

Wednesday, 18 November 2026

17:30 - 19:00 JOINT POSTER SESSION

No.	Poster Title / Presenter
1	Interfacial Termination Engineering via Gas-phase Quasi Acid-Base Dynamics for Nucleation-Regulated Growth of 2D MoS ₂ Dr Chaehyeon Ahn
2	Engineering Broadband Photoresponse via Thickness Modulated Interfacial coupling in InSb/MoS ₂ Van der Waals heterostructure Ms Rutuja Kiran Bhosale
3	Unveiling the Hidden Role of Electron Accumulation in Room-Temperature Janus Conversion of TMDs Mr Dingkun Bi
4	Effect of the In-Plane Configuration of Intercalated Fe Atoms in the van der Waals Gap on Electronic Transport in Fe _{0.33} TiS ₂ Mr Takumi Bizen
5	Signatures of Thermal-driven Fermi surface Topology Evolution in Resistance Fluctuations Spectroscopy of Td-WTe ₂ Ms Prajna Paromita Chanda
6	Hydrogen-manipulated atomic layer epitaxy of titanium nitride for superconducting devices Dr Yi-Hsun Chen
7	Enhanced Second Harmonic Generation in Metallic 3R-TaS ₂ via Local Field Modulation Ms Ruosi Chen
8	Toward Monolithic 3D Integration of 2D Semiconductors Prof. Powen Chiu
9	Interfacial Rashba States and Transport Signatures in Topological Insulator/Two-Dimensional Material Heterostructures Dr Pei-Yu Chuang
10	Decoding the Role of Nitrogen Speciation in Carbon Dots for Photocatalytic Hydrogen Evolution Mr Yiene Molla Desalegn
11	Graphene-Silver Nanowire Hybrid Substrate for Tunable Surface Enhanced Raman Spectroscopy Application Ms Shweta S Deshmukh
12	Strong Phonon Coupled Brightening of Localized Excitons in the Ferromagnetic CrBr ₃ Ms Nethmi Sandaru Lloyed Dissanayake
13	Statistical Examination of Memory Window and Charge Transport Performance in α -In ₂ Se ₃ -based Ferroelectric Field Effect Transistors Mrs Sonia Doughty
14	Tunable Sputtering-Assisted Post-doping of Vanadium in Monolayer MoS ₂ Mr Zih-Siang Jian
15	Ferroelectric Domain Size Modulation in hBN-induced Moiré Systems by Pick up and Transfer Mr Seungmean Joo
16	Impact of Fluorination in the Organic Spacer on Excitonic Properties of (A) ₂ PbI ₄ (A=PEA=C ₈ H ₁₂ N, 4-FPEA=C ₈ H ₁₁ NF) Mr Sihyung Kang
17	Acoustically enhanced carrier dynamics in WSe ₂ -based photoelectric devices Mr Hidetoshi Kanzawa
18	Reliability Characterization of WS ₂ Transistors with hBN Gate Dielectrics via Bias Temperature Instability (BTI) Analysis Mr Jiho Kim
19	Visualization of charge transport in monolithic platinum diselenide semimetal–semiconductor heterophase Mr Yeongyu Kim
20	Dynamic manipulation of chiral moiré vortices in twisted hexagonal boron nitride Mr Taehyung Kim
21	Facile Van der Waals hBN Encapsulation and Stabilization of Perovskite Quantum Dots Emission Dr Jiyun Kim

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22	Tailoring Dielectric Functionality through Interfacial Stacking-Controlled Domain Wall Dynamics Mr Byunghyun Kim
23	Temperature Dependence of the Valley Hall Effect in Bilayer MoS ₂ Mr Takeru Kobayashi
24	Nanoscale Mapping of Interfacial Reactivity and Charge Distribution in 2D Transition Metal Dichalcogenides via AFM-SECM and KPFM Ms Sumangaladevi Koodathil
25	Sliding Ferroelectric Memory based on 3R-MoS ₂ Mr Tzu-Hao Kuo
26	Process and Interface Engineering of MoS ₂ -Based Heterostructures for Emerging Memory Applications Ms Ji Hye Kwon
27	Fabrication of Graphene Josephson Junctions Using Directly Grown Graphene on hBN Mr Zhuoqun Li
28	Resonance Engineering in Van der Waals Mie Void Resonators Mr Zhuoyuan Lu
29	Enhanced Dark Exciton Emission in Suspended Monolayer WSe ₂ Dr Keigo Matsuyama
30	In-situ TEM Study of Contact Resistance Reduction in GaSe Devices Ms Mai Nakashima
31	Hydrovoltaic Effect-Based Devices for Energy Harvesting and Storage from Microdroplet Capture Prof. Toshiaki Natsuki
32	Flexible Multifunctional Nonwoven Fabric Modified with AgNPs/CNTs Nanocomposites Dr Jun Natsuki
33	Structural Origin of Highly Transparent Contacts in Graphene/MoRe Josephson Junctions Dr Hiroto Ogura
34	Broadband Photodetection and Interfacial Charge Carrier Dynamics in Monolayer MoS ₂ /Ultra-Thin Ga ₂ O ₃ Heterostructures Ms Greeshma Latha Sasidharan
35	Interaction-limited conductivity of twisted bilayer graphene revealed by giant terahertz photoresistance Mr Artur L. Shilov
36	Nuclear Spin Active Emitters in Flux-Grown Hexagonal Boron Nitride Dr Konosuke Shimazaki
37	Multi-Wavelength Spin Dynamics of Defects in Hexagonal Boron Nitride Dr Nicholas P Sloane
38	Giant third-order nonlinear optical response of two-dimensional silver phenylselenolate (AgSePh) thin films Mr Kyung Suk Suh
39	Optical characterizations of Janus TMDs homobilayers Ms Tianyishan Sun
40	Multidimensional exciton emission spectroscopy in monolayer WSe ₂ under surface acoustic waves Mr Yuta Takahashi
41	Fabrication and high-resolution ARPES study of CrS ₂ atomic-layer thin film Mr Koki Yamamoto
42	DFT calculations for Effects of OH/Epoxy Ratio on Electronic Structure of Graphene Oxide Prof. Takazumi Kawai
43	Defect-induced single photon sources in hexagonal Boron Nitride Ms Sofiya Karankova
44	Air-Stable Monolayer 1T'-WTe ₂ : Preservation of Quantum Spin Hall Properties via MoS ₂ Encapsulation Mr Daniel J McEwen
45	Polarization response of vertically-aligned MoS ₂ for advanced optoelectronics Mr Khomdram Bijoykumar Singh

No.	Poster Title / Presenter
46	High-throughput discovery of moiré homobilayers guided by topology and energetics Mr Naoto Nakatsuji
47	Volumetrically Efficient Graphene Supercapacitors Dr Petar Jovanovic
48	A Cross-Linked Binary Polymeric Binder for Mitigating Volume Expansion in 2D Black Phosphorus Anodes for Lithium-Ion Batteries Mr Fangli Xiao
49	HBM-like 2.5D memory integration is a key technology for next-generation high- performance computing systems Mr Liquin Niu
50	Spatiotemporal Vision Processing with MoS2 Reservoir Computing Dr Thiha Aung
51	Defect Engineering and Magnetic Dynamics in Low-Dimensional Materials for Future Terahertz Applications Prof. Alexander Chernov
52	Development of a Terahertz Graphene Detector on a Silicon Waveguide Platform Dr Igor Gayduchenko
53	Grain Boundary Enhanced Photoresponse in Monolayer MoS2 Merged Crystals Mr Tanish Gupta
54	Theory of Bloch state unfolding in disordered systems Dr T. Thuy Hoang
55	Ferromagnetic Interlayer Exchange Coupling in Ultrathin Magnetic Topological Insulator Sandwich Heterostructures Mr Enayet Hossain
56	Optically addressable spin defects in cubic boron nitride Mr Josiah E His
57	Probing the Bistable Switching in a Black Phosphorus Tunnel Transistor Dr Subhajit Jana
58	Nucleation-Controlled Rapid MOCVD of Wafer-Scale MoS2 Directly Grown on SiO2 at BEOL-Compatible Temperatures Mr Taehyeon Kim
59	Modularization of Photonic Devices via Ultrathin MoS2 Waveguides Mr Samuel Kim
60	Raman Investigation of Kagome Material CsCr6Sb6 Mr Andrei Klimovich
61	Integration of 2D Material-based Photonic Active Devices with Multilayer Silicon Nitride Backbone Mr Seungju Kwon
62	Characterization of Contact Metals and Monolayer 2D Semiconductor Interfaces Prof. Chun-Liang Lin
63	Structure-imposed intertwined magnetic, topological and transport properties in graphene nanoribbons Dr Tsai-Jung Liu
64	PVA-Assisted Clean Transfer and Lithography-Free Au Contact Integration for High-Performance MoS ₂ Phototransistors Dr Jianfeng Mao
65	Electronic Degeneracy Engineering in Layered Bismuth Oxyselelide Transistors for Monolithic 3D Logic and memory-computing convergence Ms Phuong Huynh-Uyen Nguyen
66	Ion Channel Engineering in Solution-Processed MoS2 Memristors via Ion Entrance and Interlayer Gap Engineering for Reliable Artificial Synapse Mr Gwanyeong Park
67	Graphene Sub-THz Photodetector for High-Speed Detection Dr Kirill Shein
68	From Reactor Physics to Alloy Composition: Predictive Growth of MoxW1-xS2 Mr Diwakar Singh

No.	Poster Title / Presenter
69	Ultralow-Voltage, High-Mobility Pentacene OFETs Enabled by Engineered 2D Hybrid Dielectric Interfaces Ms Lakshmi Priya Sukumar
70	Long-Propagating Ghost Phonon Polaritons Enabled by Selective Mode Excitation Mr Manuka Piyumantha Suriyage
71	Liquid Metal-Derived Two-Dimensional Metal oxides: A Scalable Pathway to Multifunctional Sensing Dr Nitu Syed
72	Integration of Refractive Microlenses on BP/MoS2 Photodiodes for Enhanced Infrared Photodetection Mrs Varsha Ashwin Vedaraj
73	Segregation-Driven Bilayer Graphene Formation on Cu–Ni Alloys Revealed by In-situ Optical Microscopy Dr Shengnan Wang
74	Tailored Low-Fe Doped CuFeOx Thin-Film Catalysts for Sustainable N2O Reduction with CH4 Dr Muhammad Waqas
75	Giant Bandgap Tuning in CVD-Grown Monolayer Ferroelectric β "-In ₂ Se ₃ on Graphene/SiC Mr Shuhang Wu
76	Emerging Weak Anti-localization and Strong spin-orbit interaction in van der Waals α -In ₂ Se ₃ Mr Peng Zhang
77	MoS ₂ Reservoir Computing for Spatiotemporal Vision Processing Using Intrinsic Optoelectronic Dynamics Dr Thiha Aung
78	High-throughput discovery of moiré homobilayers guided by topology and energetics Mr Naoto Nakatsuji
79	A Band-Theoretical Framework for Moiré Quasi-Periodic System: Quasi-Bands and Quasi-Brillouin Zone Mr Yuki Agemi
80	External-field Control of Magnetic Nonlinear Photovoltaic Effect in 2D Antiferromagnetic Material Mr Shuichi Asada
81	Dry transfer and transport measurements on MBE-grown quasi-vdW ferromagnet Cr ₃ Te ₄ flakes Mr Kanta Endo
82	Helical magnetism and magnon-renormalized correlations in domain wall networks of twisted bilayer graphene Dr Chen-Hsuan Hsu
83	Autonomous Fabrication of High-Quality Two-Dimensional Semiconductors via Integration of AI Agents and Robot Mr Wataru Idehara
84	Raman-Resolved Structural Phases and Mirror Twin Boundaries: Impact on Thermal and Electrical Transport in Bilayer TMDs Mr Alok Kumar
85	Signature for self-trapped excitons and structural phase transitions in 2D (BA) ₂ GeI ₄ halide perovskite. Ms Mariia Mamaeva
86	Neuromorphic Learning Through Bi ₂ O ₂ Se-Based Optoelectronic Synapses Ms Huynh-Uyen-Phuong Nguyen
87	Engineering strong mid-infrared absorption in graphene at low Fermi energy by coupling to nanostructured SiC Mr Hugh W Paynter
88	Ultrabroadband Polarization-Entangled Biphoton Source for Polarization-Sensitive Quantum Optical Coherence Tomography Mr Shuyao Qiu
89	Doped Ga ₂ O ₃ Monolayer for Selective Gas Detection and Scavenging Dr Aniket Singha
90	Tuning interlayer coupling in twisted bilayer graphene at an atomic level Mr Yueyang Wang

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91	Tessellation-based understanding of the electronic structure of marginally twisted trilayer graphene Dr Kunihiro Yananose
92	Defect-induced single photon sources in hexagonal Boron Nitride Ms Sofiya Karankova
93	Air-Stable Monolayer 1T'-WTe ₂ : Preservation of Quantum Spin Hall Properties via MoS ₂ Encapsulation Mr Daniel J McEwen
94	Ultramicrotomy-Enabled Multi-Orientation Atomic-Scale Characterization of 2D van der Waals Materials Prof. Shery Chang
95	Polymer-free van der Waals assembly of 2D material heterostructures using muscovite crystals Mr Ian Babich
96	Unveiling Site-Specific Hydrogen Evolution Activity in Janus MoSSe Prof. Ding-Rui Chen
97	Hot-Carrier Photovoltaics in 2D van der Waals Heterostructures Dr Kamal Kumar Paul
98	Electrically Tunable Multi-State Polaritons in Monolayer MoS ₂ Microcavities Dr Ashok Mondal
99	Oxide-based Optical Synapses with Low Consumption for In-Sensor Reservoir Computing Ms Jingyi Zhou
100	Tunable and enhanced excitonic emission in Photoexfoliated monolayer MoS ₂ Mr Rashed H. Lone
101	Amorphized Ion Reservoir Design Enabling Reversed Capacity Growth after Cycling for High-Performance Aqueous Zinc-Ion Batteries Mr Shengen Gong

