

Session Program

13-17 Sept 2021

**EUROPEAN CONGRESS AND EXHIBITION ON
ADVANCED MATERIALS AND PROCESSES -
EUROMAT 2021**

***A2_Synthesis and applications of functional
materials***

Virtual

Monday 13 September

11:00

A2_Synthesis and applications of functional materials: A2_1_Vapor deposition of functional thin films

Session | Location: Room 2

11:00-11:40

Functional nanocomposites and organic thin films tailored on the nanoscale via vapor phase deposition (Keynote)

Speaker

Prof. Franz Faupel

11:40-12:00

iCVD of a conformal low-k dielectric polymer.

Speaker

Ms Chara Zavvou

12:00-12:20

Oxidative chemical vapor deposition of conductive polymer on 3D porous hydrogels

Speaker

Mr Adrivit Mukherjee

12:20-12:40

Protective nano-coatings produced by noble gas ion-mixing

Speaker

Adel Racz

12:40

14:00

A2_Synthesis and applications of functional materials: A2_1_Vapor deposition of functional thin films

Session | Location: Room 2

14:00-14:20

HiPIMS deposited Pd-WO_{3-x} Thin Films with various Structure and Stoichiometry for Hydrogen Gas Sensing

Speaker

Mr Nirmal Kumar

14:20

14:20

A2_Synthesis and applications of functional materials: A2_2_Coordination materials -MOF

Session | Location: Room 2

14:20-14:40

Electrophoretic Deposition Process of Inorganic Octahedral Metal Clusters: Nanocomposite Thin Films for Optical, Biological and Energy Applications

Speaker

Dr Fabien Grasset

14:40-15:00

Revisiting the MOF-CVD process to produce ZIF-8 thin films: characterization of the physico-chemical and gas adsorption properties

Speaker

Ms Virginie Perrot

15:00–15:20

atomic-layer-deposition of metal-organic-framework films**Speaker**

Jakob Rath

15:20

16:00

A2_Synthesis and applications of functional materials: A2_3_Deposition of organic and hybrid thin films**Session** | **Location:** Room 2

16:00–16:20

Recent Advancements in the Use of Aerosol-Assisted Atmospheric Pressure Plasma Deposition (Highlight)**Speaker**

Fabio Palumbo

16:20–16:40

Is it worth studying the morphology of polypyrroles for advanced applications?**Speaker**

Sylwia Sylwia Golba

16:40–17:00

Metal Micro/-nanostructures on TiO₂ Thin Films for Oil/Water Separation and Self-Cleaning Applications**Speaker**

Mr Josiah Shondo

17:00–17:20

Synthesis of photoswitchable organic thin films via initiated chemical vapor deposition (iCVD)**Speaker**

Mr Maximilian Heiko Burk

17:20

Tuesday 14 September

09:50

A2_Synthesis and applications of functional materials: A2_4_CVD deposition of 1D and 2D nanomaterials

Session | **Location:** Room 2

09:50–10:10

Vapor Phase Synthesis and Functionalization of Polymeric Nanostructures (Highlight)

Speaker

Prof. Gozde Ozaydin Ince

10:10–10:30

Deposition and kinetic study of new nanoscale gradient copolymer films enabled by initiated chemical vapor deposition (iCVD)

Speaker

Mr Stefan Schröder

10:30–10:50

In situ X-ray studies of Dicalchogenide Molecular Layer Deposition and thermal annealing

Speaker

Mr Petros Abi Younes

10:50–11:10

Multi-stimuli responsive nanorod arrays

Speaker

Mr Taher Abu Ali

11:10

11:50

A2_Synthesis and applications of functional materials: A2_5_Biomaterials

Session | **Location:** Room 2

11:50–12:10

Synthesis and Characterization of N-Heterocyclic Carbenes for the Functionalization of Gold (Highlight)

Speaker

Dr Brigitte Holzer

12:10–12:30

Phenothiazine as a building block of novel D-A molecules with diverse application in optoelectronics, photovoltaics and bio-imaging - synthesis and characterization

Speaker

Dr Slodek Aneta

12:30–12:50

Improved oral delivery of insulin using smart protein-based formulations of mesoporous silica nanoparticles

Speaker

Claudia Iriarte-Mesa

12:50-13:10

Novel functional biocompatible materials via initiated Chemical Vapor Deposition (iCVD)**Speaker**

Mr Torge Hartig

13:10

15:20

A2_Synthesis and applications of functional materials: A2_6_(Opto) Electronic materials I**Session** | **Location:** Room 2

15:20-15:40

Silicon-based thermoelectric nanomaterials for energy conversion and catalytic gas sensing (Highlight)**Speaker**

Dr Alex Morata

15:40-16:00

Conductive cotton yarn coated with graphene: formulation and electrical properties**Speaker**

Léa Maneval

16:00-16:20

Enhancement of the light extraction efficiency of sol-gel derived YAG:Ce coatings using ZnO nanowires (NWs) array**Speaker**

Mr Aubry Martin

16:20-16:40

Polypyrrole- Carbon Fiber Composite For Flexible Energy Storage**Speaker**

Mr Afshin Dianatdar

16:40-17:00

Formation of Whispering Galleries modes in micro- and nanostructures of Li-doped ZnO**Speaker**

Rocío Ariza García

17:00

17:20

A2_Synthesis and applications of functional materials: A2_7_(Opto) Electronic materials II**Session** | **Location:** Room 2

17:20-17:40

Engineered Quantum dot Structures in Glass for Solar Energy Harvesting to Heat Water**Speaker**

Mr Mohanad AL-Murish

17:40-18:00

Development of nanostructured iron-based catalysts by RF sputtering for solar photo-Fenton degradation of dyes

Speaker

Antonrella Milella

18:00-18:20

Nanoporous Gold obtained by dealloying AuFe₂ precursor - a promising low-cost electrocatalyst for Hydrogen Evolution Reaction

Speaker

Ms Deepti Raj

18:20-18:40

Magnetic topological insulators (MnX₂Te₄)(Bi₂Te₃)_n, X = Bi, Sb; n = 0-3: Chemical modification towards more robust magnetic order

Speaker

Anna Isaeva

18:40

Wednesday 15 September

09:50

A2_Synthesis and applications of functional materials: A2_8_Synthesis of functional materials I

Session | Location: Room 2

09:50-10:10

Innovative polypropylene blends with in situ polymerization of a polyimide dispersed phase by reactive extrusion

Speaker

Ms Charlotte Dubois

10:10-10:30

Programming Materials in the Time Domain with Chemical Clocks

Speaker

Dr Guido Panzarasa

10:30-10:50

Organosulfur molecules: A toolbox for synthesizing various tin sulfide phases

Speaker

Mr Bhobnibhit Chatmaneerungcharoen

10:50

11:50

A2_Synthesis and applications of functional materials: A2_9_Synthesis of functional materials II

Session | Location: Room 2

11:50-12:10

Mercaptopropylphosphonic Acid Modified Titania as Selective Pd Scavenger: From Powder to 3D Printed Structure

Speaker

Nick Gys

12:10-12:30

CNT-Doped veils as the multifunctional nano-enabled products for fibre-reinforced composites

Speaker

Dr Paulina Latko-Durałek

12:30-12:50

Enhanced synthesis of La₂SiO₅: potential application to develop c-axis oriented lanthanum silicate oxyapatite by reactive diffusion

Speaker

Ms Lizeth Arbelaez Morales

12:50

15:30

A2_Synthesis and applications of functional materials: A2_10_Thin film devices for industrial applications I

Session | Location: Room 2

15:30-15:50

Wafer-scale iCVD for microelectronics and microtechnologies (Highlight)

Speaker

Dr Vincent Jousseume

15:50-16:10

Out of stoichiometry CuCrO₂ thin films: application in a planar p-n junction

Speaker

Mr Lorenzo Bottiglieri

16:10-16:30

Development of functional polymers for complementary monitoring of temperature-critical electronic devices

Speaker

Daniel Bautista-Anguís

16:30-16:50

Design and fabrication of flexible transparent electrode membranes and self-supporting thin film electrodes for biosignal monitoring

Speaker

Prof. Silvia Schintke

16:50

17:30

A2_Synthesis and applications of functional materials: A2_11_Thin film devices for industrial applications II

Session | Location: Room 2

17:30-17:50

Device integration of graphene nanoribbons

Speaker

Mickael Perrin

17:50-18:10

Influence of low friction coatings in ultra-fast response thermocouples to temperature evaluation in microinjection

Speaker

Mr Tomás Resendes

18:10-18:30

Synthesis of highly ordered nanoporous membranes through block copolymer lithography using “inverse” P2VP-b-PS BCP thin films

Speaker

Mr Aislan Esmeraldo Paiva

18:30