



European Materials Research Society

2023 Spring Meeting May 29 | June 2

40<sup>th</sup> Anniversary

Congress & Exhibition Centre, Strasbourg, France

## SYMPOSIUM C

Advanced materials for environmental challenges

Symposium Organizers:

Sabrina Carola CARROCCIO, IPCS-CNR, Catania, Italy

Anne KAHRU, NICPB, Tallinn, Estonia

Anne MORRISSEY, Dublin City University, Ireland

John Anthony BYRNE, Ulster University, U.K.

Yaron PAZ, Technion, Haifa, Israel

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**GREENERTECH**  
ENERGY & ENVIRONMENTAL ADVANCED TECHNOLOGY

**Monday May 29**

**C01**

## **Polymers for Environment 1**

**Chairperson(s) : AMBROGI Veronica**

**Marie Curie A (1st floor)**

|              |             |            |   |                           |
|--------------|-------------|------------|---|---------------------------|
| <b>08:45</b> | <b>529</b>  | <b>INV</b> | Polymer based hydrogels for water treatment   | <b>FRAGOULI Despina</b>   |
| <b>09:15</b> | <b>2569</b> |            | Novel multi-functional organic-polymer based hybrid photocatalyst as a potential disinfectant.          | <b>HAZRA Moulika</b>      |
| <b>09:30</b> | <b>61</b>   |            | Novel composite polymer membranes incorporated with nano-additives for water treatment and desalination | <b>KOCHKODAN Viktor</b>   |
| <b>09:45</b> | <b>976</b>  |            | The scale-up of CrioPurA via a more sustainable strategy  | <b>SCAMPORRINO Andrea</b> |

**Monday May 29**

**C02**

## **Air remediation**

**Chairperson(s) : BYRNE John Anthony**

**Marie Curie A (1st floor)**

|              |             |  |   |                         |
|--------------|-------------|--|---|-------------------------|
| <b>10:30</b> | <b>2414</b> |  | New polymeric macroporous catalyst for CO2 conversion                         | <b>ZAGNI Chiara</b>     |
| <b>11:00</b> | <b>142</b>  |  | CO2 Reduction to Solid Carbon Using Liquid Metals                             | <b>ZURAQI Karma</b>     |
| <b>11:15</b> | <b>367</b>  |  | Solar photothermo-catalysis for the air purification and the CO2 valorization | <b>FIORENZA Roberto</b> |

**Monday May 29**

**C03**

## **Purification by using inorganic materials**

**Chairperson(s) : FIORENZA Roberto**

**Marie Curie A (1st floor)**

|              |             |            |   |                              |
|--------------|-------------|------------|---|------------------------------|
| <b>13:30</b> | <b>2745</b> | <b>INV</b> | Design and development of sustainable hybrid nanostructured materials for innovative and eco-friendly approaches in water remediation | <b>PLUTINO Maria Rosaria</b> |
|--------------|-------------|------------|---|------------------------------|

|       |      |  |                     |
|-------|------|--|---------------------|
| 14:00 | 8    | Preparations and characterizations of low-cost porous ceramics for wastewater remediation and air cleaning | HA Jang-Hoon        |
| 14:15 | 1725 | Novel hybrid rare-earth metalorganic frameworks for water purification                                     | LO PRESTI Francesca |
| 14:30 | 2438 | Design of zeolite-based 3D printed materials for environmental remediation                                 | LUZZI Enrica        |

**Monday May 29**

**C04**

## Photocatalysis 1

Chairperson(s) : IMPELLIZZERI Giuliana

Marie Curie A (1st floor)

|       |      |  |                   |
|-------|------|--|-------------------|
| 15:00 | 1287 | INV Photocatalytic nanomaterials for sustainable solutions of complex environmental challenges                 | CURRI Maria Lucia |
| 15:30 | 2025 | Hybrid Magnetic Imprinted Hydrogels for selective removal and degradation of pollutants from water             | PUGLISI Roberta   |
| 15:45 | 849  | Influence of WO <sub>3</sub> Doping on SnO <sub>2</sub> Thin Films for Enhanced Photocatalytic Water Treatment | ISAHN Victor      |

**Monday May 29**

**C05**

## Photocatalysis 2

Chairperson(s) : FERNANDEZ-IBANEZ Pilar

Marie Curie A (1st floor)

|       |      |   |                        |
|-------|------|---|------------------------|
| 16:30 | 747  | Multicatalytic approaches for environmental challenges: simultaneous remediation of water pollutants and H <sub>2</sub> production                                | MALANNATA Enrica Maria |
| 16:45 | 859  | Z-scheme ZnFe <sub>2</sub> O <sub>4</sub> @pDOPA-ZnO heterojunctions using polyDOPA as electron transfer layer for enhanced visible light photocatalytic activity | TOLOMAN Dana           |
| 17:00 | 2177 | Application of graphitic carbon nitride nanosheets as a multifunctional nanofiller in cryogels for wastewater treatment and quality monitoring                    | DZIZA Katarzyna        |

|              |             |   |                              |
|--------------|-------------|---|------------------------------|
| <b>17:30</b> | <b>967</b>  | Synthesis of spiky ZnO nanorods: The importance of tuning synthesis conditions to perform advanced novel materials for water treatment applications | <b>SOTELO-VAZQUEZ Carlos</b> |
| <b>17:45</b> | <b>1188</b> | Nb, N co-doped TiO <sub>2</sub> nanoparticles for broad spectrum solar light activation photocatalysis  | <b>XI Qingyang</b>           |
| <b>18:00</b> | <b>1191</b> | Development and optimisation of spray pyrolysis-synthesised Bi <sub>2</sub> O <sub>3</sub> thin films for photocatalytic applications <sup>2</sup>  | <b>SYDORENKO Jekaterina</b>  |

Tuesday May 30

C06

## Polymers for Environment 2

Chairperson(s) : CERRUTI Pierfrancesco

Marie Curie A (1st floor)

|       |      |     |  |                         |
|-------|------|-----|--|-------------------------|
| 10:00 | 953  | INV | Synergistic effects in composite materials for environmental remediation: dream or reality?  | SALZANO DE LUNA Martina |
| 10:30 | 2435 |     | Polydopamine Modified Graphene Oxide Nanocomposite Membranes for Efficient Dye Removal from Water  | GAHLOT Swati            |
| 10:45 | 1842 |     | Sulfonated Pentablock Copolymer used as Antimicrobial Coating for Innovative Multifunctional Water Filters   | FILICE Simona           |
| 11:00 | 2348 |     | Removal of organic dyes from aqueous solution using stimuli-responsive copolymers  | GOMEZ DAYALA Giovanna   |
| 11:15 | 28   |     | Ultrasonic Activation of ZIF-based Nitrogen-Carbon Materials Confining Single-atom Calcium Dipoles With PVDF Membranes For Piezocatalytic Water Decontamination              | ZHAO Qi                 |
| 11:30 | 426  |     | Functional PES based electrospun mats for adsorption and photodegradation of pollutants in water   | FRAGALA Maria Elena     |
| 11:45 | 320  |     | Natural polyphenol-inspired sequential interpenetrating polymer network membrane using PVDF-polyaniline-polypyrrole for improved cationic and anionic dye removal from water | DUTTA Soumi             |

Tuesday May 30

C07

## Catalysis for environment

Chairperson(s) : MORRISSEY Anne

Marie Curie A (1st floor)

|       |      |     |  |                  |
|-------|------|-----|--|------------------|
| 13:30 | 2098 | INV | Transparent Polypropylene Jerrycans for Solar Disinfection of drinking water; antimicrobial properties, durability, and human toxicity | PILLAI Suresh C. |
| 14:00 | 998  |     | Plasmonic Catalysts for the Green Capture and Conversion of SF6 and CO2 Greenhouse Gases   | LOSURDO Maria    |

|       |      |   |                   |
|-------|------|---|-------------------|
| 14:15 | 1789 | Structural and compositional characterization of AgXCu100-X bimetallic NPs deposited on Si micropillars as advanced photocathodes for PEC CO2 reduction | CHALIYAWALA Harsh |
| 15:00 | 428  | Catalytic conversion of nitroaromatic pollutants mediated by metal-cryogels hybrid nanostructured catalysts   | SCURTI Stefano    |
| 15:15 | 2377 | Combating Indoor Pollution: The Efficacy of Hybrid Organic-Inorganic Photocatalytic System  | PORCU Stefania    |

**Tuesday May 30**

**C\_P01**

**Poster session 1**

**Etoile (1st floor) - 4.30 p.m to 6.30 p.m**

|         |   |                         |
|---------|---|-------------------------|
| 01_678  | pH and thermo-responsive copolymers for the removal of anionic and cationic dyes from aqueous solution  | CERRUTI Pierfrancesco   |
| 02_729  | Al and Ga co-doping of ZnO nanowires grown by chemical bath deposition  | APPERT Estelle          |
| 03_765  | Selective and Continuous Ion Recovery Using Flow Electrode Capacitive Deionization with Polymer Multilayers functionalized Ion Exchange Membrane  | CHO Younghyun           |
| 04_874  | Nano-devices based on Fe3O4 coated by meglumine ligands for the adsorption of metal anions from water   | DATTILO Sandro          |
| 05_881  | Novel, environmentally friendly dynamic system based on titanium dioxide photocatalysts, for the elimination of Escherichia coli bacteria from water  | PEZZOTTI ESCOBAR Gianni |
| 06_1004 | Multifunctionalized silver nanoparticles for arsenic ions removal from water  | VENDITTI Iole           |
| 07_1012 | Growth of metal-doped MoS2 nanostructures toward catalytic applications   | SHIU Hung Wei           |
| 08_1065 | Interaction of newly synthesized Dipeptide Schiff bases with mild steel surface in aqueous HCl: Experimental and theoretical study on thermodynamics, adsorption and anti-corrosion characteristics | SATPATI Sanjoy          |
| 09_1096 | Effect of the nature of both cations and anions substitution on the structural symmetry of Li-rich 3d-metal chalcogenides electrodes  | LOUIS Jacques           |

|                         |  |                               |
|-------------------------|--|-------------------------------|
| <a href="#">10_1122</a> | Sponges for emerging pollutants removal  | <b>CURCURUTO Giusy</b>        |
| <a href="#">11_1231</a> | Effect of the heterocyclic group on the anti-corrosion performance of heterocyclic Schiff bases of benzothiazole for mild steel in 1 M aqueous HCl   | <b>SUHASARIA Aditya</b>       |
| <a href="#">12_1293</a> | Kinetic and comparative study of the isomerization reaction of substituted dodecahexaene by ab-initio and dft method   | <b>MECHACHTI Fatima</b>       |
| <a href="#">13_1313</a> | Investigation of the interactions between water and mesoporous functional metal oxides   | <b>COLOMBO Filippo</b>        |
| <a href="#">14_1414</a> | Reconstruction-induced copper/nickel-based catalysts for Highly-Efficient Ammonia Electrosynthesis   | <b>YIN Di</b>                 |
| <a href="#">15_1437</a> | Silica based hybrid coatings for writing surfaces - whiteboards  | <b>ALMEIDA José Carlos</b>    |
| <a href="#">16_1464</a> | Visible-light absorption of In <sub>2</sub> O <sub>3</sub> thin films and nanorods by incorporation of Bismuth for visible light-responsive photocatalyst  | <b>TANIGUCHI Yoko</b>         |
| <a href="#">17_1491</a> | Preparation and optical properties of $\beta$ -Ga <sub>2</sub> O <sub>3</sub> /ZnO nanocomposite as a photocatalyst for the efficient degradation of organic compounds under the action of ultraviolet radiation | <b>GIRTAN Mihaela</b>         |
| <a href="#">18_1563</a> | Heterogeneous ion-exchange membranes containing aligned ion-exchange resin particles and ionomer binder  | <b>LEE Ji-Min</b>             |
| <a href="#">19_1582</a> | Interlocking structured bipolar membranes with highly durable bipolar junction   | <b>KANG Moon-Sung</b>         |
| <a href="#">20_1693</a> | Molding Analysis of GIS Spacers Using Cure kinetics and Reactive Viscosity Models of Bio-Based Epoxy Composites  | <b>LEE Chanyong</b>           |
| <a href="#">21_1695</a> | UV and Visible light photocatalysis of methyl orange dye using titanium dioxide/ graphene nanocomposites   | <b>M Steffi Antony</b>        |
| <a href="#">22_1736</a> | PVD coating on chromium (III) as a viable solution for the replacement of decorative chromium (VI)   | <b>PINHEIRO Xavier Leitão</b> |
| <a href="#">23_1753</a> | Porphyrin based Cryogel for water remediation  | <b>MERCORILLO Giuseppa</b>    |
| <a href="#">24_1764</a> | Physical and chemical decoration of graphene-based materials by metal nanoparticles for the development of gas sensors dedicated to sulfur-containing pollutants   | <b>NDIAYE Amadou</b>          |

|                         |  |                                     |
|-------------------------|--|-------------------------------------|
| <a href="#">25_1813</a> | Intrinsic impacts of Graphene oxide entrapped Polystyrene (GO@PS) nanohybrid inferred toxicological effects on embryonic zebrafish ( <i>Danio rerio</i> )                            | <b>SINHA Adrija</b>                 |
| <a href="#">26_1829</a> | Low cost copolymer for the removal of heavy metal from water   | <b>MIRABELLA Emanuele Francesco</b> |
| <a href="#">27_1925</a> | Chitosan-based Laser-induced Graphene Sensors for VOC Detection  | <b>LARRIGY Cathal</b>               |
| <a href="#">28_2194</a> | Oxidation kinetics of Sm <sub>2</sub> (Co, Fe, Cu, Zr) <sub>17</sub> alloy powder: Enhanced activation energy barrier at high oxidation temperature                                  | <b>MITTIREDDI Ravi</b>              |
| <a href="#">29_2205</a> | Multi-solvent method for doping oxide thin films in solution-based techniques  | <b>VATAVU Sergiu</b>                |
| <a href="#">30_2210</a> | Non-stoichiometric amorphous titanium dioxide nanoparticles for efficient dye-degradation  | <b>ROY Remiya</b>                   |
| <a href="#">31_2215</a> | Morphology changes of zeolite formed using a waste material: preliminary data on the action of laser beam  | <b>ORLANDO Stefano</b>              |
| <a href="#">32_2239</a> | Femtosecond Laser Patterned Graphene Oxide based SERS Platform for Dye Detection   | <b>JOSHI Sarika</b>                 |
| <a href="#">33_2256</a> | kinetic and comparative study of the isomerization reaction of substituted tetradecahepta-ene by ab-initio and dft method  | <b>AHMANE Younes</b>                |
| <a href="#">34_2283</a> | Ab initio calculations of OH- group adsorption on TiO <sub>2</sub> surface   | <b>NEILANDE Elina</b>               |
| <a href="#">35_2365</a> | A chemiresistive methane gas sensing properties of nanorods of hexahydroxytriphenylene-based metal-organic frameworks  | <b>NAVALE Sachin Tatyasaheb</b>     |
| <a href="#">36_2380</a> | Plasmon Resonance Variations of Quasi-Spherical Gold Nanoparticles for Environmental Ion Detection   | <b>RAGUINDIN Ricky Kristan</b>      |
| <a href="#">37_2459</a> | Boosting the kinetics with graphene quantum dots functionalized MoS <sub>2</sub> wrapped ZIF-67 derived Co <sub>3</sub> O <sub>4</sub> for efficient photodegradation of norfloxacin | <b>KIM Do-Heyoung</b>               |
| <a href="#">38_2493</a> | Unveiling the mechanistic reaction pathway of selective photocatalytic CO <sub>2</sub> reduction over 2D ZnIn <sub>2</sub> S <sub>4</sub>  | <b>SABBAH Amr</b>                   |
| <a href="#">39_2498</a> | Tailoring High Entropy Oxides (HEOs) as emerging radiative materials for green energy saving buildings   | <b>BORGHESI Costanza</b>            |



|                         |   |                               |
|-------------------------|---|-------------------------------|
| <a href="#">40_2503</a> | Piezo-Photocatalytic Effect of ZnO-MoS <sub>2</sub> Heterostructures on the Efficiency of Catalytic Degradation of Methyl Orange        | <b>NARVAEZ James Albert</b>   |
| <a href="#">41_2570</a> | Porous polymer membrane modified with pure and copper-doped titanium dioxide for filtering and light facilitated bacteria sterilization | <b>BOCHAROV Dmitry</b>        |
| <a href="#">42_2603</a> | Robust CA-GO-PTFE membranes for azithromycin photo-degradation in wastewaters   | <b>MITU Bogdana</b>           |
| <a href="#">43_2607</a> | Advanced functionalisation of Borophene/graphitic carbon nitride as a photocatalyst for textile wastewater treatment application        | <b>EMADIAN Seyedehsadrieh</b> |
| <a href="#">44_2653</a> | Conception and optimization of heterojunction between TiO <sub>2</sub> "sol-gel" and g-C <sub>3</sub> N <sub>4</sub>                    | <b>MARY Caroline</b>          |
| <a href="#">45_2669</a> | NO and CO capture by titanium- and copper-decorated two-dimensional carbides  | <b>PÉREZ Luis A.</b>          |
| <a href="#">46_2736</a> | Design and synthesis of calixarene-based cryopolymers for air pollutant treatment and sensing   | <b>MECCA Tommaso</b>          |
| <a href="#">47_2747</a> | Innovative solutions to monitor and to mitigate plastic and microplastic pollution in REMEDIES project                                  | <b>COCCA Maria Cristina</b>   |
| <a href="#">48_2748</a> | Electrospun nanofiber membranes for sustainable wastewater remediation: eco-friendly design and development                             | <b>RANDO Giulia</b>           |
| <a href="#">49_607</a>  | Synthesis of Metal Oxide and Carbon Materials from Metal-Organic Frameworks (MOFs) and Its Applications                                 | <b>LEE Hee Jung</b>           |

Wednesday May 31

C08

## Nanocomposites for Environment 1

Chairperson(s) : FILIPPONE Giovanni

Marie Curie A (1st floor)

|       |      |     |   |                        |
|-------|------|-----|---|------------------------|
| 10:00 | 315  | INV | Synthesis of various metal oxide/hydroxide composites immobilized on magnetic particles as reusable adsorbents for phosphate from wastewater and assessing their ecotoxicity to marine bioluminescent bacteria <i>Vibrio fischeri</i> | DRENKOVA-TUHTAN Asya   |
| 10:30 | 993  |     | Novel functionalized porous carbons as sensor-adsorbents for water purification applications  | SANDBERG Mats          |
| 10:45 | 2105 |     | Microwave-assisted in-situ synthesis of TiO <sub>2</sub> /graphene oxide nanoparticles with homo-/heterojunction for highly efficient visible-light photocatalysis  | KATO Kunihiko          |
| 11:00 | 897  |     | Redox-active Porous Polymers: Synthesis and Applications  | AL SIYABI Safa         |
| 11:15 | 1746 |     | Design of magnetic graphene/iron oxide nanocomposites for the adsorption of relevant persistent organic pollutants  | VAZ-RAMOS Joana        |
| 11:30 | 1345 |     | Carbon-Polymer Dots as Optical Sensors for the Drone Mapping of Thiols in Industrial Plants   | CORSARO Paolo          |
| 11:45 | 902  |     | Developing nano plastics models to study their fate in the environment.   | MANJU SUDHEER Malavika |

**Wednesday May 31**  
**C09**  
**Photocatalysis 3**

**Chairperson(s) : PAZ Yaron**

**Marie Curie A (1st floor)**

|              |             |            |   |                               |
|--------------|-------------|------------|---|-------------------------------|
| <b>13:30</b> | <b>440</b>  | <b>INV</b> | Innovative photocatalytic nanocomposites for water treatment  | <b>IMPELLIZZERI Giuliana</b>  |
| <b>14:15</b> | <b>2666</b> |            | Design of Z-scheme photocatalytic systems and studies of their photocatalytic activity in wastewater and air pollutants degradation   | <b>ANDRONIC Luminita</b>      |
| <b>14:30</b> | <b>2310</b> |            | Understanding the photocatalytic activity of sodium hexatitanate: A spectroscopic approach  | <b>DOS SANTOS Ieda</b>        |
| <b>14:45</b> | <b>978</b>  |            | Photocatalytic removal of gaseous ethyl acetate in a continuous reactor pilot scale : reactor efficiency in simulated real conditions | <b>HAJJAJI Mohamed Aziz</b>   |
| <b>15:30</b> | <b>2804</b> | <b>INV</b> | Materials for electrochemical nitrogen reduction leading to a new catalysts design strategy   | <b>CASPARY TOROKER Maytal</b> |

**Wednesday May 31**  
**C10**  
**Nanocomposites for Environment 2**

**Chairperson(s) : SALZANO DE LUNA Martina**

**Marie Curie A (1st floor)**

|              |             |            |   |                                |
|--------------|-------------|------------|---|--------------------------------|
| <b>16:30</b> | <b>1167</b> | <b>INV</b> | Synthesis and biocompatibility testing of nanosized metal organic frameworks (nanoMOFs) for heavy metal contamination remediation | <b>MORTIMER Monika</b>         |
| <b>17:00</b> | <b>140</b>  |            | Protein nanofibrils: new sustainable materials for environmental remediation  | <b>PEYDAYESH Mohammad</b>      |
| <b>17:15</b> | <b>649</b>  |            | An in-line magnetic separation system for the recovery of water adsorbents: Simulation and laboratory validation                  | <b>SIMEONIDIS Konstantinos</b> |
| <b>17:30</b> | <b>2432</b> |            | Biopolymer/graphene oxide nanocomposite aerogels for water purification from organic dyes   | <b>VITIELLO Libera</b>         |
| <b>17:45</b> | <b>37</b>   |            | Composite Adsorbents from Waste Gelatin for the Removal of Methylene Blue   | <b>SUDSAKORN Kandis</b>        |

**18:00**

**940**

Spray-coating of superhydrophobic surfaces  
for oil water separation

**GORALCZYK Andreas**

Thursday June 1

C11

## Photocatalysis 4

Chairperson(s) : KAHRU Anne

Marie Curie A (1st floor)

|       |      |     |   |                        |
|-------|------|-----|---|------------------------|
| 10:00 | 2746 | INV | Photo-electrocatalytic degradation of contaminants of emerging concern in water and wastewater – materials and challenges | FERNANDEZ-IBANEZ Pilar |
| 10:30 | 1241 |     | Design and Characterization of 2D and 3D Nanostructures of ZnO for an Efficient Photocatalytic Performance                | DAHER Elias (Elie)     |
| 10:45 | 1831 |     | Green synthesis of photocatalytic TiO <sub>2</sub> /Ag nanoparticles for application in water treatment                   | CANTARELLA Maria       |
| 11:00 | 2027 |     | Titanium dioxide-based heterojunctions study and photocatalysis   | GIUFFRIDA Federico     |
| 11:15 | 1955 |     | Development of efficient ZnO nanorod based photocatalysts   | KRUNKS Malle           |
| 11:30 | 2630 |     | Simultaneous oxidation of urea and production of hydrogen using photoelectrocatalysis                                     | BYRNE John Anthony     |
| 11:45 | 980  |     | Polymer/TiO <sub>2</sub> hybrid films activated by laser annealing: Application in water purification                     | ZIMBONE Massimo        |

Thursday June 1

C12

## Photocatalysis 5

Chairperson(s) : MORTIMER Monika

Marie Curie A (1st floor)

|       |     |     |  |                |
|-------|-----|-----|--|----------------|
| 13:30 | 713 | INV | Enhanced Assisted Photocatalytic Performance of Cu-doped TiO <sub>2</sub> Semiconductors through the Addition of MXene Layers – Application for Wastewater Treatment and H <sub>2</sub> Production | ROOSTAEI Ziba  |
| 14:00 | 20  |     | Enhanced removal of volatile organic compounds using carbon modified visible light active cerium oxide photocatalysts  | SAQLAIN Shahid |
| 14:15 | 115 |     | A novel synthesis of ternary hybrid nanocomposite (WS <sub>2</sub> /ZnO/PPy) for waste water-treatment   | TYAGI Nahid    |

|              |            |            |   |                    |
|--------------|------------|------------|---|--------------------|
| <b>14:30</b> | <b>502</b> | <b>INV</b> | Highly efficient nanostructured ZnO based catalysts synthesized by novel mist chemical vapor deposition | <b>LI Chaoyang</b> |
|--------------|------------|------------|---|--------------------|

**Thursday June 1**  
**C13**  
**Adsorption methods**  
**Chairperson(s) : CARROCCIO Sabrina Carola**  
**Marie Curie A (1st floor)**

|              |             |            |   |                             |
|--------------|-------------|------------|---|-----------------------------|
| <b>15:00</b> | <b>2744</b> | <b>INV</b> | Rethinking Food Protein Waste   | <b>MEZZENGA Raffaele</b>    |
| <b>15:30</b> | <b>1461</b> |            | A TiO <sub>2</sub> sponge to prevent lead pollution in water                  | <b>SPAMPINATO Carlo</b>     |
| <b>15:45</b> | <b>1884</b> |            | Enhanced Cr(VI) uptake from drinking water using biochar-based nanocomposites | <b>ASIMAKIDOU Theopoula</b> |

**Thursday June 1**  
**C\_P02**  
**Poster session 2**  
**Etoile (1st floor) - 4.30 p.m to 6.30 p.m**

|               |  |                                |
|---------------|--|--------------------------------|
| <b>01_19</b>  | A Study on the Mechanical Properties of Polymer-Based Materials  | <b>WOO Chang Su</b>            |
| <b>02_167</b> | MOF-coated nylon microfiber mesh for immobilized photocatalyst in RhB and Cr(VI) removal                   | <b>CHO Sangho</b>              |
| <b>03_209</b> | Exploring microfluidic platform for photocatalytic reduction of Cr(VI) using nanosized titanium dioxide.   | <b>KATOCH Vibhav</b>           |
| <b>04_240</b> | Development of a filter system to reduce microplastics generated during Laundry process                    | <b>KIM Jooran</b>              |
| <b>05_241</b> | Development of superhydrophobic surface with green hollow nanosilica-octadecyltrichlorosilane              | <b>KIM Jooran</b>              |
| <b>06_283</b> | Novel approach to produce boron doped micro and ultrananocrystalline diamond on titanium grid              | <b>GOMES FERREIRA Neidenei</b> |
| <b>07_304</b> | Preparation and characterization of RF sputtered Zinc tungstate thin films for photocatalytic applications | <b>CHAABOUNI Fatma</b>         |

|                         |   |                                |
|-------------------------|---|--------------------------------|
| <a href="#">08_343</a>  | Carbon-based nanocomposite porous materials as electrocatalysts for valorisation of biomass   | <b>POTA Filippo</b>            |
| <a href="#">09_359</a>  | Combined effect of porous silicon substrate and rare earth doping on photo-catalytic activities of zinc oxide thin films  | <b>ATYAOUI Malek</b>           |
| <a href="#">10_408</a>  | Low temperatures Electrical characterization of single layer graphene ribbons   | <b>REMMOUCHE Riad</b>          |
| <a href="#">11_411</a>  | Metal–Nitrogen–Carbon Single-Atom Aerogels for Dechlorination of 1,2-Dichloroethane   | <b>GAN Guoqiang</b>            |
| <a href="#">12_533</a>  | Study of the transport mechanisms of the interfaces of ZnO/p-Si heterojunctions by the current-voltage-temperature (I-V-T) technique: Effect of argon flow rate | <b>TATA Sonia</b>              |
| <a href="#">13_542</a>  | Development of Fe <sub>3</sub> O <sub>4</sub> -decorated Sn-hydroxide nanocomposites for advanced Cr(VI) capture in drinking water                              | <b>SIMEONIDIS Konstantinos</b> |
| <a href="#">14_563</a>  | Metal oxide nanoheterostructures as De-NO <sub>x</sub> photocatalysts   | <b>GASPAROTTO Alberto</b>      |
| <a href="#">15_646</a>  | Lightweight and hard AlCrCuFeMnNi complex concentrated alloys obtained by hot-pressing  | <b>OLIVEIRA Filipe J.</b>      |
| <a href="#">16_687</a>  | Replicative Manufacturing of Metal Moulds for Optical-Grade Polymer Replication   | <b>KLUCK Sebastian</b>         |
| <a href="#">17_768</a>  | The role of metal sulfides precursor on the sulfur resistance property for NH <sub>3</sub> -SCR catalyst  | <b>YE Bora</b>                 |
| <a href="#">18_1037</a> | Excellent strength-ductility synergy in a novel medium manganese steel: development and thermo-mechanical processing  | <b>KUMAR Suman</b>             |
| <a href="#">19_1189</a> | Waste-to-Biosensor: A Potential Approach for Translating the Waste Materials into Prospective Biomedical Sensors  | <b>BABU Anand</b>              |
| <a href="#">20_1213</a> | Role of hole conductor and electron conductor toward enhancement of Ag <sub>3</sub> PO <sub>4</sub> -based photocatalysts for enhanced photodegradation         | <b>SARI Fitri Nur Indah</b>    |
| <a href="#">21_1240</a> | Enhanced gas sensing properties of pristine and metal nanoparticle decorated 2D SnS thin films  | <b>BISHT Prashant</b>          |
| <a href="#">22_1262</a> | Numerical and kinetic study of isomerization reaction of oriented polyacetylene induced by laser impact, shown by multichannel Raman                            | <b>BOUZAHER Yassine</b>        |

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| <a href="#">23_1279</a> | An Environmental-Inert and Highly Self-Healable Elastomer Obtained via Double-Terminal Aromatic Disulfide Design and Zwitterionic Crosslinked Network for Use as a Triboelectric Nanogenerator | <b>CHOU Syun-Hong</b>          |
| <a href="#">24_1439</a> | Green Laser Induced Graphene Electrochemical Sensors from Cork for Sensitive Tyrosine Detection  | <b>VAUGHAN Eoghan</b>          |
| <a href="#">25_1592</a> | Hygroscopic-superhydrophilic natural fibrous fabric for repelling highly viscous heavy oil   | <b>LEE Young A</b>             |
| <a href="#">26_1599</a> | Enhancement of SO <sub>2</sub> resistance in CO-SCR catalyst through WS <sub>2</sub> over NiFe/CeO <sub>2</sub>  | <b>KIM Woon-Gi</b>             |
| <a href="#">27_1600</a> | De-NO <sub>x</sub> performance of V, W supported on modified morphology of TiO <sub>2</sub> at wide temperature range  | <b>JUNG Jae-II</b>             |
| <a href="#">28_1621</a> | Two dimensional In <sub>2</sub> S <sub>3</sub> nanosheets coupled with Mxene heterostructure composite for efficient photoelectrochemical and photocatalytic activity                          | <b>ILANCHEZHIAN Pugazhendi</b> |
| <a href="#">29_1623</a> | Liquid Crystal-Assisted Alignment Control of Metal–Organic Frame-work Crystals   | <b>BAK Yeongseo</b>            |
| <a href="#">30_1692</a> | 13X zeolite- chitosan composite aerogels as versatile materials for environmental remediation  | <b>LUZZI Enrica</b>            |
| <a href="#">31_1768</a> | Intrinsic impacts of Graphene oxide entrapped Polystyrene (GO@PS) nanohybrid inferred toxicological effects on embryonic zebrafish (Danio rerio)   | <b>SINHA Adrija</b>            |
| <a href="#">32_1851</a> | Optical and photoelectrical properties of Ag/Au doped transition metal oxide thin films  | <b>NEMKAYEVA Renata</b>        |
| <a href="#">33_1919</a> | Preparation of High Performance Ultra-low Loading PEM Fuel Cell Catalyst layers  | <b>METAXAS Michalis</b>        |
| <a href="#">34_1930</a> | N-doped TiO <sub>2</sub> thin films for photoelectrochemical CO <sub>2</sub> reduction   | <b>GUSTAVSEN Kim Robert</b>    |
| <a href="#">35_1996</a> | Light induced room-temperature gas sensing by donor doped Anatase TiO <sub>2</sub> ultrasmall nanoparticles  | <b>SUTKA Andris</b>            |
| <a href="#">36_2033</a> | Sulfonated Pentablock Copolymer/GO Coating of Polypropylene Filters for Dye and Metal Ions Effective Removal from water  | <b>LA PIANA Luana</b>          |
| <a href="#">37_2053</a> | Versatile synthesis of TiO <sub>2</sub> -Cu composites by plasma electrolytic oxidation for photoelectrochemical and photocatalytic applications   | <b>LEVINAS Ramunas</b>         |



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| <a href="#">39_2190</a> | Chemoresistive gas sensor fabrication by laser direct transfer   | <b>BONCIU Anca</b>           |
| <a href="#">40_2292</a> | Dispersion of tunicate cellulose nanofibers with hydroxyl groups by silica nanoparticles   | <b>HONG Yeongbeom</b>        |
| <a href="#">41_2355</a> | Fully biobased, biodegradable imine vitrimer derived from epoxidized soybean oil for flexible food packaging                                   | <b>SAFARPOUR Milad</b>       |
| <a href="#">42_2437</a> | Shape-Controlled Block Copolymer Particles and Their Energy Applications   | <b>KIM Bumjoon</b>           |
| <a href="#">43_2441</a> | Complex ternary TiO <sub>2</sub> /SnO <sub>2</sub> /ZnO nanocomposites with photocatalytic properties obtained by facile one-step laser method | <b>FLEACA Claudiu Teodor</b> |
| <a href="#">45_2504</a> | Immobilization of the polyphenol oxidase AbPPO4 on mesoporous silica: towards mimicking key enzymatic processes in peat soils                  | <b>IRIARTE-MESA Claudia</b>  |
| <a href="#">46_2545</a> | Natural Acid-Assisted Synthesis of Hierarchical Silver Nanostructures for Surface-Enhanced Raman Scattering Applications                       | <b>SAYSON Luce Vida</b>      |
| <a href="#">47_2609</a> | Plasma engineering and in-situ oxidation of Ti <sub>2</sub> C MXene using atmospheric pressure plasma printing                                 | <b>DAMPTEY Lois</b>          |

