

Poster

19th June (Thu.)

18:00–20:00

Laser fabrication of hBN single photon emitters on silicon nitride waveguides

*Daiki Yamashita¹, Masaki Yumoto¹, Aiko Narazaki¹, Makoto Okano¹

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Sorting of Single-Walled Carbon Nanotubes in the Tri-Surfactant System Using Aqueous Two-Phase Extraction

Cheng Li¹, Min Lyu¹, *Yan Li^{1,2}

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Evaluation of cross-plane Seebeck coefficient of single-walled carbon nanotube thin films using AC heating

*Shigeki Saito¹, Yoshihiko Kaneko¹, Shojiro Asatori¹, Satoshi Kusaba¹, Kan Ueji^{1,2}, Takashi Yagi², Kazuhiro Yanagi¹

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The origin of the negative linear temperature dependence of resistance in nano-carbon materials

*Takahiro Morimoto¹, Takumi Inaba¹, Satoshi Yamazaki², Kazufumi Kobashi¹, Toshiya Okazaki¹

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Visualization of exciton modulation in monolayer WSe₂ under dynamic strain

*Yuta Takahashi¹, Takumi Yamamoto¹, Kazuki Maezawa¹, Hajime Kumazaki¹, Shinichi Watanabe¹, Shun Fujii¹

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Non-catalytic direct synthesis of graphene and h-BN on sapphire substrates

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Development of In-Situ Electrical Observation System for Janus TMDs

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Formation of hBN-Encapsulated Janus TMDs without Air Exposure

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Direct Fabrication of Graphene-Bridged Superconductor Junctions

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Boundary-Directed Epitaxy of Block Copolymers Guided by Graphene Nanoribbon Templates via Boundary-Directed Epitaxy

*Michael S. Arnold¹

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Electrical contact formation of CNT@BNNT heteronanotubes with metal electrodes through heat treatment

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Synthesis and Evaluation of High-Quality BNNT Growth on SWCNTs

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Weighing Transport of CNT Conductors in Extreme Environments

*John Bulmer^{1,7}, Chris Kovacs^{1,8}, Thomas Bullard^{1,5}, Charlie Ebbing^{1,6}, Kady Tackett¹, Sabrina Eddy¹, Michael Susner¹, Ganesh Pokharel^{2,4}, Stephen Wilson², Fedor Balakirev³, Oscar Valenzuela³, Timothy Haugan¹

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SAW-guided Reconfigurable Memristor using 2D MoS₂

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CNT-PP composite spacers for Reverse Osmosis Technology: A promising strategy to reduce positive organic fouling

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Efficient thermal defect healing of single-walled carbon nanotubes using a multiple-cycle approach

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Photo-induced thermal effects on the bandgap of monolayer WSe₂ integrated with ultrahigh-Q optical microcavities

*Hidetoshi Kanzawa¹, Ryo Sugano¹, Hajime Kumazaki¹, Shun Fujii¹

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Magnetic bulk photovoltaic effect in MoS₂/CrPS₄ artificial heterostructure device.

*Shuichi Asada¹, Keisuke Shinokita¹, Kazunari Matsuda¹

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Magnetic brightening of defect-localized single-photon emission in monolayer WSe₂

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Study on Alignment Control Method of Carbon Nanotube Network Films and Their Electrical Properties

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Catalytic rapid Joule heating synthesis of one-dimensional nanomaterials in seconds

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Stacking structure of epitaxial growth graphene on reduced graphene oxide

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Circular dichroism of Trion in enantiopure carbon nanotubes

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Direct Growth of Graphene on Hexagonal Boron Nitride under a Catalyst-Free Condition

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Doping-dependent valley polarization induced by Mott transition in WSe₂/WS₂ moiré superlattice

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Development of a Dual-Functional Device for Rapid Detection of NO₂ Gas and Long-Term Cumulative Exposure Memory using Optimized Single-Walled Carbon Nanotubes

*Sihyeok Kim¹, Ilya V. Novikov¹, Peng Liu², Jang Woo Lee¹, Il Hyun Lee¹, Artem Dudorov³, Dmitry V. Krasnikov³, Esko I. Kauppinen², Albert G. Nasibulin³, Keekeun Lee⁴, Il Jeon¹

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Bending Effect on Thermoelectric performance of carbon nanotubes

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POROUS SILICON-BASED NANOCOMPOSITES FOR EFFICIENT ELECTROCHEMICAL SENSORS

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Optical Absorption of Fermi Level-Controlled Multilayer Graphene: Effects of Stacking Structure and Spacer Insertion

*Shinnosuke Yoshida¹, Takuo Mizuno¹, Taiki Inoue¹, Yuta Nishina², Yoshihiro Kobayashi¹

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EVALUATION OF MOLYBDENUM DISULFIDE PREPARED BY HEATING SULFUR-CAPPED MOLYBDENUM THIN FILMS

Kazushi Inoue¹, Yuto Kimura¹, Koki Nakane¹, *Agus Subagyo¹, Kazuhisa Sueoka¹

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Detection of process-induced contaminants on carbon nanotubes using Raman spectroscopy

*Haruki Uchiyama¹, Yudai Yoshikawa¹, Hiromichi Kataura², Yutaka Ohno^{1,3}

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Peptide-modified Carbon Nanotube Biosensor

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METAL OXIDE/METAL SELENIDE NANOSTRUCTURE ELECTRODE FOR SOLID-STATE SYMMETRIC SUPERCAPACITOR WITH EXCELLENT CAPACITANCE RETENTION

*Mohammed Jalalah¹, Arpan Nayak²

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Electronic transport in CNT thin films and PBTBT films: Crossover between weak and strong localization

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Characterization of carbon nanotube thin-film transistors with inorganic polymer insulator

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Floating Catalyst Chemical Vapour Deposition (FCCVD)-Based CNT Electrodes for Metal Halide Perovskite Memristors in Neuromorphic Synaptic Applications

*Jang Woo Lee¹, Yasir Shafi Mir¹, Taehoon Kim¹, Sihyeok Kim¹, Ilya Novikov¹, Sungjoo Lee¹, Il Jeon¹

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Durable Organic and Perovskite Solar Cells Using Single-walled Carbon Nanotubes Transparent Thin-film Electrodes

*Yutaka Matsuo¹

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Structural changes in semiconducting CNT networks by coating conditions

*Toshie Miyamoto^{1,2}, Tomo Tanaka^{1,2}, Megumi Kanaori², Norika Fukuda², Shunta Doi¹, Noriyuki Tonouchi^{1,2}, Ryota Yuge^{1,2}

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Bayesian optimization for the synthesis of small-diameter single-walled carbon nanotubes using the eDIPS method

*Taizo Shibuya^{1,2}, Noriyuki Tonouchi^{1,2}, Yuta Nishiwaki³, Satoru Hashimoto³, Takeshi Hashimoto³, Takeshi Saito², Ryota Yuge^{1,2}

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POROUS SILICON-BASED NANOCOMPOSITES FOR EFFICIENT ELECTROCHEMICAL SENSORS

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Optical Properties of Interlayer Excitons in TMD-based vdW Stacks

*Sudhanshu Kumar Nayak^{1,2}, Hiroo Suzuki³, Daichi Kozawa², Sai Santosh Kumar Raavi¹, Ryo Kita²

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Carbon Nanotube Electrode-Based Reconfigurable Metal Halide Perovskite Memristors for Reservoir Computing Applications

*Jang Woo Lee¹, Taehoon Kim¹, Naoumi Hasumi², Ryosuke Nakajima², Sihyeok Kim¹, Sungjoo Lee¹, Suguru Noda², Il Jeon¹

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Collapsed carbon nanotubes: Raman signal and flattening control

*Emmanuel Picheau¹, Daiming Tang¹

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Exploration for the Optimized Double-Layer Catalyst Support Structure for the Synthesis of Vertically Aligned Carbon Nanotube Arrays

*Shunsuke Sakurai¹, Takashi Tsuji¹, Don N Futaba¹

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High-Melting Point Bimetallic Icosahedral Clusters for Carbon Nanotube Growth

*Shigeo Maruyama^{1,2}, Daniel Hedman³, Daisuke Asa¹, Ikuma Kohata¹, Kaoru Hisama⁴, Qingmei Hu¹, Wanyu Dai¹, Keigo Ostuka¹, Rong Xiang², Christophe Bichara⁵

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Activated Diffusion of 1D J-Aggregates in Boron Nitride Nanotubes by Curvature Patterning

Jean-Baptiste Marceau¹, Juliette Le Balle^{1,4}, Duc-Minh Ta², Alberto Aguilar², Annick Loiseau⁴, Richard Martel⁵, Pierre Bon², Raphael Voituriez³, Gaelle Recher¹, *Etienne Gaufrès¹

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Flexible electronics based on conjugated polymers, oxides, and carbon nanostructures

*Lucimara Stolz Roman¹

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Graphene nano-electromechanical mass sensor with high resolution at room temperature

*SangWook Lee¹, Dong-Hoon Shin^{2,3}, Sunghyun Kim¹, Peter Steeneken³, Chirlmin Joo³

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Carbon Nanotube Schottky Diode-Based Millimeter-Wave Frontends: Enabling Silicon-Compatible Flexible RF Systems from 10 GHz to W-Band

*Defu Wang¹

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Upcycling Waste Plastics into Carbon Nanotube Wirings and Synaptic Devices for Physical Reservoir Computing

*Takashi Ikuno¹, Kotaro Takanashi¹

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CNTFET-Metal Contact Investigations via Voltage Controlled Material Deposition

*Martin Hartmann^{1,2}, Martin Ernst^{1,2}, Simon Böttger^{1,2}, Sascha Hermann^{1,2}

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AM I TOO FAT? CNT ASKED. DIFFERENCES IN MORPHOLOGY OF CARBON NANOTUBES FOR TRIBOLOGICAL APPLICATION

*Szymon Tomasz Ruczka^{1,2,3}, Adam Marek^{1,4}, Artur Terzyk⁵, Magdalena Skrzypek⁶, Łukasz Wojciechowski⁶, Sławomir Boncel^{1,2,3}

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FROM DOTS TO TUBES – THE REVERSE SCENARIO OF BOTTOM-UP CATALYST-FREE SYNTHESIS OF N-DOPED CNTs

*Sławomir Boncel¹, Anna Kolanowska^{1,2}

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Investigation of Co Nanoparticle Formation Mechanisms on MgO and Al₂O₃ supports for Carbon Nanotube Synthesis

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Hybrid bismuthene hexagons by molecular interface engineering

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Carbon nano-onions: Potassium intercalation and reductive covalent functionalization

María Eugenia Pérez-Ojeda¹, Matteo Andrea Lucherelli², *Gonzalo Abellán²

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Orientation of MoS₂ Flakes Grown on Twisted Bilayer Graphene

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Growth of MoS₂ on Al_(1-x)Ti_xO_y by Chemical Vapor Deposition

*Koshiro Kawakami¹, Syunsuke Yamamura¹, Abdul Kuddus¹, Shinichiro Mouri¹

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In situ XAFS measurements on the formation process of single-walled carbon nanotubes from Fe catalyst

*Jumpei Horiuchi¹, Shinya Mizuno¹, Takahiro Saida¹, Shigeya Naritsuka¹, Takahiro Maruyama¹

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Chirality Selective Growth of Bulk Single-walled Carbon Nanotubes Using Cobalt-sulfur Catalyst

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Understanding the role of molybdenum in carbon nanotube growth using layered double hydroxides

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Harnessing Metal-Support Interaction in Catalytic Synthesis of Carbon Nanotubes

Chi Xu¹, *Sida Sun¹, Zeyao Zhang¹, Yan Li¹

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Chirality and Enantiomer Based Sorting of Single-Walled Carbon Nanotubes by PEG/Salt Aqueous Two-Phase Systems

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General Synthesis Strategy of Alloy Transition Metal Dichalcogenide Nanotubes

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Remote salt enabling metallic NbS₂ one-dimensional van der Waals heterostructures

*Wanyu Dai¹, Yongjia Zheng^{1,2}, Akihito Kumamoto³, Yanlin Gao⁴, Sijie Fu⁵, Sihan Zhao⁵, Ryo Kitaura⁶, Esko I Kauppinen⁸, Keigo Otsuka¹, Slava V Rotkin⁷, Yuichi Ikuhara³, Mina Maruyama⁴, Susumu Okada⁴, Rong Xiang^{1,2}, Shigeo Maruyama^{1,2}

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Synthesis of High-purity Carbon Nanotubes via Atomized Catalytic Pyrolysis and Their Macroscale Structural Organization

*Sook Young Moon¹

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Fundamental investigation of monolayer graphene modification by low-pressure Argon Plasma

*Pierre Vinchon¹, Lucas Spiske¹, Nicolas Mauchamp¹, Yoshiyuki Miyamoto², Satoshi Hamaguchi¹

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Development of an autonomous 2D semiconductors production system driven by Bayesian optimization

*Wataru Idehara¹, Fan Yang¹, Keisuke Shinokita¹, Kazunari Matsuda¹

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Analysis roles of Fe and Co binary catalysts in chemical vapor deposition growth of single-walled carbon nanotubes

*Qingmei Hu¹, Ya Feng^{2,1}, Wanyu Dai¹, Daisuke Asa¹, Daniel Hedman³, Aina Fitó Parera⁴, Yixi Yao⁵, Yongjia Zheng^{6,1}, Kaoru Hisama⁷, Christophe Bichara⁸, Shohei Chiashi¹, Yan Li⁵, Wim Wenseleers⁴, Dmitry Levshov⁴, Sofie Cambré⁴, Keigo Otsuka¹, Rong Xiang^{1,6}, Shigeo Maruyama^{1,6}

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Single-crystal Graphene Wafers: Controlled Synthesis and Mass Production

*Kaicheng Jia¹

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HIGH-TEMPERATURE ADSORPTION OF NITROGEN DIOXIDE FOR STABLE, EFFICIENT, AND SCALABLE DOPING OF CARBON NANOTUBES

*Dmitry V. Krasnikov¹, Nikita I. Raginov¹, Anastasia E. Goldt¹, Stanislav S. Fedotov¹, Albert G. Nasibulin¹

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Synthesis of Tunable Fluorescent Carbon Dots from Dairy Whey for Advanced Cancer Nanomedicine: Bioimaging and Theranostic Applications

*Mónica L Fanarraga¹, Rafael Valiente¹, Jesús González¹, Marina Candela¹, Lorena García-Hevia¹

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Selective Formation of Analyte-Matrix Cocrystals on the Surface of Carbon Nanomaterials for MALDI Mass Spectrometry of Neuropeptides

*Cheongha Lee¹, Chang Young Lee¹

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Analysis of Volatile Organic Compound Droplets via Wetting and Evaporation Using Inkjet-Printed Carbon Nanotube Chemiresistors

*Seongyeop Lim¹, Chang Young Lee¹

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Robust carbon nanotube composite coatings for perfect absorption in harsh environmental applications

*Yuanhao Jin¹

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Synthesis of Single-Walled Carbon Nanotubes/Graphene Nanoflakes Hybrid Nanostructures Utilizing Fe-Re Bimetallic Catalysts by Floating Catalyst Chemical Vapor Deposition

*Anastasios Karakasidis¹, Hirotaka Inoue^{1,2}, Ghulam Yasin¹, Hua Jiang¹, Esko I. Kauppinen¹

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Magnetically Aligned All-Solid-State Ionic-Liquid Crystal Elastomer based Electrochemical Artificial Muscles

*Guang Yang^{1,2}

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Sequential Assembly of Low-Dimensional Materials on Arbitrary Fiber Substrates for Electromagnetic Interference Shielding

*Jiayi Liu^{1,2}, Quanfen Guo^{1,2}, Huahui Tian², He Hao³, Xin Gao¹, Jin Zhang³

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Facile and scalable concentration method for surfactant-assisted carbon nanotube dispersion

*Jaegyun Im¹, Jaegun Lee^{1,2}

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Wet-spinning of high strength and high thermal conductivity carbon nanotube fibers

*Yuanlong Shao¹, Jin Zhang¹

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Exploring the Role of Sulfur Promoter from Carbon Disulfide in Carbon Nanotubes Synthesis

*Ghulam Yasin¹, Otto Salmela¹, Hirotaka Inoue^{1,2}, Anastasios Karakassides¹, Hua Jiang¹, Esko I. Kauppinen¹

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Selective Semiconducting Carbon Nanotube Extraction with Cellulose Acetate

*Kazuhiro Yoshida¹, Yoshiyuki Nonoguchi¹

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Estimating key factors for self-organized, aligned CNT film formation by machine learning

*Miki Ikeda¹, Tomoyuki Miyao², Yoshiyuki Nonoguchi¹

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Improving the Mechanical Performance of Carbon Nanotube Fibers Through Enhanced Alignment

*Sook Young Moon¹

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Preparation, properties and applications of carbon nanomaterial flexible transparent conducting films

*Hong-Zhang Geng¹

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Beyond d-spacing: The critical role of defects in graphene oxide membranes

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Structure Dependence of CNT Forests on the Lateral Memristive Resistance

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Direct identification and manipulation of valley coherence in monolayer semiconductor WSe₂

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High-Density Polarization Dots in Short-Period Moiré Superlattices Enabled by Flexoelectric Effects

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High current density in electric double layer light-emitting devices of WSe₂ monolayers

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Novel Interface Effects in Fe₂O₃@CNT

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Reconfigurable nonlinear losses of nanomaterial covered waveguides

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