

SUNDAY, 7.09		MONDAY, 8.09 / Room - London		
8:30-9:00		Opening Ceremony		
9:00-9:45		Sara Majetich	1842	Magnetic Tunnel Junction Artificial Spin Ice Dynamics
9:45-10:30		Vladimir Tsukruk	1577	Ultrathin Functional Hybrid Nanomaterials for Integrated Wearable Electronics
10:30-11:00		Coffee break		
11:00-11:45		Saw Wai Hla	1524	Atomically Precise Control Operation of Molecular Machines
11:45-12:15		Group Photo		
12:15-2:00		Lunch break		
2:00-2:45		Yury Gogotsi	1907	Assembly of MXene-Based Materials with a Multitude of Functionalities
2:45-3:30		Babak Anasori	1822	Complex Chemistries and Defect Engineering in MXenes: From Fundamentals to Properties
3:30-4:00		Coffee break		
4:00-5:00	Registration	AI Forum		
5:00-6:30		MXene Symposium Poster Session		
6:30 -7:00				
7:00 -9:00	Welcome reception			

TUESDAY, 9.09					
	Track N	Presenter	Title	Session Chair	
8:30 - 8:50	1655	Christopher Eugene Shuck	Advances in Solid-Solution MXenes	Babak Anasori	
8:50 - 9:00	1609	Xinming Xing	Controlled Growth of MXenes via Chemical Vapor Deposition: From Nanoscale Crystals to Continuous Films		
9:00 - 9:20	1666	Vadym Mochalin	Reactivity and Applications of 2D Transition Metal Carbides (MXenes)		
9:20 - 9:30	1518	Adéla Jagerová	Structure and stability of PVD prepared scandium and zirconium 2D carbides		
9:30 - 9:50	1686	Per Persson	The influence of MXene terminations on structure and stability		
9:50 - 10:00	1729	Anna Grzegórska	From Synthesis to Application: The Role of MXenes in Advanced Photocatalytic Systems		
10:00 - 10:20	1677	Igor Iatsunskyi	Engineering Metal Oxide–MXene Nanocomposites for Advanced (Photo)Electrochemical Applications in Energy and Biosensing		
10:20 - 10:30	1745	Aniello Zabatta	PASSIVE PROTECTIVE SHIELDS FOR LUNAR OUTPOSTS	Igor Iatsunskyi	
Coffee break					
11:00 - 11:20	1707	Anirudha Sumant	Superlubricity: A Quest For Developing Long Lasting Solid Lubricant Utilizing MXene		
11:20 - 11:30	1531	Shalu Atri	MXene-Based Materials: Unlocking Advanced Oxidation in Dark Environments		
11:30 - 11:50	1703	Chong Min Koo	MXenes for Enhanced EMI shielding and Thermal Management		
11:50 - 12:00	1694	Hari Hara Sudhan Thangavelu	INTERLAYER MODIFICATION ON Ti3C2TZ MXENE MULTILAYER BY TAILORING SURFACE TERMINATIONS		
12:00 - 12:20	1872	Zdenek Sofer	Crystal growth of MAX phases and its topochemical conversions towards energy applications		
12:20 - 12:30	1588	Ken Aldren Sumaya Usman	SEQUENTIALLY BRIDGED MXENE ARCHITECTURES	Yury Gogotsi	
12:30 - 12:50	1586	Seon Joon Kim	Tailored Surface Functionalization of MXenes for Conductive, Amphiphilic Dispersions and Inks		
12:50 - 13:00	1820	Akimaro Yanagimachi	Mechanistic Insights into Enhanced Water Resistance of MXenes: The Roles of Microstructure and Surface Chemistry		
Lunch					
14:30 - 14:50	1720	Maksym Pogorielov	Application of MXenes in Therapeutic Strategies		
14:50 - 15:00	1776	Volodymyr Deineka	The Biological Flake Size–Dependent Effects of Titanium MXenes for Biomedical Applications		
15:00 - 15:20	1844	Sanjiv Dhingra	Immunomodulatory MXenes for cardiac regenerative medicine		
15:20 - 15:30	1750	Kateryna Diedkova	The Role of Surface Terminations in Ti-Based MXenes Biocompatibility: Effects of Intercalation and Etching	Ana Maria Primo Arnau	
15:30 - 15:50	1894	Lucia Gemma Delogu	2D Materials, MXenes: High Dimensional Immune Approaches Toward Biomedical Applications		
15:50 - 16:00	1736	Viktoriia Kornienko	MXENE AS ANTIBACTERIAL AGENTS: OVERCOMING THE LIMITED ANTIBACTERIAL EFFICACY OF MXENES WITH PHOTOTHERMAL AND ANTIBODY-MEDIATED STRATEGIES		
16:00 - 16:20	1865	Açelya Yilmazer	MXenes in next generation cancer therapies		
16:20 - 16:30	1787	Anastasia Konieva	IN-VIVO CHARACTERIZATION OF THE MXENE-ANTI-CEACAM1 COMPLEX FOR PHOTOTHERMAL TARGETED MELANOMA TREATMENT		
Coffee break					
17:00 - 17:20	1752	Laura Fusco	MXene Chemistry Shapes Protein Corona Identity and Immune Cell Interactions		
17:20 - 17:30	1742	Sergiy Kyrylenko	Both Nb2CTx And Ti3C2Tx MXenes Induce Potent Immunomodulatory Effects In Primary Human Monocyte-Derived Macrophages	Ana Maria Primo Arnau	
17:30 - 17:40	1829	Shashwat Sharma	DESIGN AND DEVELOPMENT OF MXENE@MoS <sub>2</sub> NANOHYBRIDS FOR SYNERGISTIC TRIMODAL ANTIBACTERIAL THERAPY		
17:40 - 18:00	1567	Anton Popov	MXenes as Advanced Nanomaterials for Enzymatic Biosensor Development		
18:00 - 18:10	1672	Amina Rhouati	Two-dimensional double transition metal MXenes in electrochemical biosensors		
18:10 - 18:20	1424	Zeliha Cansu Canbek Ozdil	Synergistic Effect of 1D Silver Nanowires and 2D Ti3C2 MXenes for Robust and Conductive Hydrogels		
18:20 - 18:30	1493	Emily Sutherland	Machine-Learning-Enabled High-Throughput MXene Property Prediction		
20:00	MXene NIGHT				

WEDNESDAY, 10.09			Session Chair
Track N	Presenter	Title	
8:00 - 8:30	1905 Patrice Simon	Tailoring MXene Surface Chemistry for Enhanced Electrochemical Performance	José R. B. Gomes
8:30 - 8:50	1828 Lorena Manzanares	Single-Molecule Biosensing with MXene Energy Transfer	
8:50 - 9:00	1708 Arezki BENFDILA	On 2D MXene Nanosheets FETs (MXFETs) Progress	
9:00 - 9:20	1635 Simonas Ramanavičius	SURFACE MATTERS: UNLOCKING THE APPLICATION OF MXENES THROUGH SURFACE CHEMISTRY	
9:20 - 9:30	1436 Mugilan Narayanasamy	Molten salt assisted synthesis of Monodispersed flower-like Mo2V2C3Tx MXene clusters with superior anode performance for Lithium-ion batteries	
9:30 - 9:50	1712 Mohammad H. Zarifi	MXene for Advanced Electromagnetic and Antenna Applications Featuring Design Reconfigurability and Environmental Adaptability	
9:50 - 10:00	1642 Prisca Viviani	Controlling Zinc Deposition via Ti3C2Tx MXene Flake Engineering for Anode-Free Zinc/Prussian Blue Analogue Batteries	
10:00 - 10:20	1816 Parikshit Sahatiya	MXene-TMDs Hybrid Based Flexible and Wearable Devices and Systems	
10:20 - 10:30	1646 Mia Angela Nuñez Judicpa	High-temperature MXene-based Energy Storage with Solvate Ionic Liquid Electrolytes	
Coffee break			Michael Naguib
11:00 - 11:20	1785 Ana Primo	Efficiency	
11:20 - 11:30	1390 Jyoti Jaiswal	Aligned 2D Ti3CNTx MXene/PVDF-TrFE Composite Fibers: A Pathway to Enhanced Piezoelectricity for Smart Sensing and Energy Harvesting	
11:30 - 11:50	1590 Stéphane Célériér	Mo-based MXene for electrocatalysis (Hydrogen Evolution Reaction) and thermal catalysis (ammonia synthesis)	
11:50 - 12:00	1644 Hakan Göcerler	INFLUENCE OF SURFACE ROUGHNESS AND POROSITY ON THE TRIBOLOGICAL PERFORMANCE OF TITANIUM-HYDROXYAPATITE COMPOSITES WITH MXENE LUBRICATION	
12:00 - 12:20	1704 Haya Alyssi	Applications of Two-Dimensional MXenes for the Removal of Emerging Contaminants from Water	
12:20 - 12:30	1682 Indrajit Mahadev Patil	Trimethylammonium triflate as promising protic ionic-liquid electrolyte for Ti3C2 MXene supercapacitors	
12:30 - 12:50	1783 Hermengildo Garcia	MXenes as Heterogeneous Thermal Catalysts: Regioselective Anti-Markovnikov Hydroamination of Terminal Alkynes with 102 h−1 Turnover Frequencies	
12:50 - 13:00	1697 Yahya Sorkhe	Nanostructure Engineering of Ti3C2Tx, Nb2CTx, and V2CTx MXenes for High-Performance Inkjet-Printed Microsupercapacitors	
Lunch			Sanjiv Dhingra
14:30 - 14:50	1871 Tristan Petit	In Situ Monitoring of Confined Water, Protons and Ions in Ti3C2Tx MXenes down to Single Flakes	
14:50 - 15:00	1400 Zhongpeng Lyu(Lv)	Guided growth of transition metal double hydroxides (LDHs) and layered hydroxides (LHs) on Ti3C2Tx nanoflakes for electrocatalysis	
15:00 - 15:20	1772 Faisal Shahzad	Safeguarding Environment and Communications: MXenes for Water Remediation and EMI Shielding.	
15:20 - 15:30	1684 Anjana Baby	PLASMA-INDUCED SURFACE TAILORING OF Ti2C MXENES FOR ADVANCED SUPERCAPACITOR APPLICATIONS	
15:30 - 15:50	1819 Francesc Viñes	Computational Assessment of MXenes Bandgap Engineering for Photocatalytic Water Splitting	
15:50 - 16:00	1741 Roger Amade Rovira	Binder-free integration of Ti3C2 MXene on graphene nanowalls-coated carbon felt for hydrogen evolution catalysis	
16:00 - 16:20	1824 Aleix Comas-Vives	Atomistic Understanding of MXenes as Catalysts and Single-Atom Catalyst Supports for C1 Conversion	
16:20 - 16:30	1446 Olivier Monfort	MXENES AS INNOVATIVE PRECURSORS FOR WASTEWATERS TREATMENT CATALYSTS	
18:00	Gala Dinner		

THURSDAY, 11.09				Session Chair
Track N	Presenter	Title		
8:00 - 8:30	1807 Michael Naguib	Tailoring MXenes at Atomic and Nanoscale for Energy Applications		Vadym Mochalin
8:30 - 8:50	1874 MARIA LUKATSKAYA	Diverse Strategies for Pseudocapacitance in 2D Materials and beyond		
8:50 - 9:00	1431 Sergii Sergiienko	Engineering MXene/metal composites from MAX phase/metal-Al precursors for Hydrogen Evolution Application		
9:00 - 9:20	1700 Masashi OKUBO	MXene for all solid state batteries		
9:20 - 9:30	1435 Mihaela Florea	Ti <sub>3</sub> C <sub>2</sub> -MXenes as Catalysts for the Direct Conversion of Methane: Unravelling Structure–Activity Relationships		
9:30 - 9:50	1889 Max Mahiar Hamed	MXene-based iontronics devices for actuation and computation		
9:50 - 10:00	1434 Aicha Anouar	Multilayered Ti3C2 MXene as heterogeneous catalyst for the guanylation of carbodiimides with high turnover frequency		
10:00 - 10:10	1733 Kim Marie Sisican	Understanding the Behaviour of 2D MXene Nanosheets in Low pH Environments for Pure MXene Fiber Formation		
Coffee break				
11:00 - 11:20	1602 Minghao Yu	Termination Engineering in MXenes and Their Charge Transport/Storage Properties		Açelya Yilmazer
11:20 - 11:30	1616 Andreas Furchner	Spectroscopic Micro-Ellipsometry Reveals Optical, Structural, and Charge Transport Properties of Individual MXene Flakes		
11:30 - 11:50	1706 Felice Torrisi	Charge and thermal transport in printed films of two-dimensional materials		
11:50 - 12:00	1688 Changjie Huang	EXPLORING THE SURFACE AND STRUCTURAL EVOLUTION OF Ti <sub>3</sub> C <sub>2</sub> Tz AT NEAR-ATMOSPHERIC PRESSURES VIA CLOSED-CELL STEM		
12:00 - 12:20	1817 José Daniel Gouveia	Evolution of MXene models for catalysis and sensing: driven by curiosity, necessity, and reality		
12:20 - 12:30	1689 Sergii Chertopalov	Enhancement of the catalytic activity of Ti3C2Tx MXene by excitation of surface plasmon-polaritons		
12:30 - 12:50	1879 Shayan Seyedin	MXene Energy Yarns: Powering the Future of Soft Wearable Technology		
12:50 - 13:00	1732 Rochelle Ibabao	Understanding the Transformation of MXene (Ti3C2Tx) and SiC Interfaces Under High Temperatures		
Lunch				
14:30 - 14:50	1835 Xuehang Wang	Mechanistic Insights into High-Rate Electrochemical Energy Storage Using MXenes and MXene-Based Heterostructures		Oleksiy Gogotsi
14:50 - 15:00	1763 Xinnian Li	Structure-activity Investigation Of MXenes For Solution-based Surface Enhanced Raman Spectroscopy		
15:00 - 15:20	1685 Vincent Mauchamp	Defect Engineering In MXenes Using Ion Beams: Spectroscopic Characterizations And Properties Modifications.		
15:20 - 15:30	1677 Eslam Mahmoud	Can Ti-Based MXenes Serve as Solid Lubricants for Brake Applications? A Tribological Study		
15:30 - 15:50	1696 Maxim Sokol	Clean and Scalable Micropatterning of MXene Thin Films		
15:50 - 16:00	1671 Marko Piljevic	Pulsed Electrochemical Exfoliation for an HF-free sustainable MXene Synthesis and Solid Lubrication Performance		
16:00 - 16:10	1382 Chandana Gadadasu	Data-Driven Optimization of Fluorine-Free Ti3C2Tx Composites for Exceptional Microwave Absorption at Ultra-Low Concentration		
16:10 - 16:30	1604 Meikang Han	Tunable Structural Colors with ‘Light-Lossy’ MXene Paints		
Coffee break				
17:00 - 17:20	1858 Qing Huang	Chemical Scissor-Mediated Structural Editing of Layered Transition Metal Carbides and Beyond		Christopher Eugene Shuck
17:20 - 17:30	1790 Roy Alvin Jolo Malenab	Sintering strategy of MXene-templated TiCy–BaTiO3 heterostructures		
17:30 - 17:50	1876 Maria Clelia Righi	MXenes functionality as solid lubricants investigated by ab initio calculations combined with experiments		
17:50 - 18:00	1766 Tufail Hassan	Semiconducting Titanium Nitride Ti4N3Tx MXene with Gate-Tunable Electrical Conductivity		
18:00 - 18:20	1758 Johanna Rosen	Theoretically Predicting and Experimentally Verifying A-Element Substitution and MXene Formation in Reactions Between MAX Phases and Molten Salts		
18:20 - 18:40	1813 De-en Jiang	Multidentate Ligands on MXene Surfaces		

8:30-8:45  
8:45-9:00  
9:00-9:15  
9:15-9:30  
9:30-9:45  
9:45-10:00  
10:00-10:15  
10:15-10:30  
10:30-10:45  
10:45-11:00  
11:00-11:15  
11:15-11:30  
11:30-11:45  
11:45-Noon  
Noon-12:15  
12:15-12:30  
12:30-12:45  
12:45-1:00  
1:00-1:30  
1:30-2:00  
2:00-2:15  
2:15-2:30

**FRIDAY, 12.09**

**Free time**

**Award & Closing  
Ceremony**