

**FRIDAY, DECEMBER 18, 2015**

**08.227-1A. Carbon Nanotubes: Preparation, Characterization and Applications (#227) [1A]**

**Shigeo Maruyama** (The University of Tokyo) & Jie Liu (Duke University)  
8:00 AM - 12:00 PM; 315 (Hawaii Convention Center)

8:00 AM - 8:30 AM	State-of-the-art science and applications of carbon nanotubes <b>Morinobu Endo</b> ; <i>Hirofumi Muramatsu; Kenji Takeuchi; Takuya Hayashi</i>
8:30 AM - 9:00 AM	How we can realize chirality-specific growth of single-walled carbon nanotubes using intermetallic compound nanocatalysts <b>Yan Li</b>
9:00 AM - 9:30 AM	Towards selective synthesis and applications of carbon nanotubes <b>Avetik R. Harutyunyan</b>
9:30 AM - 9:50 AM	Quantum chemical simulations of SWCNT and graphene nucleation with and without catalysts <b>Alister Page</b>
9:50 AM - 10:10 AM	break
10:10 AM - 10:40 AM	Perfect Ultra-Long Carbon Nanotube and Its Application <b>Fei Wei</b>
10:40 AM - 11:10 AM	A sweet spot in the synthesis of single wall carbon nanotube forests and its relation to their properties <b>Don N. Futaba</b>
11:10 AM - 11:30 AM	Modulating diameter of single-walled carbon nanotubes in alcohol catalytic chemical vapor deposition <b>Rong Xiang</b> ; <i>Kehang Cui; Akihito Kumamoto; Hua An; Taiki Inoue; Shohei Chiashi; Yuichi Ikuhara; Shigeo Maruyama</i>
11:30 AM - 12:00 PM	<i>Controllable growth of semiconducting and metallic SWCNTs</i> <i>Peng-Xiang Hou; Chang Liu; Hui-Ming Cheng</i>

**08.227-2P. Carbon Nanotubes: Preparation, Characterization and Applications (#227) [2P]**

**R. Bruce Weisman** (Rice University) & Shigeo Maruyama (The University of Tokyo)  
1:00 PM - 5:00 PM; 315 (Hawaii Convention Center)

1:00 PM - 1:30 PM	Resolution of carbon nanotube enantiomers by DNA and chiral surfactants: common mechanism revealed <b>Ming Zheng</b>
1:30 PM - 2:00 PM	Fluidized-bed production of sub-millimeter-long carbon nanotubes and their application to electrochemical energy storage devices <b>Suguru Noda</b>
2:00 PM - 2:30 PM	Chemically Modified Carbon Nanotubes & Graphene: Synthesis, Assembly & Applications <b>Sang Ouk Kim</b>
2:30 PM - 3:00 PM	Improved photovoltaic performance of carbon nanotube-based solar cells <b>Kazunari Matsuda</b>
3:00 PM - 3:20 PM	break
3:20 PM - 3:50 PM	Large scale sorting of single-chirality single-wall carbon nanotubes <b>Hirofumi Kataura</b> ; <i>Yohei Yomogida; Xiaojun Wei; Takeshi Tanaka</i>
3:50 PM - 4:20 PM	Environmental TEM, low-voltage SEM, and optical imaging of carbon nanotubes <b>Kaili Jiang</b>
4:20 PM - 4:50 PM	Growth of High-Density Horizontally Aligned SWNT Arrays using Trojan Catalysts <b>JIN ZHANG</b>

**08.227-6E. Carbon Nanotubes: Preparation, Characterization and Applications (#227) [6E]**

**Ming Zheng** (National Institute of Standards and Technology) & Shigeo Maruyama (The University of Tokyo)  
7:00 PM - 9:00 PM; 315 (Hawaii Convention Center)

7:00 PM - 7:30 PM	Carbon nanotube thin-film static random access memory <b>Mark C. Hersam</b>
7:30 PM - 7:50 PM	Scalable assembly and alignment of semiconducting carbon nanotube arrays for high performance field effect transistors <i>Gerald Brady; Harold Evensen; Yonghoo Joo; Alan Albrecht; Matthew Shea; Padma Gopalan; Michael S. Arnold</i>
7:50 PM - 8:20 PM	Single-walled carbon nanotubes and graphene as hole transport layer and electrode for solar cells <b>Shigeo Maruyama</b>

**SATURDAY, DECEMBER 19, 2015****08.227-3A. Carbon Nanotubes: Preparation, Characterization and Applications (#227) [3A]****JIN ZHANG** (Peking University) & Shigeo Maruyama (The University of Tokyo)

8:00 AM - 12:00 PM; 315 (Hawaii Convention Center)

8:00 AM - 8:30 AM	Tip enhanced Raman spectroscopy of carbon nanotubes <b>Riichiro Saito</b>
8:30 AM - 9:00 AM	Metrology of nanotube metallicity, its evolution, and the range of the Kataura plot <b>Paul Finnie</b>
9:00 AM - 9:30 AM	Emergent optical phenomena in carbon nanotubes <b>Yuhei Miyauchi</b>
9:30 AM - 9:50 AM	Asymmetry in Resonant Raman Excitation Profiles of Carbon Nanotubes: The Role of State-Mixing <b>Erik H. Hároz</b> ; Hagen Telg; Eduardo B. Barros; Jeffrey A. Fagan; Geyou Ao; Ming Zheng; Jeffrey Blackburn; Stephen K. Doorn
9:50 AM - 10:10 AM	break
10:10 AM - 10:40 AM	Photon statistics and materials development towards single-photon emitters based on doped single-wall carbon nanotubes <b>Stephen K. Doorn</b> ; Xuedan Ma; Nicolai F. Hartmann; Sibel Yalcin; Han Htoon
10:40 AM - 11:10 AM	Optics and photonics with macroscopically aligned carbon nanotubes <b>Junichiro Kono</b>
11:10 AM - 11:30 AM	Preparation, measurement, and fractionation of monodisperse single wall carbon nanotubes <b>Philip J. Wyatt</b>
11:30 AM - 12:00 PM	Variance spectroscopy of single-walled carbon nanotube samples <b>R. Bruce Weisman</b> ; Jason Streit; Sergei Bachilo; Stephen Sanchez

**08.227-4P. Carbon Nanotubes: Preparation, Characterization and Applications (#227) [4P]****Young Hee Lee** (Sungkyunkwan University/Institute for Basic Science) & Shigeo Maruyama (The University of Tokyo)

1:00 PM - 5:00 PM; 315 (Hawaii Convention Center)

1:00 PM - 1:30 PM	Purification of horizontally aligned arrays of single walled carbon nanotubes <b>John Rogers</b>
1:30 PM - 2:00 PM	Exploring the growth of graphene and related 2D materials for electronic applications <b>Hiroki Ago</b>
2:00 PM - 2:30 PM	Bio-electronics applications of carbon nanotube thin films <b>Yutaka Ohno</b>
2:30 PM - 3:00 PM	Carbon Nanotube Electronics – More and More than Moore <b>Lian-Mao Peng</b> ; Zhiyong Zhang; Sheng Wang; Xuelei Liang
3:00 PM - 3:20 PM	break
3:20 PM - 3:50 PM	Interaction of water molecules with single-walled carbon nanotube <b>Yoshikazu Homma</b> ; Shohei Chiashi; Takahiro Yamamoto
3:50 PM - 4:20 PM	Carbon Nanotube-based Remarkably Durable Polymer Electrolyte Fuel Cell <b>Naotoshi Nakashima</b> ; Inas Hafez; Mohamed Berber; Tsuyohiko Fujigaya
4:20 PM - 4:50 PM	Floating catalyst CVD synthesis of SWNTs for thin film applications <b>Esko I. Kauppinen</b>

**08.227-7E. Carbon Nanotubes: Preparation, Characterization and Applications (#227) [7E]****Hui-Ming Cheng** (Institute of Metal Research, Chinese Academy of Sciences) & Shigeo Maruyama (The University of Tokyo)

7:00 PM - 9:00 PM; 315 (Hawaii Convention Center)

7:00 PM - 7:30 PM	Selective Growth of Semiconducting Single-walled Carbon Nanotubes <i>Jinghua Li; Pan Li</i> ; <b>Jie Liu</b>
7:30 PM - 7:50 PM	Development of n-type carbon nanotubes for thermoelectric materials <b>Tsuyohiko Fujigaya</b> ; Naotoshi Nakashima; Takahiro Fukumaru; Huang Wenxin
7:50 PM - 8:20 PM	Carbon nanotubes for energy storage <b>Young Hee Lee</b>

**SUNDAY, DECEMBER 20, 2015****08.227-5A. Carbon Nanotubes: Preparation, Characterization and Applications (#227) [5A]****Jie Liu** (Duke University) & **Shigeo Maruyama** (The University of Tokyo)

8:00 AM - 12:00 PM; 315 (Hawaii Convention Center)

8:00 AM - 8:30 AM	Carbon Nanomaterials for Biological and Energy Applications <b>Hongjie Dai</b>
8:30 AM - 9:00 AM	Potential bioapplication of carbon nanohorns <b>Masako Yudasaka</b>
9:00 AM - 9:30 AM	Advanced carbon-based nanotubes/nanocages for energy conversion and storage: synthesis, performance and mechanism <b>Zheng Hu</b>
9:30 AM - 9:50 AM	Semiconducting SWCNT: Materials, inks and printed thin film transistors <b>Patrick R. Malenfant</b> ; <i>jianfu Ding; Zhao Li; Jacques Lefebvre; Fuyong Cheng; Christa Homenick; Jeff Dunford; Naiying Du; Jianying Ouyang; Gregory Lopinski; Robert James; Christopher T. Kingston; Benoit Simard; Jefford Humes; Jens Kroeger; Wookyu Lee; Junfeng Sun; Gyoujin Cho</i>
9:50 AM - 10:10 AM	break
10:10 AM - 10:40 AM	Dry-processable carbon nanotubes for functional devices and composites <b>Jiangtao Di; Yuntian . Zhu; Qingwen Li</b>
10:40 AM - 11:10 AM	Toughness of Carbon Nanotube and Graphene Hybrid Fibers <b>Seon Jeong Kim</b>
11:10 AM - 11:30 AM	Industrialization of boron nitride nanotubes: synthesis, chemistry, assemblies and composites <b>Benoit Simard</b> ; <i>Keun Su Kim; Christopher T. Kingston; Michael J. Jakubinek; Christa Homenick; Yadienka Martinez-Rubi; Homin Shin; Behnam Ashrafi; Jingwen Guan; Shuqiong Lin; Stephane Denomme; Robyn Iannitto; Steven Walker; Malgosia Daroszewska; Mark Plunkett</i>
11:30 AM - 12:00 PM	Carbon nanotube-silver hybrid architecture for stretchable composites and fibers <b>Seunghyun Baik</b>