

JOINT EVENT 8th Edition of World Nanotechnology Conference & 6th Edition of International Conference on Materials Science and Engineering

Village Hotel Changi 1 Netheravon Rd, Singapore 508502 UIRTUAL: Greenwich Mean Time Zone

DAY 01 Monday, March 18 (In-person)	DAY 02 Tuesday, March 19 (In-person)	DAY 02 Tuesday, March 19 (Virtual)	DAY 03 Wednesday, March 20 (In-person)	DAY 03 Wednesday, March 20 (Virtual)
08:00-08:50 Registrations	08:50-09:00 Opening Remarks	10:00-10:20 AV check	08:50-09:00 Opening Remarks	10:00-10:20 AV check
08:50-09:00 Opening Ceremony and Introduction	09:00-10:20 In-person Keynote Presentations	10:20-11:40 Virtual Oral Presentations	09:00-09:40 In-person Keynote presentation	10:20-16:20 Virtual Oral Presentations
09:00-11:00 In-person Keynote Presentations	10:50-16:20 In-person Oral Presentations	11:40-12:20 Virtual Poster Presentations	09:40-16:20 In-person Oral presentations	16:20-19:40 Virtual Keynote Presentations
11:30-16:00 In-person Oral Presentations		12:20-15:40 Virtual Oral Presentations		
16:30-17:00 In-person Poster Presentations		15:40-18:20 Virtual Keynote Presentations		
		18:20-20:20 Virtual Oral Presentations		

IN-PERSON

VIRTUAL

Day 01 Break Timings (In-person)

11:00-11:30 12:50-14:00 16:00-16:30 Coffee Break Lunch Break Coffee Break Day 02 Break Timings (In-person)

10:20-10:50 12:50-14:00 16:20-16:50 Coffee Break Lunch Break Coffee Break Day 03 Break Timings (In-person)

 11:00-11:30
 Coffee Break

 12:50-14:00
 Lunch Break

 16:20-16:50
 Coffee Break

Important Note

- The conference follows Singapore Time (SGT) for In-Person sessions and Greenwich Mean Time Zone (GMT) for Virtual sessions.
- When the program refers to "Local Timings" it means that the timing mentioned is based on the time zone of the presenter's country.
- In-person presentations will take place in the Sphere Meeting Room @Village Hotel Changi and Virtual presentations will take place in Zoom meetings.
- Please remain accessible in the hall or on Zoom throughout the day as there could be minor program adjustments due to technical issues or presenter no-shows.

DAY **IN-PERSON**

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MARCH 18, 2024 Monday

KEYNOTE PRESENTATIONS

Singapore Time (SGT)	@SPHERE
08:00–08:50 Registrations 08:50–09:00 Opening Ceremony and Introduction	Moderator: Etelka Chung, University of Hertfordshire, United Kingdom
09:00-09:40 In-Person	
Thierry Mayer EPFL, Switzerland	Title: Safety management for nanomaterials in research environments
09:40-10:20 In-Person	
Carmen Socaciu BIODIATECH- Proplanta SRL, Romania	Title: Pentacyclic triterpenoid nano formulations as bioavailable drug delivery agents at cellular level
10:20–11:00 In-Person	
Wei Min Huang Nanyang Technological University, Singapore	Title: Rapid manufacturing anywhere, anytime
	Group Photo
	11:00-11:30 Coffee Break @Foyer

ORAL PRESENTATIONS

Chair: Carmen Socaciu, BIODIATECH- Proplanta SRL, Romania

11:30-11:50	In-Person
Etelka Chung University of He United Kingdor	,
11 50 10 10	In Dansen
11:50-12:10	In-Person
Antonio Panta University of Pa	
12:10-12:30	In-Person
	in recom
Igor Reshetov Sechenov Unive Federation	ersity, Russia

2:30-12:50	In-Person
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Igor Reshetov Title: Photodynamic inactivation of antibiotic-resistant microflora using Sechenov University, Russian photosensitizer nanoforms Federation 12:50-14:00 | Lunch @Oval Foyer 14:00-14:20 Mohammad Al Mamun Title: Differential pulse voltammetric tuning of the screen printed carbon electrode University of Malaya, Malaysia surface to enhance the electrochemical performance and multiplex detection 14:20-14:40 Title: Functionalization of dextrin-capped gold nanoparticles with Flora Maitim Yrad Silliman University, Philippines oligodeoxynucleotides 14:40-15:00 Naoki Azuma Title: Manipulation and analysis of large DNA molecules using micro/nanogap Nagoya University, Japan structures 15:00-15:20 Title: Development of nitrogen-doped graphene/MOF nanocomposites towards **Tshireletso Madumo** University of Johannesburg, adsorptive removal of Cr (VI) from the wastewater of the herbert bickley treatment South Africa works 15:20-15:40 **Yasuhiro Kimura** Title: Atomic migration-driven metal nanowire growth Nagoya University, Japan 15:40-16:00 **Ashita Anand** TERI Deakin Nanobiotechnology Title: Development and characterization of controlled release nano-fertilizer Centre, India

16:00-16:30 | Coffee Break @Foyer

P1

P2

P3

(16:30-17:00) POSTER PRESENTATIONS @FOYER

Vishakha Goswami

Indian Institute of Technology Delhi, India

Title: Nanocarriers for the delivery of guercetin to inhibit the UV-induced aggregation of yD-crystallin

effective and reliable detection

Lu Zhou University of Macau, China

Namhun Kwon Korea Institute of Industrial Technology, Republic of Korea

Myungsuk Kim

Korea Institute of Industrial Technology, Republic of Korea

Donghyun Kim

P4

Korea Institute of Industrial Technology, Korea of Republic

Cheng Jung Yao National Taiwan University, Taiwan Title: A study on highly efficient nickel-iron alloy sulfuric acid leaching through anodize electrolysis process

Title: Design of ion current and fluorescence dual-signal nanochannel sensors for

Title: The development of chitosan-based nano-carrier for highly antibiotic resistant H. pylori eradication therapy

DAY 2 IN-PERSON

MARCH 19, 2024

KEYNOTE PRESENTATIONS Singapore Time (SGT)	@SPHERE
08:50–09:00 Opening Remarks	Moderator: Antonio Pantano, University of Palermo, Italy
09:00-09:40 In-Person	
Mark Rainforth The University of Sheffield, United Kingdom	Title: Enhancing strength and ductility in a near medium Mn austenitic steel via multiple deformation mechanisms through nanoprecipitation
09:40-10:20 In-Person	
Nasimuddin Institute for Infocomm Research, A-STAR, Singapore	Title: Revolutionizing antenna technology: A comprehensive overview of electronically tunable material-based beam-steering structures

10:20-10:50 | Coffee Break @Foyer

ORAL PRESENTATIONS

Chair: Mark Rainforth, The University of Sheffield, United Kingdom 10:50-11:10 **Milos Janecek** Title: Phase transitions in metastable Ti15Mo alloy Charles University, Czech Republic 11:10-11:30 Vladislav Kozhukhov Title: Recent advancements in A. A. Ilyushin's structural modeling method for non-Lomonosov Moscow State University, classical continuum **Russian Federation** 11:30-11:50 Title: Molecular dynamics simulation of Yttria-stabilized Zirconia: Investigating the Leila Momenzadeh The University of Newcastle, Australia Influence of Yttria and oxygen vacancies concentration on physical properties 11:50-12:10 **Antonio Pantano** Title: Natural fibers composites: Nanoparticles as reinforcing agent for improving University of Palermo, Italy performances

Singapore Time (SGT)

12:10–12:30 In–Person

Hitoshi Ozaki Mie University, Japan Title: Dissimilar metal joining of magnesium alloy and aluminium alloy by laser roll welding

12:30–12:50 In-Pe

Michal Knapek Charles University, Czech Republic

Title: In-situ insights into micron-scale plasticity

12:50-14:00 | Lunch @Oval Foyer

14:00-14:20 In-Person	
Pramod Avti Postgraduate Institute of Medical Education and Research (PGIMER), India	Title: Advanced smart nanobiomaterials as emerging versatile platforms for healthcare systems
14:20–14:40 In–Person	
Piyush Verma Institue of Nuclear Medicine and Allied Sciences (INMAS), India	Title: Luminescence insights to binding interactions of graphene oxide with pepsin: A spectroscopic and molecular docking approach
14:40-15:00 In-Person	
Mukul Srivastava IIT Kanpur, India	Title: Critical assessment of the multi-functionality of CNT reinforced CFRP composites
15:00–15:20 In–Person	
Li Tianyu Hohai University, China Zhang Rujiu Tsinghua University,China	Title: Resource utilization of sea sand – Research and development of ultra-high performance cement-based materials
15:20–15:40 In–Person	
Chien Fang Ding National Taiwan University, Taiwan	Title: Additive manufacturing of metallic structures by laser-induced forward transfer
15:40-16:00 In-Person	
Li Liang University of Science and Technology of China, China	Title: Achieving superplastic TWIP steel welded joint via vacuum electron beam welding
16:00–16:20 In-Person	
Min Hsuan Lee Yang Ming Chiao Tung University, Taiwan	Title: The role of machine learning in organic solar cell research

16:20-16:50 | Coffee Break @Foyer

16:50–17:10 In–Person

Anjan Sil Indian Institute of Technology Roorkee, India

17:10-17:30 In-Person

Yijun Zheng ShanghaiTech University, China

Title: Characterization of honeycomb structured carbonaceous anode material for sodium–ion battery application

Title: Harnessing chemical reaction networks for programming living materials



MARCH 19, 2024 Tuesday

ORAL PRESENTATIONS	@ZOOM MEETING
10:00–10:20 GMT AV check	Moderator: Teresa Ben Fernandez, University of Cadiz, Spair
	Chair: Kyoungtae Kim, Missouri State University, United States
10:20-10:40 18:20-18:40	
Yulai Zhao Fuzhou University, China	Title: Porous carbon based composites for energy storage via high internal phase emulsion template
10:40-11:00 18:40-19:00	
Xuelian Chen Beijing University of Chemical Technology, China	Title: Significantly tunable foaming behavior of blowing agent for polyethylene foam resin with a unique designed blowing agent system
11:00-11:20 19:00-19:20	
Charles Ivan Salanga Saint Louis University, Philippines	Title: Chemical engineers in the face of cosmetics, cosmeceuticals and nutraceuticals: An overview
11:20-11:40 11:20-11:40	
Vasyl G. Kravets The University of Manchester, United Kingdom	Title: High sensitive biosensor based on topological darkness in hybrid thin film- graphene nanostructures
POSTER PRESENTATIONS	
11:40-11:50 22:40-22:50	
Lipin Ge The University of Sydney, Australia	Title: Optimisation and artifacts of photothermal excitation of microresonators
11:50-12:00 17:20-17:30	
Anurag Kumar Pandey IT Kharagpur, India	Title: lodine-doped carbon dots as a nanocatalyst for degradation of cationic dyes
12:00-12:10 17:30-17:40	
Ravi Kikar Sinha A Private Indian Researcher, India	Title: Can we increase cruise and cargo ship's speed to 1000 knots with the use of portable electron positron contact based engines safely?
12:10-12:20 17:40-17:50	
Ravi Kikar Sinha A Private Indian Researcher, India	Title: Use of vast coastal sea surface in harvesting electrical energy through floating large photovoltaic solar panels on them

ORAL PRESENTATIONS

12:20-12:40 15:20-15:40

Valyaev Alexander Nuclear Safety Institute RAS, Russian Federation

Title: Application of nanotechnology for treatment of human bone joints with severe injuries

12:40-13:00 15:40-16:00

Aleksandr Ya. Khavkin Lomonosov Moscow State University,

, Title: Prospects of carbon nanoenergy

13:00-13:20 15:00-15:20

Russian Federation

Laura Elena Mureşan Babes-Bolyai University, Romania Title: The importance of optimizing the synthesis conditions for obtaining pure ZnO–NP

13:20-13:40 14:20-14:40

Teresa Ben Fernandez University of Cadiz, Spain Title: Combining electron channeling contrast and energy selected backscattered electron imaging to identifying defects in complex quantum dots systems

13:40-14:00 19:10-19:30

Shagufta Bi IFTM University Moradabad, India Title: Biogenic synthesis of nanoparticles and its antifungal and antibacterial applications

Title: Synthesis, characterization, and applications of carbon guantum dots

14:00-14:20 19:30-19:50

Arvind K Gathania National Institute of Technology Hamirpur, India

14:20-14:40 17:20-17:40

A B M Sharif Hossain Imam Mohammad Ibn Saud Islamic University, Saudi Arabia

14:40-15:00 17:40-18:00

Ayad Al Thuwaynee Babylon University, Iraq

15:00-15:20 17:00-17:20

Katekani Shingange Mintek, South Africa

Title: Experimental and DFT calculations of ethylene detection performance of Co3O4

Title: Outstanding flame approach for production ferric oxide (Fe2O3) nanoparticles

15:20-15:40 23:20-23:40

Vladimir Chigrinov, University of Science and Technology, Hong Kong

Title: Azodye photoaligned nanolayers for liquid crystals devices

KEYNOTE PRESENTATIONS

15:40-16:20 12:40-13:20

Paulo Cesar De Morais Catholic University of Brasilia, Brazil

Title: The Influence of nanomorphology in biological assays

16:20-17:00 11:20-12:00

Kyoungtae Kim Missouri State University, United States

Title: Interaction between actin and quantum dots

17:00-17:40 12:00-12:40

Title: Innovations in nanomedicine to reduce environmental impact and improve **Thomas J Webster** Hebei University of Technology, China human health

17:40-18:20 18:40-19:20

Eric Buhler	Title: Supramolecular materials integrating molecular machines and motors:
The University of Paris, France	Structure probed using scattering techniques (small-angle neutron and X-ray)

ORAL PRESENTATIONS

18:20-18:40 19:20-19:40 Title: Copper-based hot electrons and high-efficiency I(V) characteristics generated Elaheh Mohebbi Marche Polytechnic University, Italy by VSe2 nanodiode 18:40-19:00 14:40-15:00 **Raymond C Jagessar** Title: Porphyrin based nanomaterials University of Guyana, Guyana 19:00-19:20 15:00-15:20 **Raymond C Jagessar** Title: Nanotechnology: advancing material science and medicine University of Guyana, Guyana 19:20-19:40 20:20-20:40 Jerzy Kisilowski Retired, Poland Title: Wear and tear of turnout components and wheels of a rail vehicle moving at Rafał Kowalik high speed (V>200 km/h) Military University of Aviation, Deblin, Poland 19:40-20:00 15:40-16:00 Frederick H. Silver Title: Viscoelasticity of synthetic polymers and soft tissues using VOCT **Rutgers University, United States** 20:00-20:20 16:00-16:20 William Skene Title: Reversibly modifying the properties of sustainable devices through reversible Universite de Montreal, Canada covalent bonds

20:20-20:40 01:50-02:10

Eknath Kole

Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon, India Title: Cross–linked chitosan–dextran sulfate nanoparticles for vildagliptin encapsulation: QbD optimization and in vitro antidiabetic efficacy

KEYNOTE PRESENTATIONS

Singapore Time (SGT)

08:50-09:00 | Opening Remarks

Moderator: Lajpreet Kaur, Institute of nuclear medicine and allied science, India

09:00-09:40

Ramdas Sawleram Damse Retired scientist from High Energy Materials Research Laboratory (HEMRL), India

Title: Waterproofing materials for ammonium nitrate

ORAL PRESENTATIONS

Ramdas Sawleram Damse, Retired scientist from High Energy Materials Research Laboratory (HEMRL), India 09:40-10:00 Ge Wang Title: Calculation and data-driven strategies for accelerated MOFs design and University of Science and Technology synthesis Beijing, China 10:00-10:20 Title: Advanced multifunctional textile structural polymeric composites and **B K Behera** Indian Institute of Technology, India applications 10:20-10:40 Brahma Raiu Golla Title: A very low temperature green processing for developing high dielectric Al2O3, National Institute of Technology SrTiO3 ceramic composites Warangal, India 10:40-11:00 Nayaka Narasaiah National Institute of Technology Title: Creep fatigue cack growth (CFCG) studies on P91 steel Warangal, India 11:00-11:30 | Coffee Break @Foyer

11:30-11:50

Li Wenting

Singapore Institute of Manufacturing Title: Development of advanced robotic incremental sheet metal forming processes Technology, Singapore



MARCH 20, 2024 Wednesday

@SPHERE

Chair:

11:50-12:10 In-Person	
Lajpreet Kaur Institute of nuclear medicine and allied science, India	Title: Synthesis and physicochemical characterization of tannic acid encapsulated BSA nanoparticles: From structural analysis to bioactivity assessment for enhanced drug delivery
12:10-12:30 In-Person	
Uma Maheswara Rao Seelam National Institute of Technology Warangal, India	Title: Machine learning assisted prediction of solid solubility limits in binary metallic alloys through Hume-Rothery approach
12:30-12:50 In-Person	
Ajoy Kumar Pandey National Institute of Technology, India	Title: Zirconia based bio-ceramics – new additives
	12:50–14:00 Lunch @Oval Foyer
14:00-14:20In-PersonWaqas UI ArifeenYeungnam University, Korea, RepublicOf	Title: Novel method for fabrication of separator/electrolyte for lithium metal batteries
14:20-14:40 In-Person	
Lianjie Zhu Tianjin University of Technology, China	Title: Designable synthesis of TiO2 nanostructures/composites and photocatalytic applications
14:40-15:00 In-Person	
Shinyoung Lee Chungnam National University, Korea, Republic Of	Title: Advanced non-woven separator membrane by syringeless electrospinning for high-performance Lithium-ion Energy device
15:00-15:20 In-Person	
Yurim Lee Chungnam National University, Korea, Republic Of	Title: Development of boron nitride nanotube-based additives to improve ionic conductivity and thermal stability for High-Performance Li-Ion batteries
15:20–15:40 In-Person	
Jiang Xu Virogin Biotech, China	Title: Capsule coffee-inspired customizable mRNA vaccine production using a rapid on-site microfluidic assembly (ROMA) technology
15:40-16:00 In-Person	
Jinshun Bi Chinese Academy of Sciences, China	Title: Nanoscale Air Channel Devices for Emerging IC Applications
16:00-16:20 In-Person	
Likhi Dhru Indian Institute of Technology Indore, India	Title: Sodium Alginate-CuS Nanostructures Synthesized at the Gel-Liquid Interface: An Efficient Photocatalyst for Redox Reaction and Water Remediation

16:20-16:50 | Coffee Break @Foyer

16:50-17:10 In-Person

Ncediwe Tsolekile Cape Peninsula University of Technology, South Africa

Title: Novel synthesis of quaternary Zn–Cu–In–S/ZnS QDs–mTHPP porphyrin conjugate for photodynamic therapy and antibacterial activities



MARCH 20, 2024 Wednesday

ORAL PRESENTATIONS	@ZOOM MEETING
10:00–10:20 GMT AV check	Moderator: Chiara Marchionni, University of L'Aquila, Ital Chair: Thomas J Webster, Hebei University of Technology, China
10:20-10:40 18:20-18:40	
Hui Li Northeastern University, China	Title: Analytic modeling and analysis of impact characteristics of composite cylindrical shells with an auxetic honeycomb core subjected to high velocity internal projectile impact
10:40-11:00 18:40-19:00	
Yuting Liu Harbin Institute of Technology Shenzhen, China	Title: Cryogenic in-memory computing using giant and tunable anomalous Hall effect in magnetic topological insulators
11:00-11:20 19:00-19:20	
Tzu-Hou Hsu Cheng Yieu Development Machinery Co., Ltd., Taiwan	Title: Investigation of the composition and morphology of hardfacing welding powder
11:20-11:40 19:20-19:40	
Li Ma The Hong Kong Polytechnic University, Hong Kong	Title: Personalized nanofiber-based strategy for smart regulation of diabetic wounds
11:40-12:00 12:40-13:00	
Chiara Marchionni University of L'Aquila, Italy	Title: Green and sustainable materials in the built environment reuse
12:00-12:20 15:00-15:20	
Michael I Tribelsky Moscow State University, Russian Federation	Title: Peculiarities of subwavelength field pattern at resonant light scattering by nanoparticles
12:20-12:40 14:20-14:40	
Vladyslav Cheranovskii V.N. Karazin Kharkiv National University, Ukraine	Title: The decorated spin ladder systems: Peculiarities of the energy spectrum and magnetization profile.
12:40-13:00 15:40-16:00	
Osman Adiguzel Firat University, Turkey	Title: Shape reversibility and fundamental characterization of shape memory alloys

Ram Sambhar Shukla Title: MCM-41 as a potential mesoporous reference material for characterizing multi CSIR, India textural properties 13:20–13:40 18:50–19:10 Title: Influence of fiber content and length on the mechanical characteristics of Sivasubramanian Palanisamy P T R College of Engineering and biocomposites comprising natural rubber reinforced with sansevieria cylindrica Technology, India fibers 13:40-14:00 19:10-19:30 Sivasubramanian Palanisamv Title: Evaluate the mechanical characteristics of hybrid natural fiber composites P T R College of Engineering and comprising ramie and flax under various conditions Technology, India 14:00-14:20 18:00-18:20 Yarub Al-Douri University of Sharjah, United Arab Title: How to solve the energy crisis by nanotechnology? **Fmirates** 14:20-14:40 15:20-15:40 Zakia Guezzen Title: Effect of natural fibers on the natural frequencies of cylindrical biosourced University of Science and Technology shells of Oran, Algeria 14:40-15:00 20:10-20:30 Suresh C. Ameta Title: Photocatalysis: A promising technology PAHER University, India 15:00-15:20 12:00-12:20 Asif Zaidi Title: Hydrogen molecule: Estimation of ground and excited electronic states University of Waterloo, Canada 15:20-15:40 12:20-12:40 **Carlos Camurri** Title: Sperficial grain refinement of 316L stainless steel through rolling with rough University of Concepcion, Chile rolls 15:40-16:00 10:40-11:00 **A K Fazlur Rahman** Title: Nucleophilic addition reactions to d9 Metal (Co, Rh, Ir) stabilized carbocations: Oklahoma School of Science and Reactions of [M(?5-C5R5) (?2vinyl -?3cyclopentenyl)] + with Nu- (OH-, CN-, OMe-, Mathematics, United States CH3-) 16:00-16:20 17:00-17:20 Zakaria Boumerzoug Title: Friction welding of dissimilar metallic materials

13:00-13:20 18:30-18:50

University of Biskra, Algeria

KEYNOTE PRESENTATIONS

16:20-17:00 13:20-14:00

Paulo Cesar De Morais Catholic University of Brasilia, Brazil

Title: Antibacterial activity of copper-doped metal oxide nanoparticles

17:00-17:40 12:00-12:40

Vistasp M Karbhari University of Texas Arlington, USA

Title: Combined moisture and stress effects on durability of composites

17:40-18:20 10:40-11:20

Ephraim Suhir Portland State University, United States

Title: Analytical modeling occupies a special place in reliability physics predictive modeling in materials science and engineering

18:20-19:00 13:20-14:00

Thomas J Webster Hebei University of Technology, China

Title: Nano graphene: Advances, limitations, and promises in health

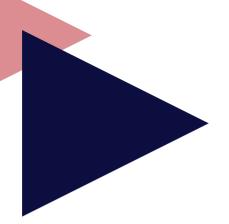
19:00-19:40 20:00-20:40

Antonio Vassallo University of Basilicata, Italy

Title: Nanotransporters for the release of bioactive molecules

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We wish to meet you again at our upcoming events

7th Edition of the International Conference on **Materials Science and Engineering** states 28, 20, 2024 | Paltimere, MD, USA | UVPPID EVE

October 28-30, 2024 | Baltimore, MD, USA | HYBRID EVENT https://materials.magnusconferences.com/

9th Edition of

World Nanotechnology Conference

October 28-30, 2024 | Baltimore, MD, USA | HYBRID EVENT https://nanotechnology.magnusconferences.com/

Questions? Contact

Phone: 1 (702) 988 2320 | Whatsapp: + 1 640 666 9566 e-mail: secretary@magnusconference.com

