

5th International Conference on
**MATERIALS SCIENCE &
NANOTECHNOLOGY**

Oct 06 - 07, 2022 at
London, United Kingdom

Venue:

Hotel Novotel London Wembley,
5 Olympic Way, London HA9 0NP,
United Kingdom



Login:

Meeting ID: 889 9740 0733
Passcode: 919837



Scientific Program

DAY
1

5th International Conference on
**MATERIALS SCIENCE &
NANOTECHNOLOGY**



Thursday

OCT 06, 2022

Hall Name: Wembley 1

Day 1 - October 06, 2022

Moderators:

Daniela De Luca, University of Napoli "Federico II", Italy
Ashraf Nawaz Khan, Indian Institute of Technology, Delhi, India

08:00 - 08:50 Registrations

08:50 - 09:00 Opening Ceremony & Moderator Speech

Keynote Talks

09:00 - 09:30 Title: Properties of self-oxidized single crystalline perovskite
N : BaTiO₃ oxynitride epitaxial thin films
Antoine BARBIER, IRAMIS/SPEC, Université Paris-Saclay, CEA, France

09:30 - 10:00 Title: Impact of Wet Chemical Pre-treatments in the Electroless
Copper Coating of Natural and Synthetic Textile Materials
Prof. Andrew Cobley (Latha Krishnan), Coventry University, UK

10:00 - 10:30 Title: New insight into physical properties of multifunctional porous
glass-based nanocomposites
Agnieszka Cizman, Wrocław University of Science and Technology, Poland

Group Photo
10:30 - 10:45 Refreshment Break @ Foyer

Morning Session:
Material Science & Engineering
Biomaterials & Energy Materials

Session Chair

Agnieszka Cizman, Wrocław University of Science and Technology, Poland
Antoine BARBIER, IRAMIS/SPEC, Université Paris-Saclay, CEA, France

10:45 - 11:05 Title: Room temperature synthesis of GO/Ag₂O nanocomposite:
Broad spectral ranged solar photocatalyst and high efficacy
antibiotic for waste water treatment
Kajari Dutta, Amity University Kolkata, India

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-
- 11:05 - 11:25 Title: China Progress on Renewable Energy Vehicles: Fuel Cells, Hydrogen and Battery Hybrid Vehicles
Kevin Kendall, HydrogenUnited.org , United Kingdom
-
- 11:25 - 11:40 Title: TiO₂/MXene-PVA/GO hydrogel-based electrochemical sensor for neurological disorder screening via norepinephrine detection in urine
Siraprapa Boobphahom, Chulalongkorn University, Thailand
-
- 11:40 - 12:00 Title: Dual Mode Electrochemical Sensing of Trace Level NH₃ for Exhaust Gas Application
Atanu Dutta, Vellore Institute of Technology, India
-
- 12:00 - 12:20 Title: Sprayable mineral Plaster insulation – A Mineral Composite Containing CSA Cement and Hollow Glass
Dr. Friedbert Anton Scharfe & Dr. Julia Groppe, Franken Maxit GmbH and Co. KG, Germany
-
- 12:20 - 12:40 Title: Plasma-Synthesized Pyrrole-Derived Polymer Evolution Implanted in Rhesus Monkey Spinal Cord Transection Model
Axayacatl Morales Guadarrama, Universidad Autónoma Metropolitana Iztapalapa, Mexico
-
- 12:40 - 13:00 Title: Preparation and characterization of gelatin-based pH sensitive hydrogels for biomedical and food packaging applications
Lisa Sreejith, National Institute of Technology, Calicut, Kerala, India

13:00 - 14:00 Lunch Break @ Restaurant

Sessions: Nano engineering, Nano-electronics and Nano-electronic Devices, Carbon Nanostructures and Graphene and Polymers Science

Session Chairs

Giuseppe Valerio Bianco, CNR-NANOTEC, Italy
Lisa Sreejith, National Institute of Technology, Calicut, Kerala, India

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- 14:00 - 14:15 Title: Laser-assisted selective fabrication of copper traces on polymers by electroplating
Vitalij Fiodorov, Center for Physical Sciences and Technology, Lithuania
-
- 14:15 - 14:30 Title: Characterization of hafnium carbide thin film for thermal energy applications
Daniela De Luca, University of Naples "Federico II", Italy
-
- 14:30 - 14:45 Title: Single polymer UHMWPE thermoplastic composite through different techniques for various high-performance applications
Ashraf Nawaz Khan, Indian Institute of Technology, Delhi, India

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14:45 - 15:05 Title: Chemical Routes for Reaching Very Low Sheet Resistance Graphene

Giuseppe Valerio Bianco, CNR-NANOTEC, Italy

15:05 - 15:25 Title: From sub-nanometer to micrometer films, or how to combine ALD with PVD

Carlos Guerra-Nuñez, Swiss Cluster AG, Switzerland

15:25 - 15:45 Title: New empirical equation for the effective viscosity of nanofluids
Gabriella Bognar, University of Miskolc, Institute of Machine and Product Design, Hungary

15:45 - 16:00 Refreshment Break @ Foyer

16:00 - 16:20 Title: Zn₂SnO₄-based optoelectronic synapse device

Tseung-Yuen Tseng, Institute of Electronics, National Yang Ming Chiao Tung University, Taiwan

16:20 - 16:40 Title: The application of nanomaterials in the construction industry: From self-healing to self-sensing concrete

Shima Taheri, Macquarie University, Australia

16:40 - 17:00 Title: Chemical composition of amorphous phase on the reactivity of phosphoric acid activation of volcanic ashes.

Antoine Elimbi, University of Yaoundé I, Cameroon

17:00 - 17:20 Title: Ionic Liquid-Catalyzed Synthesis of Carbon/Polymer Nanocomposite Foam: Enhanced Flame-Retardant and Triboelectric Performances

Weldemhret Teklebrahan Gebrekrstos, Changwon National University, South Korea

17:20 - 17:40 Title: Nanostructured copper-matrix composites for high strength high electrical conductivity applications

David Mesguich, Université Toulouse III, CIRIMAT, France

17:40 - 17:55 Title: Development of Mosquito repellent-UV protective polyester using a Disperse dye synthesized from 4-hydroxy coumarin

Ankit Singh, Indian Institute of Technology Delhi, India

17:55 - 18:10 Title: Development of biodegradable and antimicrobial packaging film using agricultural waste

Vishal Srivastava, Indian Institute of Technology Delhi, India

Panel Discussions

Day 1 Concludes

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OCT 07, 2022

Day 2 - October 07, 2022

Virtual Presentations Through ZOOM
Time Zone - London (GMT+1) 08:00 - 17:40

- 08:00 - 08:20 Title: Analysis of the Solidus Temperature of Multicomponent Steel
Toshio Fujimura, JFE Techno-Research Corporation (JFE-TEC), Japan
- 08:20 - 08:40 Title: Design, preparation and characterization of functional nanomaterials based on energy-resolved distribution of electron traps
Bunsho Ohtani, Hokkaido University, Japan
- 08:40 - 09:00 Title: Bayesian spectroscopy of synthesized X-ray magnetic circular dichroism spectra at the Ni-L3, -L2 edges
Taiga Yamasaki, Kumamoto University, Japan
- 09:00 - 09:20 Title: Ferromagnetic Fe₃GeTe₂/CrGeTe₃ moiré heterobilayer
Eunjung Ko, Korea Institute for Advanced Study, South Korea
- 09:20 - 09:40 Title: An inverse QSAR method based on integer linear programming and neural networks
Naveed Ahmed Azam, Kyoto University, Japan
- 09:40 - 10:00 Title: Sterically Hindered Diarylethenes with Benzobis(thiadizole) Bridge: Enantiospecific Transformation and Reversible Photo-Superstructures
Wei-Hong Zhu, East China University of Science and Technology, China
- 10:00 - 10:20 Title: Crystallization and compatibility in PP-PE blends
Maria Guseva, Topchiev Institute of Petrochemical Synthesis, Russian Academy of Sciences Moscow, Russia
- 10:20 - 10:40 Title: Influence of low temperature on mechanical properties of UFG Al-Cu-Zr alloy
Sadykov Dinislam, ITMO University, Russia

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10:40 - 11:00	Title: A State-Of-The-Art on Sisal Natural Fibres: Material, Properties and Durability Abdalahman Alajmi , Kuwait Foundation for the Advancement of Sciences, Kuwait
11:00 - 11:20	Title: Self-lubricating mechanism of new copper-based composite Tetiana Roik , National Technical University of Ukraine, Ukraine
11:20 - 11:40	Title: Hydro deformation in ceramic tiles at the pre-firing stage Gustavo Valdati Miranda , Unesc - Universidade do Extremo Sul Catarinense, Brazil
11:40 - 12:00	Title: Measuring thermal properties of microscopic materials through Raman spectroscopy and finite-element simulations. Emiliano Bonera , Università di Milano-Bicocca, Italy.
12:00 - 12:20	Title: Eu(III) complex sensitizer to improve electroluminescence of PQ ₂ Ir(dpm) Muhammad S Khan , Sultan Qaboos University, Oman
12:20 - 12:40	Title: Protein discrimination using erythrosin B-based GUMBOS Ana M.O. Azevedo , University of Porto, Portugal
12:40 - 13:00	Title: Development of bacterial biosensors based on surface-enhanced Raman scattering for multiplex detection Gustavo Bodelon , CINBIO-Universidade de Vigo, Spain
13:00 - 13:20	Title: The use of halloysite nanotubes in traditional glazes: Investigation of the effect on optical and mechanical properties Neslihan Tamsu Selli , Gebze Technical University, Turkey
13:20 - 13:40	Title: 3-Ketoquinolones as new photoinitiators for free radical photopolymerization under LED Marika Morone , IGM Resins Italia, Italy
13:40 - 14:00	Title: Identification of nanotechnology products with the use of molecular biology and photoelectron spectrometry methods Bogdan Walkowiak , Lodz University of Technology, Poland
14:00 - 14:20	Title: Raman Reporters Derived From Aryl Diazonium Salts for SERS Encoded-Nanoparticles Claire Mangeney , Université Paris Cité, France

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OCT 07, 2022

-
- 14:20- 14:40 Title: Chlorine e6 and Toluidine blue O conjugated titania nanotubes for photodynamic therapy applications
Estefanía Vélez Peña, Universidad de Concepción, Chile
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- 14:40- 15:00 Title: Printing technologies and printed electrolyte-gated transistors
Benoit PIRO, Université Paris Cité, France
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- 15:00- 15:20 Title: Ternary chalcogenide CuSbS₂ thin films for photoelectrochemical applications
Nini Rose Mathews, Instituto de Energías Renovables- UNAM, Mexico
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- 15:20- 15:40 Title: Measuring photoexcited charge carrier energetics, transport, and strong electron-phonon coupling with ultrafast x-ray spectroscopy
Scott Keving Cushing, California Institute of Technology, USA
-
- 15:40- 16:00 Title: Industrial perspective on innovations in gas sensors: from one year's fundamental science to another year's product
Radislav A. Potyrailo, GE Research, USA
-
- 16:00- 16:20 Title: The Scientific Basis of Our Reactive Metals Based Civilization
Digby D Macdonald, University of California at Berkeley, USA
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- 16:20- 16:40 Title: Modification and potential applications of Euglena base Polysaccharide
Shaojun Li, Noblegen Inc., Canada
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- 16:40- 17:00 Title: Mechanochemical incorporation of metal oxide species on γ -alumina
Rabindra Dubadi, Kent State University, USA
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- 17:20- 17:40 Title: Reduction of Young's modulus and effect on springback
Chetan Nikhare, The Pennsylvania State University, USA

Closing Ceremony

WE WISH TO
SEE YOU AGAIN AT

6th International Conference on
**MATERIALS SCIENCE &
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Sept 06-07, 2023 at Rome, Italy

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