Schedule at a Glance

	July 14th (SAT)	July 15th (SUN)	July 16th (MON)	July 17th (TUE)	July 18th (WED)	July 19th (THU)	July 20th (FRI)
08:00 – 09:00		Registration					
09:00 – 09:15		**Parallel Symposia** CCTN18 MSIN18 CNTFA18 GSS18 CNBMT18 NMES18	Opening	**Keynote 2** Klaus Müllen	**Keynote 3** Laurent Cognet	**Keynote 4** Elisa Molinari	**Keynote 5** Lianmao Peng
09:15 – 09:30			**Tutorial 1** Shoushan Fan				
09:30 – 09:45				**Invited 3** F. Wei	**Invited 7** V. Ulla	**Invited 8** M. Koshino	**Invited 11** F. Wang
09:45 – 10:00				S. Maruyama	Y. Liu	C. Bichara	A. Nasibulin
10:00 – 10:15			Group Photo	Coffee Break	Poster Preview 2 R. Krupke	Poster Preview 3 S. Baik	Coffee Break
10:15 – 10:30			Coffee Break				
10:30 – 10:45				**Invited 4** J.-B. Baek	Coffee Time Posters **Even No.** PS & PC	Coffee Time Posters **Odd No.** PA & PO	**Invited 12** S. Cambre
10:45 – 11:00			**Tutorial 2** Huiming Cheng	F. Ding			H. Kataura
11:00 – 11:15				K. Jiang			Y. K. Yap
11:15 – 11:30				S. Esconjauregui			A. Page
11:30 – 11:45				S. Zhang			L. Shi
11:45 – 12:00			Lunch	Lunch	Lunch	Lunch	Lunch
12:00 – 12:15	Registration						
12:15 – 12:30			**Keynote 1** Philip Kim	**Invited 5** J. Kono	Excursion	**Invited 9** E. Malic	E. Kauppinen
12:30 – 13:30				C. Liu		R. Saito	J. Wang
13:30 – 13:45			**Invited 1** J. Blackburn	X. Pan		L. Sponza	Q. Li
13:45 – 14:00				F. Yang		Z. Zhang	A. Cao
14:00 – 14:15			C. Zhou	X. Lu		X. Zou	Y. Zhang
14:15 – 14:30			A. Hüttel	Break		Break	D. Wei
14:30 – 14:45			J. Liang	**Invited 6** K. Yanagi		**Invited 10** X. Bai	Break
14:45 – 15:00			Coffee Break	K. Liu		R. Xiang	Awards
15:00 – 15:15				Poster Preview 1 M. Zheng		Poster Preview 4 K. Jiang	Conference Summary
15:15 – 15:30			**Invited 2** T. Hasan				NT19 Announcement
15:30 – 15:45			F. Leite	Coffee Time Posters **Odd No.** PS & PC		Coffee Time Posters **Even No.** PA & PO	Closing
15:45 – 16:00			D. Bandruin				
16:00 – 16:15			Y. Chen				
16:15 – 16:30			S. Malik				
16:30 – 16:45			Z. Hu				
16:45 – 17:00			M. Xu				
17:00 – 17:15		Welcome Reception	Dinner	Dinner	Conference Banquet	Dinner	
17:15 – 17:30			Campus Tour	Campus Tour		Campus Tour	
17:30 – 17:45			Talk of Sponsors			Talk of Sponsors	
17:45 – 18:00							
18:00 – 19:00							
19:00 – 20:30							

NT18 Program

Saturday, July 14th, 2018

12:00-20:30	**Registration** *Lobby at 1st Floor of Building A, College of Chemistry and Molecular Engineering, PKU*

Sunday, July 15th, 2018

08:00-18:00	**Registration** *Lobby at 1st Floor of Building A, College of Chemistry and Molecular Engineering, PKU*	
Parallel Symposia *3rd Floor of Natural Sciences Teaching Building, PKU*		
09:00-18:00	CCNT18	Room 313
	MSIN18	Room 310
	GSS18	Room 303
	CNTFA18	Room 306
	CNBMT18	Room 311
	NMES18	Room 302
12:30-13:30	**Lunch** *First Floor, Nong Yuan Restaurant*	
18:00-20:30	**Welcome Reception** *Time Western Restaurant, 2nd Floor of Building 2, Zhongguanyuan Global Village*	

*Notes: Please show your **INVITATION LETTER** (before registration, sent out by email) or **CONFERENCE BADGE** (after registration) to the security personnel when you enter the campus of PKU during the conference.*

Monday, July 16th, 2018

PKU Centennial Lecture Hall

08:00-18:00	**Registration** *East Gate of PKU Centennial Lecture Hall*		
09:00-09:30	**Opening Ceremony** Chair: Yan LI		
Tutorial Talks Chair: Sumio IIJIMA and Rodney S. RUOFF			
09:30-10:30	**T1**	Shoushan FAN *Tsinghua University, China*	Making the Structures of Aligned and Identical Carbon Nanotubes - A Road Towards the Applications of Carbon Nanotubes
10:30-11:00	**Group Photo & Coffee Break** *Group Photo in PKU Centennial Lecture Hall*		
11:00-12:00	**T2**	Huiming CHENG *Institute of Metal Research, CAS, China*	Graphene Materials: Properties, Fabrication and Applications
12:30-13:30	**Lunch** *First Floor, Nong Yuan Restaurant*		
Session I: Device and Properties Chair: Michael S. ARNOLD			
13:30-14:15	**K1**	Phillip KIM *Harvard University, USA*	Coulomb Drag Transport Between Nanotubes and Graphene
14:15-14:45	**I1**	Jeffrey BLACKBURN *National Renewable Energy Laboratory, USA*	Interfaces Between Small Molecules and Semiconducting Single-Walled Carbon Nanotubes for Precise Control Over Energy and Charge Transport
14:45-15:00	**O1**	Chongwu ZHOU *University of Southern California, USA*	Aligned Carbon Nanotube Transistors and Neuromorphic Computing
15:00-15:15	**O2**	Andreas HÜTTEL *University of Regensburg, Germany*	Nanomechanical Characterization of the Kondo Charge Dynamics in a Carbon Nanotube
15:15-15:30	**O3**	Jiajie LIANG *Nankai University, China*	A General Gelation Strategy for Nanowires: Functional Gels for Wearable 3D Printing Electronics
15:30-16:00	**Coffee Break**		
Session II: Property and Application Chair: Yongsheng CHEN			
16:00-16:30	**I2**	Tawfique HASAN *Cambridge University, UK*	2D Material Inks for Electronics, Optoelectronics and Photonics

16:30-16:45	**O4**	Cristiano FANTINI *Universidade Federal de Minas Gerais, Brazil*	Temperature Dependence on the Double-resonance Raman Process for Two Dimensional Transition Metal Dichalcogenides
16:45-17:00	**O5**	Denis BANDURIN *University of Manchester, UK*	Electron Hydrodynamics in Graphene: Introduction and Status
17:00-17:15	**O6**	Yuan CHEN *University of Sydney, Australia*	Graphene Materials in Antimicrobial Nanomedicine
17:15-17:30	**O7**	Sharali MALIK *Karlsruhe Institute of Technology, Germany*	Few-layer Graphene Based Nanocomposites for Potential Use in Dental/Biomedical Applications
17:30-17:45	**O8**	Zheng HU *Nanjing University, China*	From Carbon-Based Nanotubes to Nanocages for Advanced Energy Conversion and Storage
17:35-18:00	**O9**	Ming XU *Huazhong University of Science and Technology, China*	Carbon Nanotube Dry Adhesives with Performances Superior to Nature-originated Adhesions
18:00-19:00	**Dinner** *First Floor, Nong Yuan Restaurant, PKU*		
19:00-20:30	**Talk of Sponsors** *PKU Centennial Lecture Hall*		**Campus Tour** *(Gather in the Square in front of the South Gate of PKU Centennial Lecture Hall. Departure at 18:30, 18:45 and 19:00)*

Tuesday, July 17th, 2018

PKU Centennial Lecture Hall

08:00-18:00	**Registration** *East Gate of PKU Centennial Lecture Hall*		
Session III: Synthesis Chair: Esko KAUPPINEN			
09:00-09:45	**K2**	Klaus MÜLLEN *Max Planck Institute for Polymer Research, Germany*	Graphene Nanoribbons as a New Semiconductor Family
09:45-10:15	**I3**	Fei WEI *Tsinghua University, China*	Perfect Ultra-long Carbon Nanotubes and Their Unique Electrical, Mechanical Properties
10:15-10:30	**O10**	Shigeo MARUYAMA *University of Tokyo, Japan*	Digital-Coded Isotope Labeling on Individual Single-Walled Carbon Nanotubes Grown on Crystal Quartz
10:30-11:00	**Coffee Break**		

Session IV: Synthesis Chair: Kenji HATA			
11:00-11:30	**I4**	Jong-Beom BAEK *Ulsan National Institute of Science and Technology, Korea*	Fused Organic Networks for Energy Conversion and Storage
11:30-11:45	**O11**	Feng DING *Ulsan National Institute of Science and Technology, Korea*	Strategies for the Chirality Control during Carbon Nanotubes Growth
11:45-12:00	**O12**	Kaili JIANG *Tsinghua University, China*	Growth and Characterization of Semiconducting Carbon Nanotubes for Nanoelectronics
12:00-12:15	**O13**	Santiago ESCONJAUREGUI *University of Cambridge, UK*	Carbon Nanotube Forest Growth at 375 °C: Process Decoupling and Temperature Effect on Chiral Distribution
12:15-12:30	**O14**	Shuchen ZHANG *Peking University, China*	Kinetics Evolution Growth of (n, n-1) Tubes
12:30-13:30	**Lunch** *First Floor, Nong Yuan Restaurant*		
Session V: Property and Synthesis Chair: Jing KONG			
13:30-14:00	**I5**	Junichiro KONO *Rice University, USA*	Wafer-Scale Crystalline Carbon Nanotubes: Physics and Applications
14:00-14:15	**O15**	Chang LIU *Institute of Metal Research, CAS, China*	High-performance Single-wall Carbon Nanotube Transparent Conductive Films Prepared by Floating Catalyst CVD
14:15-14:30	**O16**	Xiulian PAN *Dalian Institute of Chemistry and Physics, CAS, China*	Confined Catalysis in Carbon Nanotubes
14:30-14:45	**O17**	Feng YANG *Peking University, China*	In Situ Study on Catalysts for Controlled Growth of Carbon Nanotubes
14:45-15:00	**O18**	Xing LU *Huazhong University of Science and Technology, China*	The Bonding Inside and Outside Fullerene Cages
15:00-15:15	**Break**		

Session VI: Optical Property Chair: Stephan DOORN			
15:15-15:45	**I6**	Kazuhiro YANAGI *Tokyo Metropolitan University, Japan*	Optical and Thermoelectric Properties of Fermi Level Tuned and Aligned Single Wall Carbon Nanotube Thin Films
15:45-16:00	**O19**	Kaihui LIU *Peking University, China*	Optical Spectroscopy of Individual Carbon Nanotubes with Defined Structure
16:00-16:30	**Poster Preview (Odd No. PS & PC)** by Ming ZHENG		
16:30-18:00	**Poster (Odd No. PS & PC) & Coffee Break**		
18:00-19:00	**Dinner** *First Floor, Nong Yuan Restaurant*		
19:00-20:30	**Campus Tour** *(Gather in the Square in front of the South Gate of PKU Centennial Lecture Hall. Departure at 18:30, 18:45 and 19:00)*		

Wednesday, July 18th, 2018

PKU Centennial Lecture Hall

08:00-18:00	**Registration** *East Gate of PKU Centennial Lecture Hall*		
Session VII: Biomedical Applications Chair: Daniel HELLER			
09:00-09:45	**K3**	Laurent COGNET *Institut d'Optique - University of Bordeaux, France*	High-Resolution Microscopy and Spectroscopy of Individual Carbon Nanotubes Enable Brain Imaging at the Nanoscale
09:45-10:15	**I7**	Vogel Birgitte ULLA *Technical University of Denmark, Denmark*	Cardiovascular Disease as a (Nano)particle-induced Occupational Disease
10:15-10:30	**O20**	Ying LIU *National Center for Nanoscience and Technology, CAS, China*	Gd-metallofullerenol Nanomaterial as Non-toxic Breast Cancer Stem Cell-specific Inhibitor
10:30-11:00	**Poster Preview (Even No. PS & PC)** by Ralph KRUPKE		
11:00-12:30	**Poster (Even No. PS & PC) & Coffee Break**		
12:30-13:30	**Lunch** *First Floor, Nong Yuan Restaurant*		
13:30-18:00	**Excursion** *Gather at the East Gate of PKU Centennial Lecture Hall at 13:20. Please bring your **passport** (foreigners) or **ID card** (native Chinese) and **excursion ticket** with you.*		
18:00-20:30	**Conference Banquet** *Juying Hall, Friendship Palace, Beijing Friendship Hotel*		

Thursday, July 19th, 2018

PKU Centennial Lecture Hall

08:00-18:00	**Registration** *East Gate of PKU Centennial Lecture Hall*		
Session VIII: Theory Chair: Feng DING			
09:00-09:45	**K4**	Elisa MOLINARI *University of Modena and Reggio Emilia, Italy*	TBA
09:45-10:15	**I8**	Mikito KOSHINO *Osaka University, Japan*	Effective Theory for the Twisted Bilayer Graphene
10:15-10:30	**O21**	Christophe BICHARA *Aix-Marseille University and CNRS, France*	Chirality Phase Diagrams for Single-Walled Carbon Nanotubes
10:30-11:00	**Poster Preview (Odd No. PA & PO)** by Seunghyun BAIK		
11:00-12:30	**Poster (Odd No. PA & PO) & Coffee Break**		
12:30-13:30	**Lunch** *First Floor, Nong Yuan Restaurant*		
Session IX: Optical Property and theory of 2D Materials Chair: Kazunari MATSUDA			
13:30-14:00	**I9**	Ermin MALIC *Chalmers University of Technology, Sweden*	Dark Exciton Dynamics in Atomically Thin 2D Materials
14:00-14:15	**O22**	Riichiro SAITO *Tohoku University, Japan*	Raman Spectra by Circularly Polarized Light in 2D Materials
14:15-14:30	**O23**	Lorenzo SPONZA *Laboratoire d'Etude des Microstructures, CNRS-ONERA, France*	Hexagonal Boron Nitride in the Class of 2D Materials: Luminescence Properties
14:30-14:45	**O24**	Zhuhua ZHANG *Nanjing University of Aeronautics and Astronautics*	Anisotropic growth of borophene on silver
14:45-15:00	**O25**	Xiaolong ZOU *Tsinghua-Berkeley Shenzhen Institute, China*	Theoretical Study on Low-dimensional Carbides for Catalytic Applications
15:00-15:15	**Break**		
Session X: Electron Microscopy Chair: Annick LOISEAU			
15:15-15:45	**I10**	Xuedong BAI *Institute of Physics, Chinese Academy of Sciences, China*	In-Situ TEM Studies on Phase Transition Mechanism of TMDs by Alkali Metal Intercalation
15:45-16:00	**O26**	Rong XIANG *University of Tokyo, Japan*	Single-walled Carbon Nanotubes Co-axially Wrapped with Mono- and Few-layer Boron Nitride Nanotubes

16:00-16:30	**Poster Preview (Even No. PA & PO)** by Kaili JIANG	
16:30-18:00	**Poster (Even No. PA & PO) & Coffee Break**	
18:00-19:00	**Dinner** *First Floor, Nong Yuan Restaurant*	
19:00-20:30	**Talk of Sponsors** *PKU Centennial Lecture Hall*	**Campus Tour** *(Gather in the Square in front of the South Gate of PKU Centennial Lecture Hall. Departure at 18:30, 18:45 and 19:00)*

Friday, July 20th, 2018

PKU Centennial Lecture Hall

08:00-16:45	**Registration** *East Gate of PKU Centennial Lecture Hall*		
Session XI: Device Chair: Yutaka OHNO			
09:00-09:45	**K5**	Lianmao PENG *Peking University, China*	Carbon Nanotube based High Performance CMOS Devices and Integrated Systems
09:45-10:15	**I11**	Feng WANG *University of California, Berkeley, USA*	Probing Luttinger Liquid in Single Walled Carbon Nanotubes
10:15-10:30	**O27**	Albert NASIBULIN *Skolkovo Institute of Science and Technology, Russia*	Single-walled Carbon Nanotubes for Flexible and Stretchable Electronic Applications
10:30-11:00	**Coffee Break**		
Session XII: Optical Spectroscopy and Other Chair: Qingwen LI			
11:00-11:30	**I12**	Sofie CAMBRE *Antwerp University, Belgium*	Controlling the Inner Dielectric Environment of Carbon Nanotubes to Tune Their Optical Properties
11:30-11:45	**O28**	Hiromichi KATAURA *National Institute of Advanced Industrial Science and Technology, Japan*	Influence of Dissolved Oxygen on Defect Introduction to SWCNTs in Ultrasonic Dispersion Process
11:45-12:00	**O29**	Yoke Khin YAP *Michigan Technological University, USA*	Precise Quantification of Cut Boron Nitride Nanotubes in Liquids
12:00-12:15	**O30**	Alister PAGE *University of Newcastle, Australia*	Nucleation and Growth Mechanisms of Boron Nitride Nanomaterials – Non-Equilibrium Molecular Dynamics Simulations

12:15-12:30	**O31**	Lei SHI *University of Vienna, Austria*	Improved Synthesis of Linear Carbon Chains Inside Carbon Nanotubes
12:30-13:30	**Lunch** *First Floor, Nong Yuan Restaurant*		
Session XIII: Applications Chair: Yoke Khin YAP			
13:30-13:45	**O32**	Esko KAUPPINEN *Aalto University, Finland*	SWNT Thin Films for 3D Electronics Applications
13:45-14:00	**O33**	Jiannong WANG *East China University of Science and Technology, China*	High Performance Carbon Nanotube Fiber and Film
14:00-14:15	**O34**	Qingwen LI *Suzhou Institute of Nano-Tech and Nano-Nionics, CAS, China*	Constructing Carbon Nanotube Networks for Electrochemical Energy Storage
14:15-14:30	**O35**	Anyuan CAO *Peking University, China*	Carbon Nanotube Sponges and Energy Storage Applications
14:30-14:45	**O36**	Yingying ZHANG *Tsinghua University, China*	Hierarchical Structured Carbon Materials for Flexible and Wearable Electronics
14:45-15:00	**O37**	Di WEI *Beijing Graphene Institute, China*	Wearable Electronics Based on Graphene Materials
15:00-15:15	**Coffee Break**		
Summary Session			
15:15-15:45	**Poster Summary & Poster Award**		
15:45-16:15	**Conference Summary**		
16:15-16:30	**NT19 Announcement**		
16:30-16:45	**Closing Ceremony**		

List of Posters

Poster Session	Topics	Poster Preview Session	Put Up Time	Presenting Time
PS	S1, S2, S3	Odd No. in 1 & Even in 2	08:30 on 17th	17th - 18th
PC	C1, C2	Odd No. in 1 & Even in 2	08:30 on 17th	17th - 18th
PA	A1, A2	Odd No. in 3 & Even in 4	08:30 on 19th	19th - 20th
PO	A3, A4, T, I, O	Odd No. in 3 & Even in 4	08:30 on 19th	19th - 20th

Note: T stands for Theory and Simulation, I stands for Scale-up for Industrialization Mass production, standardization, and O stands for Other Related Topics.

Poster Session PS

Synthesis, Processing, and Functionalization: S1 Controlled synthesis & preparation; S2 Purification, separation, sorting; S3 Chemical modification & functionalization

PS001	Encapsulation of 2D materials inside carbon nanotubes: towards an enhanced synthesis of single-layered metal halides; *Sandoval, Stefania; Pach, Elzbieta; Ballesteros, Belén; Tobias, Gerard*
PS002	High-yield production of MoS2 and WS2 quantum sheets from their bulk materials *Zhang, Yong*
PS003	Growing highly-pure semiconducting carbon nanotubes by electro-twisting the helicity *Wang, Jiangtao; Liu, Peng; Kong, Jing; Jiang, Kaili*
PS004	Direct Synthesis of Aligned Semiconducting Graphene Nanoribbon Arrays *Arnold, Michael*
PS005	Approaching Metre-Sized Single-Crystal Graphene; *Xu, Xiaozhi; Zhang, Zhihong; Liu, Kaihui*
PS006	Highly conductive nanocomposite enabled by an accordion-like graphene network *Yang, Lijun; Weng, Wei; Huang, Haiyan; Liu, Wei; Fu, Ouli; Zhu, Meifang*
PS007	Temporal and spatial evolution of hydrocarbons and catalytic precursors in gas phase and on the substrate during CVD growth of carbon nanotubes *He, Delong; Xu, Yiguo; Ma, Yang; Dichiara, Anthony; Zimmer, Laurent; Bai, Jinbo*
PS008	In situ TEM investigations on the nucleation and termination mechanisms of catalytic growth of carbon nanotubes; *Zhang, Lili; Tang, Dai-Ming; Liu, Chang; Cheng, Huiming; Hansen, Thomas; Wagner, Jabob*
PS009	Growth of coiled amorphous carbon nanotube array forest and its electromagnetic wave absorbing properties; *Zhao, Tingkai*
PS010	Growth of Boron Nitride Nanotubes by Chemical Vapor Deposition; *Yao,Yagang*
PS011	Graphene and Anologous 2D Materials: Large Area Growth and Transfer Methods *Pang, Jinbo; Liu, Hong*
PS012	Synthesis of large-area adlayer-free monolayer graphene films by chemical vapor deposition; *Shen, Changqing; Li, Xuesong; Yan, Xingzhou; Qing, Fangzhu; Niu, Xiaobin; Richard, Richard; Zhang, Wanli; Li, Yanrong*

PS013	Synthesis of Oriented Graphene Nanoribbons Embedded in Hexagonal Boron Nitride *WANG, Haomin*
PS014	A carbon-welded isolated single-wall carbon nanotube network with near-ohmic joint contacts ; *Jiang, Song; Hou, Peng-Xiang; Liu, Chang; Cheng, Hui-Ming*
PS015	CVD Growth of Fingerprint-like Patterned 3D Graphene Film for Ultrasensitive Pressure Sensor; *Xia, Kailun; Zhang, Yingying*
PS016	Alcohol Catalytic Chemical Vapor Deposition of Single-Walled Carbon Nanotubes from Platinum-group metal catalysts *Maruyama, Takahiro; Okada, Takuya; Saida, Takahiro; Naritsuka, Shigeya; Iijima, Sumio*
PS017	Mechanism Study of Bilayer Graphene in Chemical Vapor Deposition by Isotope Labeling *Zhang, Xuewei; Zou, Zhenxing; Wang, Yang; Wang, Yunlu; Mei, Le; Zhang, Zilong; Wu, Zehao; Zhao, Pei;, Wang, Hongtao*
PS018	Hydrogen Function on Controlled Growth of Semiconducting Single-Wall Carbon Nanotubes with Uniform Structures *Zhang, Feng; Hou, Peng-Xiang; Cheng, Hui-Ming; Liu, Chang*
PS019	Controllable Synthesis and Device Applications of Transition Metal Dichalogenides *Liu, Song*
PS020	Repeated CNT synthesis by resetting CoAl2O4 and NiAl2O4 catalysts *Sato, Toshihiro; Sugime, Hisashi; Liang, Bin; Yi, Eongyu; Laine, Richard; Noda, Suguru*
PS021	The Controllable Growth of Fractal Dimension Atomic-layer SnS2 Catalyzed by Potassium Atom; *Shao, Gonglei; Liu, Song*
PS022	Scalable synthesis of high-purity aligned semiconducting ultralong carbon nanotubes *Zhu, Zhenxing; Wei, Nan; Cheng, Weijun; Xu, Jun; Wei, Fei*
PS023	Preparation of long linear carbon chain inside multi-walled carbon nanotubes by hydrogen arc discharge with cooling system; *Zhang, Yifan; Liu, Yi; Zhao, Xinluo*
PS024	Single-Walled Crystalline Molybdenum Oxide Nanotubes with Carbon Nanotube Templates; *Shen, Boyuan; Wei, Fei*
PS025	On Al synthesis, Morphology Control and Heat Transfer Application of Carbon Nanotubes *Asaka, Mayu; Sugime, Hisashi; Ota, Aun; Oshima, Hisayoshi; Noda, Suguru*
PS026	Freestanding Graphene/polymer Microtube with Multiple Structure *Wu, Manman; Zhang, Tengfei; Ren, Ai; Chen, Yongsheng*
PS027	Synthesis of Holey Graphene by Microwave Assisted Method; *Cui, Rongli; Huang, Huan; Guo, Xihong; Liu, Shuaichao; Liu, Bing; Li, Ying; Yao, Huanli; Sun, Baoyun*
PS028	Microwave-assisted Regeneration of Single-walled Carbon Nanotubes from Carbon Fragments; *Lin, Dewu; Zhang, Shuchen; Zheng, Zhe; Hu, Wenping; Zhang, Jin*
PS029	Synthesis of High Quality Single-Wall Carbon Nanotubes by Floating Catalyst Chemical Vapor Deposition; *Chen, Zhakun; Hu, Xiangang; Hou, Pengxiang; Liu, Chang; Cheng, Huiming*
PS030	All in-situ process for dense CNT forest growth by mist CVD *Kinoshita, Toshiya; Karita, Motoyuki; Nakano, Takayuki; Inoue, Yoku*
PS031	Effect of catalytic species on ethanol dissociation studied by ab initio molecular dynamics *Fukuhara, Satoru; Misawa, Masaaki; Shimojo, Fuyuki; Shibuta, Yasushi*

PS032	Facile preparation of mesostructured porous carbons via metal-organic coordination reaction; *Byun, Jin Seul; Park, Jeong Yeon; Yang, Seung Jae*
PS033	Synthesis of Metallic-Enriched Single-Wall Carbon Nanotubes by Using Bimetallic Nanoparticles as Catalysts; *Li, Xiao-Qi; Hou, Peng-Xiang; Liu, Chang*
PS034	Proper Solvents Enhance the Yield of Linear Carbon Chains inside Carbon Nanotubes *Cui, Weili; Saito, Takeshi; Ayala, Paola; Pichler, Thomas; Shi, Lei*
PS035	CNT-based transparent conductive films and high-performance fibers from floating-catalyst CVD; *Zhang, Qiang; Liao, Yongping; Zhou, Weiya; Xie, Sishen; Kauppinen, Esko*
PS036	Chirality-Selective Synthesis of Single-Walled Carbon Nanotubes; *He, Maoshuai; Zhang, LiLi; Jiang, Hua; Bichara, Christoph; Loiseau, Annick; Kauppinen, Esko*
PS037	Aerosol Synthesis of Single Walled Carbon Nanotubes from Ethylene for High Performance Transparent Conducting Films *Hussain, Aqeel; Liao, Yongping; Zhang, Qiang; Ding, Er-Xiong; Laiho, Patrik; Ahmad, Saeed; Tian, Ying; Jiang, Hua; Kauppinen, Esko*
PS038	Growth of High-density Single-walled Carbon Nanotube Arrays by Multiple Catalysts Reactivation; *Wang, Zequn; Zhao, Qiuchen; Gao, Xin; Tong, Lianming; Zhang, Jin*
PS039	Synthesis of highly crystalline multilayer graphene on graphene template by high growth temperature; *Negishi, Ryota; Maruoka, Masato; Ogawa, Yui; Takamura, Makoto; Taniyasu, Yoshitaka; Kobayashi, Yoshihiro*
PS040	Atmospheric moisture storable aerogel based on graphene oxide linked by multivalent metal chlorides; *Seo, Jin Weon; Byun, Jin Seul; Yang, Seung Jae*
PS041	Metal-phenolic compounds derived 3D graphite nanoballs as a highly reversible anode *Shin, Min Chang; Oh, Yun Ji; Yang, Seung Jae*
PS042	Two-dimensional metallic tantalum disulfide as a hydrogen evolution catalyst *Shi, Jianping; Liu, Zhongfan; Zhang, Yanfeng*
PS043	Selective growth of semiconducting single-wall carbon nanotubes using SiC as a catalyst *Cheng, Min; Hou, Peng-Xiang; Zhang, Feng; Liu, Chang; Cheng, Hui-Ming*
PS044	*Withdrawn*
PS045	Nitrogen-doped carbon nanotubes with encapsulated Fe nanoparticles as efficient oxygen reduction catalyst for alkaline membrane direct ethanol fuel cells *Rauf, Muhammad; Li, Yong-Liang; Qu, Jun-Le; Zhou, Zhi-You; Sun, Shi-Gang*
PS046	Thermophoretic deposition of single-walled carbon nanotubes to form thin films with tunable characteristics; *Krasnikov, Dmitry; Iakovlev, Vsevolod; Gilshteyn, Evgenia; Kopylova, Daria; Grebenko, Artem; Tsapenko, Alexey; Nasibulin, Albert*
PS047	Growing 1-inch-size horizontal arrays of highly-pure semiconducting carbon nanotubes *Wang, Jiangtao; Liu, Peng; Kong, Jing; Jiang, Kaili*
PS048	Control of 12C/13C isotope in CNT grown from nanodiamond; *Nakamura, Keisuke; Ohata, Atsuki; Arifuku, Michiharu; Kiyoyanagi, Noriko; Kobayashi, Yoshihiro*
PS049	Nitrogen-doped double-walled carbon nanotubes: synthesis and supercapacitor performance; *Lobiak, Egor; Bulusheva, Lyubov; Lonchambon, Pierre; Flahaut, Emmanuel; Okotrub, Alexander*
PS050	Scalable synthesis of highly porous nanocarbon materials by ultrahigh temperature process for graphene oxide and cellulose nanofiber composites *Xu, Zizhao; Nakamura, Shingo; Nishina, Yuta; Kobayashi, Yoshihiro*

PS051	Spacer Thickness Dependence of Enhanced fluorescence in Au Nanorod @Mesoporous Silica@Carbon-Dots nanocomposites *Li, Huiqin; Deng, Liqing; Zhao, Weiwei; Dou, Shumei; Li, Zongxiao*
PS052	Nucleation and Growth Investigation of Boron Nitride Nanotube towards the Control of Morphology in Chemical Vapour Deposition; *Acapulco, Jesus; Meysami, Seyyed Shayan; Babenko, Vitaliy; Evers, Koen; Jones, Ruth Sang; Grobert, Nicole*
PS053	Chemical Vapor Deposition of Two-Dimensional Metallic Vanadium Diselenide and Raman Characterization of the Phase Transition; *Hossain, Md Mongur; Xie, Liming*
PS054	Direct optical polymerization and lithography of two-dimensional conjugated microporous polymers; *Yin, Yuhang; Liu, Zhengdong; Liu, Juqing; Huang, Wei*
PS055	Controlled Growth of Single-walled Carbon Nanotubes Using CoWO4/Graphene Oxide Hybrids as Catalyst Precursors; *Liu, Xiyan; Yang, Feng; Li, Yan*
PS056	Direct synthesis and in situ characterization of monolayer parallelogrammic rhenium diselenide on gold foil; *Jiang, Shaolong; Zhang, Yanfeng*
PS057	Multiple-cycle Deposition of Pure Metal Catalyst to Grow High-density SWNT Arrays *Liu, Weiming; Zhang, Jin*
PS058	Formation of Precipitated Free Zone in CNT/7055Al Composite *Ma, Kai; Liu, Z. Y.; Zhang, X. X.; Xiao, B. L.; Ma, Z. Y.*
PS059	Design and fabrication of Nanoparticles for radiotherapy enhancement *Gu, Zhanjun; Guo, Zhao; Yong, Yuan; Du, Jiangfeng*
PS060	Fabrication of MoO3/Mo2C Layered Heterostructures by Direct Thermal Oxidation of Mo2C; *Yang, Leilei; Chen, Wenjin; Tang, Zikang; Gui, Xuchun*
PS061	Synthesis of Narrow Diameter and BN Wrapped Vertically Aligned Single-Walled Carbon Nanotubes ; *Liu, Ming; Zheng, Yongjia; An, Hua; Inoue, Taiki; Chiashi, Shohei; Xiang, Rong; Maruyama, Shigeo*
PS062	On the Growth and Form of Graphene; *He, Wanzhen; Geng, Dechao; Xu, Zhiping*
PS063	Synchronous immobilization and conversion of polysulfides on VO2-VN composites targeting high-rate lithium–sulfur batteries; *Song, Yingze; Liu, Zhongfan; Sun, Jingyu*
PS064	Ferrofluid Filled PMMA/Graphene Microtubes and Its Application as a Magnetic Sensors *Zhang, Tengfei; Wu, Manman; Zhu, Jie; Ren, Ai; Chen, Yongsheng*
PS065	*Withdrawn*
PS066	*Withdrawn*
PS067	Using a Graphene Oxide Catalyst Support to Achieve High Density, Long Carbon Nanotubes Synthesized by Gas-Flow Guided Method *Tsuji, Takashi; Hata, Kenji; Futaba, Don; Sakurai, Shunsuke*
PS068	Directed synthesis of carbon nanotube arrays for energy storage and conversion *Shao, Mingfei; Li, Zhenhua; Yang, Qihui; Liu, Ke*
PS069	Material Patterning via manipulating the Marangoni Flow; *Li, Yitan; Wang, Hao; Li, Yan*
PS070	Self-Divided Droplets on Liquid Surface; *Chen, Yuguang; Li, Yitan; Wang, Hao; Li, Yan*
PS071	Van der Waals Epitaxial Growth of 2D Metallic Vanadium Diselenide Single Crystals and their Extra-High Electrical Conductivity; *Zhang, Zhepeng; Zhang, Yanfeng*
PS072	Study on Mechanism of Structure-Controlled Growth of Carbon Nanotubes *Yang, Feng; Liu, Xiyan; Liu, Xu; Liu, Qidong; Li, Yan*

PS073	Growth of Carbon Nanotubes Using Cobalt Silicide as Catalyst *Liu, Qidong; Zhang, Yan; Yang, Feng; Li, Yan*
PS074	Controlled Growth of SWNTs Using CoWO4 Nanoparticles as Catalyst Precursor *Liu, Xu; Yang, Feng; Li, Yan*
PS075	Free-standing single-walled carbon nanotube/polyaniline films for solid flexible supercapacitor; *Zhu, Sheng*
PS076	Layer-by-Layer Assembly of Catalyst Precursor to Grow Horizontally Aligned Single-Walled Carbon Nanotubes; *Liu, Xiyan; Yang, Feng; Li, Yan*
PS077	Methanol Enhanced Chemical Vapor Deposition of Vertically Aligned Carbon Nanotube Forests; *Guo, Jia; Yan, Li*
PS078	Synergetic Role of Co3C in Co-Catalyzed Growth of Carbon Nanotubes Revealed by Environmental TEM; *Yang, Feng; Li, Yan*
PS079	Rapid Response and High Temperature Carbon Nanotube Film Heaters Targeting Synthesis of Various Nanomaterials; *Kang, Lixing; Liu, Zheng; Li, Qingwen*
PS080	Ultratransparent and Stretchable Graphene Electrodes; *Liu, Nan*
PS081	Smart Carbon Nanotube Composite Fibers; *Zhou, Gengheng; Lu, Weibang*
PS082	Assembly of Aligned Semiconducting SWCNTs via Introducing Inter-Tube Electrostatic Repulsion; *Gao, Bing; Qiu, Song; Jin, Hehua; Song, Qijun; Li, Qingwen*
PS083	Bifunctional Catalytic Electrodes Derived from Zeolitic Imidazolate Framework and Carbon Nanotube for Flexible Zn-Air Batteries *Lv, Bo; Zeng, Sha; Qiao, Jian; Chen, Minghai; Di, Jiangtao; Li, Qingwen*
PS084	Mechanism of SiOx particles formation during CVD graphene growth on Cu substrates *Yu, Guanghui; Ge, Xiaoming; Zhang, Yanhui; Chen, Zhiying; Sui, Yanping, Liang, Yijian, Hu, Shike; Li, Jing*
PS085	Towards carbon nanotube networks of highly-defined structure and properties *Janas, Dawid; Turek, Edyta; Wasiak, Tomasz; Stando, Grzegorz*
PS086	Less-Defective Dispersion of Individual SWCNTs using Repetitive Sonication–Ultracentrifugation Process *Wang, Guowei; Tanaka, Takeshi; Tsuzuki, Mayumi; Hirano, Atsushi; Kataura, Hiromichi*
PS087	Development of Functional Materials and their Integration for Application of Printable Electronics; *Ouyang, Jianying; Ding, Jianfu; Lefebvre, Jacques; Li, Zhao; Guo, Chang; Lapointe, François; Kell, Arnold; Paquet, Chantal; Lacelle, Thomas; Malenfant, Patrick*
PS088	Selective dispersion of metallic single-walled carbon nanotubes with imidazolium-based ionic liquids; *Xu, Wende; Lian, Yongfu*
PS089	Mass Enrichment of High-purity Metallic and Semiconducting Single-walled Carbon Nanotubes; *Guan, Lunhui; Yu, Qiangmin; Miao, Yuming; Wu, Chuxin*
PS090	Scalable process to reduce catalyst content below 0.01% in HiPCO Single walled carbon nanotubes; *Micheal Joseph Ance, Anto Godwin; Bradley, Robert Kelley*
PS091	High quality s-SWCNT inks for highly reproducible Field Effect Transistors *Talsma, Wytse; Sengrian, Aprizal; Salazar Rios, Jorge-Mario; Fritsch, Martin; Scherf, Ullrich; Loi, Maria Antonietta*
PS092	Selective etching of single-walled carbon nanotubes produced by arc discharge *Liu, Qidong; Yang, Feng; Li, Yan*

PS093	Polymer-Sorted Chiral Semiconducting Carbon Nanotube Networks with Improved Charge Carrier Transport; *Lv, Zhengxia; Qiu, Song; Jin, Hehua; Li, Qingwen*
PS094	Doping of holey graphene by nitrogen *Stolyarova, Svetlana; Asanov, Igor; Okotrub, Alexander; Bulusheva, Lyubov*
PS095	Controlled Doping of Monolayer WS2 with Niobium; *Jin, Yuanyuan; Liu, Song*
PS096	Atomic layer deposition of iron oxide on carbon nanotubes fiber for high-power supercapacitor electrodes *Feng, Jianmin; Long, Conglai; Dong, Lei; Zhong, Xiaohua; Li, Dejun*
PS097	Plasma functionalization of powdery nanomaterials using porous filter electrode and sample circulation; *Choi, Jae Hong; Lee, Deuk Yeon; Kim, Yun-Tae; Lee, Chang Young*
PS098	Effect of functionalization by ultraviolet irradiation in ambient and argon atmosphere of carbon nanotubes; *Nekrasov, Nikita; Emelianov, Alexey; Bobrinetskiy, Ivan*
PS099	Filling of carbon nanotubes with different morphologies of a metal halide; *Costa, Pedro; Batra, Nitin; Ashok, Anumol; Smajic, Jasmin; Enyashin, Andrey; Deepak, Francis*
PS100	Femtosecond Laser Maskless Patterning of Carbon Nanomaterials *Emelianov, Aleksei; Bobrinetskiy, Ivan; Otero, Nerea; Romero, Pablo*
PS101	Removable Carbon Nanotube Tape for wide-range-temperature application *Jin, Xiang; Liu, Kai; Jiang, Kaili*
PS102	Photoelectrocatalytic degradation of pollutants at MnOx/g-C3N4 photoanode under visible light irradiation; *Zhang, Lu*
PS103	Carbon nanotube supported carbon-nitrogen-iron composites as catalysts for oxygen reduction reaction; *Sheng, Jian; Li, Yan*
PS104	Enhanced ion transport in densified CNT arrays; *Zhang, Xiaohua*
PS105	*Withdrawn*
PS106	Separation of left- and right-handed semiconducting single-walled carbon nanotube enantiomers using achiral amino acid surfactant; *Zhang, Yan; Li, Ying*

Poster Session PC

Properties and Characterizations:

C1 Mechanical, electronic, optical properties; C2 Characterization techniques

PC001	High performance carbon nanotube fiber and film; *Wang, Jian Nong*
PC002	Ultrafast Carrier Thermalization and Relaxation Dynamics in Few‐Layer MoS2 Atomic Layers; *Nie, Zhaogang; Zhao, Xin; Loh, Zhiheng*
PC003	Visualizing grain boundaries in monolayer $MoSe_2$ by mild H_2O vapor etching *Wang, Jinhuan*
PC004	Carbon Nanotube Bundles with Tensile Strength over 80 GPa *Zhang, Rufan; Bai, Yunxiang; Ye, Xuan; Zhu, Zhenxing; Xie, Huanhuan; Shen, Boyuan; Cai, Dali; Liu, Bofei; Zhang, Chenxi; Jia, Zhao; Zhang, Shenli; Li, Xide; Wei, Fei*
PC005	The dispersion and aggregation of graphene oxide in aqueous media; *Wang, Meng; Niu, Yang; Zhou, Jihan; Wen, Hao; Zhang, Zhenyu; Yang, Juan; Liang, Dehai; Li, Yan*
PC006	Avalanche Photoemission in Suspended Carbon Nanotubes *Wang, Bo; Rezaeifar, Fatemeh; Chen, Jihan; Yang, Sisi; Kapadia, Rehan; Cronin, Stephen*

PC007	Nanoparticle Intercalation-Modulated Stretchable Conductive Graphene Fibers with Combined Photoelectric Properties *Niu, Yutao; Yang, Zhengpeng; Zhao, Wei; Zhang, Yongyi; Li, Qingwen*
PC008	Grain misorientation-induced in-plane thermal conductivity variation of monolayer suspended graphene; *Lee, Sanghoon; Lee, Dongmok; An, Byeong-Seon; Kim, Tae-Hoon; Yang, Cheol-Woong; Suk, JiWon; Baik, Seunghyun*
PC009	Optical Characterizations of Low Dimensional Metal Monohydroxides *Liu, Zheng; Zhang, Minfang; Iijima Sumio, Iijima*
PC010	Fast mass transport of air through the heated aligned multi-walled carbon nanotubes *Jeon, Wonjae; Kim, Taehun; Kim, Sung-Min; Baik, Seunghyun*
PC011	Probing Phonon Dynamics in Individual Single-Walled Carbon Nanotubes *Hong, Hao; Jiang, Tao; Liu, Can; Liu, Wei-Tao; Liu, Kaihui; Wu, Shiwei*
PC012	Properties and applications of carbon nanotube Langmuir-Schaefer thin films *Rytel, Karol; Barszcz, Bolesław; Kędzierski, Kamil; Wróbel, Danuta*
PC013	Tuning the field emission properties of ZnO nanowires in gated field emitter arrays *Huang, Jia*
PC014	On the Intrinsic Surface Properties of Graphitic Carbon Materials; *Liu, Haitao*
PC015	Influence of Wrinkles on Damping Properties of Graphene Oxide Nanocomposites *Lu, Wenjiang; Qin, Faxiang; Peng, Huaxin*
PC016	Carbon nanotube-cellulose paper as scaffold of nano-silicon for Li-Si battery *Li, Xu; Chen, Wei; Wang, Jie; Sun, Xiaogang*
PC017	DTT doped MWCNTs coating for checking shuttle effect of Lithium-sulfur battery *Wang, Jie; Chen,Wei; Wang, Jie; Sun, Xiaogang*
PC018	Performance of lithium-ion capacitors using pre-lithiated multiwalled carbon nanotubes/graphite composite as negative electrode *Chen, Wei; Jie, Wang; Li, Xu; Sun, Xiaogang*
PC019	Single-walled carbon-nanotube/graphene hybrid structure for all-carbon multifunctional sensors; *Cai, Baofang; Tao, Zejun; Su, Yanjie*
PC020	Detection of Off-Resonance Single-Walled Carbon Nanotubes by Enormous Surface-Enhanced Raman Scattering; *Yang, Juan; Zhang, Daqi`; Xia, Chenmaya; Li, Henan; Ding, Li; Liu, Xiyan; Lyu, Min; Ju, Jing; Li, Yan*
PC021	Photon antibunching in single-walled carbon nanotubes at telecommunication wavelengths and room temperature; *Kawabe, Rintaro; Endo, Takumi; Takaki, Hiroshi; Ishi-Hayase, Junko; Sumikura, Hisashi; Maki, Hideyuki*
PC022	Valley Polarization of Trions and Magnetoresistance in MoS_2/YIG Heterostructures *Peng, Bo*
PC023	Intrinsic hydrophilic character of carbon nanotube ensembles *Janas, Dawid; Stando, Grzegorz; Lukawski, Damian; Lisiecki, Filip*
PC024	Fast metrology of floating-catalyst carbon nanotubes using array of transistors *Wei, Nan; Laiho, Patrik; Ahmed, Saeed; Hussain, Aqeel; Zhang, Qiang; Khan, Taher; Liao, Yongping; Tian, Ying; Ding, Er-Xiong; Ohno, Yutaka; Kauppinen, Esko*
PC025	Moir épattern in encapsulated 2D materials *Wang, Yibo; Woods, Colin; Novoselov, Konstantin*

PC026	Study of the charge transfer between molecular fillers and SWCNTs via optical methods *Berkmann, Claudia; Shi, Lei; Kuzmany, Hans; Yanagi, Kazuhiro; Saito, Takeshi; Pichler, Thomas; Ayala, Paola*
PC027	Observing evolution of low-energy band structure in Bernal stacked multilayer graphene: from 1 to 7 layers; *Yagi, Ryuta; Hirahara, Taiki; Ebisuoka, Ryoya; Oka, Takushi; Tajima, Shingo; Watanabe, Kenji; Taniguchi, Takashi*
PC028	Observation of Band structure effect in carrier density dependence of dual-gated 4-layer graphene sample at zero magnetic field *Hirahara, Taiki; Ebisuoka, Ryoya; Oka, Takushi; Nakasuga, Tomoaki; Tajima, Shingo; Watanabe, Kenji; Taniguchi, Takashi; Yagi, Ryuta*
PC029	Interlayer shear behaviors of bilayer graphene *Zhao, Pei; Wang, Yunlu; Zhang, Zilong; Zhang, Xuewei; Wang, Hongtao*
PC030	Synthesis of highly electrical conductive SWCNT Fiber by a simple and scalable wet-spinning method *Jiao, Xinyu; Li, Guoxian; Hou, Pengxiang; Liu, Chang; Cheng, Huiming*
PC031	Multifunctional graphene aerogel-poly (methyl methacrylate) composites: Experiments and modeling; *Fan, Zeng; Gong, Feng; Duong, Hai M.; Pan, Lujun*
PC032	Electrical Characterization of Ion Gel and Its Application on MoS2 Field Effect Transistors *Chae, Kwanbyung; Nguyen, Van Tu; Ahn, Y.H.; Lee, Soonil; Park, Ji-Yong*
PC033	Synthesis and Optoelectronic Characterizations of MoS2-Single Walled Carbon Nanotube Hybrids; *Nguyen, Tu; Yim, Woongbin; Park, Sae June; Son, Byung Hee; Kim, Young Chul; Cao, Thanh; Sim, Yumin; Moon, Yoon-Jong; Nguyen, Chuc; Seong, Maeng-Je; Kim, Sun-Kyung; Ahn, Yeong Hwan; Lee, Soonil; Park, Ji-Yong*
PC034	Relationship between mobility and Raman spectra for CVD Graphene on exfoliated h-BN *Okigawa, Yuki; Yamada, Takatoshi; Kirihara, Kazuhiro; Taniguchi, Takashi; Watanabe, Kenji; Hasegawa, Masataka*
PC035	Optical Actuator Made by Single Carbon Nanocoil *Wang, Peng; Deng, Chenghao; Li, Chengwei; Pan, Lujun*
PC036	Ampacity and Failure Mechanisms of CVD-spun CNT Fibres and PAN-based Carbon Fibres; *Terrones, Jeronimo; Kaniyoor, Adarsh; Elliott, James*
PC037	Tuning of the Thermoelectric Properties of High-Purity Single-Chirality (6,5) Single-Walled Carbon Nanotubes by Electrolyte Gating; *Ichinose, Yota; Fukuhara, Kengo; Eda, Junko; Gao, Weilu; Kono, Junichiro; Yomogida, Yohei; Yanagi, Kazuhiro*
PC038	Evaluation of electrical conductivity in turbostratic multilayer graphene thin films synthesized from CVD graphene; *Wei, Chaopeng; Negishi, Ryota; Ogawa, Yui; Takamura, Makoto; Taniyasu, Yoshitaka; Kobayashi, Yoshihiro*
PC039	Photon Reabsorption Effect on Resonance Raman Spectra of Single-Wall Carbon Nanotubes; *Wei, Xiaojun; Liu, Huaping; Zhou, Weiya; Xie, Sishen; Hirano, Atsushi; Tanaka, Takeshi; Kataura, Hiromichi*
PC040	Experimental and Theoretical Study of the Surface State of Carbon Nanopot *Yokoi, Hiroyuki; Hatakeyama, Kazuto; Koinuma, Michio; Hara, Masahiro*
PC041	Charge transport through graphene-like conjugated molecules at the single-molecule scale *Blaser, Cancan; Hong, Wenjing; Liu, Shi-Xia*
PC042	*Withdrawn*

PC043	Rotation of Polarization by Aligned Multiwall Carbon Nanotubes *Rahman, MD Asiqur; Park, Ji Hyun; Truong, Kieu; Suh, Dongseok; Scalia, Giusy*
PC044	Exciton Energy Transfer between Different (n, m) Single-Wall Carbon Nanotubes Probed by Photoluminescence; *Li, Shilong; Wei, Xiaojun; Yang, Dehua; Cui, Jiaming; Zhou, Weiya; Liu, Huaping; Xie, Sishen*
PC045	Electrochemical properties of graphene aerogels loaded in nickel foam *Zhao, Xiaoyu; Lian, Yongfu*
PC046	High-harmonic generation of THz light in single-wall carbon nanotubes *Nishidome, Hiroyuki; Nagai, Kohei; Ichinose, Yota; Fukuhara, Kengo; Nozaki, Junji; Eda, Junko; Yogida, Yohei; Tanaka, Koichiro; Yanagi, Kazuhiro*
PC047	Photo irradiation effects on luminescence dynamics in graphene oxide *Hosomi, Yuto; Minamihata, Yusuke; Matsuda, Kazunari; Ando, Hiroaki; Masao, Ichida*
PC048	Imaging Local Conductance Changes in Nanomaterials using Electrostatic Force Microscopy; *Yim, Woongbin; Park, Ji-Yong*
PC049	Temperature-dependent electroluminescence of carbon nanotubes *Pyatkov, Felix; Gaulke, Marco; Krupke, Ralph*
PC050	Highly Conductive and Transparent Single-walled Carbon Nanotube Film Fabricated by Floating Catalyst Chemical Vapor Deposition using Ethanol as Carbon Source; *Ding, Er-Xiong; Jiang, Hua; Zhang, Qiang; Hussain, Aqeel; Liao, Yongping; Kauppinen, Esko*
PC051	Experimental and computational study of interlayer interaction effects on the high-frequency Raman features of double-walled carbon nanotubes *Levshov, Dmitry; Popov, Valentin; Michel, Thierry; Tran, Huy-Nam; Sauvajol, Jean-Louis; Arenal, Raul; Zahab, Ahmed; Paillet, Matthieu*
PC052	Thermoelectric Properties of Aligned Single-Wall Carbon Nanotube Films; *Fukuhara, Kengo; Ichinose, Yota; Yomogida, Yohei; Gao, Weilu; Kono, Junichiro; Yanagi, Kazuhiro*
PC053	Dynamics of the Radial Deformation Recovery Process of Single Wall Carbon Nanotubes *Shen, Yanting; Zerulla, Dominic*
PC054	Electro-optic switching of graphene oxide and reduced-graphene oxide liquid crystals; *Scalia, Giusy; Kim, Min Jae; Park, Ji Hyun; Shahini, Sharif; Yamamoto, Jun; Kim, Youn Sang*
PC055	The Exterior of Single-Walled Carbon Nanotubes as a Millimeter-Long Cation-Preferring Nanochannel; *Kim, Yun-Tae; Lee, Chang Young*
PC056	High-efficiency arrangement of oriented SWCNTs for high-performance transistors *Liu, Huaping; Li, Qian; Su, Wei; Li, Shi; Wei, Xiaojun; Zhou, Weiya; Xie, SiShen*
PC057	*Withdrawn*
PC058	*Withdrawn*
PC059	Pressure-induced charge transfer between single-wall carbon nanotubes and encapsulated quaterthiophene; *Silva Alencar, Rafael; Lins Aguiar, Acr ísio; Alvarez, Laurent; Machon, Denis; Souza Filho, Antonio Gomes; San-Miguel, Alfonso*
PC060	Atomic-layered MoS2 on SiO2 under high pressure: Bimodal adhesion and biaxial strain effects; *Silva Alencar, Rafael; Alves Saboia, Karlo David; Machon, Denis; Montagnac, Gilles; Meunier, Vincent; Pastor Ferreira, Odair; San-Miguel, Alfonso; Souza Filho, Antonio Gomes*

PC061	Thermionic electron emission and hysteresis conductivity of h-BN at high temperature *Yang, Xinhe; Liu, Peng; Zhou, Duanliang; Wang, Xinhe; Zhao, Wei; Wei, Haoming; Jiang, Kaili; Zhang, Lina; Fan, Shoushan*
PC062	Chirality engineering and metal-to-semiconductor transition of individual SWCNTs by in situ TEM; *Tang, Dai-Ming; Liu, Chang; Bando, Yoshio; Cheng, Hui-Ming; Golberg, Dmitri*
PC063	Subwavelength-Structure-Induced Hot Electron Effect and Relative Phenomena in the Carbon Aerogels *Du, Ai; Wang, Hongqiang; Sun, Wei; Ji, Xiujie; Gao, Ming; He, Xinru; Zhou, Bin*
PC064	Consecutively Strong Microwave to Terahertz Absorption Performance of 3D Fe3O4/Graphene Bulk Material; *Chen, Honghui; Huang, Yi; Chen, Yongsheng*
PC065	Intra-band and Inter-band Carrier Dynamics in a Few Layer ReS2 *Wang, Xiaofan; Shinokita, Keisuke; Lim, Hong En; Mohamed, Nur Baizura; Miyauchi, Yuhei; Matsuda, Kazunari*
PC066	Optical characterization of BN-wrapped Single-walled carbon nanotubes *Hou, Bo; Zheng, Yongjia; Zhang, Hao; Xiang, Rong; Maruyama, Shigeo*
PC067	Observation of Electronic Raman Scattering in Suspended Semiconducting Carbon Nanotubes *Hu, Yuecong; Yang, Juan; Sun, Sida; Cong, Xin; Zhang, Daqi; Tan, Pingheng; Li, Yan*
PC068	Thermal transport of 12C/13C graphene phononic crystals *Notani, Yoji; Takei, Kuniharu; Akita, Seiji; Arie, Takayuki*
PC069	Transverse thermoelectric voltage in isotopic graphene *Mochizuki, Yuta; Takei, Kuniharu; Akita, Seiji; Arie, Takayuki*
PC070	Optical properties of dyes confined into carbon and boron nitride nanotubes for bio-imaging; *Gaufres, Etienne; Allard, Charlotte; Nascimento, Raffaela; Schué, Leonard; Flahaut, Emmanuel; Loiseau, Annick; Martel, Richard*
PC071	Local structures and electronic properties of metal halide encapsulated single-walled carbon nanotubes; *Ogata, Hironori; Yokokura, Eita; Kataoka, Yosuke; Asaka, Koji; Kawai, Yuuto; Saito, Yahachi*
PC072	*Withdrawn*
PC073	Single-Walled Carbon Nanotubes Individually Dispersed by A Low-Cost Natural Product Solution; *Jia, Guodong; Wang, Meng; Yang, Juan; Li, Yan*
PC074	Helical conformation of poly(3,5-disubstituted phenylacetylene)s tuned by nanomaterials *Wang, Meng; Wang, Sheng; Yang, Juan; Wan, Xinhua; Li, Yan*
PC075	One-second Formation of Graphene Functionalized Nano-Tips for Nano-electrical Measuremtns; *Xu, Jianxun; Ge, Yifei; Liang, Jianbo; Zhao, Yuliang*
PC076	Scalable fabrication of monolithic solid supercapacitors based on graphene-carbon nanotube ink; *Zhu, Sheng*
PC077	Stacking effects on the electronic properties of janus WSSe multilayers: a first-principles study; *Zhou, Wenzhe; Yang, Zhixiong; Liu, Junwei; Ouyang, Fangping*
PC078	Enhancement thermal stability of single-walled carbon nanotubes by co-axially wrapping with boron nitride nanotubes; *Guo, Jia; Yan, Li; Maruyama, Shigeo*
PC079	Superstrong Carbon Nanotube Bundles with Tensile Strength over 80 GPa *Bai, Yunxiang; Zhang, Rufan; Ye, Xuan; Zhu, Zhenxing; Li, Xide; Wei, Fei*

PC080	Strengthening Carbon Nanotube Fibers through Graphene-Oxide Nano-Patching *Lu, Weibang; Qu, Shuxuan; Gong, Wenbin; Jiang, Jing*
PC081	Graphene glass with superior hemocompatibility makes it a candidate for biomedical application; *Meng, Xuejuan; Duan, Xiaojie*
PC082	Toughening CNT-based composites via non-covalent interactions; *Qu, Shuxuan; Lu, Weibang*
PC083	Temperature effect on the interfacial shear stress transfer in carbon nanotube fiber/epoxy resin composites; *Jiang, Jin; Ma, Qili; Zhang, Cuixia; Lu, Weibang; Li, Qingwen*
PC084	Monitoring Local Strain Vector in Atomic-Layered MoSe2 by Second-Harmonic Generation; *Liang, Jing; Zhang, Jin; Li, Zhenzhu; Hong, Hao; Sun, Zhipei; Meng, Sheng; Liu, Kaihui; Yu, Dapeng*
PC085	Effect of surface of carbon nanotubes on deposition of CdS nanoparticles; *Fedoseeva, Yuliya; Kurenya, A.G.; Lebedev, M.S.; Zarubanov, A.A.; Zhuravlev, K.S.; Bulusheva, L.G.; Okotrub, A.V.*
PC086	Retrieving the exit-wave phase from a single HRTEM image of two-dimensional lattice *Lin, Fang; Zhou, Weipeng; Zhang, Qi; Zhang, Liyang*
PC087	nano-FTIR spectroscopy: nanoscale resolved infrared spectroscopy of self-assembled polymer monolayer; *Reckmeier, Claas; Cernescu, Adrian; Pop-Georgievski, Ognen; Amarie, Sergiu*
PC088	Frequency-domain Raman Optothermal Method to Measure Thermal and Optical Properties of 2D Materials and Heterostructures; *Li, Qinyi; Takahashi, Koji; Zhang, Xing*
PC089	Directly observing carbon nanotubes liquid behavior via liquid cell transmission electron microscopy; *Wang, Haifeng; Jin, Chuanhong*
PC090	Ultrafast time-resolved electron diffraction: nanoscopic phenomena occurring in bulk-scaled carbon nanotubes during annealing; *Hada, Masaki; Inoue, Hirotaka; Yoshiyama, Takayuki; Chujo, Daiki; Kuroda, Taihei; Morimoto, Taiga; Ikeda, Naoshi; Yokoya, Takayoshi; Tokunaga, Tomoharu; Seki, Toshio; Matsuo, Jiro; Fujimori, Kazuhiro; Itoh, Chihiro; Nishikawa, Takeshi; Yamashita, Yoshifumi; Koshihara, Shin-ya; Kiwa, Toshihiko; Hayashi, Yasuhiko*
PC091	Direct correlation of carbon nanotube nucleation and growth with the atomic structure of Re nanocatalyst; *Cao, Kecheng; Chamberlain, Thomas W.; Biskupek, Johannes; Khlobystov, Andrei N.; Kaiser, Ute*
PC092	Chirality Identification and Quantification of Carbon Nanotubes on Substrates *Yang, Feng; Yang, Juan; Li, Yan*
PC093	Non-Blinking Single-Molecule Detection in A Carbon Nanotube by Surface-Enhanced Raman Scattering; *Xia, Chenmaya; Yang, Juan; Li, Henan; Zhang, Daqi; Li, Sheng; Liu, Haoming; Li, Ruoming; Li, Yan*
PC094	Bilayer Plots for Accurately Determining the Chirality of Single-Walled Carbon Nanotubes Under Complex Environments *Sun, Sida; Yang, Juan; Zhang, Daqi; Hu, Yuecong; Xia, Chenmaya; Li, Yan*

Poster Session PA

Applications: A1 Sensors & devices; A2 Energy & environmental

PA001	Thermal Bubble Inkjet Printing of Water-based Graphene Oxide and Graphene Inks on Heated Substrate; *Huang, Simin; Qian, Bo; Shen, Ruoxi*
PA002	Silk-Sheathed Carbon Nanotube Wires for Wearable Electronic Textiles; *Yin, Zhe; Zhang, Yingying*
PA003	Hierarchical Structured Carbon Materials for Flexible and Wearable Electronics *Zhang, Yingying; Wang, Chunya; Zhang, Mingchao; Jian, Muqiang*
PA004	Paper-based pressure sensors utilized by a peculiar interface of liquid metal and carbon nanotube network; *Mitsui, Hiroki; Matsukawa, Ryotaro; Kobayashi, Daiki; Ikuno, Takashi*
PA005	Colloidal Electronic Cells Based on 2D Materials; *Liu, Pingwei; Koman, Volodymyr; Liu, Albert Tianxiang; Dong, Juyao; Kazawa, Daichi; Yang, Jingfan; Saccone, Max; Wang, Song; Son, Youngwoo; Wong, Min Hao; Strano, Michael*
PA006	A flying balloon based on carbon nanotube freestanding films *Kobayashi, Daiki; Takahashi, Kazuki; Mitsui, Hiroki; Fujii, Shunjiro; Ikuno, Takashi*
PA007	Radiative heating simulation of CNT balloons for improvement of the levitation *Takahashi, Kazuki; Kobayashi, Daiki; Yamasaki, Yuta; Fujii, Syunjiro; Ikuno, Takashi*
PA008	Laser scribed graphene carbon "grass" forming a highly sensitive, selective and low-detection-limit dopamine sensor *Xu, Guangyuan; Kilmartin, Paul A.; Travas-Sejdic, Jadranka*
PA009	Carbon Nanotube-Coated Carbonized Silk Fabric for Highly Sensitive Textile Airflow Sensor; *Wang, Haomin; Zhang, Yingying*
PA010	High-Speed and on-Chip Blackbody Emitters based on nanocarbon materials *Maki, Hideyuki; Fukazawa, Yusuke*
PA011	Highly conductive and transparent films of HAuCl4-doped single-walled carbon nanotubes for flexible applications; *Tsapenko, Alexey; Goldt, Anastasia; Shulga, Eugene; Popov, Zakhar; Maslakov, Konstantin; Anisimov, Anton; Sorokin, Pavel; Nasibulin, Albert*
PA012	Printed graphene-based sensors for air quality monitoring; *Wu, Tien-Chun; Hu, Guohua; Dai, Jie; De Luca, Andrea; Huang, Xiao; Udrea, Florin; Hasan, Tawfique*
PA013	Tailoring kinetic behavior of graphene-based sensors via chemical modification *Sysoev, Vitalii; Bulusheva, Lyubov; Okotrub, Alexander*
PA014	Study on electrical conductivities and mechanical strengths of different types of CNT fibers *Watanabe, Takayuki; Yamashita, Satoshi; Morimoto, Takahiro; Kobashi, Kazufumi; Okazaki, Toshiya*
PA015	A novel straightforward wet pulling technique to fabricate carbon nanotube fibers *Shulga, Eugene; Zhilyaeva, Maria; Sergeichev, Ivan; Gilshteyn, Evgenia; Anisimov, Anton; Nasibulin, Albert*
PA016	Anti-proximity effect in superconducting NbN nanowires based on suspended carbon nanotubes; *Kato, Kota; Takagi, Tasuku; Masuda, Kohei; Moriyama, Satoshi; Morita, Yoshifumi; Tanabe, Takasumi; Maki, Hideyuki*
PA017	Fabrication of NiO Decorated SWCNTs Buckypaper for Electrochemical Detection of Glucose; *Zhu, Tianxiang; Luo, Liqiang; Zhang, Yifan; Zhao, Xinluo*

PA018	Holey single-walled carbon nanotubes for ultra-fast broadband bolometers *Kopylova, Daria; Fedorov, Fedor; Alekseeva, Alena; Popov, Zakhar; Sorokin, Pavel; Anisimov, Anton; Nasibulin, Albert*
PA019	The Effects of Semiconducting SWCNT Film Thickness on their Hydrogen Sensing Performance at Room Temperature *Guo, Shu-Yu; Hou, Peng-Xiang; Shi, Chao; Liu, Chang; Cheng, Hui-Ming*
PA020	Conformal printing of graphene inks and multilayered devices onto arbitrarily shaped 3D objects; *Ng, Leonard; Zhu, Xiaoxi; Hu, Guohua; Hasan, Tawfique*
PA021	Lowering Internal Friction of 0D-1D-2D Ternary Nanocomposite-based Strain Sensor by Fullerene to Boost the Sensing Performance *Shi, Xinlei; Liu, Shuiren; Sun, Yang; Liang, Jiajie; Chen, Yongsheng*
PA022	Flexible Carbon Nanocoil Network Based Strain Sensor with Ultrahigh Sensitivity *Li, Chengwei; Deng, Chenghao; Wang, Peng; Huang, Yingying; Pan, Lujun*
PA023	Flexible, all-inorganic actuators based on vanadium dioxide and carbon nanotube bimorphs *Ma, He; Hou, Jiwei; Wang, Xuwen; Zhang, Jin; Yuan, Zhiquan; Xiao, Lin; Wei, Yang; Fan, Shoushan; Jiang, Kaili; Liu, Kai*
PA024	Effects of heat-generation and transport in coil-shaped soft-actuators consisting of polymer threads and carbon nanotube yarns; *Inoue, Hirotaka; Yoshiyama, Takayuki; Hada, Masaki; Chujo, Daiki; Saito, Yoshitaka; Nishikawa, Takeshi; Yamashita, Yoshifumi; Takarada, Wataru; Matsumoto, Hidetoshi; Hayashi, Yasuhiko*
PA025	Noise reduction in sensor response of carbon nanotube thin film biosensor using HfO2 layer as protective film; *Negishi, Ryota; Niimi, Ritsu; Arifuku, Michiharu; Kiyoyanagi, Noriko; Yamaguchi, Tomohiro; Ishibashi, Koji; Kobayashi, Yoshihiro*
PA026	Carbon-Nanotube-based Flash-evaporation printing methodology for perovskite thin films *Wei, Yang; Wei, Haoming; Zhao, Xingyue; Tai, Meiqian; Wang, Guang; Ma, He; Li, Dongqi; Chen, Guo; Lin, Hong; Fan, Shoushan; Jiang, Kaili*
PA027	General and Reversible Strategy of Water Monitoring Aimed at Amphiphilic Pollutants *Cheng, Guo-an; Zhang, Quan; Meng, Peng; Wu, Yulong; Zheng, Ruiting; Wu, Xiaoling*
PA028	Interdigitated electrode with high mass density carbon nanotube forests for electrochemical biosensors; *Sugime, Hisashi; Ushiyama, Takuya; Nishimura, Keita; Ohno, Yutaka; Noda, Suguru*
PA029	Carbon nanotube-based mechanical sensors for motion detection *Liang, Binghao; Chen, Wenjun; Tang, Zikang; Gui, Xuchun*
PA030	Non-contact Remote Imaging by Multi-array Carbon Nanotube Terahertz Scanners *Sun, Meiling*
PA031	Thermoelectric Device Design of Carbon Nanotube Terahertz Imagers for Sensitivity Enhancement; *Li, Kou; Suzuki, Daichi; Ochiai, Yuki; Kawano, Yukio*
PA032	Integration of Carbon Nanotube & Metal Oxide Thin Film Transistors; *Zhang, Qing; Zou, Jianping*
PA033	*Withdrawn*
PA034	Graphene-Base Hot Electron Transistor with Silicon Emitter *Liu, Chi; Ma, Wei; Chen, Maolin; Ren, Wencai; Cheng, Huiming; Sun, Dongming*

PA035	Tailoring of thermal stress on resonance frequency shift of atomically thin electromechanical resonators by strain and stack *Inoue, Taichi; Mochizuki, Yuta; Takei, Kuniharu; Arie, Takayuki; Akita, Seiji*
PA036	Exploring performance uniformity of thin film transistors based on carbon nanotubes on wafer scale; *Yang, Yingjun; Ding, Li; Xu, Lin; Zhang, Zhiyong; Peng, Lian-Mao*
PA037	Self-align process with backside exposure to minimize parasitic capacitance of CNT TFTs on transparent flexible film *Kashima, Taiga; Hirotani, Jun; Kishimoto, Shigeru; Ohno, Yutaka*
PA038	Optical modulation of resonance characteristics of cantilevered MoS2 mechanical resonator *Yoshikawa, Daiki; Miyamoto, Yuga; Takei, Kuniharu; Arie, Takayuki; Akita, Seiji*
PA039	Carbon nanotube based low-power integrated circuits with bio -integration cacability to biological surfaces; *Xiang, Li; Hu, Youfan*
PA040	Long-Length Removal of Metallic Single-Walled Carbon Nanotubes for Multiple Transistor Fabrication; *Inoue, Taiki; Otsuka, Keigo; Chiashi, Shohei; Maruyama, Shigeo*
PA041	Optoelectronic and Photovoltaic Properties of Hybrid P3HT Nanofibers on ZTO Nanowires *Jian, Wen-Bin; Lai, Jian-Jhong; Li, Yu-Hsun; Fu, Chuan-Min; Chen, Jiun-Tai; Wang, Xu; Lee, Pooi See*
PA042	Large-area ultrathin graphene films based on Marangoni self-assembly and their applications; *Lin, Cheng-Te*
PA043	Scaling down contact length in complementary carbon nanotube field-effect transistors *Liu, Lijun; Zhang, Zhiyong; Qiu, Chenguang; Zhong, Donglai; Si, Jia; Peng, Lian-Mao*
PA044	A Method for Fabricating Nano Four-Point Probes (N4PPs); *Cong, Lin; Jiang, Kaili*
PA045	High Performance Silicon-Based Photodetectors and Imagers; *Xu, Yang*
PA046	Ultrathin free-standing CNT films for next-generation EUV lithography *Timmermans, Marina; Mariano, Marina; Pollentier, Ivan; Richard, Olivier; Huyghebaert, Cedric; Gallagher, Emily*
PA047	Transparent Conductive Single-Walled Carbon Nanotube Films for Human-motion Detection; *Li, Yitan; Han, Lu; Chen, Yuguang; Li, Yan*
PA048	Gyrification-Inspired Highly Convoluted Graphene Oxide Patterns for Ultralarge Deforming Actuators; *Chu, Zengyong*
PA049	MRI compatible neural electrodes for simultaneous deep brain stimulation and fMRI mapping; *Zhao, Siyuan; Li, Gen; Duan, Xiaojie*
PA050	Molecular Diffusion-Driven Motion in Two Dimensional Reduced Graphene Film *Chang, Jin; Fan, Zhuangjun*
PA051	Flexible All-Solid-State Supercapacitors Based on MXenes/SWCNTs Paper *Wang, Chunmei; Hou, Pengxiang; Cheng, Renfei; Li, Guoxiang; Majeed, Abdul; Liu, Chang; Wang, Xiaohui; Cheng, Huiming*
PA052	The direct fabrication, properties and applications of multi-level graphene fiber *Zhang, Yongyi*
PA053	Electrically Sensing Magnetoreception Based on Graphene Field-Effect Transistors *Liu, Zihao*
PA054	Lithium-ion battery fiber constructed by diverse-dimensional carbon nanomaterials; *Zhang, Yang; Weng, Wei; Yang, Junjie; Liang, Yunxia; Yang, Lijun; Luo, Xiaogang; Zhu, Meifang*

PA055	SWCNTs as a universal additive in electrochemical power sources *Bezrodny, Alexander; Bobrenok, Oleg; Kolosapov, Andrey; Predtechenskiy, Mikhail;*
PA056	Greatly Enhanced Anticorrosion of Cu by Commensurate Graphene Coating *Xu, Xiaozhi; Liu, Kaihui*
PA057	Overcoming Efficiency Limits of Carbon Nanotube-Laminated Perovskite Solar Cells *Jeon, Il; Lee, Jinwook; Kauppinen, Esko; Yang, Yang; Matsuo, Yutaka; Maruyama, Shigeo*
PA058	Achieving 20% Efficiency Perovskite Solar Cells with High Stability by using Semiconducting Single-walled Carbon Nanotube Grain Bridges; *Jeon, Il; Seo, Seungju; Hao, Zhang; Tanaka, Takeshi; Kataura, Hiromichi; Matsuo, Yutaka; Maruyama, Shigeo*
PA059	High-Efficiency SWCNT/Silicon Heterojunction Solar Cells *Hu, Xian-Gang; Hou, Peng-Xiang; Liu, Chang; Cheng, Hui-Ming*
PA060	Flexible solid-state supercapacitors based on aqueous hydrogel embedded vertically aligned carbon nanotube arrays; *Yang, Zhaohui*
PA061	Ni@γ-Fe2O3 core-shell nanoparticles supported on Nitrogen functionalized carbon nanotubes for the efficient electrocatalytic water oxidation; *Davodi, Fatemeh; Mühlhausen, Elisabeth; Tavakkoli, Mohammad; Sainio, Jani; Jiang, Hua; Kallio, Tanja*
PA062	Electro-active Carbon Nanotube Filter Technology for Water Treatment *Liu, Yanbiao; Li, Fang*
PA063	Single-wall Carbon Nanotubes Decorated With Carbon-encapsulated NiO Nanoparticles for High Performance Flexible Supercapacitor Electrodes *Majeed, Abdul; Peng-Xiang, Hou; Chang, Liu; Hui-Ming, Cheng*
PA064	Pore Structure Designment for Carbon Nanotube Loaded Porous Carbon Containing Fe-Nx Active Sites and Their Applications in Electrocatalysts *Hou, Peng-Xiang; Li, Jin-Cheng; Cheng, Hui-Ming; Liu, Chang*
PA065	Simple Method for Removal of Carbon Nanomaterials from Wastewater by Using Hypochlorite; *Zhang, Minfang; Deng, Yinmei; Yang, Mei; Nakajima, Hideaki; Yudasaka, Masako; Iijima, Sumio; Okazaki, Toshiya*
PA066	Highly efficient carbon nanotube networks in electrodes of Li ion batteries *Ning, Guoqing; Qi, Chuanlei*
PA067	One-step synthesis of Pt-Pd nanoparticles supported on few-layer graphene for methanol oxidation; *Sheng, Leimei; Wang, Hongxia; Zhao, Xinluo*
PA068	Direct CVD-derived graphene targeting energy storage applications; *Sun, Jingyu*
PA069	High-Performance, Transparent and Stretchable Triboelectric Generator with Carbon Nanotube Thin Film *Matsunaga, Masahiro; Hirotani, Jun; Kishimoto, Shigeru; Ohno, Yutaka*
PA070	Nitrogen-Doped, Oxygen-Functionalized, Edge and Defect-Rich Vertical Graphene for Oxygen Reduction Reaction; *Wang, Zhipeng; Ogata, Hironori; Gong, Wei; Vipin, Adavan Kiliyankil; Melvin, Gan Jet Hong; Chen, Xiangshu; Tanemura, Masaki; Ortiz-Medina, Josue; Hashimoto, Yoshio; Fugetsu, Bunshi; Sakata, Ichiro; Terrones, Mauricio; Endo, Morinobu; Obata, Michiko; Cruz-Silva, Rodolfo; Morimoto, Shingo*
PA071	Carbon nanotubes and manganese oxide hybrid nanostructures as high performance fiber supercapacitors; *Gong, Wei; Fugetsu, Bunshi; Wang, Zhipeng; Sakata, Ichiro; Su, Lei; Zhang, Xueji; Ogata, Hironori; Li, Mingda; Wang, Chao; Li, Ju; Ortiz-Medina, Josue; Terrones, Mauricio; Endo, Morinobu*

PA072	Fabrication of CNT Thin Films towards Electric Power Generation by Electrolyte Solution Flow; *Tanaka, Takeshi; Kubota, Mariko; Kataura, Hiromichi*
PA073	Investigation the Effect of CNT wall-number on loaded ORR catalysis performance *Meng, Yu; Hou, Pengxiang; Liu, Chang*
PA074	Carbon nanotube based catalysts for selective oxidation of biomass-derived polyols *Chu, Haibin; Zhang, Xueqiong; Zhou, Jian; Bai, Suohong*
PA075	Carbon nanotube-polypyrrole surface-modified polyethersulfon conductive membranes and their fouling mitigation; *Tian, Ying; Guo, Zhiying; Geng, Hong-Zhang; Yuan, Xueshuang; Jing, Lichao; Yuan, Xiaotong*
PA076	SnOx@MWCNTs with different functional groups as highly efficient catalyst for eletrocatalytic reduction of CO2 to formate; *Zhang, Qi; Hou, Xiaofan; Qiao, Jinli*
PA077	Heteroatom (N, P, B) Doped Hierarchical Porous Carbons from Coal Tar Pitch with High Specific Surface Area for Oxygen Reduction Reaction; *Dong, Fang; Liu, Cong; Qiao, Jinli*
PA078	High-Performance Paper-based Flexible Micro-Supercapacitors Constructed from Screen-Printable All-Functional Nanocomponents based Hybrid Ink *Li, Hongpeng; Liu, Shuiren; Sun, Yang; Li, Xiran; Liang, Jiajie; Chen, Yongsheng*
PA079	Atomic-scale platinum immobilized on single-walled carbon nanotubes: synthesis and high electrocatalytic activity toward hydrogen production *Tavakkoli, Mohammad; Holmberg, Nico; Kallio, Tanja; Kauppinen, Esko; Laasonen, Kari*
PA080	Carbon Nanotube Fibres for Water Desalination *Miranda, Cesar; Aljilil, Saad; AlRomaih, Hamad; Terrones, Jeronimo; Elliott, James*
PA081	Voltage generation of sub-1 V from raindrops with transparent, flexible semiconducting carbon nanotube sheet *Nishi, Ryohei; Hirotani, Jun; Kishimoto, Shigeru; Kataura, Hiromichi; Ohno, Yutaka*
PA082	Synthesis and treatment of CNTs by FCCVD method and its application to conductor-yarn *Fujishige, Masatsugu; Takeuchi, Kenji; Akuzawa, Noboru; Nakata, Tetsurou; Yoshida, Ichirou; Yamazaki, Satoshi; Aizawa, Hideki; Miyoshi, Kazutomi; Endo, Morinobu*
PA083	Carbon based current collectors for lithium-metal batteries; *Ji, Hengxing*
PA084	Emerging Nanocarbon Materials for Lithium-Sulfur Batteries; *Zhang, Qiang*
PA085	Robust, low-fouling and chlorine resistant carbon nanotube reinforced aromatic polyamide membranes: next generation materials for desalination *Endo, Morinobu; Cruz-Silva, Rodolfo; Tejima, Syogo; Ortiz-Medina, Josue; Morelos-Gomez, Aaron; Takeuchi, Kenji; Hayashi, Takuya; Terrones, Mauricio*
PA086	Pencil-drawing skin-mountable micro-supercapacitor; *Zhu, Sheng; Li, Yan*
PA087	One Dimensional Nanomaterials for Emerging Energy Storage; *Mai, Liqiang*
PA088	Perovskite solar cell using CNT forest for hole transport layer; *Inoue, Yoku; Okada, Yusuke; Karita, Motoyuki; Nakano, Takayuki; Sakai, Masaki; Konno, Akinori*
PA089	Achieving 19.7% Efficiency Perovskite Solar Cells with High Stability by using Semiconducting Single-walled Carbon Nanotube Grain Bridges *Seo, Seungju; Jeon, Il; Zhang, Hao; Okawa, Shuhei; Tanaka, Takeshi; Kataura, Hiromichi; Matsuo, Yutaka; Maruyama, Shigeo*
PA090	Synthesis of Large-Area 2-Dimensional Molybdenum Disulfide Nanomaterials for Application in Solar Cells; *Qian, Yang; Jeon, Il; Inoue, Taiki; Seo, Seungju; Anisimov, Anton; Xiang, Rong; Chiashi, Shohei; Kauppinen, Esko; Kong, Jing; Maruyama, Shigeo*

PA091	Cobalt sulfide-carbon nanotube core-shell nanowires as anode materials for lithium ion batteries; *Poudel, Yuba; Du, Gaohui; Li, Wenzhi*
PA092	Flexible Energy Storage Devices Based on Graphene Composite Fibers; *Weng, Wei; Yang, Junjie; Zhang, Yang; Chen, Guoyin; Ma, Wujun; Chen, Shaohua; Zhu, Meifang*
PA093	Oriented SnS nanoflakes bound on S-doped N-rich carbon nanosheets with a rapid pseudocapacitive response as high-rate anodes for sodium-ion batteries *Sheng, Jian; Zhou, Zhen*
PA094	Multiscale Principles to Boost Reactivity in Gas-Involving Energy Electrocatalysis on Carbon Electrocatalyst; *Zhang, Qiang; Tang, Cheng; Wang, Hao-Fan; Li, Bo-Quan*
PA095	Li Metal Anode Protection with Carbon Host in Safe Rechargeable Batteries *Zhang, Qiang; Cheng, Xin-Bing; Chen, Xiang; Zhang, Rui; Zhao, Chen-Zi; Zhang, Xue-Qiang; Yan, Chong; Liu, He; Li, Tao; Xu, Rui*
PA096	Carbon-Based Functional Membrane toward High-Stable Lithium Sulfur Battery *Huang, Jia-Qi*
PA097	Oxygen Clusters Distributed in Graphene with "Paddy Land" Structure: Ultra-High Capacitance and Rate Performance for Supercapacitors; *Liu, Zheng; Fan, Zhuangjun*
PA098	Hollow Metal Oxide Nanoparticles Encapsulated into B/N Co-Doped Graphitic Nanotubes as High-Performance Lithium-Ion Battery Anodes *Tabassum, Hassina; Zou, Ruqiang; Mahmood, Asif*
PA099	Ultrathin graphene-based membrane with precise molecular sieving and ultrafast solvent permeation *Chi, Chenglong; Su, Yang; Yang, Qian; Cherian, C.T.; Huang, Kun; Kravets, V.G.; Wang, Fengchao; Zhang, J.C.; Pratt, A.; Grigorenko, A.N.; Guinea, F. ; Geim, A.K.; Nair, R.R.*
PA100	Ultra-lightweight Amphiphobic Carbon Nanotube Foam with High Buoyancy *Cao, Pei; Wang, Han; Zhang, Yongyi; Li, Qingwen*
PA101	Carbon caging noncarbons for superior volumetric lithium storage *Han, Junwei; Kong, Debin; Yang, Quan-Hong*

Poster Session PO

Applications: A3 Composites; A4 Toxicology & biomedical applications
Scale-up for Industrialization: Mass production and standardization
Theory and Simulation, and Other Related Topics

PO001	Carbon nanotubes as stabilizing phase in metal matrix composites: A study of the structural defects evolution during severe plastic deformation *Aristizabal, Katherine; Suárez, Sebastian*
PO002	Towards the development of multifunctional wood coatings based on carbon nanotubes *Łukawski, Damian; Lekawa-Raus, Agnieszka; Grześkowiak, Wojciech; Lisiecki, Filip; Dudkowiak, Alina*
PO003	Emerging trends in 2D nanotechnology that are redefining our understanding of polymer nanocomposites; *Liu, Pingwei; Zhang, Ziyang; Wang, Song; Wang, Wen-Jun; Jin, Zhong; Cottrill, Anton; Kozawa, Daichi; Strano, Michael*
PO004	Reinforcement of Functionalized Graphene Oxide/Inorganic Nanoparticle composites for Anticorrosion; *Geng, Hong-Zhang; Jing, Li-Chao; Shi, Pei-Pei; Wen, Jian-Gong*

PO005	*Withdrawn*
PO006	Development of space qualified super black coating using single walled carbon nanotubes *Micheal, Joseph; Ance, Anto Godwin; Reddy, Gadhadar; Saini, Sonia; M Gouda, Girish*
PO007	Facile Synthesis of TiO2-CNTs Composites for Water Purification; Zhang, Dongmei *Li, Chengwei; Xia, Lichen; Pan, Lujun*
PO008	Salt rejection behavior of MWCNT-polyamide nanocomposite reverse osmosis membranes in several salt solutions; *Takeuchi, Kenji*
PO009	Multifunctional super-aligned carbon nanotube/polyimide composite film heaters and actuators; *Ning, Wen; Wang, Zhenhe; Liu, Peng; Yang, Shiyong; Jiang, Kaili*
PO010	Post growth high density vertical alignment of HiPCO single walled carbon nanotubes inside a polymer matrix; *Micheal, Joseph; Ance, Anto Godwin; Bhashyam, Akshaya; Reddy, Gadhadar; Bradley, Robert Kelley*
PO011	Direct Observation of Single Walled Carbon Nanotubes inside Silk; *Micheal, Joseph; Ance, Anto Godwin; Nayak, Goutham; Reddy, Gadhadar; S S, Abhishek; Bouchiat, Vincent*
PO012	Novel preparation of water-dispersible multiwalled carbon nanotubes via noncovalently anchored acidified multiwalled carbon nanotubes; *Huang, Haowei*
PO013	Designing solvent-resistant hollow fiber membranes consisting of P84 polyimide and amine-functionalized carbon nanotubes with potential applications in food, pharmaceutical, and petrochemical industries *Davood, Abadi, Farahani; Mohammad, Hossein; Chung, Tai-Shung;*
PO014	Hierarchical bi-dimensional alumina/palladium nanowire nano-architectures for hydrogen detection, storage and controlled release; *Fang, Jinghua*
PO015	Near-Infrared Photoluminescent Carbon Nanotubes for Imaging of Brown Adipose Tissue *Yudasaka, Masako; Yomogida. Yohei; Zhang, Minfang; Nakahara, Masako; Kobayashi, Norihiko; Tanaka, Takeshi; Okamastu-Ogura, Yuko; Saeki, Kumiko; Kataura, Hiromichi*
PO016	ZnO Nanowire FEAs Based Flat Panel X-ray Source for Biomedical Imaging *Wang, Kun; Chen, Jun; Xu, Yuan*
PO017	Nanocarbon materials for soft and multimodal neural electrical interfacing; *Duan, Xiaojie; Zhao, Siyuan; Yin, Rongkang; Xu, Zheng; Zhang, Jing; Lu, Linlin; Fu, Xuefeng;*
PO018	Self-assembled Nanodiamond Supraparticles for Anticancer Chemotherapy *Yu, Yue; Nishikawa, Masahiro; Liu, Ming; Tei, Takahiro; Kaul, Sunil C.; Wadhawa, Renu; Zhang, Minfang; Takahashi, Junko; Miyako, Eijiro*
PO019	Immobilized ferrous ion and glucose oxidase on graphdiyne and its application on one-step glucose detection; *Liu, Jiaming; Shen, Xiaomei; Gao, Xingfa; Chen, Chunying*
PO020	Dynamical Evaluation of CNTs Toxicity during Degradation by Macrophages; *Yang, Mei; Zhang, Minfang; Nakajima, Hideaki; Yudasaka, Masako; Iijima, Sumio; Okazaki, Toshiya*
PO021	Deep-Tissue Optical Thermometry Using Carbon Nanotubes; *Hachiya, Kengo; Okudaira, Saki; Konno, Yui; Maeda, Yutaka; Matsuda, Kazunari; Miyauchi, Yuhei*
PO022	*Withdrawn*
PO023	Modulating the immunological effects of nanomaterials for cancer immunotherapy *Peng, Rui; Xu, Jun; Wang, Chenya; Xu, Ligeng; Yang, Rong; Liu, Zhuang*
PO024	Industrial Synthesis of Graphene Quantum Dots for Biology Application *Wang, Liang; Li, Weitao*

PO025	Three-minutes Super-rapid Synthesis of Graphene Quantum Dots via Microwave and their Multiple Applications; *Li, Weitao; Wang, Liang*
PO026	Graphitic Nanocapsules Based Raman Imaging and Bioanalysis; *Chen, Zhuo*
PO027	Comparison of carbon-based materials for neural interfaces; *Fu, Xuefeng; Duan, Xiaojie*
PO028	Effect of growth factor modified graphene on repairing photodamaged RPE and its mechanism; *Shan, Suyan; Liu, Yong*
PO029	High-Yield Production of MoS2 and WS2 Quantum Sheets; *Zhang, Yong*
PO030	Clean, fast and scalable transfer of ultrathin/patterned vertically-aligned carbon nanotube arrays; *Ping, Linquan; Liu, Chang; Hou, Pengxiang; Cheng, Hui-Ming*
PO031	*Withdrawn*
PO032	Functional inkjet printing inks of graphene/metal oxide for gas sensors; *Hu, Guohua; Wu, Tien-Chun; Dai, Jie; Ng, Leonard W. T.; Zhu, Xiaoxi; Huang, Xiao; Hasan, Tawfique*
PO033	Continuous Fabrication of Meter-Scale Single-Wall Carbon Nanotube Films and Their Use in Flexible and Transparent Integrated Circuits *Wang, Bing-Wei; Jiang, Song; Zhu, Qian-Bing; Sun, Yun; Luan, Jian; Hou, Peng-Xiang; Qiu, Song; Li, Qing-Wen; Liu, Chang; Sun, Dong-Ming; Cheng, Hui-Ming*
PO034	Reduced Graphene Oxide: from Scale-up Preparation to Supercapacitor & Functional Applications; *Chen, Cheng-Meng; Kong, Qing-Qiang; Xie, Li-Jing; Su, Fang-Yuan*
PO035	Application of Raman spectroscopy for monitoring the integration process of individual single-walled carbon nanotubes into field-effect transistor based sensors; *Haluska, Miroslav; Liu, Wei; Eberle, Sebastian; Jenni, Laura Vera; Kumar, Lalit; Hierold, Christofer*
PO036	Production of High-Purity Semiconducting Carbon Nanotubes by acid-assisted gel chromatography; *Cui, Jiaming; Yang, Dehua; Wei, Xiaojun; Zhou, Naigen; Zhou, Weiya; Xie, Sishen; Hiromichi, Kataura; Liu, Huaping*
PO037	Mass production of multiple single-chirality species (n, m) by temperature tuning the interaction of compound surfactants with carbon nanotubes *Yang, Dehua; Wei, Xiaojun; Zhou, Weiya; Xie, Sishe; Kataura, Hiromichi; Liu, Huaping*
PO038	Batch production of 6-inch uniform monolayer MoS_2 catalyzed by sodium in glass; *Yang, Pengfei*
PO039	Understanding the superlubricity of freestanding carbon nanotubes and graphene; *Wang, Zhao*
PO040	Gauge Invariance of Linear and Nonlinear Optical Response *Taghizadeh, Alireza; Hipolito, F.; Pedersen, T. G.*
PO041	Mechanisms of BNNT Nucleation and Growth during CVD: Non-Equilibrium MD Simulations; *McLean, Ben; Webber, Grant; Page, Alister*
PO042	Analytical Modeling of Single-Walled Carbon Nanotube Energies *Hedman, Daniel; Larsson, J. Andreas*
PO043	Uncovering the Mechanism of the Improved Stability of Two-Dimensional Organic-Inorganic hybrid Perovskite; *Shi, Zhiming; Cao, Zhen; Li, Dabing; Schwingenschlögl, Udo*
PO044	*Withdrawn*
PO045	Effect of growth species on the onset of CNT growth; *Khalilov, Umedjon; Neyts, Erik*
PO046	Plasma-assisted etching of nascent CNTs; *Khalilov, Umedjon; Neyts, Erik*

PO047	Charge enhancement in layered MoS2 predicted by an atomistic electrostatic model *Yang, Yida; Wang, Zhao; Devel, Michel*
PO048	Twisting phonons in carbon nanotubes; *Qi, Haonan; Carrere, Jesus; Wang, Zhao*
PO049	Superlubricity of graphene nanoribbons; *Wu, ZhenYan; Wang, Zhao*
PO050	Model calculations for superlubricity of Molybdenum disulfide *Wu, Shengcong; Wang, Zhao*
PO051	Improving thermoelectric performance of monolayer semiconductors beyond the confinement effect *Nguyen, Tuan, Hung; Ahmad, Ridwan; Tresna, Nugraha; Riichiro, Saito*
PO052	"Divide-and-Couple" mechanism of Dirac cone formation in 2D binary materials *Liu, Yi; Qin, Xuming*
PO053	Optical properties of multilayer dielectric stacks: Hidden symmetries and application to graphene; *Ukhtary, Muhammad; Liu, Haihao; Nulli, Sylvain; Saito, Riichiro*
PO054	Electronic Property of the Composite of Carbon Nanotube and Carbon Nanobelt *Yo, Kaiki; Maki, Hideyuki*
PO055	Interlayer excitons in MoSe2/WSe2 heterostructures from first principles *Gillen, Roland; Maultzsch, Janina*
PO056	A linear Model for Learning Ground State Electron Densities - An Alternative Machine Learning Route to Total Energies for Carbon *Fowler, Andrew; Schmidt, Eric; Bristowe, Paul; Elliott, James*
PO057	Proximity spin-orbit coupling in graphene on transition-metal dichalcogenides stacked with general rotation angles; *Li, Yang; Koshino, Mikito*
PO058	Ab Initio Study of Sodium Dodecyl Sulfate (SDS) and Related Surfactants on Single-Wall Carbon Nanotubes; *Ohfuchi, Mari*
PO059	Two-dimensional Phosphorus Carbide: Competition between sp2 and sp3 Bonding *Guan, Jie; Liu, Dan; Zhu, Zhen; Tomanek, David*
PO060	Vibrational spectra of methylated forms of cytosine and adenine in the graphene nanopore and for regions of hydrogen binding *Zolotoukhina, Tatiana; Nitta, Toshihito; Takeuchi, Shouta; Wakamatsu, Daichi*
PO061	Photothermoelectric effect in a mixture of metallic and semiconducting carbon nanotubes *Nugraha, Ahmad; Saito, Riichiro; Nguyen, Tuan Hung*
PO062	Crystallographic Selectivity in Growth of Graphene and Nanotubes *Yakobson, Boris; Gupta, Nitant; Bets, Ksenia; Penev, Evgeni*
PO063	Enhanced Laser Field by Planar and Curved Graphitic Materials Applied for Water Decomposition: A TDDFT Study *Miyamoto, Yoshiyuki; Zhang, Hong; Zhang, Xinlu; Rubio, Angel*
PO064	*Withdrawn*
PO065	The growth mechanism of two-dimensional materials; *Li, Jia; Yan, Xue; Wu, Xi*
PO066	Thermal Stability and Flexibility of Hydrogen Terminated Phosphorene Nanoflakes *Hóltzl,Tibor; Bódi,Dorina*
PO067	Growth by crystallographic selection of graphene and carbon nanotubes *Gupta, Nitant; Bets, Ksenia; Penev, Evgeni; Yakobson, Boris*

PO068	Electron emission properties of graphene edges under an external electric field *Gao, Yanlin; Okada, Susumu*
PO069	Properties and growing processes of the border between h-BN/graphene *Sawahata, Hisaki; Yamanaka, Ayaka; Maruyama, Mina; Okada, Susumu*
PO070	Energetics and electronic structure of graphene adsorbing COx under an external electric field; *Matsubara, Manaho; Okada, Susumu*
PO071	Electronic structure and magnetic-state tuning of h-BN nanoflakes by hole doping *Maruyama, Mina; Okada, Susumu*
PO072	The mechanism of the preferential growth of (6, 5) SWNTs; *Wang, Xiao; Ding, Feng*
PO073	The Role of Alloy Catalyst in Carbon Nanotube Growth; *Qiu, Lu; Ding, Feng*
PO074	Electronic properties of in-plane 2H/1T' monolayer MoTe2 interfaces *Li, Aolin; Ouyang, Fangping; Zhou, Wenzhe; Pan, Jiangling*
PO075	Influence of self-consistent screening and polarizability contractions on interlayer sliding behavior of hexagonal boron nitride; *Gong, Wenbin*
PO076	Low-dimensional quantum confined semiconductor for solar fuels production *Sun, Songmei*
PO077	Formation of nanocrystalline graphene on Germanium; *Krupke, Ralph*
PO078	Novel rod to tube type spark discharge generator for the FC CVD growth of SWCNTs *Ahmad, Saeed; Laiho, Patrik; Zhang, Qiang; Jiang, Hua; Kauppinen, Esko I.*
PO079	Light-stimulated Neuromorphic Electronic Devices Based on Printed Carbon Nanotube Thin Film Transistors; *Shao, Lin; Zhao, Jianwen; Xing, Zheng; Liu, Tingting*
PO080	Microtomed membranes of carbon nanotube ion channels for high-yield activation of the pores and facile exchange of analytes; *Min, Hyegi; Lee, Chang Young*
PO081	Direct conformation detection of cocaine aptamer based on graphene electrodes *Chen, Xinjiani*
PO082	A reversible single-molecule switch with stochastic and controllable switching modes at room temperature; *Zhou, Chenguang*
PO085	Red fluorescent graphene quantum dots as self-targeted fluorescence probes for cell imaging; *Li, Weitao; Wang, Liang*
PO083	Reduced graphene oxide decorated with Bi2O2.33 nanodots for lithium storage *Li, Xinyan; Zhu, Xiaocui; Liang Haicheng; Ni, Jiangfeng*
PO084	Carbon nanotube directed 3D porous Li2FeSiO4 composite for lithium batteries *Jiang, Yu; Ni, Jiangfeng*

Program of NT18 Parallel Symposia

3rd Floor of Natural Sciences Teaching Building, PKU

July 15 Sunday	CCTN18 Room 313	MSIN18 Room 310	GSS18 Room 303	CNTFA18 Room 306	CNBMT18 Room 311	NMES18 Room 302
09:00-09:15	**Keynote** Boris Yakobson	**Keynote** Jing Kong	**Keynote** Walt de Heer	**Keynote** Sumio Iijima	**Keynote** Alberto Bianco	**Keynote** Morinobu Endo
09:15-09:30						
09:30-09:45				**Invited** Chouwu Zhou		**Keynote** Liming Dai
09:45-10:00	C. Bichara	**Invited** Stephen Doorn	**Invited** Shuyun Zhou		**Invited** Xingfa Gao	
10:00-10:15	J. Li			**Invited** Michael S. Arnold		**Invited** Anyuan Cao
10:15-10:30	X. Wang	D. Krasnikov	C. Jin		M. Yang	Coffee Break
10:30-10:45	Coffee Break	Coffee Break	Coffee Break		Coffee Break	**Invited** Suguru Noda
10:45-11:00				Coffee Break		
11:00-11:15	**Invited** Susumu Saito	**Invited** Kenji Hata	**Invited** Ryo Kitaura	**Invited** Esko Kauppinen	**Invited** Laurent Cognet	**Invited** Yuan Chen
11:15-11:30						Chen Zhang & Quanhong Yang
11:30-11:45	Y. Liu	**Invited** Cristiano Fantini	Y. K. Yap	**Invited** Kaili Jiang	**Invited** Yuhei Miyauchi	
11:45-12:00	X. Zou		C. Berkmann			**Invited** Zhongshuai Wu
12:00-12:15	A. Taghizadeh	S. Cambre	K. Sakanashi	**Invited** Takeo Yamada	M. Yudasaka	**Invited** Weizhong Qian
12:15-12:30	Z. Shi	J. Liang	K. Liu		**Free Discussion**	
12:30-14:00	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
14:00-14:15	**Invited** Oded Hod	**Invited** Sebastian Heeg	**Keynote** Rodney Ruoff	**Invited** Yutaka Ohno	**Invited** Daniel Heller	**Invited** Yanglong Hou
14:15-14:30						**Invited** Jiaqi Huang
14:30-14:45	D. Hedman	**Invited** Juan Yang		**Invited** Dae-HyeongKim	**Invited** Chunying Chen	
14:45-15:00	M. Ukhtary		**Invited** Wencai Ren			**Invited** Vitalii Sysoev
15:00-15:15	J. Guan	**Invited** Pingheng Tan		**Invited** Kuniharu Takei	**Invited** Yue Yu	**Invited** Feng Li
15:15-15:30	M. Ohfuchi		V. Shanov			Coffee Break
15:30-15:45	N. Gupta	E. Gaufres	Y. Wu	Coffee Break	N. Komatsu	**Invited** Tanja Kallio
15:45-16:00	Coffee Break	Coffee Break	Coffee Break		Coffee Break	
16:00-16:15				**Invited** Jianshi Tang		**Invited** Kaiping Tai
16:15-16:30	**Invited** Feng Ding	**Invited** Caofeng Pan	**Invited** Lorenzo Sponza		**Invited** Monica Fanarraga	**Invited** Xu Hou
16:30-16:45				**Invited** Lan Wei		
16:45-17:00			G. Zheng		**Summary**	Jiangtao Di & Qingwen Li
17:00-17:15			D. Luo	**Invited** Youfan Hu		**Invited** Yongsheng Hu
17:15-17:30			N. Komatsu			**Invited** Ho Seok Park
17:30-17:45			**Invited** Jong-Hyun Ahn			**Summary**
17:45-18:00						
18:00-18:15			N. Aoki			

13th International Symposium on Computational Challenges and Tools for Nanotubes (CCTN18)

Room 313

Session 1, Chair: Yoshiyuki MIYAMOTO			
09:00-09:45	**K**	Boris YAKOBSON	Crystallographic Selectivity in Growth of Graphene and Nanotubes
09:45-10:00	**O1**	Christophe BICHARA	Growth modes and chiral selectivity of Single-Walled Carbon Nanotubes
10:00-10:15	**O2**	Jia LI	The growth mechanism of two-dimensional materials
10:15-10:30	**O3**	Xiao WANG	Symmetry breaking at the interface between (6, 6) SWNTs and Pt (111) surface and the fast growth of armchair SWNTs on Pt (111) surface
10:30-11:00	**Coffee Break & Poster Session**		
Session 2, Chair: Feng DING			
11:00-11:30	**I1**	Susumu SAITO	Strain and Curvature Engineering of Geometries and Electronic Properties of Nanotubes and Atomic-Layer Materials
11:30-11:45	**O4**	Yi LIU	“Divide-and-Couple” mechanism of Dirac cone formation in 2D binary materials
11:45-12:00	**O5**	Xiaolong ZOU	Theoretical Design of Low-dimensional Magnetic Materials
12:00-12:15	**O6**	Alireza TAGHIZADEH	Gauge Invariance of Linear and Nonlinear Optical Response
12:15-12:30	**O7**	Zhiming SHI	Uncovering the Mechanism of the Improved Stability of Two-Dimensional Organic-Inorganic hybrid Perovskite
12:30-14:00	**Lunch** *First Floor, Nong Yuan Restaurant*		
Session 3, Chair: Susumu SAITO			
14:00-14:30	**I2**	Oded HOD	Modeling Interlayer Interactions in Layered Materials
14:30-14:45	**O8**	Qiu LU	The Role of Alloy Catalyst in Carbon Nanotube Growth
14:45-15:00	**O9**	Muhammad UKHTARY	Optical properties of multilayer dielectric stacks: Hidden symmetries and application to graphene
15:00-15:15	**O10**	Jie GUAN	Two-dimensional Phosphorus Carbide: Competition between sp2 and sp3 Bonding
15:15-15:30	**O11**	Mari OHFUCHI	Ab Initio Study of Sodium Dodecyl Sulfate (SDS) and Related Surfactants on Single-Wall Carbon Nanotubes

15:30-15:45	**O12**	Aolin LI	Electronic properties of in-plane 2H/1T' monolayer MoTe2 interfaces
15:45-16:15	**Coffee Break & Poster Session**		
Session 4, Chair: Zhuhua ZHANG			
16:15-16:45	**I3**	Feng DING	Strategies for the Chirality Control during Carbon Nanotubes Growth

12th International Workshop on Metrology, Standardization and Industrial Quality of Nanotubes (MSIN18) *Room 310*

Session 1, Chair: Ming ZHENG			
09:00-09:45	**K**	Jing KONG	Defects in 2D Materials: Characterization, Manipulation and Utilization
09:45-10:15	**I1**	Stephen DOORN	Structural and Environmental Control of Carbon Nanotube Defect-State Emission Properties
10:15-10:30	**O1**	Dmitry KRASNIKOV	Standardization of the defectiveness for multi-walled carbon nanotubes via Raman spectra
10:30-11:00	**Coffee Break & Poster Session**		
Session 2, Chair: Jing KONG			
11:00-11:30	**I2**	Kenji HATA	Characterization of Industrial CNT materials (powders, fibers, etc)
11:30-12:00	**I3**	Cristiano FANTINI	Double-resonance Raman scattering in carbon nanotubes and transition metals dichalcogenides
12:00-12:15	**O2**	Sofie CAMBRE	Systematic aqueous two-phase separations of carbon nanotubes to investigate the separation mechanism
12:15-12:30	**O3**	Jing LIANG	Monitoring Local Strain Vector in Atomic Layered $MoSe_2$ by Second-Harmonic Generation
12:30-14:00	**Lunch** *First Floor, Nong Yuan Restaurant*		
Session 3, Chair: Stephen DOORN			
14:00-14:30	**I4**	Sebastian HEEG	Raman spectroscopy of long linear carbon chains encapsulated in carbon nanotubes
14:30-15:00	**I5**	Juan YANG	Raman Spectroscopy of Individual Single-Walled Carbon Nanotubes
15:00-15:30	**I6**	Pingheng TAN	Raman spectroscopy of Two-Dimensional Heterostructures of MoS_2 and Graphene

15:30-15:45	**O4**	Etienne GAUFRES	Hyperspectral Raman imaging using Bragg filters of graphene and other low-dimensional materials
15:45-16:15	**Coffee Break & Poster Session**		
Session 4, Chair: Kaihui LIU			
16:15-16:45	**I7**	Caofeng PAN	ZnO nanowire LED arrays for visual strain/pressure mapping by piezo-phototronic effect

9th Graphene and 2D Materials Symposium (GSS18) *Room 303*

Session 1, Chair: Annick LOISEAU			
09:00-09:45	**K1**	Walt de HEER	New Directions in Epigraphene Nanoelectronics
09:45-10:15	**I1**	Shuyun ZHOU	Van der Waals heterostructures and Quasicrystalline superlattice for tailored electronic structures
10:15-10:30	**O1**	Xibiao REN, Chuanhong JIN	Grain boundaries in hexagonal boron nitride monolayers revealed by high-solution transmission electron microscopy
10:30-11:00	**Coffee Break & Poster Session**		
Session 2, Chair: Walt de HEER			
11:00-11:30	**I2**	Ryo KITAURA	Transition metal dichalcogenide based van der Waals heterostructures: fabrication and properties
11:30-11:45	**O2**	Yoke Khin YAP	On-Chip Heat Management by Boron Nitride Nanosheets
11:45-12:00	**O3**	Claudia BERKMANN	Synthesis of Width - Controlled Nanoribbons via Terrylene Encapsulation
12:00-12:15	**O4**	Kohei SAKANASHI	Evaluation of contact properties for semiconducting 2H phase of MoTe2 via scanning gate microscopy
12:15-12:30	**O5**	Kai LIU	Modulating Interface Interactions in 2-Dimensional Materials and Their Heterostructures
12:30-14:00	**Lunch** *First Floor, Nong Yuan Restaurant*		
Session 3, Chair: Yongsheng CHEN			
14:00-14:45	**K2**	Rodney RUOFF	F-diamane, chemistry and mechanics of graphene, and the further use of single crystal metal foils
14:45-15:15	**I3**	Wencai REN	Green synthesis and membrane applications of graphene oxide
15:15-15:30	**O6**	Vesselin SHANOV	CVD Synthesis, Characterization and Applications of Three Dimensional (3D) Graphene for Advanced Applications

15:30-15:45	**O7**	Yingpeng WU	3D graphene for energy conversion and storage
15:45-16:15	**Coffee Break & Poster Session**		
Session 4, Chair: Rodney RUOFF			
16:15-16:45	**I4**	Lorenzo SPONZA	Modeling electronic excitations in thin films: the issue of environment
16:45-17:00	**O8**	Guang-Ping ZHENG	First-principles calculations on the multiferroic properties of two-dimensional materials
17:00-17:15	**O9**	Da LUO	Single Crystal Graphene on Cu(111) foil: Strain Relaxation, Chemical Functionalization, and Control of Adlayers
17:15-17:30	**O10**	Naoki KOMATSU	An efficient and scalable production of 2D material dispersions using hexahydroxytriphenylene as a versatile exfoliant and dispersant
Session 5, Chair: Hailin PENG			
17:30-18:00	**I5**	Jong-Hyun AHN	Graphene and TMDCs for wearable and bioelectronics
18:00-18:15	**O11**	Nobuyuki AOKI	Control of FET Property by Laser Irradiation and Device Application of MoTe2 Crystal

6th Carbon Nanotube Thin Film Electronics and Applications Symposium (CNTFA18)

Room 306

Session 1, Chair: Esko I. KAUPPINEN			
09:00-09:40	**K**	Sumio IIJIMA	A simple method for aligning CNTs toward electronics devices
09:40-10:10	**I1**	Chongwu ZHOU	Aligned and Networked Carbon Nanotube Electronics
10:10-10:40	**I2**	Michael S. ARNOLD	Assembly of Aligned Semiconducting Carbon Nanotube Arrays
10:40-11:00	**Coffee Break & Poster Session**		
Session 2, Chair: Michael S. ARNOLD			
11:00-11:30	**I3**	Esko I. KAUPPINEN	FC-CVD synthesis with dry deposition of SWNT thin films for flexible electronics applications
11:30-12:00	**I4**	Kaili JIANG	Controlled Synthesis of High Purity Semiconducting Carbon Nanotubes for Nanoelectronics via Electro-ReNucleation

12:00-12:30	**I5**	Takeo YAMADA	Development of Wearable devices based on Pseudo two-dimensional networks of Super-growth CNTs
12:30-14:00	**Lunch** *First Floor, Nong Yuan Restaurant*		
Session 3, Chair: Youfan HU			
14:00-14:30	**I6**	Yutaka OHNO	Carbon nanotube TFTs and ICs for wearable sensor devices
14:30-15:00	**I7**	Dae-Hyeong KIM	2D-material-based Soft Bioelectronics
15:00-15:30	**I8**	Kuniharu TAKEI	Carbon Nanotube-Based Flexible Electronics
15:30-16:00	**Coffee Break & Poster Session**		
Session 4, Chair: Yutaka OHNO			
16:00-16:30	**I9**	Jianshi TANG	Carbon Nanotubes: From Logic Technology to Flexible Electronics
16:30-17:00	**I10**	Lan WEI	Using Approximate Circuit to Improve Process Induced Failure in CNFET Circuits
17:00-17:30	**I11**	Youfan HU	Carbon Nanotubes for High-Performance Flexible Electronics and Integrated Smart Sensor System

9th Symposium on Carbon Nanomaterials Biology, Medicine & Toxicology (CNBMT18)

Room 311

Session 1, Chair: Chunying CHEN			
09:00-09:45	**K**	Alberto BIANCO	Design biocompatible graphene materials for imaging and therapy
09:45-10:15	**I1**	Xingfa GAO	Structures and Mechanisms Responsible for the Chemical Toxicities of Nanocarbons by Computations
10:15-10:30	**O1**	Mei YANG	Dynamical Changes in Toxicity and Quantity of CNTs after Uptake by Macrophage
10:30-11:00	**Coffee Break & Poster Session**		
Session 2, Chair: Alberto BIANCO			
11:00-11:30	**I2**	Laurent COGNET	Single Carbon Nanotube Imaging Reveals the Live Brain Extra Cellular Space at the Nanoscale
11:30-12:00	**I3**	Yuhei MIYAUCHI	Application of Up-Conversion Luminescence of Carbon Nanotubes to Deep-Tissue Optical Bioimaging

12:00-12:15	**O2**	Masako YUDASAKA	Distribution of Single-Walled Carbon Nanotubes in Sub-Tissue Levels in Brown Adipose Tissue
12:15-12:30	**Free Discussion**		
12:30-14:00	**Lunch** *First Floor, Nong Yuan Restaurant*		
Session 3, Chair: Laurent CONGET			
14:00-14:30	**I4**	Daniel HELLER	Progress Towards Single-Walled Carbon Nanotube Applications in Biomedicine and the Exoneration of Toxicity
14:30-15:00	**I5**	Chunying CHEN	Gd-metallofullerenol as an Efficient Antitumor Agent via Regulating Tumor Microenvironment
Session 4, Chair: Xingfa GAO			
15:00-15:30	**I6**	Yue YU	Polymer Functionalized Nanodiamond Supraparticles Enhance Drug Efficacy for Tumor Cells- in vitro and in vivo Evidence
15:30-15:45	**O3**	Naoki KOMATSU	A One-Pot Fabrication of Chlorin e6-loaded MoS_2 Nanosheet and Its Application to Photothermal and Photodynamic Combination Cancer Treatment
15:45-16:15	**Coffee Break & Poster Session**		
Session 5, Chair: Masako YUDASAKA			
16:15-16:45	**I7**	Monica Lopez FANARRAGA	Customizing biodegradable CNT-coated therapeutic carriers
16:45-17:00	**Summary**		

1st International Workshop on Nanocarbon Materials for Energy and Sustainability (NMES18)

Room 302

Session 1: CNTs for Energy Conversion & Storage Chair: Hui-Ming CHENG & Feng LI			
9:00-9:30	**K1**	Morinobu ENDO	Applications of Nanocarbons for Energy Devices
9:30-10:00	**K2**	Liming DAI	Nanocarbon for energy storage
10:00-10:20	**I1**	Anyuan CAO	Carbon Nanotubes for Energy Applications
10:20-10:40	**Coffee Break & Poster Session**		
Session 2: Nanocarbon for Supercapacitors Chair: Qiang ZHANG & Suguru NODA			
10:40-11:00	**I2**	Suguru NODA	Production and functionalization of carbon nanotubes for energy devices

11:00-11:20	**I3**	Yuan CHEN	Ultrafast Hydrothermal Assembly of Nanocarbon Microfibers in Near-critical Water for Micro-supercapacitors
11:20-11:40	**I4**	Chen ZHANG Quanhong YANG	Densifying graphene hydrogels: remedy for compact energy storage
11:40-12:00	**I5**	Zhong-Shuai WU	Graphene Based Micro-Supercapacitors
12:00-12:20	**I6**	Weizhong QIAN	Small-sized, thin layer graphene and its capacitance performance at 3-4 V
12:20-14:00	**Lunch** *First Floor, Nong Yuan Restaurant*		
Session 3: Nanocarbon for Batteries **Chair: Jia-Qi HUANG & Yuan CHEN**			
14:00-14:20	**I7**	Yanglong HOU	Chemical Design and Synthesis of Nanostructured Hybrid Materials for the Cathode of Lithium-Sulfur Batteries
14:20-14:40	**I8**	Jia-Qi HUANG	Graphene-based Membrane toward High-Stable Lithium Sulfur Battery
14:40-15:00	**I9**	Vitalii SYSOEV	Laser-assisted recovering of fluorinated graphene for preparation of flexible energy storage devices
15:00-15:20	**I10**	Feng LI	CNT for Li-S Batteries
15:20-15:40	**Coffee Break & Poster Session**		
Session 4: Nanocarbon for Energy and Sustainability **Chair: Na LI & Tanja KALLIO**			
15:40-16:00	**I11**	Tanja KALLIO	Pt lean and fee CNT electrocaltayst for hydrogen evolution
16:00-16:20	**I12**	Kaiping TAI	Highly-Ordered Low-Dimensional Telluride/Selenide Anchored on a Carbon Nanotube Scaffold for Flexible Thermoelectrics
16:20-16:40	**I13**	Xu HOU	Bioinspired Multi-Scale Pores and Channels
16:40-17:00	**I14**	Jiangtao DI Qingwen LI	An Adaptive and Stable Bio-Electrolyte for Rechargeable Zn-Ion Batteries
17:00-17:20	**I15**	Yongsheng HU	Carbon anode for Na ion batteries
17:20-17:40	**I16**	Ho Seok PARK	High Temperature and High Frequency Superapacitors Using Graphene and 2D Nanomaterials
17:40-18:00	**Summary**		

Parallel Symposia Poster Sessions

MSIN-P1	Low Defect SWCNTs by Repetitive Sonication–Ultracentrifugation; *Wang, Guowei; Tanaka, Takeshi; Tsuzuki, Mayumi; Hirano, Atsushi; Kataura, Hiromichi*
MSIN-P2	Resonance Raman spectroscopy on Linear Carbon Chains; *Shi, Lei; Cambre, Sofie; Wenseleers, Wim; Waßerroth, Sören; Reich, Stephanie; Wanko, Marius; Rubio, Angel; Ayala, Paola; Pichler, Thomas*
MSIN-P3	Elemental analysis of standard carbon nanotubes after alkaline oxidation *Costa, Pedro; Simoes, Filipa; Kamenik, Jan; Kucera, Jan*
GSS-P1	Readily Available "Stock Solid" of MoS2 and WS2 Nanosheets through Solid-Phase Exfoliation by Ball Milling; *Komatsu, Naoki*
GSS-P2	Dispersion and aggregation of graphene oxide in aqueous media; *Wang, Meng*
GSS-P3	Degradation Chemistry and Stabilization of Exfoliated Few-Layer Black Phosphorus in Water; *Zhang, Taiming*
GSS-P4	Stable reconstructed edge structure in bilayer WSe_2; *Wang, Bo*
GSS-P5	Anisotropic strain relaxation of graphene by corrugation on copper crystal faces; *Deng, Bing*
GSS-P6	Precise control of graphene etching by remote hydrogen plasma; *Ren, Shizhao*
CNTFA-P1	Large-scale High-purity Semiconducting Single-Walled Carbon Nanotube (sc-SWCNT) and Their application for Printed Devices and Simple Circuits; *Zhao, Jianwen; Cui, Zheng; Shao, Lin; Xiao, Hongshan*
CNTFA-P2	Transparent conducting films prepared by mixing of CNTs and PEDOT:PSS and application to OLEDs; *Tian, Ying; Geng, Hong-Zhang; Gu, Zezeng; Wang, Tao; Zhao, Hui; Wen, Jiangong*
CNTFA-P3	Sorting of sc-SWCNT in Polar Solvents with an Amphiphilic Conjugated Polymer Provides General Guidelines for Enrichment; *Ouyang, Jianying; Ding, Jianfu; Lefebvre, Jacques; Li, Zhao; Guo, Chang; Kell, Arnold; Malenfant, Patrick*
CNTFA-P4	Aligning Solution-Derived Carbon Nanotube Film with Full Surface Coverage for High-Performance Electronics Applications; *Zhu, Maguang; Si, Ji; Zhang, Zhiyong; Peng, Lianmao*
CNTFA-P5	Exploring performance uniformity of carbon nanotube thin film transistors on wafer scale; *Yang, Yingjun; Ding, Li; Xu, Lin; Zhang, Zhiyong; Peng, Lianmao*
CNTFA-P6	Improving subthreshold swing to thermionic emission limit in carbon nanotube network film-based field-effect transistor; *Zhao, Chenyi; Zhong, Donglai; Qiu, Chenguang; Han, Jie; Zhang, Zhiyong; Peng, Lianmao*
CNTFA-P7	Low-power and highly-uniform carbon nanotube integrated circuits with integration capability to biological surfaces; *Xiang, Li; Hu, Youfan*
NMES-P1	Carbon/Li Metal Composite Anode in Safe High-Energy-Density Rechargeable Batteries; *Zhang, Qiang*
NMES-P2	Porous carbon for Li-ion storage; *Fedoseeva, Yuliya*

NMES-P3	Effect of the component coupling on electrochemical properties of MoS2/holey graphene hybrids in lithium-ion batteries; *Stolyarova, Svetlana*
NMES-P4	Transition metal selenide nanoparticles embedded in carbon matrix for extraordinary cycling and rate performance of sodium ion batteries; *Ali, Zeeshan*
NMES-P5	Graphite and polymer modified black phosphorus anode with stable solid electrolyte interface for high energy density Li ion batteries; *Jin, Hongchang*
NMES-P6	Enhanced cycling stability of lithium metal batteries by Lithium metal partial alloying; *Qiu, Hailong*
NMES-P7	Power generation from moving water droplet on nitrogen doped graphene *Okada, Takeru*
NMES-P8	Carbon nanotube and graphene oxide hybrid polyvinylidene fluoride membranes for flux sensing; *Geng, Hong-Zhang*
NMES-P9	Synthesis and Supercapacitor Performance of Nitrogen-doped Porous Carbon–Carbon Nanotube Hybrids; *Lobiak, Egor*
NMES-P10	Confining polysulfide shuttle through metal sulfide nanoparticles encapsulated in graphene nanoshells; *Asif, Muhammad*
NMES-P11	High-Performance 3D Graphene Electrodes for Energy Storage and Conversion; *WANG, Xue-Bin*
NMES-P12	Carbon Nanomaterials for Cathodes in Lithium Sulfur Batteries; *Huang, Jia-Qi*
NMES-P13	Synthesis of bilayer graphene with ordered mesopores for high power energy storage; *Jia, Xilai*

Talk of Sponsors

PKU Centennial Lecture Hall

July 16th (Monday), Chair: Youfan HU	
19:00-19:25	Jiangsu Cnano Technology Co.,Ltd.
19:25-19:45	Horiba (China) Trading Co., Ltd
19:45-20:00	WITec GmbH
20:00-20:15	Bruker (Beijing) Scientific Technology Co., Ltd.
20:15-20:25	Beijing Horiba Metron Instruments Co., Ltd
July 19th (Thursday), Chair: Kaihui LIU	
19:00-19:10	Renishaw (Shanghai) Trading Co Ltd
19:10-19:20	Beijing JWGB Sci.&Tech. Co. Ltd.
19:20-19:30	NanoCarbon Co.,Ltd
19:30-19:40	Shanghai Mikrouna Mech.Tech.Co.,Ltd.
19:40-19:50	Anhui BEQ Equipment Technology Co., Ltd.
19:50-20:00	ZepTools Technology Co., Ltd.
20:00-20:10	AIP Publishing
20:10-20:20	Hefei Kejing Materials Technology Co.,Ltd.