



European Materials Research Society

2025 Spring Meeting

May 26 - 30 | Strasbourg Convention Centre

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SYMPOSIUM C

2D materials and beyond: tomorrow's printable low-dimensional nanostructures and hybrids

Oral sessions : SCHUMAN - FIRST FLOOR

Poster sessions : ETOILE - FIRST FLOOR

Symposium Organizers:

Claudia BACKES, University of Kassel, Physical Chemistry of Nanomaterials, Germany

Jonathan COLEMAN, Trinity College Dublin, School of Physics and AMBER Research Centre, Ireland

Paolo SAMORI (Main organizer), ISIS, University of Strasbourg, France

Thomas D. ANTHOPOULOS, The University of Manchester, Photon Science Institute, UK

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Monday May 26
C03 Oral session

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13:45	3174	The first decade of colloidal perovskite quantum dots: Quo Vadis? KOVALENKO Maksym (Invited)
14:15	2787	Engineering Mo-Based DTM MXenes for Advanced Printable Electronics SYEDAH Afsheen Zahra
14:30	2270	Langmuir films of interfacially-modified graphene oxide MCCANN Alexander
14:45	608	Eco-friendly production of 2D crystals for advanced technologies CAPASSO Andrea
15:00	1691	Bismuth Chalco-Halide solid solutions $\text{Bi}(\text{S}_z, \text{Se}_{1-z})(\text{I}_x, \text{Br}_{1-x})$: Insightful characterization of tuneable materials for sustainable energy applications ROVIRA FERRER David
15:15	2440	Ultra-thin transistors and circuits for conformable electronics DIMAGGIO Elisabetta
15:30	2079	Tuning the dimensionality of van der Waals materials for nanophotonic applications TSELIKOV Gleb
15:45	626	A general electrochemical approach for high-throughput production of solution-processable van der Waals Heterostructures SHI Huanhuan

Monday May 26
C04 Oral session

[View session abstracts](#)

16:30	2515	Graphene-based sensors for diagnostics applications MERKOCI Arben (Invited)
17:00	2751	Transport properties through internal interfaces in MoS_2 RUSSELL Emilia
17:15	3018	Unipolar and non-volatile RF switches for 6G with MoS_2 by liquid-liquid interface assembly Deuermeier Jonas
17:30	288	Discovery of Hexagonal MBenes Driven by Materials Genome WANG Junjie
17:45	2216	Ultrathin and Stretchable Organic Photovoltaics for Emerging Applications FUKUDA Kenjiro
18:00	2376	Dynamical Nature of Exciton-Polariton Coupling in WS_2 Nanoparticles YADGAROV Lena
18:15	102	Li^+ intercalation chemistry in 2D materials: scalable preparation, mechanism study and applications ZENG Zhiyuan

Tuesday May 27
C05 Oral session

[View session abstracts](#)

08:30	872	Amorphous graphene-based materials LISCIO Andrea
08:45	2612	"Artificial Intelligence for realistic modelling of electronic, thermal, optical and transport properties in large scale models of complex forms of 2D Materials-based composites and amorphous compounds" ROCHE Stephan (Invited)
09:15	1590	Radiation Tolerance and Defects Activity Characterization in Metal Halide Perovskite CIAVATTI Andrea
09:30	1874	Reductive nanocarbon processing: chemistry, assembly, and application SHAFFER Milo (Invited)

Tuesday May 27
C06 Oral session

[View session abstracts](#)

10:30	877	Integrated Electronics and Sensors Based on MXenes ALSHAREEF Husam (Invited)
11:00	335	Defect-Engineering of Liquid-Phase Exfoliated 2D Semiconductors: Stepwise Covalent Growth of Electronic Lateral Hetero-Networks RICCIARDULLI Antonio Gaetano
11:15	2588	Two Dimensional $2\gamma\text{-In}_2\text{Se}_3$ in Bilayer-like Coloring Triangle Lattice: Mechanical, Electronic, Transport, and Photocatalytic Properties DURGUN Engin
11:30	376	Creating Doped and Asymmetric 2D Materials using Liquid Metal Processes KALANTAR-ZADEH Kourosh (Invited)

Tuesday May 27
C07 Oral session

[View session abstracts](#)

13:45	2717	MoS_2 -Based TFTs for High-Performance Flexible Displays and Sensors AHN Jong-Hyun (Invited)
14:15	2414	The origin and supply resilience of electronic nanomaterials in Europe KELLY Adam G.
14:30	107	Realizing neuromorphic computing with solution-processed low-dimensional materials Hu Guohua

14:45	2870	DNA templated 0D-2D Heterostructures: a Strategy for Optoelectronic Tunability CHEN Kai
15:00	460	Scalable Production and Application of Printable 2D Nanoelectronic Inks HERSAM Mark (Invited)
15:30	1305	Contact Barrier Engineering of 2D TMDCs based FETs through the Copper Sulfide Electrode. SOFER Zdenek
15:45	2101	Laser-enabled printing of two-dimensional materials: computational studies on key atomic-scale mechanisms TSETSERIS Leonidas

Tuesday May 27
C08 Oral session

[View session abstracts](#)

16:30	2860	Colloidal Nanocrystal Materials and Optical Devices with Extraordinary Structures and Functions KAGAN Cherie (Invited)
17:00	2375	Morphological analysis of printed nanostructured networks using 3D FIB-SEM nanotomography GABBETT Cian
17:15	1250	InAs Colloidal Quantum Dot Light Emitting Diodes HOSSEIN Roshan

Tuesday May 27
CPO2 Poster session

[View session abstracts](#)

17:30	01_101	Small Organic Molecule-Catalyzed Synthesis of a Van der Waals Flat-band Superconductor Song Xiaoyu
17:30	02_1011	Enhanced charge transfer in exfoliated MoS ₂ monolayers on plasmonic Ag nanogratings LIM Seoyoung
17:30	03_1021	Broken symmetry states and Quantum Hall Ferromagnetism in decoupled twisted bilayer graphene PANDEY Vineet

17:30	04_1032	3D printing of freestanding pure MXene microarchitectures SEOL Seung Kwon
17:30	05_1059	Machine Learning-Driven Ultrasensitive WSe ₂ /MWCNT Hybrid-Based E-Nose Sensor Array for Volatiles Amines Mixture GAUR Snehraj
17:30	06_1139	Solution-processable electronic-grade 2D WTe ₂ enabled by synergistic dual ammonium intercalation Yang Hyejung
17:30	07_116	Using Electrical Impedance Spectroscopy to Separately Quantify the Effect of Strain on Nanosheet and Junction Resistance in Printed Nanosheet Networks CAFFREY Eoin
17:30	09_1285	Flexible 2D Perovskite Thin Film Arrays for Real-time radiation beam monitoring during Radiation Therapy FRATELLI Ilaria
17:30	10_1317	Gold nanorods induced surface plasmon resonance effect on alloy Mo _x W _{1-x} S ₂ /p-Si heterojunction photodetector SAHU Deepak Kumar
17:30	11_1344	Enhanced cyclic wear reliability of defect-repaired monolayer MoS ₂ BARRI Nima
17:30	12_1412	Approaching intra-flake transport in inkjet-printed two-dimensional materials for high-performance transistors and logic electronics MONDAL Sandeep
17:30	13_1417	Controlled Chemistry of Ti ₃ C ₂ T _x MXenes in Halide Perovskite Environment Towards Improved Photovoltaics SOBOLEV Kirill
17:30	14_1447	Graphene and Copper Nanoparticles based electrochemical sensors for the determination of Glyphosate in Water YASIN Uswah
17:30	15_1485	Novel tablet-like particle morphology of 2D Ti ₃ C ₂ MXene material: synthesis and application in electrochemical actuators LARRAMONA Gerardo
17:30	16_1500	Come On, Let's Twist: Synthesis and Characterization of Twisted Bilayer Graphene via Wet Transfer & HRTEM/EELS BARRIONUEVO Santiago
17:30	17_1517	Highly sensitive and self-validating environmental and breath-level detection of ammonia gas by sensors array based on carbon nanotube and disulfide molybdenum heterojunction LA BARBERA Federico
17:30	18_1543	Electronic Structure Modulation of Semi-metallic Electrode for 2D Devices KIM Taehun

17:30	19_1549	Covalently functionalized 2H MoS ₂ cross-linking platform for PSA biosensing Wu Shuwei	17:30	36_1775	Cobalt, Nickel, and Manganese-Doped WSe ₂ as Efficient Electrocatalysts for Water Splitting and PEM Hydrogen Evolution, and as Anode Material for Lithium-Ion Batteries KAGKOURA Antonia
17:30	20_1563	Preparation and performance study of fast curing HTPB binder at room temperature REN Liyuan	17:30	37_1785	Dopant driven modulations and magnetic artifacts in CVD grown Nb doped WSe ₂ M B Abhijith
17:30	21_1565	Photorefractive Effects and Laser-Induced Nanopatterning of Crystalline As ₂ S ₃ Flakes MINNEKHANOV Anton	17:30	38_200	Substrate-induced strain in molybdenum disulfide grown by aerosol-assisted chemical vapor deposition BALAKRISHNAN Nilanthy
17:30	23_1587	The phonon dispersion and electron-phonon couplings in halide perovskite CsPbBr ₃ THÉBAUD Simon	17:30	39_254	Tunability of the Superconductivity of NbSe ₂ Films Grown by Two-Step Vapor Deposition Chang Meijuan
17:30	24_1599	Morphology control in ink-deposited 2D nanomaterial thin films Kudryavtseva Yelizaveta	17:30	40_265	Logic Inverter by Junction Field-Effect Transistors with Mixed-Dimensional WSe ₂ /n+-Si and MoS ₂ /p+-Si Structures KIM Eun Kyu
17:30	25_1604	Electrochemical exfoliation of MoS ₂ bulk material for the production of single or few-layered suspensions KNICKREHM Timm	17:30	41_290	Enhancing ALD Adsorption via Substrate-Tuned Adhesion Energy of TMDCs EOM Sukhyeon
17:30	26_1621	Exploring resonant acoustic mixing for the mechanical synthesis of two-dimensional materials RABANI Aadam	17:30	42_319	Fabrication of Diamond-like Carbon Films by PE-CVD Method and Investigation of Piezoresistive Features HUMALI Eray
17:30	27_166	Competitive Adsorption Behavior of Gases on 2D Materials Revealed by Second Harmonic Generation and Simplified Bond Hyperpolarizability Model YEN Ting Yu	17:30	43_320	Optical Modelling of Thermally Oxidized Silicon Substrates and Investigation of Oxide Thickness-Resistance Behavior for Piezoresistive Sensor Applications HUMALI Eray
17:30	28_1693	Accelerating Silicene Synthesis: A Breakthrough Vacuum/Nitrogen Cycle Method (VANS) for Rapid, Scalable Production KOZMA Erika	17:30	44_352	2D-Material based memristor for high throughput, low-cost ReRAMs MARRACCINI Gianluca
17:30	29_1700	Ion beam analysis on novel thin film chalcogenides: In the search for the microscale elemental distribution ROVIRA FERRER David	17:30	45_365	Unraveling the Augmented Field Emission Performance of Molybdenum Disulfide-Praseodymium Sulfide (MoS ₂ @PrS) Heterostructure: A Combined Experimental and First Principles-Based Study MAHAJAN Anima
17:30	30_1710	High magnetoresistance in 2D magnetic semiconductor Cr ₂ Si ₂ Te ₆ for field sensitive devices SANDEEP Sandeep	17:30	46_380	Contribution of the substituent on aryl diazonium salts to the functionalisation of MoS ₂ nanosheets GRASSME Florian
17:30	31_1712	Hierarchically Structured Weyl Semimetal WTe ₂ Nanowires for Efficient Electrocatalytic Hydrogen Evolution Reaction KIM Hyeonkyeong	17:30	47_381	Tuning intra-flake and inter-flake charge transport in 2D MoS ₂ networks ZHURAVLOVA Anna
17:30	32_1716	Unlocking Bulk Photovoltaic Effect in Spiral WS ₂ for High-Performance Self-Powered Photodetectors BASU Meghasree	17:30	48_392	Solution-processed heterojunctions using liquid-exfoliated WSe ₂ nanosheets for photodetectors Liu Shixin
17:30	33_1737	Silica shelling of Quantum Dots and gold film development GARBARINO Mauro	17:30	49_400	Scalable Delamination of 2D MXenes: Advances in Synthesis and Future Applications RAMAKRISHNAN Anu Roshini
17:30	34_1748	High-Performance Quasi-Solid-State Supercapacitors based on Nickel-Doped MoS ₂ Pom-pom Nanostructures Panghal Abhishek			
17:30	35_1753	Tailoring Optoelectronic Properties in 2D TMDs via Strategic Defect Engineering RAHMAN Atikur			

17:30 50_404 Ink-printed graphene-TiO₂-based gas sensor operating in pulsed and continuous light or heat modes
DROZDOWSKA Katarzyna

17:30 51_419 Molten Salt Shielded Synthesis (MS3) of High Temperature MAX Phase Ceramics like Nb₂AlC, Ta₂AlC, V₄AlC₃ in Open Air
ROY Chiranjit

17:30 52_465 Investigating effects of disorders in few-layer ReS₂ via electron transport
PAUL Shreya

17:30 53_467 Direct Laser Writing of Superimposed Gratings for Structural Colour and Encryption
SOMERS Jamie

17:30 54_479 Boosting Zinc Hybrid Supercapacitor Performance via Thiol Functionalization of Graphene-Based Cathodes
VALENTINI Cataldo

17:30 55_483 Large-Area, Highly Crystalline 2D Imine Covalent Organic Framework (COF) Films: Molecular Synthesis, Exfoliation, and Semiconductor Properties
SRIVASTAVA Diksha

17:30 56_493 Growth Study of Metal-catalyst-free Chemical Vapor Deposition of Single-Layer Graphene on Sapphire
WANG Zhaodong

17:30 59_518 Effect of graphene flake dimensions on the electrical percolation, gauge factor and piezoresistive properties in soft polyurethane composite
YADAV Lokesh

17:30 60_54 New Synthesis Approach of Conducting Polymer/MXene Nanocomposite with Improved Electrochemical Properties
SALEM Aliaa

17:30 61_560 Microfabrication and characterisation of electrically stable Suspended Electrolyte-gated Graphene Field Effect Transistors
MOURO João

17:30 62_574 MoS₂/TiO₂ Heterojunctions for Printable Photocatalyst Films for Nitrogen Oxides Air Remediation
Li Shize

17:30 63_606 Temperature and bias-dependent capture-emission time maps in electrolyte-gated graphene field-effect transistors
MOURO João

17:30 64_613 High-performance flexible pressure sensors based on transfer-printed graphene layers
LUO Feng

17:30 65_617 Sprayed Graphene Electrode for Wearable Textile-Triboelectric Nanogenerators and Biomechanical Sensors
Dang Hongyang

17:30 66_652 Data-Driven Discovery of High-Performance Heterobilayer Transition Metal Dichalcogenide-Based Sliding Ferroelectrics
WANG Xian

17:30 67_660 MoS₂-Au Hybrid Systems: How Does the Topography of Au Nanostructures Affect the Optical Properties of MoS₂ Monolayers?
CHO Jungyoon

17:30 68_710 Strain and Charge Doping Modulated Optical Emission Signatures of Polycrystalline WSe₂
PAUL Sourav

17:30 69_711 Solution-Processed Low-Dimensional Cs-Based Perovskite Nanostructures for Scalable Interface Engineering in Solar Cells
NG Annie

17:30 70_714 Towards sustainable liquid phase exfoliation processes using predictive models and feedstock re-use
STAFFORD Jason

17:30 71_720 Multi-functional networks from two-dimensional materials
PRIOLO Irene

17:30 72_774 Fabrication and Characterization of Two Types of MoS₂/Au-Nanowire Hybrid Systems
KIM Na-Hyun

17:30 73_779 Localized electric-field induced defects in hexagonal boron nitride for site-controlled quantum emitters
WU Chung Lin

17:30 74_860 High Performance Transparent Flexible Electrode by Dressing AgNWs with MXene
CHEN Yusheng

17:30 75_895 Investigation of the impact of many-body interactions on exciton physics in monolayer WSe₂ using steady-state optical excitations
DAS Saranya

17:30 76_941 Thickness-controlled etching for wafer-scale van der Waals Fe₄GeTe₂ thin film
Hangtian Wang

17:30 77_945 Superconductivity and CDW phases in Ca intercalated bi-Layer silicen
SAM Jisvin

17:30 78_3223 Fractal-Inspired Inkjet-Printed Gas Sensor Arrays for Room Temperature Formaldehyde Detection
Ogbeide Osarenkhoe

Wednesday May 28
C09 Oral session

[View session abstracts](#)

08:30	1542	Contact Barrier Engineering of 2D TMDCs based FETs through the Copper Sulfide Electrode. BYEON Junsung
08:45	2230	Supramolecular inks of 2D materials for fully printed humidity sensors CASIRAGHI Cinzia (Invited)
09:15	563	2D Materials meet cellulose Nanofibers (CNF): Pioneering Advanced Nanocomposites and Applications HAMEDI Max
09:30	2846	An Inexpensive and Rapid Route to Printable Phosphorene Quantum Dots from Red Phosphorus PAWLUS Michal
09:45	2918	3D Printed Graphene-Quantum Dot Aerogels for Artificially Intelligent Formaldehyde Sensing BHOWMICK Tynee

Wednesday May 28
C10 Oral session

[View session abstracts](#)

10:30	394	Phase Engineering of Nanomaterials (PEN): 2D Nanomaterials ZHANG Hua (Invited)
11:00	605	Low Temperature Sintering of Inkjet-Printed Silver Nanoparticle Ink using Damp Heat or Water Koker Liane
11:15	2855	A Decade of Printed 2D Electronics CAREY Tian
11:30	2877	Printable Three-dimensional hierarchically porous MoS ₂ foam TUNG Vincent (Invited)

Wednesday May 28
C11 Oral session

[View session abstracts](#)

13:45	691	Sorted and Functionalized Semiconducting Carbon Nanotubes for Thin Film Devices ZAUMSEIL Jana (Invited)
14:15	1616	Potential-Driven Intercalation for Tailored 2D Nanomaterials SYNNATSCHKE Kevin
14:30	1349	3D printed electronic devices based on 2D materials composite and machine learning CHOI Wonbong
14:45	3230	Innovative applications of thin-film transistors (TFTs) technology for novel display, active-matrix sensing and on-chip DNA synthesis FENG Linrun
15:00	1005	Conductive, Additive-free MXene Inks Can Replace Metals and Carbons in Printed Electronics GOGOTSI Yury (Invited)

Thursday May 29
C12 Oral session

[View session abstracts](#)

08:30	2500	Zeiss Crossbeam Focused Ion Beam (FIB) Microscope for Nanomaterials Research VERTSANOVA Olena
08:45	2736	Hexagonal and amorphous boron nitride thin films for next-generation 2D electronics and battery applications SHIN Hyeon Suk (Invited)
09:15	641	Thickness-Dependent Properties of BNNs and Their Applications CAI Qiran
09:30	2605	2D Materials towards Post-AI Era: Smart Fibers, Artificial Muscle & Single Atom Catalyst KIM Sang Ouk (Invited)

Thursday May 29
C13 Oral session

[View session abstracts](#)

10:30	2709	Hypotaxy of Wafer-scale Single Crystal Transition Metal Dichalcogenides LEE Gwan-Hyoung (Invited)
11:00	2965	Solution-processed Janus 2D layers VASSILYEVA Natalia
11:15	2901	Temperature and Pressure Dependence of the Optical Properties of Inkjet-Printed Lead-Free Perovskite TEA25nI4 HERNÁNDEZ Sergi
11:30	2893	The role of vacancy defects and Au ion mobility in MoS ₂ 2D memristor JAMALZADEH KHEIRABADI Sharieh
11:45	1577	Inert Liquid Phase Exfoliation of TaS ₂ AHMAD Muhammad

Thursday May 29
CP04 Poster session 2

[View session abstracts](#)

13:30	01_1790	Defect Induced Piezoactivity in CVD grown Tungsten Dioxide-WO ₂ M B Abhijith
13:30	02_1822	Defect Engineering for Enhanced Mobility in CVD grown MoS ₂ Monolayers Majumder Sudipta
13:30	04_1838	Tuning the Optoelectronic Properties of ALD-Grown MoS ₂ Monolayers via Focused Helium Ion Beam Irradiation GONZALEZ-ANGULO Marco Antonio
13:30	06_1886	Electrochemically Exfoliated 2D MoS ₂ for ppb-level NO ₂ Sensing Biswas Subhjit
13:30	07_1888	Enhanced ReRAM Performance via Strain-Engineered MoS ₂ Using Permanent Stressors Cheon Min Cheol
13:30	08_1914	Lateral and Vertical p-n Junction Heterostructures of MoSe ₂ -WSe ₂ and Their Broadband Nonlinear Optical Response and Rectification Effect JOOHYEON Ahn
13:30	09_1941	Synthesis of Two-Dimensional MoS ₂ by Sulfurization of Mo Thin Films using Isolated Plasma Soft Deposition for Temperature Sensors JANG Jong-Hyun

13:30	10_1953	Gapless Dry Transfer and Conformal Contact Analysis through Effective Diffusion Current Lim Jong Tae
13:30	12_2004	Optoionic MoS ₂ Synaptic Memory Devices Powered by Biopolymer Hydrogels as a Dynamic Cations Reservoir TORDI Pietro
13:30	13_2014	Epitaxial High-K Dielectric Oxide Gd ₂ O ₃ Substrate for 2D TMDCs: Realizing and Controlling High-Quality Optical Emission GHOSH Kritika
13:30	14_2080	Wafer-scale direct growth of graphene on c-sapphire for remote epitaxial growth of freestanding semiconductor thin films and devices Abbas Muhammad Sabbtainn
13:30	15_2082	Graphene-inspired synthesis of two-dimensional gold ERMOLAEV Georgy
13:30	16_2084	Temperature-Controlled Phase Behavior and Structural Characteristics of GaS and Ga ₂ S ₃ via liquid metal process WU Che-Ming
13:30	17_2092	Synchronized Illumination Kelvin Probe Force Microscopy: A Novel Technique for High-Resolution Mapping of Light-Induced Charge Dynamics EFTEKHARI Zeinab
13:30	18_2123	Covalent stitching of WS ₂ grain boundaries to weld two-dimensional semiconductor crystals HAN Bin
13:30	19_2137	Next generation photodetectors enabled by the Laser Induced Forward Transfer of two-dimensional materials ZERGIOTI Ioanna
13:30	20_2138	Ultra-short laser-induced crystallization of MoS ₂ thin films FARID Nazar
13:30	22_2156	Enhanced Water Resistance of halide CsPbI ₃ Perovskite through Graphene Flake Encapsulation. ER-RIYAH Oussama
13:30	23_2213	Laser-direct-printed 2D material-based heterostructures for the fabrication of electronic devices ZERGIOTI Ioanna
13:30	24_2222	Fully Inkjet-Printed Sn-Based 2D Metal Halide Perovskites for Next-Generation LEDs and Photodetectors LOBO Kenneth
13:30	26_2255	Investigating Strain-Dependent Phonon Behaviour in Few-Layer V ₂ CTx MXene PRAMANIK Monidipa

13:30 28_2268 Synergistic Defect Passivation, Hole doping and Hysteresis Control in 2D transition metal dichalcogenide
SOMAY Srest

13:30 29_2285 Aerosol-Jet Printed Natural Biopolymer Composite Ionic Conductors
Sekkarapatti Ramasamy Madeshwaran

13:30 30_2306 Unveiling the Potential of Defects in MXene Heterostructures for Energy Applications Through First-Principles Study
ALI Muhammad

13:30 31_2335 Liquid phase exfoliation of 2D materials in Cyrene using low-power bath sonication
MOREIRA Pedro

13:30 32_2350 High Responsive Pyrophototronic Photodetection in 2D WS_2 Phototransistors using Patterned 2D hBN Dielectric
CHAKRABARTY Poulomi

13:30 33_2379 Production of High Crystallinity Graphene Oxide and its Properties
Hatakeyama Kazuto

13:30 34_2408 Synthesis of 2D WSe_2 Nanolayers via Ultraviolet/Ozone Pre-deposition Treatment
VIDEVA Vladimira

13:30 35_2425 Growth mechanism and exciton dynamics in CVD grown MoS_2/WS_2 heterojunction
CHAUDHARY Vivek

13:30 37_2439 Mechanical Strain Effects on Magnetism in Frustrated Two-Dimensional Materials: A Monte Carlo Perspective with Distance-dependent Ising Hamiltonian
CELIK Aytac

13:30 38_2462 Scalable, Low-Cost Solution Processing of 2D Materials for High-Performance RRAM Applications
Mingates Tomás

13:30 39_2527 Engineering of solution processing in multi-component organic light-emitting transistor based on $CsPbBr_3$ perovskite nanocrystals
ZAHOALIAJ Kelment

13:30 40_2533 Transfer-free wafer-scale graphene electronics on sapphire
Fenwick Oliver

13:30 41_2557 Multi-length scale characterization of two-dimensional hybrid perovskites
UMMADISINGU Amita

13:30 42_1878 Printed-Lithography of Hybrid Graphene-Perovskite Photodetectors for Sustainable Electronics
AKHAVAN Shahab

13:30 43_2592 Wafer-scale Single and Multilayer Hexagonal Boron Nitride
CUN Huanyao

13:30 44_2596 Highly Selective Membranes Based on Charged Nanosheets for the Urban Mining of Lost Critical Metals
GABRIEL Jean-Christophe P.

13:30 46_2614 Synthesis and Characterization of WTe_2 and $V:WTe_2$ toward inducing magnetism
DIMITROV Dimitre

13:30 47_2625 Reduced Graphene Oxide Electrolytic Transistors Assisted by Machine Learning for the Detection of Small Analyte Molecules
LELIS Gabrielle

13:30 48_2646 Synthesis and Characterization of $MoSe_2$ and MoS_2 Thin Films for Sensing and Optoelectronic Applications
NAPOLEONOV Blagovest

13:30 49_2652 Chemical Analysis of Commercial Functionalized Graphene along the Production Process
MADBOULY Loay Akmal

13:30 50_2658 Integrated Optical and Nonlinear Microscopy for TMDC Analysis
LOAN Tommy

13:30 51_2660 Accurate Band Gap Predictions for 3D and 2D Halide Perovskites with a Parameter-Free Hybrid Functional Approach
GARBA Ibrahim Buba

13:30 53_2679 Alloyed transition metal dichalcogenide nanosheets via a solution-processable route
WELLS Rebekah

13:30 54_2689 Murray's law inspired metal oxide-reduced graphene oxide for gas sensing
BHOWMICK Tynee

13:30 55_2695 Ultrafast diffusion in monolayer films of 9-armchair graphene nanoribbons
MOCZKO Loïc

13:30 56_2716 Unveiling the Potential of MBenes: Pioneering 2D Nanomaterials in Early Transition Metal Borides
CHANDEL Madhurya

13:30 57_2728 ZnS-Based Nanostructures: The Role of Dimensionality in Structural and Optical Properties
MASRI Rimel

13:30 59_2765 The development of a solution processing method to form ordered films of insulating 2D nanosheets suitable for use as dielectric layers in capacitors
BRENNAN Oran

13:30 60_2771 Determining the Temperature Dependence of Nanowire Resistivity and Junction Resistance in Nanomaterial Networks
COLEMAN Emmet

13:30 61_2775 Vibrational properties and thermal behavior of $Ti_3C_2Cl_2$ MXenes under different environmental conditions
RIABOV Maksim

13:30 63_2812 2D noble-metal dichalcogenides: synthesis, properties and applications
MARINOVA Vera

13:30	65_2856	In-situ Fabrication of Laser-Induced Graphene/Manganese Oxide Composite for Ion Selective Electrochemical Electrodes ANVARI KOHESTANI Abolfazl
13:30	66_2872	Flexible Non-Enzymatic Hydrogen Peroxide Sensor Based on Spray-Coated 2D-TiO ₂ and Silver Nanowire Layers on PET Substrates CEVIK Eda
13:30	67_2873	Tunable Nanosheets for Ambient Energy Storage SASITHARAN Kezia
13:30	68_2915	The effect of Graphene-based Lubricant in tribological tests and fuel consumption CHRISTINELLI Wania Aparecida
13:30	69_2919	Reduced Graphene Oxide Electrolyte-gated Transistors under Multi-type Voltage Stimuli Towards Memory and Neuromorphic Applications FURLAN DE OLIVEIRA Rafael
13:30	70_2967	Reliable analysis of the elemental analysis of graphene oxide flakes with SEM/EDS and XPS RADNIK Jörg
13:30	71_2972	On-skin paintable and stable MXene hydrogels for Electrocardiogram Monitoring with high signal-to-noise ratio IQBAL Aamir
13:30	72_2981	Printed aqueous Zn-ion batteries for wearable sensors Goli Nagaraju
13:30	73_2994	High Performance ZnSnP ₂ Anode for Lithium ion Batteries. FULHAM Seán
13:30	74_3012	Fabrication of Zinc-Ion Microcapacitors based on 2D 1T-Titanium Disulfide ÖZ Sena
13:30	75_3029	Covalent and Supramolecular approaches to tunable 2D hybrid heterostructures growing and properties LUCHERELLI Matteo Andrea
13:30	76_3031	Electrolyte-gated Transistor Platform for microRNA Biosensing Through the Functionalization of Reduced Graphene Oxide DELEIGO Ana Vitória Ferreira
13:30	77_3057	Chemical Approaches for Creating Materials Beyond van der Waals Architectures Vázquez Sulleiro Manuel
13:30	78_3098	Influence of Oxidation Levels on the Mechanical Properties of Graphene Derivatives: A Comprehensive Analysis PÉREZ-GARCÍA Sergio Alfonso
13:30	79_3187	Chemical blowing strategy to build micro/nano structured 3D graphene-based materials HAN Kun

Thursday May 29 C14 Oral session

[View session abstracts](#)

14:45	417	High volume requirements on low-dimensional nanostructures STREB Fabian (Invited)
15:15	96	Circular Flow Alignment of Polymeric Semiconductor Thin Films on Air-Liquid Interfaces FUJIOKA Shuta
15:30	573	Fibre-based MoS ₂ photodetector for wearable applications LIU Sihui
15:45	1381	Persistent Photoconductivity and Photo(electro)catalysis from Engineered Transition Metal Dichalcogenide Atomic Layers BIROJU Ravi Kumar

Thursday May 29 C15 Oral session

[View session abstracts](#)

16:30	2790	Carbon Nanostructures by Design MÜLLEN Klaus (Invited)
17:00	2732	Spin radical organic semiconductors FRIEND Richard (Invited)
17:30	2245	Tuneable optoelectronic response in flexible PtSe ₂ films GERLEI Martin
17:45	2501	Hysteresis sources prediction using generalized model in low dimensional Field effect transistors SRIVASTAVA Rupali
18:00	1450	2D versus 3D-Like Electrical Behavior of MXene Thin Films: Insights from Weak Localization in the Role of Thickness, Interflake Coupling and Defects HURAND Simon