



PROCEEDINGS OF THE 9TH WORLD CONGRESS ON RECENT ADVANCES IN NANOTECHNOLOGY (RAN 2024)

April 08 - 10, 2024 | Imperial College London Conference
Center, London, United Kingdom

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WELCOME MESSAGE FROM THE CONFERENCE CHAIR

On behalf of the International Academy of Science, Engineering and Technology (International ASET Inc.), the organizing committee would like to welcome you to the 9th World Congress on Recent Advances in Nanotechnology (RAN 2024).

RAN is aimed to become one of the leading international annual congresses in the field of nanotechnology. This congress will provide excellent opportunities to the scientists, researchers, industrial engineers, and university students to present their research achievements and to develop new collaborations and partnerships with experts in the field.

In the ninth meeting of this congress, four plenary speakers and four keynote speakers will share their expertise in a wide spectrum of fields and applications. In addition, approximately 38 papers will be presented by professors, students, and researchers from across the world.

We thank you for your participation and contribution to the 9th World Congress on Recent Advances in Nanotechnology (RAN 2024). We wish you a very successful and enjoyable experience.

Dr. Wolfgang Ensinger

*Congress Chair and Proceedings Editor
RAN 2024*

Dr. Josef Jampilek

*Congress Co-Chair and Proceedings Editor
RAN 2024*

Dr. Sergio Nardini

*Congress Local Chair
RAN 2024*

Dr. Dimitrios Papageorgiou

*Congress Local Co-Chair
RAN 2024*

ABOUT RAN 2024

RAN is aimed to become one of the leading international annual congresses in the field of nanotechnology.

This congress will provide excellent opportunities to the scientists, researchers, industrial engineers, and university students to present their research achievements and to develop new collaborations and partnerships with experts in the field.

There are 2 conferences included in the RAN Congress:

ICNNFC 2024 - 9th International Conference on Nanomaterials, Nanodevices, Fabrication and Characterization

NDDTE 2024 - 9th International Conference on Nanomedicine, Drug Delivery, and Tissue Engineering

While each conference consists of an individual and separate theme, the 2 conferences share considerable overlap, which prompted the organization of this congress. The goal of this undertaking is to bring together experts in each of the specialized fields, and at the same time allow for cross pollinations and sharing of ideas from the other closely related research areas.

- **RAN** is an acronym for **R**ecent **A**dvances in **N**anotechnology.
- The proceedings is published in Ottawa, Canada.
- All papers were peer-reviewed
- The congress proceedings is published under an ISSN and ISBN number
- Each paper is assigned a unique DOI number by [Crossref](#)
- The conference proceedings is indexed by [Scopus](#) and [Google Scholar](#)
- The proceedings is permanently archived in [Portico](#) (one of the largest community-supported digital archives in the world)

 Google Scholar

 Scopus[®]

 Crossref

 PORTICO

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SCIENTIFIC COMMITTEE

We would like to thank the following for accepting to act as a member of the Scientific Committee for the RAN 2024 Congress:

Scientific Committee Members for ICNNFC'24

- **Dr. Shakil Awan**, University of Plymouth, UK
- **Dr. Daolun Chen**, Toronto Metropolitan University, Canada
- **Dr. Erik Díaz-Cervantes**, Universidad de Guanajuato, Mexico
- **Dr. Fenge Gao** Nottingham Trent University, UK
- **Dr. Antonio Vicente Herrera Herrera**, Universidad de La Laguna, Spain
- **Dr. Gabriela Humnic**, Transilvania University of Brasov, Romania
- **Dr. David Jenkins**, University of Plymouth, UK
- **Dr. Byeong Hee Kim**, Kangwon National University, South Korea
- **Dr. Bilgin Kaftanoğlu**, University of Pardubice, Czech Republic
- **Dr. Dongyang Li**, University of Alberta, Canada
- **Dr. Malik Maaza**, UNESCO UNISA ITL/NRF Africa, South Africa
- **Dr. Rahul M. Mane**, Shivaji University, India
- **Dr. Petr Němec**, Atilim University, Turkey
- **Dr. Ram Prasad**, Mahatma Gandhi Central University, India
- **Dr. Ayse Turak**, McMaster University & Concordia University, Canada
- **Dr. Jie Yang**, RMIT University, Australia
- **Dr. Mustafa Yavuz**, University of Waterloo, Canada
- **Dr. Maria Luisa Di Vona**, University of Rome Tor Vergata, Italy
- **Dr. Hande Yondemli**, Selcuk University, Turkey
- **Dr. Yi Xuan**, University of Pittsburgh, USA

SCIENTIFIC COMMITTEE

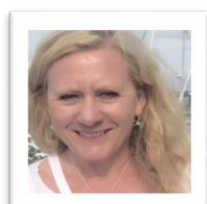
Scientific Committee Members for NDDTE'24

- **Dr. (Steven) Seongtae Bae**, University of South Carolina, USA
- **Dr. Damien Dupin**, CIDETEC, Spain
- **Dr. Todd Giorgio**, Vanderbilt University, USA
- **Dr. Jingjiao Guan**, Florida State University, USA
- **Dr. Guillermo Rus**, University of Granada, Spain
- **Dr. Alexandra Marques**, University of Minho, Portugal
- **Dr. Marta Sevieri**, Università degli Studi di Milano, Italy
- **Dr. Dejian Zhou**, Leeds University, UK
- **Dr. Valtencir Zucolotto**, University of Sao Paulo, Brazil

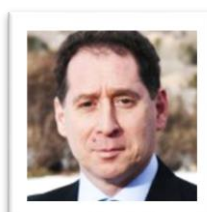
PLENARY/KEYNOTE SPEAKERS

The Plenary & keynote information for the 9th World Congress on Recent Advances in Nanotechnology (RAN'24) is as follows:

Plenary Speakers



Dr. Diane Burgess
University of Connecticut,
USA
NDDTE'24 Plenary Speaker



Dr. Moein Moghimi
Newcastle University, UK
NDDTE'24 Plenary Speaker



Dr. Leon Shaw
Illinois Institute of
Technology, USA
ICNNFC'24 Plenary Speaker



Dr. Richard Syms
Imperial College London, UK
ICNNFC'24 Plenary Speaker

Keynote Speakers



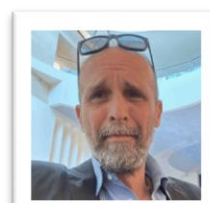
Dr. Manuela Calin
Institute of Cellular Biology
and Pathology, Romanian
Academy of Sciences, Romania
NDDTE'24 Keynote Speaker



Dr. Colm Durkan
University of Cambridge, UK
ICNNFC'24 Keynote Speaker



Dr. Martin Pisarcik
Comenius University,
Slovakia
NDDTE'24 Keynote Speaker



Dr. Giovanni Tosi
University of Modena and
Reggio Emilia, Italy
NDDTE'24 Keynote Speaker

NDDTE'24 PLENARY SPEAKER



Dr. Diane Burgess, University of Connecticut,
USA

Topic of Plenary: Continuous Manufacturing of
Complex Parenterals such as mRNA Vaccines and
Liposomes

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Diane J. Burgess, Ph.D. Distinguished Professor, Pfizer Distinguished Chair in Pharmaceutical Technology, University of Connecticut. B.Sc. Pharmacy, University of Strathclyde (1979) and Ph.D. Pharmaceutics, University of London (1984). Fellow of AAPS, CRS, APSTJ, AIMBE and the National Academy of Inventors. 2010 CRS President; 2002 AAPS President. Editor of International Journal of Pharmaceutics (2009 – 2018). Editorial board member of 13 international journals. Recipient of: 2023 AAPS Alice E. Till Advancement of Women in Pharmaceutical Sciences Recognition; 2023 University of Connecticut AAUP Edward C. Marth Mentorship Award; 2018 AAPS Wurster Award in Pharmaceutics; 2014 AAPS Research Achievement Award; 2014 AAPS Outstanding Educator Award; 2014 CRS Distinguished Service Award; 2013 AAPS IPEC Ralph Shangraw Award; 2010 CRSI Fellowship, 2011 APSTJ Nagai International Woman Scientist Award. Over 280 refereed publications, over 730 research presentations, over 342 invited presentations, 29 keynote and plenary addresses.

Founder, DIANT Pharma (2019). DIANT Pharma develops proprietary continuous manufacturing technology for nanoparticles with a wide array of applications throughout multiple industries, such as lipid nanoparticles and liposomes for pharmaceutical formulations. Inventor on 14 patents/patent applications, eleven of which have been licensed to companies and five products/product lines have already been commercialized.

NDDTE'24 PLENARY SPEAKER



Dr. Moein Moghimi, Newcastle University,
UK

Topic of Plenary: Nanomedicine: A New Frontier
in Precision Medicine

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Moein Moghimi is a Professor of Pharmaceutics and Nanomedicine at the School of Pharmacy, and Translational and Clinical Research Institute, Newcastle University (UK), and an Adjoint Professor at the Skaggs School of Pharmacy, University of Colorado, Denver. He is co-founder of S M Discovery Group Inc. and S M Discovery Group Ltd. He further serves as an Associate Editor of Molecular Therapy (the flagship journal of the American Society of Gene Therapy) and Drug Delivery (Taylor and Francis). Previously, he was Chair of Nanomedicine at Durham University (UK), Professor of Nanomedicine at Copenhagen University, Director of the Centre for Pharmaceutical Nanotechnology and Nanotoxicology (Copenhagen University), Visiting Professor at the University of Padova (Italy) and Affiliate Professor at Houston Methodist Research Institute (Texas). He graduated with Honors in Biochemistry from the University of Manchester (UK) in 1985 and completed his PhD in Biochemistry at Charing Cross and Westminster Medical School (Imperial College). He is widely published and reported in the press, and recognised for his contribution to fundamental and translational research in nanomedicine and drug delivery, especially in mechanistic understanding of nanoparticle-mediated adverse reactions and complement activation processes, and as an inventor of many tissue-specific drug delivery systems and therapeutic platforms (e.g., NanoLigand Carriers for crossing the blood-brain barrier and targeting neurons and microglial cells). A 2021 study conducted by Stanford University list Moghimi among the top 0.1% of world's leading scientists across in all fields, and top 60 in pharmacology in the world.

ICNNFC'24 PLENARY SPEAKER



Dr. Leon Shaw, Illinois Institute of Technology, USA

Topic of Plenary: Nanoscale Silicon Anodes for Next-Generation Li-ion Batteries

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Dr. Leon L. Shaw is Rowe Family Endowed Chair Professor in Sustainable Energy and Professor of Materials Science and Engineering at Illinois Institute of Technology, Chicago, Illinois, United States. He is the founding director of NSF Center of All-Solid-State Batteries. Dr. Shaw has extensive experience in nanomaterials synthesis and processing for applications in hydrogen storage, Li-ion batteries, solid-state batteries, and structural materials. He has authored and co-authored more than 300 archival refereed publications in these areas. Among these 300+ publications 229 are journal articles and invited chapters for books and encyclopedias. His publications have been cited more than 13,600 times with h-index of 61 and i10-index of 201 (according to Google Scholar). His publications are ranked top 1.4% citations for career-long impact among all scientific fields and top 0.2% citations for career-long impact in the subfield of “materials” (based on the composite score c compiled by Elsevier). His accomplishments are recognized worldwide with many honors and awards. Dr. Shaw is a Member of EU Academy of Sciences, a Fellow of International Association of Advanced Materials, a Fellow of ASM International, a Fellow of the World Academy of Materials and Manufacturing Engineering, and a Member of the Connecticut Academy of Science and Engineering.

ICNNFC'24 PLENARY SPEAKER



Dr. Richard Syms, Imperial College London,
UK

Topic of Plenary: STL NEMS in Silicon – Status
and Limitations

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Richard Syms has been Professor of Microsystems Technology in the Department of Electrical and Electronic Engineering at Imperial College London since 1996. He was awarded BA and DPhil degrees from Oxford University in 1979 and 1982, respectively, both in Engineering Science. After postdoctoral positions at University College London, Oxford University, and the Rutherford Appleton Laboratory, he joined Imperial College in 1987 where he headed the Optical and Semiconductor Devices Group for almost 30 years. His research interests lie in electromagnetic theory, RF and optical engineering, metamaterials, sensors, and micro and nano technology. In 2001 he co-founded the Imperial College spin-out company Microsaic Systems, which developed the world's first desktop electrospray mass spectrometers based on MEMS technology. Prof. Syms is a Fellow of the Royal Academy of Engineering, a Fellow of the Institute of Electrical and Electronic Engineers and Fellow of the Institute of Physics.

NDDTE'24 KEYNOTE SPEAKER



Dr. Manuela Calin, Institute of Cellular Biology and Pathology, Romanian Academy of Sciences, Romania

Topic of Keynote: Nanotherapeutic Strategies to Reduce Vascular Inflammation in Cardiovascular Diseases

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Dr. Manuela Călin studied Physics at the University of Bucharest and graduated with an M.S. in Biophysics in 1996. She then joined the research group of the Institute of Cellular Biology and Pathology “N. Simionescu”, Bucharest where she received her Ph.D. degree in Biological Sciences in 2005 under the supervision of Dr. Maya Simionescu. Then she performed a 3-year post-doc in “Biomaterials: nanocarriers for controlled drug release” at the Institute of Macromolecular Chemistry “Petru Poni”, Iasi, Romania. She received her Habilitation degree in Biology and Biochemistry in 2021. She is currently a scientific researcher grade I, head of the “Medical and Pharmaceutical BioNanoTechnologies” laboratory, and a member of the Scientific Council of the Institute of Cellular Biology and Pathology “N. Simionescu”. Her research interests lie within the field of Nanomedicine and are focused on the development of new and effective targeted drug delivery systems based on nanoparticles for cardiovascular diseases treatment. She received ten national and international prizes, and published 55 papers in ISI journals, cited >1700 times, h-index: 25 (as per Google Scholar).

ICNNFC'24 KEYNOTE SPEAKER



Dr. Colm Durkan, University of Cambridge,
UK

Topic of Keynote: Graphene Nanoribbons for
Bandgap Engineering

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Colm Durkan is a Professor of Nanoengineering Science at the University of Cambridge and is also the Head of the Engineering Department. He is a fellow of St Catharine's College. He was elected to a fellowship of the Institute of Physics in 2009 and the Institute of Engineering & Technology in 2014.

Prof Durkan has led multiple projects with industrial partners (Including Samsung, Canon, Nokia, Unilever & BP-ICAM). Most recently, he has just secured £1M funding for a project looking into methods to mitigate against bubble formation on the surface of electrodes used for Hydrogen generation – this is one of the primary factors leading to low efficiency of the process. Since starting as a faculty member in 2000, Prof Durkan has led a research group consisting of up to 15 members, been head of the Nanoscience centre for four years (2009-2010 and 2015-2016), published over 150 papers, given over 130 talks, and developed several scanning-probe microscopes and techniques for nanoscale fabrication as well as manipulation and characterization of the electrical, mechanical and chemical properties of materials. His research ethos is wherever possible to tackle industrially-relevant problems from a fundamental perspective. He has a particular interest in functional and 2D materials as well as nano-scale electronic and molecular devices, and charge transport at nanometre lengthscales.

He has published a textbook in Nano/quantum electronics and a popular science book on Nanotechnology and is currently completing a textbook on the fundamentals of circuit analysis for electrical engineers with Cambridge University Press. He teaches courses in Electrical Engineering, Quantum Mechanics & Nanotechnology

NDDTE'24 KEYNOTE SPEAKER



Dr. Martin Pisarcik, Comenius University,
Slovakia

Topic of Keynote: Cationic Gemini Surfactants as
Efficient Capping Agents of Silver And Gold
Nanoparticles

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Assoc. prof. Martin Pisárčik graduated at the Slovak University of Technology, Faculty of Electrical Engineering, Bratislava, Slovakia (1987), in the field of solid state physics. He received his PhD from the Slovak University of Technology, Faculty of Chemical Technology (1992) in the field of technology of macromolecular compounds. He obtained his habilitation degree in the same professional field at the Slovak University of Technology, Faculty of Chemical and Food Technology (2009). Currently, he is the head of Department of Chemical Theory of Drugs at the Faculty of Pharmacy of Comenius University in Bratislava. His expert background and scientific interests are focused on novel amphiphilic molecules with distinct biological activity and synthesis and physical investigations of bioactive metal nanoparticles.

NDDTE'24 KEYNOTE SPEAKER



Dr. Giovanni Tosi, University of Modena and Reggio Emilia, Italy

Topic of Keynote: Nanomedicine hype: from Covid to Brain Diseases

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Since November 2005, Dr. Giovanni Tosi is researcher in the scientific field of Pharmaceutical Technology at the University of Modena and Reggio Emilia (PI at the department of Pharmaceutical Sciences, which belongs to the faculty of Pharmacy). Since 2015, he is associate professor in the same field. He got certificate for Full professor in 2017, and now he is full Professor since 2020. He was born in 1977 (March, 2nd) in Bologna, Italy, and got his degree in Pharmacy in 2002 with 110/110. He got his PhD in Pharmaceutical Sciences in 2005 at the University of Modena and Reggio Emilia, Italy. He was Coordinator of “Applied Technology” curricula for the PhD school in Health Products, member of Instruments Commission of Dep.Pharm.Sci., Contact Person ILO of Dep.Pharm.Sci, Research products, Representative of the Dep.Pharm.Sci. in the Central Board of Animal House and Committee for Research of University of Modena and Reggio Emilia. He now director of Hospital Pharmacy Specialization Programme and coordinator of KETs National Center for RNA drugs in Rare Diseases Spoke.

LIST OF PAPERS

The following papers were presented at the 9th World Congress on Recent Advances in Nanotechnology (RAN'24).

Virtual Session

[Inkjet Printing of Silver Nanoparticle-bound Biomaterials on Cotton Fabric to Prevent Antimicrobial Resistance](#)

Author: Tuser Tirtha Biswas

[Targeted Mechanisms of Action of Metal-Based Nanoparticles on Gram-Positive Bacteria Cell Envelopes](#)

Authors: Oliwia Metryka, Daniel Wasilkowski, Agnieszka Mrozik

[Donepezil/Curcumin-Loaded Nanoparticles-Embedded Microneedles for the Treatment of Alzheimer's Disease: In Vitro Evaluation](#)

Authors: Gita Parviz, Muhammet Emin Cam

[Characterization Of Hybrid Hydrogels Combining Natural Polymers](#)

Authors: Derin Taylan, Ilayda Gunes, Emine Durukan, Ozgul Gok

[Synergistic Effect of 3D/2D Vanadium Diselenide/Tungsten Diselenide Hybrid Materials: Electrochemical Detection of 5-Nitroquinoline Hazardous to the Aquatic Environment](#)

Authors: Sukanya Ramaraj, Karthik Raj, Carmel Breslin

[Computational Design of a Biosensor Based On Silicon Dioxide Nanoneedles Selective To Fusarium Oxysporum](#)

Authors: Dulce Zarazúa-Sánchez, Erik Díaz-Cervantes, Faustino Aguilera-Granja

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The following papers were presented at the 9th World Congress on Recent Advances in Nanotechnology (RAN'24).

Virtual Session

Ferritin-Based Nanoformulation of Charged Gd-Labelled Acetylcholinesterase Reactivator for Enhanced Bioavailability in CNS

Authors: Eliska Gruberova, Eliska Prchalova, David Malinak, Rudolf Andrys, Kamil Musilek, Zbynek Heger

Advanced Lipid-Based Nanotransporters for Encapsulation of Cytochrome C

Authors: Ester Marakova, Michaela Vojnikova, Andrew. D. Miller, Eliska Gruberova, Zbynek Heger

LIST OF PAPERS

Nanomedicine, Drug Delivery, and Tissue Engineering

[Novel Synthesis of Fluorescent Iron-Doped Carbon Nanodots: New Insights on Medical Imaging](#)

Author: Beatriz Sierra-Serrano, Elisa Sturabotti, Lucia Cardo, Maurizio Prato

[Macromolecular Pairing On Nanoparticle Surface Modulates Immune Response](#)

Authors: H.B. Haroon, S.M. Moghimi , P.V. Maghalaes , E. Papini , J. B. Christensen , D. Simberg , P. N. Trohopoulos

[Integration of Modified Cell Membrane-coated Nanoparticles with Photothermal Therapy to Enhance Ferroptotic Tumor Cell Death](#)

Authors: Lu Bai, Yanan Tan, Min Luo, Xinyuan Guan

[Nanoparticle's Shape Is the Game-Changer for a Customized Delivery through Tunneling Nanotubes among Glioblastoma Cells](#)

Authors: Sierri G, Saenz-de-Santa-Maria I, Renda A, Sommi P, Koch M, Mauri M, Salerno D, Zurzolo C, Re F

[3D Neuronal Monitoring Platforms for Electrochemical Sensing Of Neurotransmitters](#)

Authors: Nerea Pascual, Nuria Alegret, Alessandro Silvestri, Francisco Javier Gil-Bea, Maurizio Prato

[Investigation of Naringin's Antifungal Potential, Optimization and Characterization of Niosomal Gel Formulation](#)

Authors: Archana Navale, Sachin Jain

LIST OF PAPERS

Nanomedicine, Drug Delivery, and Tissue Engineering

Enhanced Stability and Topical Promise of Chloramphenicol in a Dry Dressing Format

Authors: Laura Victoria Schulte-Werning, Ann Mari Holsæter

DOX-Coupled Polymeric Micelles as a State-of-the-Art Strategy Against Triple Negative Breast Cancer

Authors: Berrin Chatzi Memet, Ummugulsum Yildiz, Orhan Burak Eksi, Omer Aydin

Synthesis of Hybrid Nanoparticles Containing siRNA and Quercetin for Targeting Triple-Negative Breast Cancer

Authors: Orhan Burak EKSI, Omer AYDIN

Smart Polymeric Nanocarriers for miRNA Delivery Against Triple Negative Breast Cancer

Authors: Kübra Yumuk, Zuhale Hamurcu, Merve Ercan Ayra, Yasemin Yüksel Durmaz, Omer Aydin

Label-free Acute leukemia diagnosis from exosome with SERS and Artificial Intelligence

Authors: Munevver Akdeniz, Zakarya Al-Shaebi, Awel Olsido Ahmed, Muzaffer Keklik, Omer Aydin

LIST OF PAPERS

Nanomaterials, Nanodevices, Fabrication and Characterization

Microplastics and Nanoplastics in Antarctica. Considerations on Their Impact on Ecosystems and Human and Fauna Health

Authors: Maria Cecilia Colautti, Emilio Andrada, Mariano Ferro, Martin Diaz

Development of a Reduced Graphene Oxide-Based X-Ray Detector for Space Applications

Authors: Anshika G, Shruthi G, Koushal V, Kruthika S M, Radhakrishna V, Baishali G

Short-Term Response of the Soil Microbial Community to the Addition of Polystyrene Nanoplastics (PS-NPs)

Authors: Meththa Gimhani, Thilina Wijethilaka, Surani Chathurika, Laksiri Weerasinghe, Warshi Dandeniya, Mojith Ariyaratne, Anurudda Karunarathne, Davey L. Jones, David R. Chadwick

Enhancing Cationic Dye Removal Efficiency through Factorial Design Analysis using ZIF-8 and Fe-BTC Metal-Organic Frameworks

Authors: Renuka Garg, Rana Sabouni

Adsorption and Thermodynamic Behaviour of Fluorographene with Melphalan Drug as Nanocarrier for Drug Delivery System

Authors: Aiswarya T, Kalpana Devi P, Dr. K. K. Singh

LIST OF PAPERS

Nanomaterials, Nanodevices, Fabrication and Characterization

DFT Research on Glucose Adsorption and Detection Using Edge-Passivated Graphene

Authors: Kalpana Devi P, Aiswarya T, Krishna Kumar Singh

Enhanced Oxygen Sensing Performance of Metalloporphyrin Film Based On Photonic Crystals

Authors: Ke Zhang, Tong Zhang, Sai Chen, Mingkuan Xu

Comparison of Bactericidal Properties of ZnO Nanoparticles Obtained By Two Synthesis Methods

Authors: Sara Cordova, Maribel Guzman, Betty C. Galarreta, Yulan Hernandez, Oscar Chumpitaz, Santiago Flores, Loïc Malet and Stéphane Godet

Application of Reactive RF Magnetron Sputtering in customized Orthopedic Implants

Authors: Adriana Cogo Malgueiro Lirio, Antonio C. S. de Arruda, Ronaldo D. Mansano³, Antônio Felizes Pinto, Terezinha de Jesus Andreoli Pinto

Development of Risk-Management Approach in Additive Manufacturing of Orthopedic Implants

Authors: Adriana Cogo Malgueiro Lirio, Terezinha de Jesus Andreoli Pinto

LIST OF PAPERS

Posters Session

Bacteria-Cancer Cell Hybrid Membrane-Coated Gold Nanoparticles for Anticancer Therapy

Authors: Ruveyda Benk, Münevver Akdeniz, Omer Aydin

Solution Synthesis of Bimetallic Copper-Based Nitrides Cu₃MxN (M = Pd, Ag, Zn, Ni)

Authors: Aleksandra Ścigała, Edward Szłyk, Marek Trzcinski, Robert Szczęśny

PANI-CSA/TiO₂ - Fe₂NiO₄ Nanocomposite Films: Optical, Morphological, and Structural Properties

Authors: Inshad Jum'h

New Molecular Nanographenes for Modern Technologies: (Electro) Chemical Synthesis and Properties Characterization

Authors: Patrycja Filipek, Stanislaw Krompiec, Michal Filapek

LIST OF PAPERS

Posters Session

Vibration Analysis of Nanopillared Chitosan Membrane Using High-Frequency Excitation Technique during Solvent Casting Method

Authors: Urte Cigane, Arvydas Palevicius, Giedrius Janusas

Fabrication of Super-Hydrophobic Nanocomposite Metal Surface for Anti-Frosting

Authors: In Sik Choi, Woong Ki Jang, Young Ho Seo, Byeong Hee Kim

Fusidic Acid-loaded Amphiphilic Chitosan Nanoparticle Cream for Improved Antimicrobial Activity and Percutaneous Delivery: Formulation and Preliminary in Vitro Investigation

Authors: Mohammad Fauzi Bin Bostanudin, Kawthar Kayed, Lama Abuamer

Density Functional Theory Study of 1,2-, 1,3- and 1,4-Dinitrogen Doping in Graphene

Authors: Nada Fahad Alzaaqi, Tandabany Dinadayalane

Imiquimod-Loaded Chitosan-Decorated Di-Block and Tri-Block Polymeric Nanoparticles Loaded In Situ Gel for the Management of Cervical Cancer

Authors: Aliyah Almomen, Mohamed Badran, Adel Ali Alhowyan, Musaed Alkholief, Aws Alshamsan

SPONSORS

International ASET Inc. would like to thank the following sponsors for their support of RAN 2024:



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JOURNAL PUBLICATION

Selected articles from the congress will be published in the following journal after a secondary review process:

[IJTAN - International Journal of Theoretical and Applied Nanotechnology](#)

The publication fee will be waived for papers that win the Best Paper Award.

This journal has adopted to the open-access model, meaning all free access to the journal's articles and content with no need for subscription. This ensures larger audience and therefore higher citations.

All published papers of IJTAN will be indexed by Google Scholar, Semantic Scholar, CAS and Mendeley. Additionally, they will be permanently archived in Portico (one of the largest community-supported digital archives in the world) and will be assigned unique DOIs.

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RAN 2025

The 10th World Congress on Recent Advances in Nanotechnology (RAN 2025) location will be held on 07 - 09 April, 2025 in Barcelona, Spain



For inquiries and to obtain further information on the congress, please visit the [website](https://2025.rancongress.com)

You can also email info@rancongress.com or call us

at: +1-613-834-9999

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ETHICS & MALPRACTICE

At International ASET Inc., we take matters that relate to ethics in publishing very seriously. We believe that the peer-review publication process is a vital building block of academia, and its integrity must be maintained at all costs, which is why every article will be peer-reviewed by several experts in the field. Under peer-review, experts in the related fields are required to provide opinions and comments on the improvements of the submissions.

We are proud of our efforts towards abiding by the guidelines of ethics, integrity, and high standards in publishing.

Following are the ethics guidelines set by the organizers for the authors and the reviewers of the conference:

Scientific Committees

Scientific committees consisting of experts in the fields are established. The committees oversee the peer-review and publication process. To see the scientific committee members, please follow the link: [Scientific Committee](#)

Equality and Decisions

One or more reviewer, scientific committee member, or chair, (internal or external), are responsible for evaluating the relevance of the submitted manuscripts to the proceedings, technical and scientific merit, originally, and impact. These evaluations are to be carried out regardless of ethnicity, religion, gender, sexual orientation, political beliefs, and institutions. Successive to peer-review, the Chair has full authority and is solely responsible for the published content and the process thereof.

Confidentiality

Scientific committee member(s) and publishing staff may not disclose manuscripts or their content, directly or indirectly, to anyone other than individuals invited to review the manuscript (whether they accept or not), other reviewers of the same publications, and publishing staff.

Conflicts of Interest

Scientific committee member(s) and publishing staff may not utilize the contents of submitted manuscripts whether accepted or rejected, directly or indirectly for their own research purposes without prior written consent by the authors.

ETHICS & MALPRACTICE

Reviewers

Contribution to Decisions

In order for final decisions to be made regarding acceptance or rejection of papers, we rely on peer-review. Peer-review is the process of experts in the field reading, understanding, and objectively commenting on submitted papers. Through peer-review, scholars give back to the academic and scientific community by helping the chair(s) make decisions regarding manuscripts.

Promptness

Reviewers should promptly notify the chair(s) if they are unable or unqualified to carry out their reviewing duties. Reviewers should do their best to provide the reviews to the chair(s) as promptly as possible, and within the designated time-frame.

Acknowledgment of Source

The reviewer should notify the chair(s) if they find any similarities in the paper being reviewed and any other work that has been published previously.

Confidentiality

Reviewers must not share the contents of the manuscripts they receive for review, regardless of their decision to review or contents of the review, directly or indirectly, with anyone other than the person who has assigned the review.

Fairness

Reviewers should review manuscripts fairly and objectively, with supporting evidence or arguments, regardless of personal feelings or biases.

Conflicts of Interest:

Invited reviewers should immediately inform the chair(s) in case of a conflict of interest based on competitive, collaborative, personal, family, and other relationships with the authors or people involved in the work.

ETHICS & MALPRACTICE

Authors

Reporting Standards

The paper being submitted for the proceedings should be based on clear objective, discussion, and references. The findings, data, and the arguments being used in the paper should be accurate. It is author's responsibility to guarantee the authenticity of the data in the paper.

Authorship

Only persons who have significantly contributed to the work and the manuscript can be named authors on a paper. These contributions include the idea/concept, design, experiments, evaluation, analysis, drafting or revision of the manuscript, and others. Authors must all have agreed to be named as such and for the manuscript to be submitted. Anyone who has contributed based on the above, but the level of contribution is not significant, may appear in the acknowledgement section of the manuscript.

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