



7<sup>th</sup> World Congress on

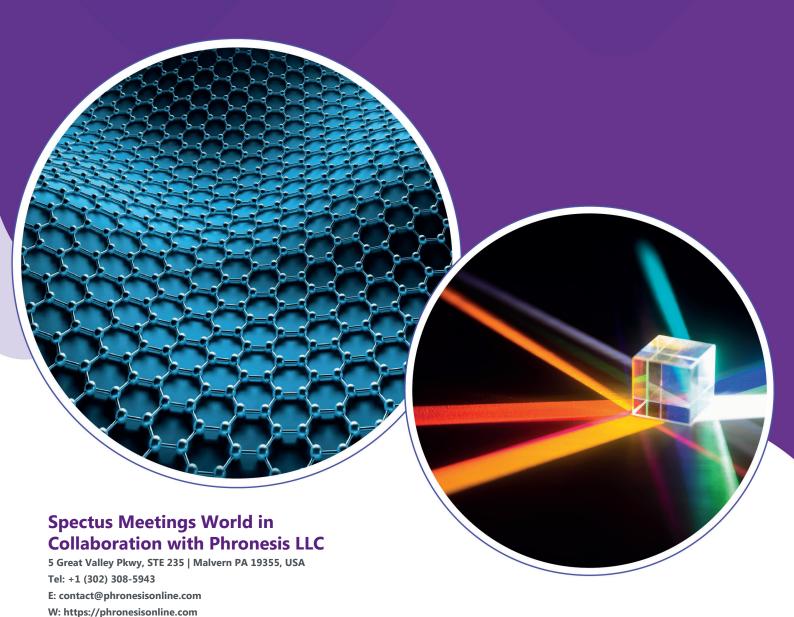
# **Materials Science & Engineering**



5<sup>th</sup> World Congress on

# **Lasers, Optics and Photonics**

June 21-22. 2023 Valencia, Spain





### 7th World Congress on

# **Materials Science & Engineering**

5<sup>th</sup> World Congress on

# **Lasers, Optics and Photonics**

Wednesday

June 21, 2023

Hall Name: MESTRAL

Day - 1 June 21, 2023

09:30 - 09:55 Registrations and Badge Pickup

09:55 - 10:00 Moderator Introduction

#### **Keynote Session**

Title: Creating of Individual Nanodevices Based on Could Field
10:00 - 10:30 Emission From Individual Carbon Nanotubes Using Nanomanipulation

Svetlana von Gratowski, Electronics Russian Academy Of Sciences, Russia

Coffee Break: 10:30 - 10:45

Sessions: Chemical Engineering | Catalysis in Green Chemistry | Catalysis and Pyrolysis | Photocatalysis | Catalysis in Nanotechnology | Biochemical Engineering | Catalysis for Biorefineries | Electrochemistry and Electrochemical Engineering | Organix and Inorganic Chemistry | Nano - Imaging for Diagnosis, Therapy and Delivery | Nanotechnology Applications | Nanofabrication, Nanoprocesing & Nanomanufacturing

### Session Chair Palash Kumar Mollick, University of the Basque Country, Spain

Title: Silver Nanoparticles as Effective and Recyclable Catalyst for 10:45 - 11:05 the Selective Oxidation of Alcohols

Agnieszka Krogul - Sobczak, University of Warsaw, Poland

Title: Comparative Study of Conventional and Plasma Catalysed
Steam Reforming Process for Green Hydrogen Production from Plastic

Palash Kumar Mollick, University of the Basque Country, Spain

Title: Influence of Sulfiding Agent on the Chemical - Physical Properties and Catalytic Pathway of CoMoSx Catalysts in the HDT Process of o - Xylene

Alessandra Palella, CNR - ITAE, Italy

Title: Photo Catalytic Synthesis of Chiral Molecules in Flow Maurizio Benaglia, The University of Milan, Italy

Title: 3D Radar Sensor Fusion For High - Precision Human Lesion 12:05 - 12:25 Identification

Ning Xue, Aerospace Information Research Institute, China



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### **Lasers, Optics and Photonics**

#### Wednesday

June 21, 2023

Title: High - Speed Scanning Ion Conductance Microscopy (HS - SICM) Revealing Nanoscale Physical Features Of Irradiation - 12:25 - 12:45 Treated Breast Cancer Cells

**Masahiro Yamazaki,** Division of Cancer Cell Biology, Cancer Research Institute of Kanazawa University, Japan

Group Photo: 12:45 - 13:00

Lunch Break: 13:00 - 14:00

#### Virtual Presentations

Electro - Chemistry and Electro - Analytical Chemistry | Catalysis for Energy|Chemical Engineering| Photocatalysis| Biochemical Engineering | Electrochemistry and Electrochemical Engineering | Material Chemistry and Polymer Chemistry| Nano - Imaging for Diagnosis | Therapy and Delivery | Nanobiotechnology | Nanomaterials and Nanotechnology

#### Session Chair Abhispa Sahu American Nano, LLC, USA

| 14:00 - 14:15 | Title: Plastic Trash to Monomers and Intermediates — PTMI  Anne M. Gaffney, University of South Carolina, USA   |
|---------------|---|
| 14:15 - 14:30 | Title: Persistent luminescence From Eu <sup>2+</sup> Doped And Co - Doped Inorganic Aluminate Host Materials  |
|               | Leelakrishna Reddy, University of Johannesburg, South Africa  |
| 14:30 - 14:45 | Title: Fluorographite Nanoplatelets Based Resin Membranes for Water Purification  |
|               | Abhispa Sahu, American Nano, LLC, United States of America  |
| 14:45 - 15:00 | Title: Calculation of Geometric Structure, Electronic Characteristics, Vibration Frequencies and Thermodynamic Properties of C 11 H 18 -C 14 H 24 Alkyladamantanes According to DFT |
|               | Saginayev A, Utebaev Atyrau of Oil and Gas University, Kazakhstan   |
| 15:00 - 15:15 | Title: Vanillin: Bioconversion of the World's Most Popular Flavor Wa Ode Cakra Nirwana, University of Brawijaya, Indonesia  |
| 15:15 - 15:30 | Title: Deciphering ORR in HTPEMFC   |
|               |   |
|               | Till El I I I I I I I I I I I I I I I I I   |
| 15:30 - 15:45 | Title: Electrochemical Kinetics Study of Bio - System   |

Arvind Prasad Dwivedi, Govt. Swami Vivekananda P.G. College, India

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## **Lasers, Optics and Photonics**

Wednesday

June 21, 2023

|     | 'C F  | ` [     | 15   |          | 16:00                      |
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| COL | ICC L | JI GUN. | J    | . J      | 10.00                      |

Title: Development of Metal Sulfide - Based CO<sub>2</sub> Reduction Electro 16:00 - 16:15 Catalysts using Machine Learning Technique

Akira Yamaguchi, Tokyo Institute of Technology, Japan

Title: Towards an Innovative Combined Process Coupling
Biodegradation and Photo - Oxidation for The Removal of
Pharmaceutical Residues

Gael Plantard, PROMES, UPR 8521 CNRS, France

Title: Continuous Flow Photoreactor Undergoing Variable Simulated 16:30 - 16:45 Irradiation Conditions: Experimentations and Modeling

Gael Plantard, PROMES, UPR 8521 CNRS, France

Title: Electrochemical Biosensing Of Uric Acid

Minakshi Sharma, Maharshi Dayanand University, India

Title: Results On Viral Bio - Signature's Derivation, It's Evolution And 17:00 - 17:15 Far To Evanescent Field Frequencies Convergence

KF Kaspareck, Energy & Engineering Consulting, GR, Italy

Title: Biological Activities Of Centaurea Urvillei Subsp. Urvillei And 17:15 - 17:30 Its Green Synthesized Silver Nanoparticles

Burcu Sümer Tüzün, Ege University, Turkey

Networking/Panel Discussions: 17:30 Onwards

Day 1 Concludes



DAY 2

### 7th World Congress on Motoriolo Coiongo o Eng

## **Materials Science & Engineering**

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# **Lasers, Optics and Photonics**

**Thursday** 

June 22, 2023

Hall Name: MESTRAL

Day 2 - June 22, 2023

#### **Plenary Session**

10:00 - 10:30

**Poland** 

Title: Integrated Wavemeter for Atomic Clocks Stabilization

Philippe Velha, DISI, University of Trento, Italy

#### **Keynote Session**

Title: Non - Destructive Testing of GFRP Composites Using Terahertz
10:30 - 11:00 Radiation

Waldemar Swiderski, Military Institute of Armament Technology, Poland

#### Coffee Break: 11:00 - 11:15

### Session Chair Georges Boudebs, LPhiA / Univ Angers, France

|               | Georges Boudebs, LPhiA / Univ Angers, France   |
|---------------|--|
| 11:15 - 11:35 | Title: Lead Free (BaZr <sub>0.2</sub> Ti <sub>0.8</sub> O <sub>3</sub> ) and Lead Based (PbZr <sub>0.52</sub> Ti <sub>0.48</sub> )<br>Flexible Thick Films: Structural Properties and Potential Use as<br>Energy Storage and Energy Harvesting Systems |
|               | JelenaBobic, University of Belgrade, Serbia  |
| 11:35 - 11:55 | Title: Energy Harvesting Potential Of Polymer Composites  Mirjana Vijatovic Petrovic, University of Belgrade, Serbia   |
| 11:55 - 12:15 | Title: Effect Of Heat Treatment Parameters On The Carbide Spheroidization OF 0.48% Carbon Steels   |
|               | Nandita Gupta, The DEptt of Foundry and Forge Technology, India  |
| 12:15 - 12:35 | Title: Design Of New 2D Materials Using Computational Intelligence   |
| . 2 5         | Tadeusz Burczynski, Institute of Fundamental Technological Research,   |

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**Thursday** 

**June 22, 2023** 

Title: Educational and Research Experience in Clean Energy 12:35 - 12:55 Hydrogen Fuel Cells for Electricity Generation

Alla Railey Rochester Institute of Technology LISA

|               | Alla Bailey, Rochester Institute of Technology, USA  |  |  |
|---------------|--|--|--|
|               | Group Photo: 12:55 - 13:05   |  |  |
|               | Lunch Break: 13:05 - 14:05   |  |  |
| 14:05 - 14:25 | Title: Nanopatterns Fabricated by Fluid FM as Potential Surfaces for Platelet Storage  |  |  |
|               | Gurunath Apte, Institute for Bioprocessing and Analytical Measurement Techniques, Germany  |  |  |
| 14:25 - 14:45 | Title: Tailoring Of Ba $Ce_{0.9}Y_{0.1}O_{3-\delta}$ Electrolyte Properties by Co - Doping <b>AleksandarRadojković,</b> University of Belgrade, Serbia |  |  |
| 14:45 - 15:05 | Title: Photo - Thermal Efficiency of Gold Nano - Particle Suspensions Using cw Z - scan Technique in The Visible Range                                 |  |  |
|               | Georges Boudebs , LPhiA / Univ Angers, France  |  |  |
| 15:05 - 15:25 | Title: UV Micro LED Chip Performance, Superiority, and the Future  Yoshihiko Muramoto, Nitride Semiconductors Co., Ltd, Japan                          |  |  |
| 15:25 - 15:45 | Title: Influence of Magnetic Field on Plasma Parameters & Surface<br>Modification of Cu-Alloy after Fs Laser Irradiation                               |  |  |
|               | Asadullah Dawood, National Excellence Institute, Pakistan  |  |  |
| 15:45 - 16:05 | Title: Investigation of Cladding Interfacial Microstructure of Titanium Alloy on Structural Carbon Steel Prepared by Friction Stir Processing          |  |  |
|               | Abdulrahman Aljabri, Islamic University of Madinah, Saudi Arabia   |  |  |
| 16:05-16:25   | Title: CuFeOx-Based Nano-Rose Electro Catalysts for Oxygen<br>Evolution Reaction (OER) Prepared by Phytochemical Assisted Green<br>Synthesis Process   |  |  |
|               | Hamad Almohamadi, Islamic University of Madinah, Saudi Arabia  |  |  |
|               | Coffee break & Poster Session - 16:25 Onwards  |  |  |
| SPEC-P-01     | Title: Controlling The Emission Of CsPbBr <sub>3</sub> Nano - Crystals. Post - Synthesis Treatment Via Ion Exchange.                                   |  |  |
|               | Egle Ezerskyte, Vilnius University, Lithuania  |  |  |
| SPEC-P-02     | Title: Recyclable Environmentally Friendly Ionic Liquid Supported Organotelluride Oxidation Catalyst   |  |  |
|               | Shinichi Koguchi , Tokai University, Japan   |  |  |
| SPEC-P-03     | Title: Adsorptive Desulfurization of Pentane Plus with High Aromatics<br>Content by An Industrial Molecular Sieve                                      |  |  |
|               | Ahmad Panjehshahin, Kangan Petro - Refining Complex, Iran  |  |  |
|               |  |  |  |

| SPEC-P-04 | Title: Growth and Characterization of BSCCO High TC Superconductor Thin Films for Possible Terahertz Device Applications                               |
|-----------|--|
|           | Kensuke Nakajima, Yamagata University Japan  |
| SPEC-P-05 | Title: The Study On The Sintering Conditions To Fabricate Copper Foam Metal  |
|           | Yong- Sil Ahn, Pukyong National University, Korea (south)  |
| SPEC-P-06 | Title: Nanostructured Silicon And Aluminum Thin Films For All - Silicon Optoelectronics  |
|           | A. Smirnov, Belarusian State University Of Informatics And Radioelectronics  |
| SPEC-P-07 | Title: Tailoring The Optical Properties Of Cspbbr <sub>3</sub> Quantum Dots Via Post - Synthesis Modification Using Znx <sub>2</sub> Complex Solutions |
|           | Vaidas Klimkevicius, Vilnius University, Lithuania   |
| SPEC-P-08 | Title: Ultrasound - Induced Hot - Injection Synthesis of All - Inorganic Perovskite Quantum Dots   |
|           | Arturas Katelnikovas , Vilnius University, Lithuania   |
| SPEC-P-09 | Title: On Diversity of Localized Modes in Presence of Defects and Nonlinearity in SSH Waveguide Array  |
|           | Kolja Bugarski, University of Belgrade, Serbia   |
| SPEC-P-10 | Title: Playing With the Artificial Flux in Diamond Plaquettes in Different Photonic Lattices   |
|           | Mirjana Stojanović, University of Belgrade, Serbia   |
| SPEC-P-11 | Title: Probing the Efficiency of Lasing Zero - Mode by Changing the Vortex Distortion Phase  |
|           | Milica Nedić, University of Belgrade, Serbia   |
| SPEC-P-12 | Title: Dual - Wavelength Distributed Feedback Fiber Laser in Yb - Er<br>Co - Doped Fiber   |
|           | Xijia Gu, Toronto Metropolitan University, Canada  |
| SPEC-P-13 | Title: Photophysical Properties of Alq <sub>3</sub> and DCM Derivatives and Their Application in Amplified Spontaneous Emission                        |
|           | Patricija Paulsone, University of Latvia, Latvia   |
| SPEC-P-14 | Title: Fast Measurement of Water Content in Petroleum by Means of Terahertz Time - Domain Spectroscopy   |
|           | Ihor Krapivin, Center for Physical Sciences and Technology, Lithuania  |
| SPEC-P-15 | Title: Novel Computer - Vision Based Methods for Micro - Device<br>Reliability   |
|           | Hua Lu, Toronto Metropolitan University , Canada   |
| SPEC-P-16 | Title: Thermodynamic Assessment of The Sorption Enhanced Steam<br>Reforming of Biomass Fast Pyrolysis Volatiles  |
|           | Pablo Comendador Morales, University of the Basque Country, Spain  |
|           |  |