer Capacitor

Sunhye Yang¹, Ick-Jun Kim¹, Min-Je Jeon¹, Seong-In Moon¹, Hyun-Soo Kim¹, Kye-Hyeok An² (¹Korea Electrotechnology Research Institute, Korea) (²Jeonju Machinery Research Center, Korea) 300

16P-I-66 Comparative Study of the Electric Double Layer Capacitors for KOH-activated Anisotropic and Isotropic Pitches-based Porous Carbons

Takayuki Oka¹, Yoong Jung Kim¹, Masaaki Kitani¹, Tsuyoshi Kodama¹, Keita Higuchi¹, Naohiro Aoyama¹, Akane Kobayashi¹, Takehiro Okumoto¹, Mitsuhiro Fujita¹, Takuya Hayashi¹, Morinobu Endo¹ (¹Shinshu Univ., Japan) 300

16P-I-67 Electrochemical QCM Analysis of Electric Double Layer Capacitance Using Activated Carbon Nanofiber

Soshi Shiraishi¹, Takayuki Miyauchi¹, Rei Sasaki¹ (¹Gunma Univ., Japan) 301

CARBON FIBERS AND COMPOSITES

16P-I-68 Shape Memory and Actuator Characteristics of CNTs and Shape Memory Polymer Composites

Qing-Qing Ni¹, Mitsuhiro Yasuda¹ (¹Shinshu Univ., Japan) 301

16P-I-69 Innovative Sandwich Composite Structure based on Biomimetics of the Beetle

Qing-Qing Ni¹, Hideaki Shirai¹, Toshiaki Natsuki¹ (¹Shishu Univ., Japan) 301

16P-I-70 High-alignment of Carbon Nanotubes/ Polyacrylonitrile Nanofibers

Xiaoping Yang¹, Gang Sui¹, Yunhua Yu¹, Jianying Ji¹, Seungkon Ryu² (¹Beijing Univ. of Chemical Technology, China) (²Chungnam National University, Korea) 302

16P-I-71 Mechanical Properties of MWCNT/Elastomer Nanocomposites and Cellulation Model

Toru Noguchi¹, Shigeki Inukai¹, Hiroyuki Ueki¹, Akira Magario¹, Morinobu Endo² (¹Nissin Kogyo Co., Ltd., Japan) (²Shinshu Univ., Japan) 302

16P-I-72 Mechanical and Electrical Properties of Carbon Nanofiber/Semi-crystalline Polymers Composites

Gang Sui¹, Xiaoping Yang¹, Yunhua Yu¹ (¹Beijing Univ. of Chemical Technology, China) 303

16P-I-73 An Approach to Mass-producing Individually-alumina-decorated Multi-walled Carbon Nanotubes with Optimized and Controlled Compositions

Mehdi Estili¹, Akira Kawasaki¹, Kenta Takagi¹ (¹Tohoku

Univ., Japan) 303

16P-I-74 A Gradient SiC-MoSi₂ Coating for Carbon /Carbon Composites

Qian-Gang Fu¹, He-Jun Li¹, Ke-Zhi Li¹, Xiao-Hong Shi¹
(¹Northwestern Polytechnical Univ., China) 304

16P-I-75 Carbon-carbon Composites: Mesophase Pitch Based Carbon Matrices Containing Ultra Dilute Concentrations of Carbon Nanoparticles

Rebecca M Alway-Cooper¹, Amod Ogale¹ (¹Clemson Univ., USA) 304

16P-I-76 Influence of Texture of Carbon Matrix on the Oxidation of Carbon-carbon Composites

Shouquan Yu¹, Xianghui Wang¹, Weigang Zhang¹ (¹Institute of Process Engineering, Chinese Academy of Sciences, China) 305

16P-I-77 Mechanical and Heat-resistant Properties of Surface Modified Multi-walled Carbon Nanotube-filled Rubber Composites

Kenji Takeuchi¹, Satoshi Iinou², Hiroyuki Ueki³, Toru Noguchi³, Morinobu Endo¹ (¹Shinshu Univ., Japan) (²MEFS Corporation, Japan) (³Nissin Kogyo Co. Ltd, Japan) 305

16P-I-78 Thermal and Mechanical Properties of CNT/Natural Rubber Composites

Haruyuki Sano¹, Yoshihiko Komori¹, Kiyoshige Muraoka¹, Tetsuo Mizoguchi¹, Hitoshi Iwabuki², Masashi Urabe², Kazuya Nagata², Hiroyuki Ueki³, Akira Magario³, Toru Noguchi³, Morinobu Endo⁴ (¹SRI R&D Ltd., Japan) (²Industrial Technology Center of Okayama Prefecture, Japan) (³Nissin Kogyo Co., Ltd) (⁴Shinshu Univ., Japan) 306

16P-I-79 Mechanical Properties of Low Heat-treated Multi-walled Carbon Nanotube/Elastomer Nanocomposites

Satoshi Iinou¹, Kenji Takeuchi², Hiroyuki Ueki³, Toru Noguchi³, Morinobu Endo² (¹MEFS Co. Ltd., Japan) (²Shinshu Univ., Japan) (³Nissin Kogyo Co., Ltd., Japan) 307

16P-I-80 Effect of MWCNT on Molecular Mobility of EPDM Investigated by Pulsed NMR

Masashi Urabe¹, Hitoshi Iwabuki¹, Kazuya Nagata¹, Shigeki Inukai², Hiroyuki Ueki², Akira Magario², Toru Noguchi², Morinobu Endo³ (Industrial Technology Center of Okayama Prefecture, Japan) (²Nissin Kogyo Co., Ltd., Japan) (³Shinshu Univ., Japan) 308

16P-I-81 Structural Characterization of Carbon Nanotube/Elastomer Composites by Thermally Stimulated Current Measurement

Shigeki Inukai¹, Hiroyuki Ueki¹, Akira Magario¹, Toru Noguchi¹, Taisei Hirayama², Morinobu Endo³ (¹Nissin Kogyo Co.,Ltd., Japan) (²Rigaku Co.,Ltd., Japan) (³Shinshu Univ., Japan) 308

16P-I-82 Mechanical Properties of CNT-FKM Rubber

Composites

Masaei Ito¹, Canyun Wang¹, Haruo Unosawa¹, Tsutomu Yamate¹, Toru Noguchi², Shigeki Inukai², Hiroyuki Ueki², Akira Magario², Morinobu Endo³ (¹Schlumberger K.K., Japan) (²Nissin Kogyo Co., Ltd., Japan) (³Shinshu Univ., Japan) 309

16P-I-83 Dynamic Viscoelastic Behaviors of CNT/Elastomer Composites

Eisuke Yamada¹, Takahide Kumagai¹, Shigeki Inukai², Hiroyuki Ueki², Akira Magario², Toru Noguchi², Morinobu Endo³ (¹Aichi Institute of Technology, Japan) (²Nissin Kogyo Co., Ltd., Japan) (³Shinshu Univ., Japan) 309

16P-I-84 Nano-scale Structural and Mechanical Analysis of CNT/Elastomer Composite

Ken Nakajima¹, Takaaki Igarashi¹, Shigeki Inukai², Hiroyuki Ueki², Akira Magario², Toru Noguchi², Morinobu Endo³, Toshio Nishi¹ (¹Tokyo Institute of Technology, Japan) (²Nissin Kogyo Co., Ltd., Japan) (³Shinshu Univ., Japan) 310

16P-I-85 Electrical Resistivity of Sheet-type Heaters Made of Polyimide with Nanocarbon Fillers

Tetsuya Isshiki¹, Yuki Ota¹, Yoshiyuki Hattori¹, Fujio Okino¹, Masanori Tomita², Takashi Yanagisawa² (¹Shinshu Univ., Japan) (²GSI Creos Corporation, Japan) 310

16P-I-86 Improvement of the Properties of Insulating Polymers Using Choppedcarbon Fiber for Solid Rocket Motor Insulation

Ashraf Ahmed¹, Suong Hoa¹ (¹Concordia Univ., Canada) 311

16P-I-87 Carbon Fiber Reinforced SiC Materials for Friction Application

Andreas Kienzle¹, Wilhelm Frohs¹ (SGL Group, Germany) 311

16P-I-88 Microstructures of Pyrocarbons Deposited on Different Carbon Fibers

Tongqi Li¹, Zi-Jun Hu¹ (¹Aerospace Research Institute of Materials & Processing Technology) 312

16P-I-89 Bright Flexible Field Emission Display Device Using Carbon Nanofiber

Takashi Kita¹, M. Kawamura¹, O. Wada¹, H. Nakamura², H. Yanagi², A. Magario³, T. Noguchi³ (Kobe University, Japan) (²Nara Institute of Science and Technology) (³Nissin Kogyo Co., Ltd.) 312

16P-I-90 Strength Enhancement of Carbon Nanofiber Reinforced Magnesium Alloy Composites Using Mechanical Alloying Technique at a Higher Milling Energy

Takashi Hosono¹, Yasuo Shimizu¹, Kiyofumi Shirouzu¹, Kei Tsukamoto¹, Teppei Takagi¹, Isamu Itoh¹, Kazuhiko Sakaki¹, Morinobu Endo¹ (¹Shinshu Univ., Japan) 313

LATE SUBMISSION

CARBON 2008 Conference Program Poster

16P-I-91 Evaluation Research of MWCNT / Elastomer Nanocomposites and Cellulation Model for Valve Sealing Components

Yuichi Asano¹, Toru Noguchi², Hiroyuki Ueki², Shigeki Inukai², Akira Magario², Mitsufumi Soyama³, Morinobu Endo⁴ (¹KITZ Co, Japan) (²Nissin Kogyo Co., Ltd., Japan) (³ Kowa Rubber Industries Co., Ltd., Japan) (⁴ Shinshu Univ., Japan) 313

16P-I-92 Mechanical Properties of MWCNT/Elastomer Nanocomposites at Low Hardness

Mitsufumi Soyama¹, Kouki Miyagawa¹, Takashi Yanagisawa¹, Shigeki Inukai², Hiroyuki Ueki², Akira Magario², Toru Noguchi², Morinobu Endo³ (¹ Kowagomu Kogyo Co., Ltd., Japan) (² Nissin Kogyo Co., Ltd., Japan) (³ Shinshu Univ., Japan) 314

16P-I-93 A Highly-Dispersed Attachment of Silver Nanoparticles on Surface-Functionalized Multi-Walled Carbon Nanotubes by an Electrostatic Interaction

Feng Wang¹, Dongsheng Yan¹, Yongbin Zhao¹, Jingjun Liu¹ (¹Beijing Univ. of Chemical Technology, China) 314

16P-I-94 A Facile Route to Synthesize Carbon-Nanotube/Cadmium-Sulfide Hybrid Heterostructures and Their Optical Properties

Feng Wang¹, Yongbin Zhao¹, Haijing Liu¹, Jingjun Liu¹ (¹Beijing Univ. of Chemical Technology, China) 315

16P-I-95 Towards Ultrasensitive Method for Determination of Metal Impurities in Carbon Nanotubes: Comparative Study of Magnetic Susceptibility, EPR, EDX, XPS and TGA Methods

Martin Pumera¹, Taras Kolodiazhnyi¹ (¹National Institute for Materials Research, Japan) 315

Hotel Metropolitan Room Kurohime: 16P-II

CHEMICAL PROPERTIES

16P-II-01 The Effect of ZnCl₂ Modifying on Structure and Mechanic Properties of Spin-use Large Tow Flame Retardant Polyacrylonitrile Fiber

Jie Liu¹, Chao Wang¹, Zhaokun Ma¹ (¹Beijing Univ. of Chemical Technology, China) 316

16P-II-02 Nitrogen Enriched Active Carbons Obtained by Ammoniation and their Physico-chemical Properties

Robert Pietrzak¹, Piotr Nowicki¹, Helena Wachowska¹ (¹Adam Mickiewicz Univ., Poland) 316

16P-II-03 Characterization of Brazilian Decant Oils and Pitches by Extrography and Gas Chromatography Coupled with Mass Spectrometry

Alexandre T Castro¹, Maria Helena Pereira¹, Luiz Castro¹, Ricardo Michel² (¹Centro Tecnológico do Exército, Brazil) (²Universidade Federal do Rio de Janeiro, Brazil) 317

16P-II-04 Oxidation Behaviors of Selected Nuclear Grade Graphites

Eung-Seon Kim¹, Yong-Wan Kim¹ (¹Korea Atomic Energy Research Institute, Korea) 317

16P-II-05 Study on Adsorption Property of Carbon Microspheres

Liu Guanghua¹, Guo Qiao-Mei¹, Wang Xiao-Min¹, Xu Bing-She¹ (¹Taiyuan Univ. of Technology, China) 318

16P-II-06 A Simple Synthesis of Hollow Carbon Microspheres

Bingshe Xu¹, Qiuping Luo¹, Yongzhen Yang¹, Chunyi Zhang¹, Xuguang Liu¹ (¹Taiyuan Univ. of Technology, China) 318

16P-II-07 Behavior of C₆₀ During High-Temperature Treatment in Solutions of Hydrocarbons

Otakar Frank¹, Zdenka Pokorna², Vera Hamplova², Milan Bousa³, Petr Vitek³, Libor Juha², Jan Jehlicka³ (¹J.Heyrovsky Institute of Physical Chemistry, Czech Republic) (²Institute of Physics of the ASCR, v.v.i., Czech Republic) (³Charles Univ., Czech Republic) 319

16P-II-08 Effect of SiC on the Ablation Behavior of ZrB₂-SiC/C Composites

Tao Xiu Li¹ (¹Aerospace Research Institute of Materials and Processing Technology) 319

16P-II-09 Removal of Ni Using Electrochemically Activated Carbon

Ilknur Kucuk¹, Berat Yilmaz¹, Mustafa Cankaya¹ (¹Yildiz Technical Univ., Turkey) 320

16P-II-10 Oxidation of Graphites for Future Nuclear Systems

Baerbel Schloegl¹, Hans K. Hinssen¹, Rainer Moermann¹ (¹Research Center Juelich, Germany) 320

CARBONIZATION AND GRAPHITIZATION

16P-II-11 Study on carbonization of Carbon Foam Precursor Derived from Phenolic Resin

ShiWen Lei¹, Quangu Guo¹, Jingli Shi¹, Lang Liu¹, Jinren Song¹ (¹Institute of Coal Chemistry, Chinese Academy of Sciences, China) 321

16P-II-12 A Hybrid Process for the Synthesis of High Density Carbon/Carbon Composites Using Moderate Pressure

Alix Dekeyrel¹, Marie-Anne Dourges¹, Rene Pailler¹, Nicolas Teneze² (¹LCTS, France) (²CEA Le Ripault, France) 321

16P-II-13 Surface Structure of Graphitized Carbon Black

Jian Chen¹, Jin-ping¹ Zhao, Jing-yu Zhang¹ (¹Sichuan Univ. of Science & Engineering, China) 322

16P-II-14 Porous Carbons Derived from Dried Gel and Micelle of Pi-conjugated Molecules Having Carbon-carbon Triple Bonds

CARBON 2008 Conference Program Poster

Yuchi Ichikawa¹, Yoshiaki Ayuta¹, Masashi Kijima¹ (¹Univ. of Tsukuba, Japan) 322

16P-II-15 Preparation of Needle Coke from Anthracene; Oil-based Pitches

Juan Sutil¹, P. Álvarez¹, M. Granda¹, R. Menéndez¹ (¹CSIC, Spain) 323

16P-II-16 Study on HNO₃ Oxidation and Carbonization Behaviors of Pitch Spheres

Wenming Qiao¹, Xiaojun Liu¹, Xiaoyi Liang¹, Chaojun Liu¹, Liang Zhan¹, Rui Zhang¹, Licheng Ling¹ (¹East China Univ. of Science and Technology, China) 323

16P-II-17 Preparation of High Surface Area Activated Carbons through NaOH/KOH Activation

Wenming Qiao¹, Chuanxiang Zhang¹, Hongpeng Liu¹, Yingbo Xie¹, Rui Zhang¹, Liang Zhan¹, Licheng Ling¹ (¹East China Univ. of Science and Technology, China) 324

16P-II-18 Microwave Arcing Induced Formation and Growth Mechanism of Core-shell Metal/Carbon Nanoparticles in Organic Solution

Yu-Lin Hsin¹, Kuo Chu Hwang² (¹Industrial Technology Research Institute, Taiwan) (²National Tsing Hua Univ. Taiwan) 324

16P-II-19 Pyrolytic Conversion of Alkaline Lignin to Porous Carbon

Takaharu Hirukawa¹, Masashi Kijima¹, Toshimitsu Hata² (¹Univ. of Tsukuba, Japan) (²Univ. of Kyoto, Japan) 325

16P-II-20 Template-free Preparation of Polymer and Carbon Hollow Spheres

Sang Won Kim¹, Chong Rae Park¹ (¹Seoul National Univ., Korea) 325

16P-II-21 Catalyst Free Growth of Amorphous Carbon Needles at Low Temperature

Nyrki J. K. Rantonen¹, Toru Toyabe¹, Toru Maekawa¹ (¹Toyo Univ., Japan) 326

16P-II-22 Graphite Nanostructures and the Graphitisation of Diamond (111) Face

Thomas E Weller¹, Steven Bennington¹, Kate Ronayne¹, Richard Jackman¹ (¹RAL, UK) 326

16P-II-23 Modification of Pyrolised Oil Shale to Increase of Phenol Adsorption Capacity

Dulce Maria de Ara jo Melo¹, Marcus Antônio de Freitas Melo¹, Ary Leonídio do Carmo Assunção¹, Rodrigo César Santiago¹, Renata Martins Braga¹, Jardeylde Rosendo do Amaral¹, Danilo Brasil Ribeiro¹ (¹Universidade Federal do Rio Grande do Norte., Brazil) 327

16P-II-24 Eutectic effect in the formation of coal based mesophase pitch

Qingfang Zha¹, Xianglin Cheng¹, Yansheng Guo¹, Xiaojun Yang¹, Huixin Zhang¹ (¹China Univ. of Petroleum, China) 327

CHARACTERIZATION

16P-II-25 Pore Structure Analysis Using Small-angle X-ray Scattering(SAXS) Curve Simulation Technique Based on the Relativity Concept

Se Hoon Gihm¹, Chong Rae Park¹ (¹Seoul National Univ., Korea) 328

16P-II-26 Study on Porosity and Pore Size Distribution of Carbon and Graphite Strips Prepared from Mesocarbon Microbeads

Yongzhong Song (Institute of Coal Chemistry, Chinese Academy of Sciences, China) 328

16P-II-27 Production of Iron Oxide Coated Modified Activated Carbon

Dilek Duranoglu Gulbayir¹, Asli Avci¹, Ulker Gurbuz Beker¹, Ilknur Kucuk¹ (¹Yildiz Technical Univ., Turkey) 329

16P-II-28 Potential of Coal-derived Precursors in the Development of Porous Carbons via Alkali Activation

Jacek Machnikowski¹, Krzysztof Kierzek¹, Helena Machnikowska¹ (¹Wroclaw Univ. of Technology, Poland) 329

16P-II-29 Definition of Pseudocomponent Structures for Narrow Cuts of Petroleum Pitch

Ward A Burgess¹, Mark Thies¹ (¹Clemson Univ., USA) 330