PROGRAM

MATSUS & STECH

Materials for Sustainable Development Conference

Sustainable Technology Forum València

València, Spain · March 6th - 10th, 2023

nanoGe

fundació Scito

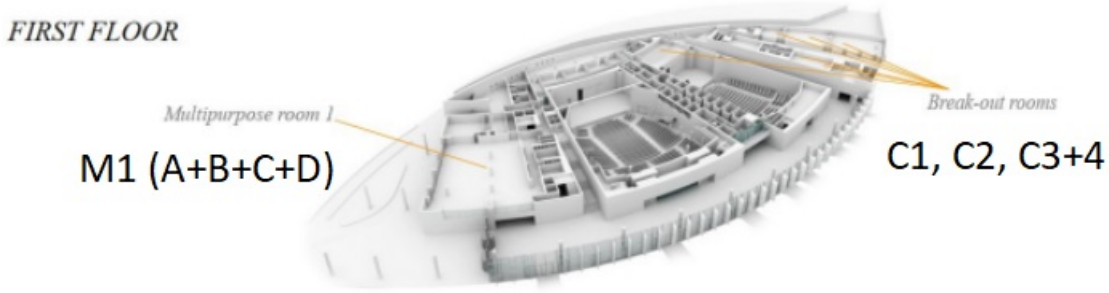
This program may be slightly modified due to last minute changes. For the latest information, please visit our website:

nanoge.org

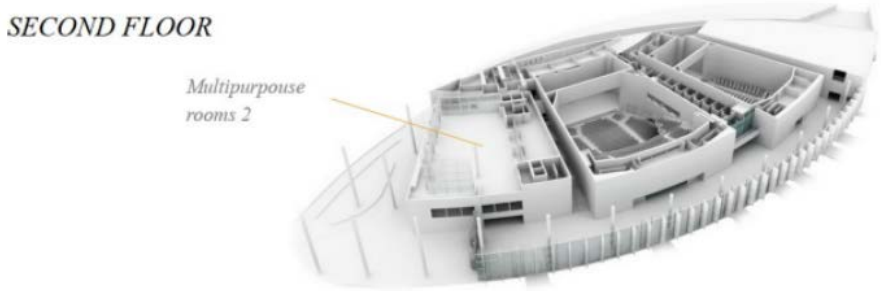
	Monday 6th		Tuesday 7th						Wednesday 8th						Thursday 9th						Friday 10th					
	M1A+B	M1C+D	M1A	M1B	M1C+D	C1	C2	C3+4	M1A	M1B	M1C+D	C1+2	C8	C3+4	M1A	M1B	M1C+D	C1+2	C8	C3+4	M1A	M1B	M1C+D	C1+2	C8	C3+4
09:00 h - 10:30 h	STECH		STECH	Sus Bat	Green E	Per Fut	Adi nos	QMat	Photo Pero 23	Sus Bat	Chem Nano 23	Per Fut	Adi nos	QMat	Photo Pero 23	2D Pero	2D SUSY	New OPV	NC Fun 23	e-Fuel Syn	De Mode P23	2D Pero	2D SUSY	New OPV	NC Fun 23	e-Fuel Syn
10:30 h - 11:15 h	Coffee Break														Coffee Break											
11:15 h - 13:00 h	STECH		STECH	Sus Bat	Green E	Per Fut	Adi nos	QMat	Photo Pero 23	Sus Bat	Chem Nano 23	Per Fut	Adi nos	QMat	Photo Pero 23	2D Pero	2D SUSY	New OPV	NC Fun 23	e-Fuel Syn	De Mode P23	2D Pero		New OPV	NC Fun 23	e-Fuel Syn
13:00 h - 15:30 h	12:30h Mascletà, Horchata & Tour Experience														12:30h Mascletà, Horchata & Tour Experience											
15:30 h - 17:30 h	STECH	GreenE		Sus Bat	Chem Nano 23	Per Fut	Adi nos	QMat	Photo Pero 23	Sus Bat	Chem Nano 23	Per Fut	Adi nos	e-Fuel Syn		De Mode P23	2D SUSY	New OPV	NC Fun 23	e-Fuel Syn	De Mode P23			New OPV	NC Fun 23	
			20:30h Social Dinner						17:30h Poster Session												17:30h Closing & Awards Ceremony					

- **STECH**: Sustainable Technology Forum
- **SusBat**: Enabling Beyond Classical Li-ion Batteries through Materials Development and Sustainability
- **GreenE**: Advances in Green Energy Carriers
- **ChemNano23**: Chemistry of Nanomaterials
- **PerFut**: Metal Halide Perovskites Fundamental Approaches and Technological Challenges
- **Adinos**: Advances in Inorganic thin Film Semiconductors for Solar Energy Conversion: From Photovoltaicto Solar Fuels
- **QMat**: Materials for Quantum Technology
- **PhotoPero23**: Photophysics of Halide Perovskites and Related Materials – from bulk to Nano
- **2DPERO**: 2D Perovskites: Synthesis, Properties, and Applications
- **DeModeP23**: Characterisationand Modeling of Devices
- **2DSUSY**: 2D Nanomaterials for Sustainable Energy
- **NewOPV**: Concepts for Stable Non-fullerene Based Organic Solar Cells and their Applications
- **NCFun23**: Fundamental Processes in Nanocrystals and 2D Materials
- **e-FuelSyn**: Electrocatalysis for the Production of Fuels and Chemicals

Symposia. 1st Floor



Social dinner, coffee breaks, closing. 2nd Floor



#STECH – Sustainable Technology Forum

Monday 6th - Session 1.1

Chair: **Emilio Palomares**

08:50 - 09:00h	**Symposium Opening**
09:00 - 09:20h S1.1-I1	**Ungyu Paik** Green manufacturing process towards higher energy density Li-ion batteries
09:20 - 09:40h S1.1-I2	**Ruben Folgado** Hydrogen in the Industry
09:40 - 10:00h S1.1-I3	**Olivia Estrella** Innovation as a lever for the transformation of the regional production model
10:00 - 10:30h	*Round table. Moderator:* **Emilio Palomares**
10:30 - 11:15h	**Coffee Break**

Monday 6th - Session 1.2

Chair: **Emilio Palomares**

11:15 - 11:35h S1.2-I1	**Ignasi Cañagueral** How do we get to Carbon Neutral Packaging?
11:35 - 11:55h S1.2-I2	**Ricardo Olalla** Technology for decarbonizing road transport
11:55 - 12:15h S1.2-I3	**Daniel Campo** Sustainability and circularity at BASF
12:15 - 12:45 h	*Round table. Moderator:* **Emilio Palomares**

Monday 6th - Session 1.3

15:30 - 15:45h S1.3-O1	**Francisca Quereda** Recycling and circularity in the ceramic sector: case studies

15:45 - 16:00h S1.3-O2	**Rocío Monsonís** Second-generation succinic acid production process using biogas-based CO2 and confectionery wastes
16:00 - 16:15h S1.3-O3	**Adrián Morales Serrano** Complementary recycling, is it possible to reach all the different waste?
16:15 - 16:30h S1.3-O5	**Enrique Moliner** Flexible, safe and efficient recycling of Li-ion batteries for a competitive, circular, and sustainable European battery manufacturing industry
16:30 - 17:00h	**Q&A Session**

Tuesday 7th - Session 2.1

09:00 - 09:15h S2.1-O1	**Norma Minar** Metal Foams for Next Level Electrolysis
09:15 - 09:30h S2.1-O2	**Mario Araya** Waste to Hydrogen and Chemicals
09:30 - 09:45h S2.1-O3	**Ana Mezquita** Decarbonising the ceramic industry with hydrogen
09:45 - 10:00h S2.1-O4	**Laura Cano** Research based on the generation of hydrogen by means of gasification techniques from mixtures of fractions rejection of waste that ends up in landfill
10:00 - 10:30h	**Q&A Session**
10:30 - 11:15h	**Coffee Break**

Tuesday 7th - Session 2.2

11:15 - 11:30h S2.2-O1	**Luca Sorbello** Versatility of Perovskite-based PV from indoor and outdoor applications
11:30 - 11:45h S2.2-O2	**Edgar Contreras** LCA based eco design approach to support carbon neutral production of ethylene
11:45 - 12:00h S2.2-O3	**María Fernanda Gazulla** Synthesis of ceramic pigments from cathodes of spent lithium-ion batteries
12:00 - 12:15h S2.2-O4	**Adolfo Benedito Borrás** New challenges in CO2 capture and use: from hybrid to ICCU (Integrated Carbon Capture and Utilization) solutions
12:15 - 12:30h S2.2-O5	**Juan Luis Pozo** Sequestration and Use of CO2 from a Cradle-to-Cradle Technology Perspective
12:30 - 13:00h	**Q&A Session**

#e-FuelSyn - Electrocatalysis for the Production of Fuels and Chemicals

Wednesday 8th - Session 1.1

Chair: **Julio Lloret Fillol**

15:20 - 15:30h	**Symposium Opening**
15:30 - 16:00h S1.1-I1	**Vincent Artero** Proton relays in molecular electrocatalysis: how do they allow for reversible behavior?
16:00 - 16:30h S1.1-I2	**Inke Siewert** Electroreduction of C=O Bonds in CO2, Ketones, and Aldehydes
16:30 - 17:00h S1.1-I3	**Dennis Hetterscheid** The electrochemical synthesis of hydrogen peroxide with molecular copper catalysts
17:00 - 17:30h S1.1-I4	**Marcella Bonchio** Supramolecular architectures for artificial photosynthesis

Thursday 9th - Session 2.1

Chair: **Julio Lloret Fillol**

09:00 - 09:30h S2.1-I1	**María Escudero-Escribano** Tailored Electrocatalyst Materials for Renewable Fuels
09:30 - 10:00h S2.1-I2	**Jan Rossmeisl** Catalysis on High Entropy Alloys
10:00 - 10:30h S2.1-I3	**Laia Francàs Forcada** Tunning the catalytic properties of nanoparticles for solar fuels applications
10:30 - 11:15h	**Coffee Break**

Thursday 9th - Session 2.2

Chair: **Julio Lloret Fillol**

11:15 - 11:30h S2.2-O1	**Ahmed Sheta** Electrocatalytic Carbonylation of Organic Halides Utilizing CO2 Reduction
11:30 - 11:45h S2.2-O2	**Lifeng Liu** Hydrogen Production via Seawater Electrolysis at High Current Densities without Interfering Chlorine Evolution
11:45 - 12:00h S2.2-O3	**Drialys Cardenas Morcoso** Investigation of directly fused metalloporphyrins polymers for OER catalysis: molecular or material true catalysts?
12:00 - 12:15h S2.2-O4	**Fernanda Romeiro** Assessing Stability and Exploring the Role of Carbonate Electrolytes in Two-Electron Water Oxidation to H2O2
12:15 - 12:30h S2.2-O5	**Samira Siahrostami** Hydrogen peroxide, an oxidant, or a potential fuel for next generation batteries
12:30 - 12:45h S2.2-O6	**Rotem Geva** Molten-State Synthesis of Transition-Metal Phosphides for Electrochemical Applications
12:45 - 13:00h S2.2-O7	**Andrew Akbashev** Cation Leaching, Oxygen Intercalation and Extreme Oxidation in Perovskites during Oxygen Evolution Reaction

Thursday 9th - Session 2.3

Chair: **Carla Casadevall Serrano**

15:30 - 16:00h S2.3-I1	**Erwin Reisner** Electrocatalysts for the Assembly of Light-to-Chemical Converting Solar Panels
16:00 - 16:30h S2.3-I2	**Orestes Rivada Wheelaghan** Electrochemical carbon dioxide reduction with transition-metal based complexes

16:30 - 16:35h
S2.3-S1
Jon Ferrier
Royal Society of Chemistry

16:35 - 17:05h
S2.3-I3
Victor Mougel
Molecular bio-inspired strategies for the design of electrocatalytic systems for CO2 reduction

17:05 - 17:35h
S2.3-I4
Marc Robert
Molecular electrochemical reduction of N2-to-NH3 with a Mn catalyst

Friday 10th - Session 3.1

Chair: **Carla Casadevall Serrano**

09:00 - 09:30h
S3.1-I1
Beatriz Roldan Cuenya
Unveiling the Evolution of Energy Conversion Electrocatalysts through Operando Microscopy and Spectroscopy

09:30 - 10:00h
S3.1-I2
Raffaella Buonsanti
Well-defined nanocrystals for selective CO2 electroreduction

10:00 - 10:30h
S3.1-I3
Núria López
Modeling in photoelectrocatalysis

10:30 - 11:15h
Coffee Break

Friday 10th - Session 3.2

Chair: **Carla Casadevall Serrano**

11:15 - 11:30h
S3.2-O1
Federico Franco
From molecules to nanostructured materials: novel opportunities for electrocatalytic CO2 reduction

11:30 - 11:45h
S3.2-O2
Geyla Caridad Dubed Bandomo
Development and mechanistic study of Single Sites in 2D-Covalent Organic Frameworks for Electrocatalytic CO2 reduction

11:45 - 12:00h
S3.2-O3
Paula Sebastian Pascual
Surface characterization of copper electrocatalysts by lead underpotential deposition

12:00 - 12:15h
S3.2-O4

Silvio Osella
Mechanistic Study of CO2 Reduction to Methane and Ethylene on Singe Atom Catalyst Based 2D-MOF

12:15 - 12:30h
S3.2-O5

Petru Albertini
Colloidal ALD-grown metal-oxide encapsulation stabilizes copper nanoparticles during CO2RR

Friday 10th - Session 3.3

Chair: **Carla Casadevall Serrano**

15:30 - 15:45h
S3.3-O1

Josep Albero Sancho
Synergistic Cu-Fe ultrasmall nanoparticles supported on 3D n-doped graphene for selective electrochemical CO2 reduction at low overpotential

15:45 - 16:00h
S3.3-O2

Beatriu Domingo Tafalla
Electro- and Photo-induced Interfacial Charge Transfers in Nanocrystalline Mesoporous TiO2 and TiO2/Iron Porphyrin Sensitized Films Under CO2 Reduction Catalysis

16:00 - 16:15h
S3.3-O3

David Carvajal
Electrochemical transformation of HMF in added value compounds using inexpensive materials for anodes and cathodes

16:15 - 16:30h
S3.3-O4

Santiago Rodriguez Jimenez
Self-Assembled Liposomes Enhance Electron Transfer for Efficient Photocatalytic CO2 Reduction

16:30 - 16:45h
S3.3-O5

Venkata Siva Rama Krishna Tandava
Enhanced Electrocatalytic CO2 reduction: A Cascade Mechanistic approach enabled by a tandem setup

16:45 - 17:00h
S3.3-O5

Camilo A. Mesa
Cu-based electrodes for hydrogen evolution and CO2 reduction reactions

17:00 - 17:15h

e-FuelSyn Closing

#GreenE – Advances in Green Energy Carriers

Monday 6th - Session 1.1

Chair: **Yun Jung Lee**

15:20 - 15:30h	**Symposium Opening**
15:30 - 16:00h 1.1-I1	**Nagore Ortiz Vitoriano** Unlocking the Potential of Aqueous and Aprotic Metal-Air Batteries
16:00 - 16:30h 1.1-I2	**Elena Mas Marzá** Electrochemistry for biomass valorization and energy storage
16:30 - 17:00h 1.1-I3	**Jong Eun Hong** A Way to CO2-free power generation: Direct Ammonia fueled Solid Oxide Fuel Cells
17:00-17:15 1.1-O1	**Xinyi Zhang** Technoeconomic Analysis of a Coupled Catalytic Photoelectrochemical System for Hydrogen Generation over its Lifecycle
17:15-17:30 1.1-O2	**Hyungjun Lee** Nickel Oxide Nanoparticle-decorated BaCo0.4Fe0.4Zr0.1Y0.1O3-δ Composite Cathode for High Performance Protonic Ceramic Fuel Cells

Tuesday 7th - Session 2.1

Chair: **Woon Suk Jang**

09:00 - 09:30h S2.1-I1	**Hee Jung Park** 2-dimensional materials based on oxide and their various applications
09:30 - 10:00h S2.1-I2	**Takamasa Mori** Characterization of Multi-Component Dense Slurry for Controlling Particles Packing Structure during Coating and Drying

10:00 - 10:30h
S2.1-I3
Byoung Woo Kang
Superior compatibilities of oxide-based SE for all solid-state battery

10:30 - 11:15h
Coffee Break

Tuesday 7th - Session 2.2

Chair: **Kyung Joong Yoon & Taeseup Song**

11:15 - 11:45h
S2.2-I1
Kyung Joong Yoon
Infiltration of Nanocatalysts for Solid Oxide Fuel Cells

11:45 - 12:15h
S2.2-I2
Yong-Mook Kang
Balancing the inharmony between electrons and alkali ions in layered cathode materials

12:15 - 12:30h
S2.2-O1
Jose Mata
Hydrogen storage in the liquid form using C-H covalent bonds: liquid organic hydrogen carriers (LOHCs)

12:30 - 12:45h
S2.2-O2
Sixto Giménez Julia
Green Hydrogen Production and Waste Valorization with All-Inorganic Halide Perovskites Nanocrystals

12:45 - 13:00h
S2.2-O3
Seungwoo Lee
Structure design of Si-based anode material for high performance all-solid-state batteries

13:00 - 13:15h
GreenE Closing

#SusBat - Enabling Betond Classical Li-ion Batteries through materials development and sustainability

Tuesday 7th - Session 1.1

Chair: **Nagore Ortiz**

09:20 - 09:30h	**Symposium Opening**
09:30 - 10:00h 1.1-I1	**Roza Bouchal** Highly Concentrated Aqueous Electrolytes for Zinc Metal Batteries
10:00 - 10:30h 1.1-I2	**Husam Alshareef** Electrode & Electrolyte Engineering in Rechargeable Aqueous Zinc-ion Batteries
10:30 - 11:15h	**Coffee Break**

Tuesday 7th - Session 1.2

Chair: **Alexis Grimaud**

11:15 - 11:30h 1.2-O1	**Domenico Frattini** Towards the Sustainable Industrialitzation of Electrically Rechargable Zinc-Air Batteries
11:30 - 11:45h 1.2-O2	**Nuria Tapia Ruiz** A comparative study of solid electrolyte interface evolution in ether and ester-based electrolytes for Na-ion batteries
11:45 - 12:00h 1.2-O3	**Adrian Beda** Hard carbon anodes derived from eco-friendly precursors for Na-ion batteries
12:00 - 12:15h 1.2-O4	**Tjaša Pavčnik** Fluorinated Alkoxyborate and Alkoxyaluminate-Based Electrolytes for Post-Lithium Energy Storage

12:15 - 12:30h
1.2-O5
Luisa de Marco
Hybrid nanostructured systems for sustainable batteries

12:30 - 12:45h
1.2-O6
Olivera Lužanin
A Reliable Way of Accessing Intrinsic Electrochemical Performance of Organic Cathodes in Multivalent Batteries

Tuesday 7th - Session 1.3

Chair: **Maria Lukatskaya**

15:30 - 16:00h
1.3-I1
Milica Vujković
What Drives the Synthesis of Mixed Polyanionic Na4Fe3(PO4)2P2O7 Cathode Material and Determines its Electrochemical Behavior?

16:00 - 16:30h
1.3-I2
Corsin Battaglia
Towards High-Voltage Solid-State Lithium-Metal Batteries

Wednesday 8th - Session 2.1

Chair: **Nagore Ortiz**

09:00 - 09:30h
2.1-I1
Rebeca Marcilla
Electroactive Organic Materials for More Sustainable Batteries

09:30 - 10:00h
2.1-I2
Manuel Souto
Organic batteries based on redox-active Covalent Organic Frameworks

10:00 - 10:30h
2.1-I3
Marie Liesse Doublet
Recent Advances in Theoretical Methodology to Battery Interfaces

10:30 - 11:45h
Coffee Break

Wednesday 8th - Session 2.2

Chair: **Alexis Grimaud**

11:15 - 11:45h 2.2-I1	**Giuseppe Elia** Addressing key challenges in the development "beyond Li-ion" chemistries
11:45- 12:15h	Void slot
12:15 - 12:45h 2.2-I2	**Taeseup Song** Interface engineering for high-performance all-solid-state lithium-metal batteries

Wednesday 8th - Session 2.3

Chair: **Maria Lukatskaya**

15:30 - 15:45h 2.3-O1	**Claudio Gerbaldi** An overview on polymer-based electrolytes with high ionic mobility for safe operation of solid-state batteries
15:45 - 16:00h 2.3-O2	**Arkaitz Fidalgo Marijuan** Sustainable polymer based materials as electrolytes in lithium-ion batteries
16:00 - 16:15h 2.3-O3	**Maria Angeles Cabañero Martínez** LNMO: Cobalt-free cathode material for the next generation of Li-ion batteries
16:15 - 16:30h 2.3-O4	**Alfonso Gallo Bueno** Unsupervised machine learning to classify crystal structures according to their structural distortion: A case study on Li-argyrodite solid-state electrolytes
16:30 - 16:45 2.3-O5	**Alban Albertengo** Influence of Vacuum Treatment on Electrolyte Interpenetration in Microstructured Electrode Materials for Flexible Li-Ion Microbatteries
16:45 - 17:00h	**SusBat Closing**

#PerFut - Metal Halide Perovskites Fundamental Approaches and Technological Challenges

Tuesday 7th - Session 1.1

Chair: **Annalisa Bruno**

08:50 - 09:00h S1.1-I1	**Symposium Opening**
09:00 - 09:30h S1.1I2	**Maksym Kovalenko** Engineering Single Photon Emission and Collective
09:30 - 10:00h	Slot void
10:00 - 10:30h S1.1I3	**Mónica Morales Masis** Single Source Vapor Deposition of Hybrid and Inorganic Halide Perovskites
10:30 - 11:15h	**Coffee Break**

Tuesday 7th - Session 1.2

Chair: **Mónica Morales Masis**

11:15 - 11:30h S1.2-O1	**Antonio Guerrero** Interplay between ion migration and Contacts in Halide Perovskite Memristors
11:30 - 11:45h S1.2-O2	**Ismael Guillén** Perovskite Thin-Film Single Crystal for a Massive Current Tunability Memristor
11:45 - 12:00h S1.2-O3	**Matteo Zaffalon** Extreme γ-ray radiation hardness and high scintillation yield in perovskite nanocrystals

12:00 - 12:15h
S1.2-O4
Andrea Erroi
Ultrafast and Radiation Hard Nanocomposite Scintillators based on CsPbBr3 Nanocrystals from High-Throughput Turbo-Emulsion Synthesis

12:15 - 12:30h
S1.2-O5
Francesco Carulli
Silica-encapsulated perovskite nanocrystals for effective X-ray-activated singlet oxygen production towards enhanced radiotherapy applications

12:30 - 12:45h
S1.2-O6
Kostiantyn Sakhatskyi
Stable Poisson-statistics-limited X-ray imaging with solution-grown perovskite single-crystal detectors

12:45 - 13:00h
S1.2-O7
Tiankai Zhang
Ion-modulated radical doping of spiro-OMeTAD towards more efficient and stable perovskite solar cells

Tuesday 7th - Session 1.3

Chair: **Rafael Abargues**

15:30 - 16:00h
S1.3-I1
Senol Öz
Flexible perovskite solar cells for power sources in a low carbon society

16:00 - 16:30h
S1.3-I2
Trystan Watson
The route to continuous roll to roll manufacturing of flexible perovskite solar cells using a carbon electrode

16:30 - 17:00h
S1.3-I3
Severin Habisreutinger
Perovskite PV, a more sustainable future for solar

17:00 - 17:15h
S1.3-O1
Ke Xu
Slot-die coated triple-halide perovskite for efficient and scalable perovskite/silicon tandem solar cells

Wednesday 8th - Session 2.1

Chair: **Tiankai Zhang**

09:00 - 09:15h
S2.1-O1
Martin Fernandez
The Trade-Off Between Efficiency and Electrical Stability in Green Mn2+ Doped Perovskite Light-Emitting Diodes

09:15 - 09:30h
S2.1-O2
Rafael Sánchez
Exploitation of Inkjet-Printing for Light-Emitting Diodes

09:30 - 09:45h
S2.1-O3
Aurora Rizzo
Stabilizing Wide Bandgap Triple-Halide Perovskite Alloy through Organic Gelators

09:45 - 10:00h
S2.1-O4
Zongbao Zhang
Ethane-1,2-diammonium iodide and lead acetate synergistically stabilize γ-CsPbI3 perovskite solar cells

10:00 - 10:15h
S2.1-O5
Rafael Abargues
New Materials and Synthetic Approaches for Sustainable Device Fabrication via Multiscale Perovskite Structures

10:15 - 10:30h
S2.1-O6
Sofia Masi
Effect of PbS QDs on Strain and Optical Properties of Perovskite Matrix

10:30 - 11:15h
Coffee Break

Wednesday 8th - Session 2.2

Chair: **Pablo P. Boix**

11:15 - 11:45h
S2.2-I1
Nam-Gyu Park
Facet Engineering for Stable and Efficient Perovskite Solar Cells

11:45- 12:15h
S2.2-I2
Iván Mora-Seró
Stabilization of Halide Perovskite for Optoelectronic Applications

12:15 - 12:45h
S2.2-I3

Maria Antonietta Loi
Carbazole Based Self-assembly Monolayers for Highly Efficient Sn/Pb- Perovskite Solar Cells

Wednesday 8th - Session 2.3

Chair: **Iván Mora-Seró**

15:30 - 16:00h
S2.3-I1

Laura Schelhas
Understanding degradation in metal halide perovskite solar cells and modules

16:00 - 16:30h
S2.3-I2

Lioz Etgar
Chiral low dimensional perovskite and Bifacial Fully printable perovskite solar cells

16:30 - 16:45h
S2.3-O1

David Tanenbaum
Degradation Pathways of Screen-Printed Mesoporous Carbon Perovskite Solar Cells

16:45 - 17:00h

PerFut Closing

#PhotoPero23 - Photophysics of halide perovskites and related materials – from bulk to nano

Wednesday 8th - Session 1.1

Chair: **Sascha Feldmann**

08:50 – 09:00h	**Symposium Opening**
09:00 – 09:30h S1.1-I1	**William Tisdale** Persistent Enhancement of Exciton Diffusivity in CsPbBr3 Nanocrystal Solids
09:30 – 10:00h S1.1-I2	**Alexander Efros** Perovskite materials for enhanced optoelectronic applications
10:00 - 10:30h S1.1-I3	**Sam Stranks** Shining Bright: Using Luminescence to Unveil Photophysical Behaviour in Halide Perovskite Devices

Wednesday 8th - Session 1.2

Chair: **Sascha Feldmann**

11:15 – 11:30h S1.2-O1	**Quinten Akkerman** Confined Excitons in Spherical-Like Halide Perovskite Quantum Dots
11:30 – 11:45h S1.2-O2	**Chenglian Zhu** Many-body Correlations and Exciton Complexes in CsPbBr3 Quantum Dots
11:45– 12:00h S1.2-O3	**Andrea Pianetti** Lead Chalcohalide Nanocrystals: Phase Selective Synthesis and Novel Heterostructures with Cesium Lead Perovskites

12:00 - 12:15h
S1.2-O4
Ilka Vincon
Controlling the Interaction of Perovskite Nanocrystals with Circularly Polarized Light

12:15- 12:30h
S1.2-O5
Francesca Cova
Role of intra-gap electronic levels in scintillating perovskite nanocrystals and nanocomposites

12:30 - 12:45h
S1.2-O6
Nadesh Fiuza
Enhanced Exciton-to-Dopant Energy Transfer in Mn2+-Doped Perovskite Nanocrystals by Post-synthesis Surface Passivation

12:45 – 13:00h
S1.2-O7
Irina Gushchina
Excitation intensity- and size-dependent halide photosegregation in CsPb(I0.5Br0.5)3 perovskite nanocrystals

Wednesday 8th - Session 1.3

Chair: **Sascha Feldmann**

15:30 – 16:00h
S1.3-I1
Paulina Plochocka
2D Perovskite—Exciting Playground for exciton and polaron studies

16:00 - 16:30h
S1.3-I2
Tze-Chien Sum
Photophysics of Low-Dimensional Halide Perovskites

16:30 – 17:00h
S1.3-I3
Laura Herz
Charge-carrier dynamics in lead mixed-halide and low-dimensional perovskites

17:00 - 17:30h
S2.3-I1
Gerd Bacher
Polarized Luminescence from Single Lead Halide Perovskite Nanocrystals

Thursday 9th - Session 2.1

Chair: **Maksym Kovalenko**

09:00 - 09:30h
S2.1-I1
Bruno Ehrler
On the (in)stability of 2D perovskites

09:30 – 10:00h
S2.1-I2

Qihua Xiong
Manipulating Exciton Polariton Condensates at Room Temperature

10:00 - 10:30h
S2.1-I3

Void slot

Coffee Break

10:30 - 11:15h

Thursday 9th - Session 2.2

Chair: **Quinten Akkerman**

11:15 – 11:30h
S2.2-O1

Tobias Antrack
Enhancing Luminescence Efficiency by Controlled Island Formation of CsPbBr3 Perovskite

11:30 – 11:45h
S2.2-O2

Rafael Sánchez Sánchez
Towards a deeper understanding of the electro-ionic coupling mechanisms in high-performance Perovskite Light-emitting Diodes

11:45– 12:00h
S2.2-O3

Maxim Simmonds
Illumination cycle dependence of defect signatures for MAPbBr3 microplatelets: as seen in a illumination-cycle and repetition rate dependent transient photoluminescence study

12:00 - 12:15h
S2.2-O4

Navendu Mondal
Hot Carrier Cooling Dynamics in Perovskite Nanostructures: Impact of Nanoconfinement and Surface Traps

12:15- 12:30h
S2.2-O5

Matteo Zaffalon
Understanding Thermal and A-Thermal Trapping Processes in Lead Halide Perovskites Towards Effective Radiation Detection Schemes

12:30 - 12:45h
S2.2-O6

Andrei Mitrofanov
Multiple-Ring Aromatic Cation Engineering in Low-Dimensional Perovskites

12:45 – 13:00h
S2.2-O7

Simon Boehme
Strongly Confined CsPbBr3 Quantum Dots as Quantum Emitters and Building Blocks for Rhombic Superlattices

#2DPERO – 2D Perovskites: Synthesis, Properties, and Applications

Thursday 9th - Session 1.1

Chair: **Simon Kahmann**

08:50 - 09:00h	**Symposium Opening**
09:00 - 09:15h S1.1-O1	**Rosanna Mastria** Tuning dimensionality of Quasi 2D Perovskite single crystals: a rational approach.
09:15 - 09:30h S1.1-O2	**Łukasz Przypis** Advances in High-Quality Single Crystal Growth: New Ruddlesden Popper Tin Halide Perovskites.
09:30 - 09:45h S1.1-O3	**Lucas Scalon** Controlling Phase Purity in Chiral 2D Perovskites.
09:45 - 10:00h S1.1-O4	**Wouter Van Gompel** A Conjugated Rigid Organic Cation for HOIPs with Enhanced Stability and Optoelectronic Properties.
10:00 - 10:15h S1.1-O5	**Marta Campolucci** Efficient Energy Transfer Process in 2D (C6H5CH2NH3)2(Pb,Mn)Br4 Layered Metal Halide.
10:15 - 10:30h S1.1-O6	**Simon Nussbaum** Towards organic-inorganic hybrid type-II layered perovskite nano-heterostructures.
10:30 - 11:15h	**Coffee Break**

Thursday 9th - Session 1.2

Chair**: Maria Antonietta Loi**

11:15 - 11:45h S1.2-I1	**Lorenzo Malavasi** 2D halide perovskites: a fascianting playground for designing new materials
11:45 - 12:15h S1.2-I2	**Teresa Gatti** Compositional engineering in 2D monolayer silver-bismuth double perovskites
12:15 - 12:45h S1.2-I3	**Letian Dou** Two-Dimensional Organic-Perovskite Hybrid Materials and Heterostructures

Friday 10th - Session 2.1

Chair**: Simon Kahmann**

09:00 - 09:30h S2.1-I1	**Daniele Meggiolaro** Defects activity and broad emission in 2D perovskites: a theoretical perspective
09:30 - 10:00h S2.1-I2	**Ferry Prins** Visualizing Exciton Transport in 2D Perovskites
10:00 - 10:30h S2.1-I3	**Andrea Zanetta** 2D materials and low-dimensional perovskites for photovoltaic applications
10:30 - 11:15h	**Coffee Break**

Friday 10th - Session 2.2

Chair**: Ferry Prins**

11:15 - 11:45h S2.2-I1	**Maria Antonietta Loi** Boosting the performance of Ruddlesden-Popper phases light-emitting diodes through isopropylammonium addition – towards efficient blue emitters
11:45 - 12:00h S2.2-O1	**Szymon Zelewski** Complementary Photocurrent and Photothermal Characterisation of 2D Perovskite Light Emitting Diodes
12:00 - 12:15h S2.2-O2	**Angelica Simbula** Exciton splitting in thin-crystal 2D layered hybrid perovskites
12:15 - 12.:30h S2.2-O3	**Eelco Tekelenburg** Impact of Two Diammonium Cations on the Structure and Photophysics of Layered Sn-based Perovskites
12:55 - 13:00h	**2DPERO Closing**

#NewOPV - New concepts for stable non-fullerene based organic solar cells and their applications

Thursday 9th - Session 1.1

Chair: **Martijn Kemerink**

08:50 - 09:00h	**Symposium Opening**
09:00 - 09:30h S1.1-I1	**Gitti Frey** Studying the bulk heterojunction morphology using selective staining and electron microscopy
09:30 - 10:00h S1.1-I2	**Christoph J. Brabec** Overcoming fundamental challenges in OPV
10:00 - 10:30h S1.1-I3	**Zhe Li** Toward overcoming the stability challenge of organic solar cells
10:30 - 11:15h	**Coffee Break**

Thursday 9th - Session 1.2

Chair: **Pavel Troshin**

11:15 - 11:45h S1.2-I1	**Ellen Moons** Photostability of high-performance electron-acceptor molecules and polymers
11:45 - 12:15h S1.2-I2	**Chu-Chen Chueh** Improving Thermal, Photo, and Underwater-Stability of Polymer Solar Cells by Interface Engineering
12:15 - 12:45h S1.2-I3	**Markus Scharber** Non-Fullerene Acceptor for Organic Solar Cells

Thursday 9th - Session 1.3

Chair**: Vida Engmann**

15:30 - 15:45h
S1.3-O1
Tanya Kumari
Robust Bilayer Strategy: A New Route for Stable High-Performance Devices

15:45 - 16:00h
S1.3-O2
Shahidul Alam
Investigating the Trade-Off between Photovoltaics Parameters and Thermal Annealing in Non-Fullerene Acceptors Organic Solar Cells

16:00 - 16:15h
S1.3-O3
Xabier Rodríguez-Martínez
Laminated Organic Photovoltaic Modules for Agrivoltaics: an Outdoor Stability Study of All-Polymer and Polymer:Small-Molecule Blends

16:15 - 16:30h
S1.3-O4
Giulia Lo Gerfo M.
Spatio-Temporal Mapping Uncouples Exciton Diffusion from Singlet-Singlet Annihilation in the Electron Acceptor Y6

16:30 - 16:45h
S1.3-O5
Austin Kay
A Realistic Prediction of Indoor OPV Performance

16:45 - 17:00h
S1.3-O6
Uli Würfel
Photoluminescence Measurements of Organic Solar Cells and the Determination of the Quasi-Fermi Level Separation

Friday 10th - Session 2.1

Chair**: Ellen Moons**

09:00 - 09:15h
S2.1-O1
Jens Wenzel Andreasen
Manipulating organic semiconductor morphology with visible light

09:15 - 09:30h
S2.1-O2
Rodrigo Delgado Andrés
Photoelectrochemical Energy Storage with Organic Solar Cells

09:30 - 09:45h
S2.1-O3
Xiao Ma
Identification of the origin of ultralow dark currents in organic photodiodes

09:45 - 10:00h
S2.1-O4

D**avid Garcia Romero**
Overcoming light soaking while increasing the lifetime of non-fullerene solar cells

10:00 - 10:15h
S2.1-O5

Lorenzo Di Mario
Atomic Layer Deposition of Tin Oxide Electron Transport Layer for HighPerformance Organic Solar Cells with Inverted Structure

10:15 - 10:30h
S2.1-O6

Hamed Javanbakht Lomeri
Effect of Interfacial Layer on the Performance of Air-Processed OSC Under both Indoor and 1-Sun Condition

10:30 - 11:15h

Coffee Break

Friday 10th - Session 2.2

Chair**: Tracey Clarke**

11:15 - 11:45h
S2.2-I1

Flurin Eisner
Charge-pair generation in single-component molecular materials

11:45 - 12:15h
S2.2-I2

Martijn Kemerink
Can Organic Solar Cells Surpass the Near-Equilibrium Efficiency Limit?

12:15 - 12:45h
S2.2-I3

Natalie Stingelin
Lessons learnt with doped polymer systems and applied to donor:nonfullerene acceptor photovoltaic blends

Friday 10th - Session 2.3

Chair**: Morten Madsen**

15:30 - 16:00h
S2.3-I1

Safa Shoaee
On the impact of the energy level offset on carrier recombination in organic non-fullerene acceptor-based solar cells

16:00 - 16:30h
S2.3-I2

Tracey Clarke
Quantifying triplet states in non-fullerene acceptors

16:30 - 17:00h
S2.3-I3

Beatriz Romero
Impedance Spectroscopy as a non-destructive technique for Organic Solar Cell characterization

#Adinos - Advances in Inorganic Thin Film Semiconductors for solar Energy Conversion: From photovoltaics to Solar Fuels

Tuesday 7th - Session 1.1

Chair: **Krishnan Rajeshwar**

08:50 - 09:00h	**Symposium Opening**
09:00 - 09:30h S1.1-I1	**Wolfram Jaegermann** Advanced Thin Film Photovoltaic and Photoelectrosynthetic Cells – Physical Boundary Conditions and Material Science Challenges
09:30 - 10:00h S1.1-I2	**David Tilley** Copper Oxide and Antimony Selenide Photocathodes for Solar Hydrogen Production
10:00 - 10:30h S1.1-I3	**Edgardo Saucedo Silva** Emerging (Sb,Bi)(S,Se)(Br,I) van der Waals chalco-halide compounds for photovoltaic applications
10:30 - 11:15h	**Coffee Break**

Tuesday 7th - Session 1.2

Chair: **Xiaojing Hao**

11:15 - 11:45h S1.2-I1	**Robert Hoye** Bismuth chalcohalide and chalcogenide compounds for photovoltaics and solar fuels
11:45- 12:15h S1.2-I2	**Fatwa Abdi** Development of Complex Metal Oxide Photoelectrodes for Solar Water Splitting

12:15 - 12:45h
S1.2-I3

Rajiv Ramanujam Prabhakar
Electron transport layers for CO2 reduction photocathodes

Tuesday 7th - Session 1.3

Chair: **Sudhanshu Shukla**

15:30 - 16:00h
S1.3-I1

Wouter Maijenburg
Photoelectrochemical Properties of Cu-Ga-Se Photocathodes with Compositions Ranging from CuGaSe2 to CuGa3Se5

16:00 - 16:15h
S1.3-O1

Ronen Gottesman
Stepping Out of Equilibrium: Reaching New Chemical Boundaries of Thin Film Semiconductors by Novel Non-equilibrium Synthesis Approaches

16:15 - 16:30h
S1.3-O2

Kaiwen Sun
Kesterite-based photocathode for photoelectrochemical CO2 reduction and NH3 production

16:30 - 16:45h
S1.3-O3

Romain Scaffidi
Back Bandgap-Graded Kesterite Cu2Zn(Snx,Ge1-x)Se4 Thin Films for Solar Cell Applications

Wednesday 8th - Session 2.1

Chair: **Krishnan Rajeshwar**

09:00 - 09:30h S2.1-I1	**Gian-Marco Rignanese** New High-Efficiency Photovoltaic Absorbers from High-Throughput Ab Initio Screening
09:30 - 10:00h S2.1I2	**Alex Ganose** Design principles for emerging chalcogenide photovoltaics
10:00 - 10:30h S2.1-I3	**Johan Lauwaert** Predicting the maximal efficiency of direct Z-scheme artificial photosynthesis: 11.4 %
10:30 - 11:15h	**Coffee Break**

Wednesday 8th - Session 2.2

Chair: **Wolfram Jaegermann**

11:15 - 11:45h S2.2-I1	**Byungha Shin** Monolithic photoelectrochemical tandem devices consisting of tunnel oxide passivated contact silicon and BiVO4 enabling unassisted water splitting
11:45- 12:15h S2.2-I2	**Thomas Hannappel** Photoelectrochemical reactions on epitaxial tandem absorber structures for highly efficient solar fuels production
12:15 - 12:45h S2.2-I3	**Nina Plankensteiner** Combining photovoltaics and anion-exchange membrane water electrolysis with high surface area nickel nanomesh electrodes for low-cost green hydrogen

Wednesday 8th - Session 2.3

Chair: **Wolfram Jaegermann**

15:30 - 16:00h S2.3-I1	**Mirjana Dimitrievska** Understanding the growth mechanism of BaZrS3 chalcogenide perovskite thin films from sulfurized oxide precursors
16:00 - 16:30h S2.3-I2	**Julien Bachmann** Atomic-layer approaches towards 'extremely thin' chalcogenide- based photovoltaics: A unique combination of advantages
16:30 - 17:00h S2.3-I3	**Chuck Hages** Progress in Low-temperature Synthesis of Chalcogenide Perovskites for PV
17:00 - 17:30h S2.3-I4	**Diego Colombara** Cu(In,Ga)Se2 photovoltaics from fundamental questions to innovation pathways
17:30 - 17:45h	**Adinos Closing**

#DeModeP23 - Characterisation and Modeling of Devices Fuels

Thursday 9th - Session 1.1

Chair: **Juan Bisquert**

15:20 - 15:30h	**Symposium Opening**
15:30 - 16:00h S1.1-I1	**Thomas Kirchartz** Shallow defects and long charge carrier lifetimes in lead-halide perovskites
16:00 - 16:30h S1.1-I2	**Evelyne Knapp** Machine Learning Assisted Model Parameter Extraction for Perovskite Solar Cells
16:30 - 17:00h S1.1-I3	**Oskar J. Sandberg** Method to Probe the Built-in Voltage of Thin Film Organic Photovoltaic Devices
17:00 - 17:15h S1.1-O1	**James Lerpiniere** Simulating Hot Carrier Dynamics in Halide Perovskites
17:15 - 17:30h S1.1-O2	**Leonie Pap** Improved current generation for an ITO-free semitransparent organic solar cell using a multilayer silver electrode as distributed Bragg reflector

Friday 10th - Session 2.1

Chair: **George Volonakis**

09:00 - 09:30h S2.1-I1	**Yoann Olivier** Insights from computational modeling on the singlet-triplet conversion in MR-TADF and invert singlet-triplet gap materials

09:30 - 10:00h
S2.1I2
Oleg Prezhdo
Ab Initio Quantum Dynamics of Charge Carriers in Modern Photovoltaic Materials

10:00 - 10:30h
S2.1-I3
Shuxia Tao
Atomistic multiscale modelling of defects in halide perovskites

10:30 - 11:15h
Coffee Break

Friday 10th - Session 2.2

Chair: **Alison Walker**

11:15 - 11:45h
S2.2-I1
George Volonakis
Photovoltaic and excitonic properties of novel perovskite-like materials

11:45- 12:15h
S2.2-I2
Daniele Meggiolaro
A Theoretical Tour of Metal-Halide Perovskites Defects Chemistry: from Lead to Tin

Friday 10th - Session 2.3

Chair: **Enrique Hernández Balaguera**

15:30 - 16:00h
S2.3-I1
Pilar López Varo
Modeling of Perovskite Solar Cells from Device to Energy Yield Calculations

16:00 - 16:30h
S2.3-I2
Juan Bisquert
Advances in kinetics processes of halide perovskite solar cells and synapses by neuron-model equations and electrooptical techniques

16:30 - 16:45h
S2.3-O1
Greta Bucyte
Carrier diffusion in a matter of minutes?

16:45 - 17:00h
S2.3-O2
Miquel Casademont
Spectrum on Demand Light Source (SOLS) for Advanced Photovoltaic Characterization

17:00 - 17:15h
DeModeP23 Closing

#NCFun23 - Fundamental Processes in Nanocrystals and 2D Materials

Thursday 9th - Session 1.1

Chair: **Shalini Singh**

08:50h – 09:00h	**Symposium Opening**
09:00h – 09:30h S1.1-I1	**Sara Bals** Characterization of Nanocrystal Transformations by Electron Tomotgraphy
09:30h – 10:00h S1.1-I2	**Sandrine Ithurria** II-VI semiconductor NPLs: Control the composition and the shape
10:00 - 10:30h S1.1-I3	**Celso de Mello Donega** Quantum Confined Colloidal Copper-Chalcogenide Based Hetero-Nanorods
10:30 - 11:15h	**Coffee Break**

Thursday 9th - Session 1.2

Chair: **Sandrine Ithurria**

11:15 – 11:30h S1.2-O1	**Ryan Crisp** Synthetic Developments for Chalcogenide Perovskites and Related Materials Focusing on the Optoelectronic Properties of BaTiS3 and BaZrS3 Nanocrystals
11:30 – 11:45h S1.2-O2	**Niraj Patil** Colloidal Synthesis of Cesium Copper Chalcogenide Nanocrystals as a Promising Earth-abundant Thermoelectric Material
11:45– 12:00h S1.2-O3	**Nagaarjhuna Arumuga Kani** The evolution of the surface and bulk during the synthesis of oxide electrocatalysts

12:00 - 12:15h
S1.2-O4

Raquel Galian
Impact of Surface Chemistry on the Application of Colloidal Semiconductor Nanocrystals

12:15- 12:30h
S1.2-O5

Evert Dhaene
Monoalkyl phosphinic acids as ligands in nanocrystal synthesis and its binding affinity towards nanocrystal surfaces

12:30 - 12:45h
S1.2-O6

Francesco Carulli
Stokes Shift Engineered Mn:CdZnS/ZnS Nanocrystals as Reabsorption-Free Nanoscintillators in High Loading Polymer Composites

12:45 – 13:00h
S1.2-O7

Matteo Zaffalon
Sb-Doped Metal Halide Nanocrystals: A 0D versus 3D Comparison

Thursday 9th - Session 1.3

Chair: **Stefano Toso**

15:30 – 16:00h
S1.3-I1

Cecilia Mattevi
A platform of 3D printed energy storage devices for wearable electronics

16:00 - 16:30h
S1.3-I2

Victor Klimov
Solution-Processable Colloidal Quantum Dot Laser Diodes

16:30 – 16:35h
S1.3-S1

Edward Gardner
Royal Society of Chemistry

16:35 – 17:05h
S1.3-I3

Pieter Geiregat
Stimulated Emission and Lasing through Bulk Nanocrystals

17:05 – 17:20h
S1.3-O1

Louis Biadala
Insight on the electronic properties of CdSe nanoplatelets from scanning tunneling microscopy

17:20– 17:35h
S1.3-O2

Ivo Tanghe
On the Determination of Carrier Temperature in Direct Band Gap Semiconductors

Friday 10th - Session 2.1

Chair: Sergio Brovelli

09:00 - 09:15h S2.2-O1	**Quinten Akkerman** Controlling the Nucleation and Growth Kinetics of Spheroidal Lead Halide Perovskite Quantum Dots
09:15- 09:30h S2.2-O2	**Sara Mecca** Robust, reproducible, low waste and large scale procedure for high quality CSPBBR3 nanobricks synthesis for scintillation
09:30 - 09:45h S2.2-O3	**Clara Otero-Martínez** Mixing A-cations improves the Photoluminescence and Stability of Lead Halide Perovskite Nanocrystals
09:45 – 10:00h S2.2-O4	**Nikolaos Livakas** Selective anion exchange reactions on lead halide perovskite nanocrystals
10:00 - 10:15h S2.2-O5	**Roberta Pascazio** Molecular Dynamics Simulations of Anion Exchange Mechanisms in CsPbX3 Nanocrystals
10:15 - 10:30h S2.2-O6	**Andriy Stelmakh** Computational Design of Surface Capping Ligands for Colloidal Lead Halide Perovskite Nanocrystals
10:30 - 11:15h	**Coffee Break**

Friday 10th - Session 2.2

Chair: Valerio Pinchetti

11:15 – 11:45h S2.2-I1	**Liberato Manna** Metal Halide Nanocrystals: Synthesis and Optical Properties
11:45 – 12:15h S2.2-I2	**Sergio Brovelli** Recent Advancements in QD and QD-based Nanocomposites for Radiation Detection
12:15- 12:45h S2.2-I3	**Yehonadav Bekenstein** Free electron triggered superfluorescence from perovskite quantum dots superlattices

12:45 - 13:00h
S2.2-O1

Stefano Toso
Collective Diffraction Effects in Perovskite Nanocrystal Superlattices

13:00– 13:15h
S2.2-O2

Ihor Cherniukh
Shape-Directed Co-Assembly of Lead Halide Perovskite Nanocubes into Superfluorescent Multicomponent Nanocrystal Superlattices

Friday 10th - Session 2.3

Chair: **Alina Schimpf**

15:30 – 16:00h
2.3-I1

Richard Robinson
Magic from Magic Sized Clusters: Isomerization and Hierarchical Multiscale Ordering of Clusters into Chiral Films

16:00 - 16:30h
2.3-I2

Emil Hernandez
Halide-driven polymorph selectivity in the synthesis of MnX (X= S, Se) nanoparticles

16:30 – 17:00h
1.1-I3

Ivan Infante
The Surface Chemistry of III-V Quantum Dots

17:00 - 17:15h
2.3-O1

Jacopo Pinna
Approaching Bulk Mobility in PbSe Colloidal Quantum Dots 3D Superlattices

17:15 - 17:30h
2.3-O2

Miguel Albaladejo
Bis(stearoyl) Sulfide: A Stable, Odor-free Sulfur Precursor for High-Efficiency Metal Sulfide Quantum Dot Photovoltaics

17:30 - 17:45h

NCFun23 Closing

#ChemNano23 - Chemistry of Nanomaterials

Tuesday 7th - Session 1.1

Chair: **Maksym Yarema**

15:20 – 15:30h	**Symposium Opening**
15:30 – 16:00h 1.1-I1	**Raffaella Buonsanti** Reaction Intermediates in the Synthesis of Colloidal Nanocrystals
16:00 - 16:30h 1.1-I2	**María Ibáñez** From Nano to Macro: The Role of Surface Chemistry on Nanoparticles Sintering
16:30 – 17:00h 1.1-I3	**David Tilley** Photocatalytic particle sheets for Solar hydrogen production
17:00 - 17:30h 1.1-I4	**Stefan Wuttke** Reticular Nanoscience: Bottom-Up Assembly Nanotechnology

Wednesday 8th - Session 2.1

Chair: **Loredana Protesescu**

09:00 – 09:15h 2.1-O1	**Annina Moser** Synthesis and Modelling of Low-Toxicity MIR-active Cu3SbSe4 and CuxSbSe4 Nanocrystals
09:15– 09:30h 2.1-O2	**Jennifer Hong** Engineering the Solid State Synthesis and Processing of Nickel Boride with Enhanced Functionality
09:30 – 09:45h 2.1-O3	**Gabriele Saleh** Atomistic structure and electronic properties of InAs@ZnSe core-shell nanoparticles
09:45 – 10:00h 2.1-O4	**Eline Goossens** Hafnium Oxide Nanocrystals for Contrast Enhanced Vascular Casting: from Mechanistic Insight to Application

10:00 - 10:15h
2.1-O5
Ben Cruyssaert
Exploration of synthesis and surface chemistry of colloidal alkaline-earth chalcogenides

10:15 - 10:30h
2.1-O6
Susana Carregal Romero
Rational design of drug nanovectors for pulmonary administration

10:30 - 11:15h
Coffee Break

Wednesday 8th - Session 2.2

Chair: **Loredana Protesescu**

11:15 - 11:45h
2.2-I1
Maksym Kovalenko
Update on the synthesis and surface chemistry of highly luminescent lead halide perovskite nanocrystals

11:45 – 12:15h
2.2-I2
Andreu Cabot
Electrohydrodynamic 3D printing of energy storage devices

12:15 - 12:45h
2.2-I3
Wolfgang Heiss
Solution epitaxial perovskite micro-resonators for lasing

Wednesday 8th - Session 2.3

Chair: **Maksym Yarema**

15:30 – 16:00h
2.3-I1
Zeger Hens
III-V Quantum Dots, from Synthetic Control to Applications in Lighting and Sensing

16:00 - 16:30h
2.3-I2
Vasiliki Tileli
Probing local electrochemical and electrocatalytic processes in oxygen-evolving oxides in real-time

16:30 - 16:45h
2.3-O1
Dmitry Dirin
Intrinsic formamidinium tin iodide nanocrystals by suppressing the Sn(IV) impurities

16:45 - 17:00h
2.3-O2
Taras Sekh
Co-assembly of Shape Anisotropic Lead Halide Perovskite and Dielectric Nanocrystals into Multicomponent Functional Superlattices

#2DSUSY - 2D Nanomaterials for Sustainable Energy

Thursday 9th - Session 1.1

Chair: **María Antonia Herrero Chamorro**

08:50 – 09:00h	**Symposium Opening**
09:00 – 09:30h S1.1-I1	**Cinzia Casiraghi** Water based, defect free and biocompatible 2D materials inks enabled by supramolecular chemistry
09:30 – 10:00h S1.1-I2	**Xinliang Feng** Advances in Organic 2D Crystals From On-Water Surface Chemistry to Functional Applications
10:00 - 10:30h S1.1-I3	**Manuela Melucci** Graphene enhanced technologies for sustainable water purification
10:30 - 11:15h	**Coffee Break**

Thursday 9th - Session 1.2

Chair: **Eugenio Coronado**

11:15 - 11:45h S1.2-I1	**Ester Vázquez** Sustainable Production of 2D Materials for Soft Robotic Applications
11:45 – 12:15h S1.2-I2	**Gonzalo Abellán** Two-dimensional layered hydroxide materials for energy storage and conversion
12:15 - 12:45h S1.2-I3	**Pedro Atienzar** Optoelectronic Properties of Nanohybrid Materials for Energy Conversion

12:45 - 13:15h — **Michele Melchionna**
A journey into structural modification of carbon nitride for photocatalysis

Thursday 9th - Session 1.3

Chair: **Gonzalo Abellán**

15:30 – 15:45h — **Silvio Osella**
S1.3-O1 — Lighting-up nanocarbons through hybridization: Optoelectronic properties and perspectives

15:45 - 16:00h — **Matteo Crisci**
S1.3-O2 — Electroactive 2D TMDC based polymer hybrid and hydrogel

16:00 - 16:15h — **Paul Debes**
S1.3-O3 — Quantification of Surface-accessible Functional Groups on Carbon Nanodots

16:15 - 16:30h — **Matteo Zaffalon**
S1.3-O4 — Optical and Scintillation Properties of Record-Efficiency CdTe Nanoplatelets toward Radiation Detection Applications

16:30 - 16:45h — **Woo Seok Lee**
S1.3-O5 — Excitonic light emission in 2D silver phenylchalcogenolates

Friday 9th - Session 1.3

Chair: **Ester Vázquez**

09:00 - 09:30h — **Eugenio Coronado**
2.1-I1 — Hybrid 2D heterostructures for spintronics and energy storage

09:30 - 10:00h — **Jeffrey Blackburn**
2.1-I2 — Charge and Energy Transfer Across Monolayer Semiconductor Heterojunctions

10:00 - 10:30h — **M. Carmen Ruiz Delgado**
S1.3-O3 — In silico design and Raman spectroscopy for a better understanding of the electronic properties of 2D polymers

#QMat - Materials for Quantum Technology

Tuesday 7th - Session 1.1

Chair: **José J. Baldoví**

08:50 – 09:00h	**Symposium Opening**
09:00 – 09:30h S1.1-I1	**Jose Lado** Artificial van der Waals multiferroics with twisted two-dimensional materials
09:30 – 10:00h S1.1-I2	**Simone Latini** Designing Quasi-Particles of Light and Photo-Groundstates
10:00 - 10:30h S1.1-I3	**Nicolò Maccaferri** Ultrafast nanophotonics: from all- optical control of exciton dynamics towards plasmon-tailored nano- chemistry and information processing based on cavityelectrodynamics
10:30 - 11:15h	**Coffee Break**

Tuesday 7th - Session 1.2

Chair: **Dimitriy Baranov**

11:15 - 11:45h S1.2-I1	Agustín Mihi Managing Light with Photonic Architectures made by Nano imprinting Colloidal Inks
11:45 – 12:15h S1.2I2	**Elisabetta Collini** 2D Electronic Spectroscopies Towards Quantum Technology Applications: the example of semiconductor quantum dots

Tuesday 7th - Session 1.3

Chair: **Beatriz Martín García**

15:30 – 16:00h S1.3-I1	**Massimiliano Di Ventra** MemComputing: when memory becomes a computing tool
16:00 - 16:15h S1.3-O1	**Andrey Rybakov** Modelling the dynamics of spin waves in 2D limit
16:15 - 16:30h S1.3-O2	**Annalisa Coriolano** Rydberg polaritons in ReS2 crystals
16:30 - 16:45h S1.3-O3	**Umberto Filippi** Color Tunability and Collective Optical Phenomena in Perovskite Nanocrystal Superlattices
16:45 - 17:00h S1.3-O4	**Leon Biesterfeld** Colloidal 2D Lead Chalcogenide Nanoplatelets as Efficient Near-Infrared Emitters
17:00 - 17:15h S1.3-O5	**Lars Klepzig** Narrow and Highly Polarized Photoluminescence of Colloidal 2D PbS Nanoplatelets at 680 nm

Wednesday 8th - Session 2.1

Chair: **Jannika Lauth**

09:00 - 09:30h S2.1-I1	**Daniel Hernangómez Pérez** Unveiling the defect-induced charge and exciton properties of van der Waals interfaces through first-principles
09:30 – 10:00h S2.1-I2	**Michael Zopf** Gas quantum dots as high-quality sources of single and entangled photons
10:00 - 10:30h S2.1-I3	**Francesco Di Stasio** Colloidal semiconductor nanocrystals for classical and quantum light-sources

Wednesday 8th - Session 2.2

Chair: **Jannika Lauth**

11:15 - 11:45h S2.2-I1	**Saúl Velez** Chiral spintronics with magnetic insulators
11:45 - 12:15h S2.2-I2	**Beatriz Martin Garcia** Engineering optical and magnetic properties in layered organic-inorganic metal halide perovskites
12:15 - 12:45h S2.2-I3	**Amilcar Bedoya Pinto** Topological and 2D Materials grown by Molecular Beam Epitaxy: From exotic physics to functional heterostructures
12:45 - 12:50h	**QMat Closing**

Poster abstract list

#e-FuelSyn

- Solar Hydrogen Evolution through Ammonia Oxidation using Hybrid Ruthenium-based Electroanodes
Beiler, Anna M, Denisiuk, Alisa, Li, Wenhui, Holub, Jan, Sánchez-Baygual, Francisco-Javier, Gil-Sepulcre, Marcos, Ertem, Mehmed Z, Moonshiram, Dooshaye, Piccioni, Alberto, Palomares, Emilio, Llobet, Antoni

- Copper-based hybrid nanomaterials for the electrocatalytic reduction of CO2
Bondia Pedra, Joan Marc, Franco, Federico, Puerto, Carlos, Palomares-Gil, Emilio

- Downsizing Covalent Organic Framework Catalysts for Electrochemical CO2 Reduction via Trityl-Protected Precursors
Endo, Kenichi, Raza, Asif, Yao, Liang, Van Gele, Samuel, Rodríguez-Camargo, Andrés, Vigniolo-González, Hugo, Grunenberg, Lars, Lotsch, Bettina

- CuGa Nanoparticles as Stable Electrocatalysts for the CO2 Reduction Reaction
Boulanger, Coline, Albertini, Petru P., Okatenko, Valery, Chen, Alexander, Buonsanti, Raffaella

- Mn-based COF for electrochemical CO2 reduction to CO and formate
Liu, Changwei, dubed bandomo, Geyla caridad, lloret-fillol, Julio

-Electrocatalytic Reduction of Low concentrations of CO2 to CO by Using an Earth-Abundant Transition Metal Complex
Vettori, Mattia, Franco, Federico, Fernandez, Sergio, Lloret-Fillol, Julio

- Identifying the True Active Species in a Cobalt-Based Covalent Organic Framework for Electrochemical Oxygen Evolution Reaction
Rodrí-guez-Camargo, Andrés, Hosseini, Pouya, Yao, Liang, Tschulik, Kristina, Lotsch, Bettina

#GreenE

- The Weyl Semimetals MIrTe4 (M = Nb, Ta) as Efficient Catalysts for Dye-sensitized Hydrogen Evolution
Samanta, Manisha, Tan, Hengxin, Laha, Sourav, González, Hugo Alejandro Vignolo, Grunenberg, Lars, Bette, Sebastian, Duppel, Viola, Moonshiram, Dooshaye, Piccioni, Alberto, Yan, Binghai, V. Lotsch, Bettina

- Improving thermal insulating properties through the synthesis of high entropy oxide in A2Zr2O7 structures
Ryu, Myeungwoo, Woo, Myungju, Choi, Seunggun, Lee, Ganggyu, Myeong, Seungcheol, Jung, Yongmin, Song, Taeseup

- Highly Dispersed Fe-Substituted Colloidal Silica Nanoparticles in Acidic pH region for Tungsten Chemical Mechanical Planarization
Lee, Ganggyu, Kim, Sungmin, Jung, Hojin, Kim, Donghwan, Woo, Myungju, Lee, Yeram, Ryu, Myeungwoo, Paik, Ungyu

Characterization methods for fotoelectrochemical systems
Fabregat Santiago, Francisco, Mas-Marzá, Elena

#SusBat

- How does activation affect Na storage properties of carbon obtained from vine shoots?
Gezović, Aleksandra, Mišurović, Jana, Krstić, Jugoslav, Vižintin, Alen, Grudić, Veselinka, Dominko, Robert, Vujković, Milica

- Vine shoots-derived hard carbon as an anode for Na-ion batteries
Mišurović, Jana, Gezović, Aleksandra, Tratnik, Blaž, Vižintin, Alen, Grudić, Veselinka, Dominko, Robert, Vujković, Milica

- Ionic liquid incorporated in quasi solid state electrolyte for high-temperature secondary batteries applications
Lee, Jeong Han, Roh, Kwang Chul

Electrochemical effect of cokes-derived activated carbon with partially graphitic structure for post-lithium energy storage
Kang, Seo Hui, Roh, Kwang Chul

Micrometer Thick Interfaces in Aqueous Biphasic Systems for Electrochemical Devices
Degoulange, Damien, Pandya, Raj, Grimaud, Alexis

Non-Collapsing 3D Solid-Electrolyte Interphase for High-Rate Rechargeable Sodium Metal Batteries
Liu, Lifeng

Low-cost and Sustainable Aqueous Lithium-ion Batteries by All-Organic PTCDI Anodes
Brown, John, Karlsmo, Martin, Johansson, Patrik, Grimaud, Alexis

#PerFut

- Close-Space for Sequential Processing of Perovskite Solar Cells
Rodkey, Nathan, Gomar Fernández, Inma, Reinders, Joost, Roldán-Carmona, Cristina, J. Bolink, Henk

- Granting Reproducibility to Methylammonium-Iodide-Based Perovskite Regardless of MAI's Purity Degree
P.S. Zanoni, Kassio, Martínez-Goyeneche, Lucia, Dreessen, Chris, Sessolo, Michele, J. Bolink, Henk

- Speeding up PSC fabrication via vacuum co-evaporation
Sebastian Alonso, Javier E., Piot, Manuel, Zanoni, Kassio, Ventosinos, Federico, Sessolo, Michele, Jan Bolink, Hendrik

- Absolute photoluminescence measurements for loss analysis in wide-bandgap perovskite solar cells
Remmerswaal, Willemijn, Zhang, Dong, Wienk, Martijn, Janssen, Rene

- Wide-bandgap CsPbI1.5 Br1.5 Perovskite p–i–n Solar Cells
Vukovic, Olivera, Wienk, Martijn, Janssen, Rene

- Synthesis of new Organic Additives for Tin-Based Perovskite Solar Cells
Galve-Lahoz, Sergio, Sanchez-Diaz, Jesus, Turren-Cruz, Silver, Mora-Seró, Iván, Delgado, Juan Luis

- All-Vacuum Processed Methylammonium-free Perovskite Solar Cells in p-i-n Architecture via a Sequential Layer Deposition Process
Diercks, Alexander, Feeney, Thomas, Petry, Julian, Farag, Ahmed, Singh, Roja, Paetzold, Ulrich, Fassl, Paul

- The techno-economics of perovskite solar cells, from manufacturing cost to LCOE
Mc Govern, Lucie, Van der Zwaan, Bob

- Ytterbium-Doped Grinding-Processed Perovskite Powders
Maleckaitė, Karolina, Streckaitė, Simona, Miklušis, Lukas, Pakštas, Vidas, Franckevičius, Marius, Gulbinas, Vidmantas

- Enhancing Charges Extraction In Inverted Perovskite Solar Cells Contacts Via Ultrathin Graphene:Fullerene Composite Interlayers
Zanetta, Andrea, Bulfaro, Isabella, Faini, Fabiola, Manzi, Matteo, Pica, Giovanni, De Bastiani, Michele, Bellani, Sebastiano, Zappia, Marilena Isabella, Bianca, Gabriele, Gabatel, Luca, Panda, Jaya-Kumar, Del Rio Castillo, Antonio Esaù, Prato, Mirko, Lauciello, Simone, Bonaccorso, Francesco, Grancini, Giulia

- Photoelectrochemical water oxidation using halide double perovskites
Sikarwar, Poonam

- Highly stable lead-free vacancy ordered halide perovskites Cs2PtX6 (X= Cl, Br, I) for photovoltaic applications
Manoj, Manasa

- Real-time Visualization of Photo-brightening in Lead Halide Perovskites using Confocal Laser Scanning Microscopy
Halpati, Jigar

- Enhanced Luminescence of Perovskite Light Emitting Diodes by the doping of Dysprosium
Kumari, Sarika

#PhotoPero23

- Photoemission Studies of Rashba and Polaronic Effects in Halide Perovskites
Sajedi, Maryam, Krivenkov, Maxim, Marchenko, Dmitry, Sánchez-Barriga, Jaime, Chandran, Anoop, Varykhalov, Andrei, Rienks, Emile, Auilera, Irene, Blügel, Stefan, Rader, Oliver

- From bulk to thin-films: optical properties of new 2D tin halide perovskites in a wide temperature range
Żuraw, Wiktor, Przypis, Łukasz, Tołłoczko, Agata, Zdanowicz, Ewelina, Kudrawiec, Robert, Herman, Artur

- Spectroscopic Probing of 2D Pb-free Perovskite/GaN Interface
Zdanowicz, Ewelina, Przypis, Łukasz, Żuraw, Wiktor, Turski, Henryk, Skierbiszewski, Czesław, Kudrawiec, Robert, Herman, Artur P

- High-sensitivity Femtosecond Transient Absorption Setup for Chiral Perovskites
Pitzalis, Federico, Simbula, Angelica, Pau, Riccardo, Lai, Stefano, Matta, Selene, Wu, Luyan, Coccia, Clarissa, Marongiu, Daniela, Quochi, Francesco, Malavasi, Lorenzo, Saba, Michele, Mura, Andrea, Bongiovanni, Giovanni

- Enhanced Exciton Diffusion in a CsPbBr3 Binary Nanocrystal Superlattice
Sheehan, Thomas, Sekh, Taras, Kovalenko, Maksym, Tisdale, William

- Degradation Mechanisms of Perovskite Quantum Dot Photovoltaic Devices
Brunner, Julius, Li, Yanxiu, Albaladejo Siguan, Miguel, Pinheiro Muniz, Ruth, Vaynzof, Yana

- Charge-Carrier dynamics of CH3NH3PbI3 Perovskite Films with Different Crystalline Grain Size
Abdelrazik, Lamiaa, Franckevicius, Marius, Gulbinas, Vidmantas

- ENERGY TRANSFER PROCESSES IN LEAD HALIDE PEROVSKITES DOPED WITH YTTERBIUM
Streckaite, Simona, Franckevicius, Marius, Jasinskas, Vidmantas, Maleckaite, Karolina, Miklusis, Lukas, Pakstas, Vidas, Rutkauskas, Danielis, Gulbinas, Vidmantas

- Spatially (Locally) Synchronous Multi-state Fluorescence Intermittency in Organo-Lead Bromide Perovskite Micro-crystal
BEHERA, TEJMANI, CHOWDHURY, ARINDAM

#2DPERO

- Decoration of Two-Dimensional Layered Perovskites with Metal Nanoparticles
Schleusener, Alexander, Arciniegas, Milena, Krahne, Roman

#NewOPV

- Forced phase separation, good or bad? Acceptor-based interlayer in OPVs lead to energy losses
Beket, Gulzada, Österberg, Thomas, Bergqvist, Jonas, Gao, Feng

- Enhancing the Performance of State-of-the-Art Solar Cells Using Universal Hole Extraction Layer
Fadool, Hela, Young-Jun, Yu, Dong-Hoon, Choi, Jung-Il, Jin, Tessler, Nir

- All Oxide Photovoltaic Devices for Internet of Things
Ahmed, Hamsa, Madsen, Morten

#Adinos

- Investigation of phases in the Cu-Bi-S system towards solar energy conversion
Santos, Daniely, Milano, Lorenzo, Joos, Bjorn, D'Haen, Jan, Desta, Derese, Boyen, Hans-Gerd, Shukla, Sudhanshu

- Nickel Sulfide Modified Titania Thin Films for Photocatalytic Applications
Egger, Melissa, Sigl, Marco, Rath, Thomas, Hanzu, Ilie, Warchomicka, Fernando, Kienberger, Marlene, Trimmel, Gregor

- Oxide photocathode stacks through facile aqueous solution-gel routes, doping and HTL
Joos, Bjorn, Elen, Ken, Van Bael, Marlies K., Hardy, An

- Structured zinc indium sulfide films via polystyrene nanosphere templates for photocatalysis
Sigl, Marco, Egger, Melissa, Rath, Thomas, Warchomicka, Fernando, Trimmel, Gregor

- Enhanced Charge Transport via Electrochemically Formed Conducting Bridge in TiO2 Protection Layer of Photoelectrodes in Photoelectrochemical Water Splitting
Kim, Dong Su, Choi, Ji Hoon, Lee, Hak Hyeon, Oh, Shin Young, Cho, Hyung Koun

- Optimizing Charge Extraction Layers in Lead-Free AgBiS2 Solar Cells
Senina, Alina, Prudnikau, Anatol, Paulus, Fabian

- Based on the Electrochemical Method, Controlling a Cu2O Photocathode's Growth Direction by Adding Sb for Effective Water Splitting
Oh, Shin Young, Kim, Dong Su, Lee, Hak Hyeon, Cho, Hyung Koun

#NCFun23

- The first principle study of atomistic, electronic, and optical structure of mercury telluride (HgTe) nanocrystals (NC)
Xing, Yunhua, Yazdani, Nuri, Wood, Vanessa

- In-situ Intrinsic self-healing of low toxic Cs2ZnX4 (X= Cl, Br) metal halide nanoparticles
Aizenshtein, Ben, Etgar, Lioz

- Near - IR Photodiodes, Based on Colloidal Nanocrystals
Solomeshch, Olga, Tessler, Nir

- Ultrathin colloidal QDs optoelectronic devices for ultrafast photodetection
Deng, Yu-Hao, Kheradmand, Setare Ezat, Pan, Chao, Leemans, Jari, Geiregat, Pieter, Thourhout, Dries Van, Hens, Zeger

- Ultrafast and Spatially-Resolved Exciton Diffusion on MoSe2: Down to a Suspended Monolayer
Lo Gerfo M., Giulia, Brinatti-Vazquez, Guillermo D., van Hulst, Niek F.

- Understanding the Chemical Transformation of Bi Seeds to Synthesize Shape and Composition tunable Multi-component Metal Chalcogenide Nanocrystals
Kapuria, Nilotpal, Singh, Shalini, Ryan, Kevin M., Cabot, Andreu

- Engineering Polymorphs in Colloidal Metal Dichalcogenides: Precursor Mediated Phase Control, Molecular Insights into Crystallisation Kinetics and Promising Electrochemical Activity
Patil, Niraj Nitish, Kapuria, Nilotpal, Sankaran, Abinaya, Laffir, Fathima, Geaney, Hugh, Magner, Edmond, Scanlon, Micheal, Ryan, Kevin, Singh, Shalini

- Colloidal Synthesis of Alkali Metal-based Chalcogenide Na-Cu-S Nanocrystals for Energy Conversion
McKeever, Hannah, Kapuira, Nilotpal, Singh, Shalini

- Lengthening of Exciton Lifetime in Linear Perovskite-Upconversion Hybrid Assemblies
Cortés-Villena, Alejandro, Estebanez, Nestor, Ferrera-González, Juan, González-Béjar, María, Galian, Raquel E., González-Carrero, Soranyel, Pérez-Prieto, Julia

- Metal Halide Perovskites Nanocrystals beyond Solar Sells and LEDs Applications: Could They Work as Active Photocatalysts?
Rosa-Pardo, Ignacio, Casadevall, Carla, Schmidt, Luciana, Claros, Miguel, Galian, Raquel E., Lloret-Fillol, Julio, Pérez-Prieto, Julia

- InAs-based Quantum Dots Prepared with Aminoarsine: Synthesis, Optical Properties and Implementation in LEDs
Zhu, Dongxu, De Franco, Manuela, Bahmani Jalali, Houman, Di Stasio, Francesco, De Trizio, Luca, Manna, Liberato

- Designing Water-Stable Metal Halide Perovskite Nanoparticles for Biosensing and Bioimaging Applications
Collantes, Cynthia, Teixeira, William, González Pedro, Victoria, Bañuls, María José, Maquieira, Ángel

- Introducing B-Site Cations by Ion Exchange and Shape Anisotropy in CsPbBr3 Perovskite Nanostructures
Hudait, Biswajit, Pradhan, Narayan

- Cation Sublattice Engineering and Photoluminescence – a Case Study of Ag-In-Se, Ag-In-Zn-Se, and Ag-In-Se/ZnSe
Moser, Annina, Rusch, Noemi, Yazdani, Nuri, Dordevic, Nikola, Yarema, Olesya, Lin, Weyde M. M., Bozyigit, Deniz, Yarema, Maksym, Luisier, Mathieu, Wood, Vanessa

- Collective Diffraction Effects in Perovskite Nanocrystal Superlattices
Toso, Stefano, Baranov, Dmitry, Filippi, Umberto, Giannini, Cinzia, Manna, Liberato

- Cs-Lattice Extension and Expansion for Inducing Secondary Growth of CsPbBr3 Perovskite Nanocrystals
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#ChemNano23

- Chemical Solution Synthesis of Copper-Iron Delafossite Photocathode Materials for Photoelectrochemical CO2 Conversion
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- Size and Shape as a Tool for Tuning the Bandgap Energy of InAs Single-Tetrapods
Llusar, Jordi, Infante, Ivan

- A general synthetic method for well-defined CuNi and CuCo nanocrystals via controlling reaction intermediates
Lee, Kimoon, Buonsanti, Raffaella

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#2DSUSY

- Photoemission Study of the Thermoelectric Group IV-VI van der Waals Crystals with "Pudding Mold" Band Structure
Tołłoczko, Agata, Zelewski, Szymon, Błaszczak, Michał, Olszowska, Natalia, Rosmus, Marcin, Tongay, Sefaattin, Kudrawiec, Robert

- Hybrid hydrogels based on 2D MoS2 for application in wearable devices
Domenici, Sara, Crisci, Matteo, Gatti, Teresa

- Optical and electronic properties of getchellite
Sabik, Agata, Linhart, Wojciech M., Kudrawiec, Robert

- Composites of chemically modified graphene oxide nanosheets and natural polymers for water treatment
Tunioli, Francesca, Khaliha, Sara, Mantovani, Sebastiano, Bianchi, Antonio, Kovtun, Alessandro, Marforio, Tainah Dorina, Calvaresi, Matteo, Palermo, Vincenzo, Melucci, Manuela

- Study of the Optoelectronic Properties of Bi2S3 as a Nesting-Like Band Gap Semiconductor
Linhart, Wojciech, Zelewski, Szymon, Scharoch, Paweł, Dybała, Filip, Kudrawiec, Robert

#QMat

- Light-Emitting Diodes Based on Vertically Aligned CdSe-CdS Nanorods Layer fabricated by Electrophoretic Deposition with high luminesce and high external quantum efficiency (EQE)
PHAM, Xuan-Manh, ZHANG, Yongliang, LIU, Ning, RYAN, Kevin M

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