

Nanotech France 2025 / NanoMatEn 2025/ GAMS 2025
Joint Conferences Preliminary Program
25 - 27 June 2025, Paris, France

June 25, 2025		
09:00 - 12:00	Onsite Participant registration	
09:30 - 10:30	Morning Coffee Break	
Nanotech France / NanoMatEn/ GAMS 2025 Joint Plenary session		
Amphithéâtre		
Session's Chairs:		
10:30 - 11:00	From Basic Nanomaterials Physics to Real-world Optoelectronics Applications L. Samuleson	Prof. Lars Samuelson, SUSTech, China/Lund University, Sweden/Hexagem AB, Sweden
11:00 - 11:30		Prof. Rodrigo Ferrão de Paiva Martins, Nova University of Lisbon, Portugal
11:30- 12:00	Innovative Micro and Macroporous Polymer Films based on Poly(2,6-dimethyl-1,4-phenylene) oxide: Properties and Applications P. Rizzo	Prof. Paola Rizzo, University of Salerno, Italy
12:00 - 14:00 Lunch Break		
Nanotech France / NanoMatEn/ GAMS 2025 Joint Session I.A: Nanomaterials Fabrication / Synthesis / properties		
Amphithéâtre		
Session's Chairs:		
14:00 - 14:30	Challenges on the Fabrication of Thermochromic VO2 on Si and Glass Platforms for Multiple Applications F. M. Morales, N. Martin, J. J. Jiménez, A. Casas, R. García and A. J. Santos	Prof. Francisco Miguel Morales Sánchez, University of Cádiz, Spain
14:30 - 15:00	Evidences of out-of-plane trion emission in monolayer WSe2 D. Andrés-Penares and J. F . Sánchez-Royo	Prof. Juan Francisco Sánchez Royo, University of Valencia, Spain
15:00 - 15:30	Formation of Nanoaggregates within Deep Eutectic Solvent Based Systems S. Pandey	Prof. Siddharth Pandey, Indian Institute of Technology Delhi, India
15:30 - 15:45	An Innovative Approach for Fabricating Wrinkled Silver-Based Nanoporous Material S. Asaram Raut, R. Dantinne, A. Chauvin, P. Leclere and D.Thiry	Prof. Damien Thiry, University of Mons, Belgium
15:45 - 16:00	Nanoporous Cu/SiO2 and Zn/SiO2 Hybrid Aerogels and Xerogels: Crystallinity, Porosity and Thermal Stability Al-Z.F. El-Cheikh, W. Kwapinski, M.N. Ahmad, J.J. Leahy and H. El-Rassy	Prof. Houssam Rassy, American University of Beirut, Lebanon
16:00 - 16:30 Afternoon Coffee Break		
Session's Chairs:		
16:30 - 17:00	Salt-assisted coating of MXene on arbitrary polymers L. Zhao, L. Bi, J. Hu, G. Gao, D. Zhang, Y. Li, A. Flynn, R. Wang, L. Liu, Y. Gogotsi and B. Li	Dr. Bo Li, Villanova University. USA

17:00 - 17:15	Synergistic Colloidal System from Gellan Gum and Microalgal Extract: Preliminary Insights into Nano Gelation and Structural Properties F. Sansone , F. Del Prete, F. Fortunato, T. Esposito, R. P. Aquino and T. Mencherini	Prof. Francesca Sansone , University of Salerno, Italy
17:15 - 17:30	Synthesis of mesoporous silica nanoparticles in fluoride medium by spray drying L. Gómez, E. M. Rivero-Buceta, C. Vidaurre-Agut and P. Botella	Dr. Pablo Botella Asuncion , Valencia Polytechnic University, Spain
17:30 - 17:45	DLC film doped with graphene nanoparticles with very low coefficient of friction in ultra high vacuum condition F. O. Kolawole, E. J. D. M. Pillaca, G. V. Martins, S. K. Kolawole, E. J. Corat and V. J. Trava-Airoldi	Dr. Vladimir Trava-Airoldi , National Institute for Space Research INPE, Brazil
17:45 - 18:00	Nanoscale insight into the functionalization of graphene oxide with porphyrins N. Garro , V. Camús, M. Navarro-Rodríguez, A. Cros and E. Palacios-Lidón	Dr Núria Garro , Univ of Valencia, Spain

June 25, 2025

**Nanotech France/ NanoMatEn/ GAMS 2025 Joint session I. B:
Nanomaterials Modelling, Characterization and Properties**

Conference Room Derain 1-2

Session's Chairs:

14:00 - 14:15	Determination of size distribution of nanomaterials using Field-Flow Fractionation with different detectors H. Kato , A. Nakamura and H. Banno	Dr. Haruhisa Kato , National Institute of Advanced Industrial Science and Tech., Japan
14:15 - 14:30	Theoretical assessment of elastic modulus of carbon nanotubes N. Mallik	Dr. Nilanjan Mallik , Indian Institute of Technology Varanasi, India
14:30 - 14:45	Growth mechanism and some properties of nanostructured graphene on cubic - SiC / Si (001) wafers V. Aristov , O. Molodtsova, S. Babenkov, D. Potorochin, D. Marchenko, A. Locatelli, T. O. Montes and A. Sala	Prof. Victor Aristov , Deutsches Elektronen-Synchrotron, Germany
14:45 - 15:00	Graphene as a protecting barrier against metal corrosion I. El Hajj , K. Dembélé, B. Laïk and F. Z. Bouanis	Dr. Inass El Hajj , Ecole polytechnique, France
15:00 - 15:15	High-performance room-temperature NO ₂ gas sensors based on liquid phase exfoliated WS ₂ ultra-thin films R. Li , E. Ould Maina, K. Dembélé and F.Z. Bouanis	Ms. Ran Li , École Polytechnique, France
15:15 - 15:30	Defect control of graphene using ion beam irradiation and its application to gas sensing. S. Yeo , J. Seo and G. Jeon	Dr. Sunmog Yeo , Korea Atomic Energy Research Institute, Rep. of Korea
15:30 - 15:45	First steps with DFT for plasmon mapping in modified graphene for sensor development A. F. Jiménez González and D. E. Ceballos Herrera	Dr. Ali F. Jiménez González , The National Autonomous University of Mexico, México
15:45 - 16:00	Nanostructured In ₂ O ₃ Gas Sensors for Ultra-Sensitive H ₂ S Detection at Trace Levels T. Sood and P. Poornesh	Dr Poornesh P , Manipal Institute of Technology, India

16:00 - 16:30

Afternoon Coffee Break

Session's Chairs:

16:30 - 16:45	FTIR study of Carbonated MgO under Thermal and Plasma treatments T. Elgayyar , F. Azzolina-Jury and F. Thibault-Starzyk	Dr. Taha Elgayyar , University of Caen, France
16:45 - 17:00	Zinc Oxide Aerogel for Water Remediation Al-Z.F. El-Cheikh , W. Kwapinski, M.N. Ahmad, J.J. Leahy and H. El-Rassy	Mrs. Al Zahraa Fatima El Cheikh , University of Limerick, Ireland
17:00 - 17:15	Poly(2,6-dimethyl-1,4-phenylene)oxide (PPO) nanoporous crystalline films for water remediation D. Riccardi and P. Rizzo	Mr. Domenico Riccardi , Univ. of Salerno, Italy
17:15 - 17:30	Enhanced water desalination via Direct Contact Membrane Distillation using Polyacrylonitrile-derived carbon nanofiber membranes Z. El Charif , A. Hijazi, D. Cornu and M. Bechelany	Ms Zahraa El Charif , Univ Montpellier, France

June 26, 2025		
Nanotech France/ NanoMatEn/ GAMS 2025 Joint Plenary session II		
Amphithéâtre		
Session's Chairs:		
09:00 - 09:30	Automated Atomic Scale Data Analysis and Modelling for (Scanning) Transmission Electron Microscopy M. Botifoll, I. Pinto-Huguet and J. Arbiol	Prof. Jordi Arbiol , ICREA/ ICN2/ CSIC/ BIST, Spain
09:30 - 10:00	A cryogenic energy efficient memory cell for quantum and neuromorphic computing Y. Han, J. Sun, B. Richstein, A. Grenmyr, J. H. Bae, J. Knoch, Q.-T. Zhao and D. Grützmacher	Prof. Detlev Gruetzmacher , Forschungszentrum Jülich, Germany
10:00 - 10:30		
10:30 - 11:00	Morning Coffee Break	
11:00 - 11:30	Multifunctional carbon dots for imaging and therapy A. Bianco	Dr. Alberto Bianco Centre National de la Recherche Scientifique (CNRS), France
11:30 - 12:00	Biological mechanisms of actions of nanomaterial-induced respiratory toxicity U. Vogel	Prof. Ulla Birgitte Vogel , National Research Centre for the Working Environment/ Technical Univ. of Denmark, Denmark
12:00 - 14:00	Lunch Break	
NanoMatEn / GAMS Joint Session II.B: Materials and Nanomaterials for Energy / Nanoelectronics/ Nanophotonics		
Amphithéâtre		
Session's Chairs:		
14:00 - 14:30	TEM Investigations of Complex Low Dimensional Nanostructures R. Arenal	Dr. Raul Arenal , University of Zaragoza, Spain
14:30 - 15:00	Functionalized Nanodiamond Fluids in Transformers Thermal Man-agement – A CFD Modeling Study P. Swiecichowski and E. Languri	Prof. Ethan Languri , Tennessee Tech University, USA
15:00 - 15:15	Materials and Surface Engineering for Outdoor Electrical Insulation A. Milionis , A. Leal-Ayala, P. Meier and D. Hohl	Dr. Athanasios Milionis , ABB Switzerland Ltd., Switzerland
15:15 - 15:30	Development of High Performance Polydimethylsiloxane-Multi-walled Carbon Nanotubes (PDMS-MWCNTs) Nanocomposites for Triboelectric Nanogenerator Applications M. Ahmed , A.M. K. Esawi and M. Arafa	Ms. Manal Ahmed , The American University in Cairo, Egypt
15:30 - 15:45	Sunlight-Driven Nanostructured Polymer Coatings for Energy-Efficient Smart Surfaces P. Das , L. Charlton and A. J. C. Semiao	Dr. Pritam Das , The University of Edinburgh, UK
15:45 - 16:00		
16:00 - 16:30	Coffee Break	
Session's Chairs:		

16:30 - 16:45	Effect of electron-phonon interaction on thermoelectric properties through DNA chains J. H. Ojeda , Santanu K. Maiti, D. Laroze, G. Eramo and P. A. Orellana	Prof Judith H. Ojeda Silva , Pedagogical and Technological University of Colombia, Colombia
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June 26, 2025

**Nanotech France / GAMS 2025 Joint Session II.C:
Nano for life science and Medicine**

Conference Room Derain 1-2

Session's Chairs:

14:00 - 14:30	Harnessing Nanotechnology and Plasmonics at the Frontiers of Biomedical Diagnostics T. Vo-Dinh	Prof. Tuan Vo-Dinh , Duke University, USA
14:30 - 15:00	Scalable Microfluidic Synthesis of PEGylated Liposomes for Drug Delivery and Cosmetic Applications S. Akar, S. Fardindoos and M. Hoorfar	Prof. Mina Hoorfar , University of Victoria, Canada
15:00 - 15:15	Molecular Dynamics in Nanomedicine: From Molecular Insights to Functional Design P. Siani , G. Frigerio, E. Donadoni and C. Di Valentin	Dr. Paulo Siani Paulo , University of Milano-Bicocca, Italy .
15:15 - 15:30	Mycosynthesis, Characterization, and Mosquitocidal Activity of Silver Nanoparticles Fabricated by Aspergillus niger Strain M.A. Awad, A.M. Eid, T.M. Y. Elsheikh, Z.E. Al-Faifi, N. Saad, M.H. Sultan, S. Selim, A.A. Al-Khalaf and A. Fouda	Prof. Areej Al-Khalaf , Princess Nourah bint Abdulrahman Univ, Saudi Arabia
15:30 - 15:45	A New bone nano-hemostatic agent with antibacterial activity M. Salah	Dr. Mohammed Salah , King Saud Univ., Saudi Arabia
15:45 - 16:00	Multifunctional properties of Dy ₂ O ₃ -Doped ZnO nanoparticles: Optical, dielectric, and antibacterial performance T. Almuatiri Atia , R. Hamdi, E. Kotb and A. ben Ali	Ms. Taghreed Almuatiri Atia , Qassim University, Saudi Arabia

16:00 - 16:30 Afternoon Coffee Break

Session's Chairs:

16:30 - 17:00	Mn-Doped Carbon Dots as MRI Contrast Agents: Insights from Phantom Studies toward Neuroimaging Use C.M. Uritu , S.I. Filipiuc, A. Coroaba, A. Fifere, I. Spiridon, N.L. Marangoci and B.I. Tamba	Dr. Cristina Mariana Uritu Grigore T. Popa University of Medicine and Pharmacy of Iasi, Romania
17:00 - 17:15	Development of stable biofunctionalized PET membranes with bioactive binding points for potential application in cell culturing devices D. Stan , L.A. Bocancia-Mateescu, A.C. Mirica and S. Mocanu	Dr. Dana Stan , DDS Diagnostic SRL, Romania
17:15 - 17:30	Sol-Gel Synthesis of Silica-based Biomaterials containing Rosmarinic Acid and Polyethylene Glycol F. Barrino , F. Giuliano and C. Dispenza	Dr. Federico Barrino , University of Palermo, Italy
17:30 - 17:45	Non-Invasive Label-Free Electrical and Optical Parallel Recordings of Electrophysiological Action Potentials of hiPSC Cardiomyocytes J. Hurtaud , A. Boschi, G. Iachetta, M. Dipalo and F. De Angelis	Dr. Julien Hurtaud , Italian Institute of Technology, Italy
17:45 - 18:00	Homogenously-sized PLGA-encapsulated chlamydial protein is efficiently delivered into dendritic cells by activating the caveolin endo-cytosis pathway to boost innate immune responses V.A. Dennis , R. Sahu, A.C.N. Sipowe, V. Tadjuidje and L. Gildea	Dr. Vida A. Dennis , Alabama State University, USA

June 27, 2025		
Nanotech France/ GAMS 2025 joint events - Session III Nanotechnology for Medicine		
Session's Chairs:		
Conference Room Derain 1-2		
09:00 - 09:30	Remote Cellular Manipulation Using Magnetic Nanoparticles for Tissue Engineering and Stimulation C. Wilhelm	Prof. Claire Wilhelm , Paris Diderot University, France
09:30 - 10:00	Unlocking Non-parenteral Routes: Nanocarrier Systems for Biological Therapeutics I. Saleem	Prof. Imran Saleem , Liverpool John Moores University, UK
10:00 - 10:30	Morning Coffee Break	
10:30 – 10:45	Fish Scales Derived Bioapatite and it's Nanotoxicity on Development of Zebrafish Embryo R. Kaur and Rishu	Dr. Ravneet Kaur , Panjab University, India
10:45 - 11:00	Novel Nanoformulations for Breast Cancer Drug Delivery Nanocarriers, Bone Regeneration Scaffolds and Industrial Applications W. Mamdouh , N. M. Elbaz, L. Ziko, R. Siam, N. S.Farrag, H.A.El-Sabagh, A. M. Al-mahallawi, A. M.Amin and A. AbdEl-Bary	Prof. Wael Mamdouh , The American University in Cairo, Egypt
11:00 - 11:15	Surface-Modified Drug Nanoparticles in Reinforced Hydrogel Matrix: A Sustainable Approach for Diabetic Wound Management Z. Zhang and W. Wen	Ms. Ziyi Zhang , The Hong Kong University of Science and Technology, China

Posters Sessions

June 25 and 26, 2025

N.	Title	Author / Affiliation / Country
1.	Morphological and Structural Engineering of Niobium Selenide Nanostructures via Chemical Vapor Transport N. Abdelrahman , S; Froeschke, A. Popov, S. Schiemenz, D. Wolf, R; Giraud, A. Soliman, B. Büchner, M. Mertig and S. Hampel	Mrs. Nour Abdelrahman , Leibniz Institute for Solid State and Materials Research, Germany
2.	Fluorescent half-salen phenoxy-imine zinc complexes to reveal exogenous and endogenous H ₂ S A. Trerotola and M. Strianese	Mr. Alessio Trerotola , Univ. of Salerno, Italy
3.	Very High Efficacy In Vitro Therapy of Human Melanoma Cancer by Superparamagnetic Hyperthermia with Magnetite-Hydroxypropyl-Gamma-Cyclodextrin Nanoparticles C. Caizer , I.S. Caizer-Gaitan, C.G. Watz, Z. Crainiceanu and C.M. Soica	Prof. Costica Caizer , West University of Timisoara, Romania
4.	Inhibitory effect on retinal neovascularization of gold nanodisks optically tuned for optical coherence tomography J. Hun Kim and T. Geol Lee	Prof. Jeong Hun Kim , National University Hospital Seoul, Rep. of Korea
5.	Epitope Mapping and DNA-Scaffold Sensors for Improved Diagnosis of Infectious Diseases M. Cambra-Pellejà , Q. Yang, L. Karadurmus, J. Marrugo, L. Baptista-Pires, C. Delgado, M. Vilaplana, J. Muñoz, J. Gandasegui and C. Parolo	Ms Maria Cambra-Pellejà , Barcelona Institute for Global Health, Spain
6.	A measurement method for assessing the dimensions of shape patterns utilizing silver-nano inks in printed electronics C.H. Kim, D.S. Kim and J. Lee	Mr. Dongsoo Kim , Yeungnam University, Rep. of Korea
7.	Poly(butylene succinate) (PBS) films composites with carbon black A. Erbaggio , M.R. Acocella, P. Lamberti, V. Tucci and P. Rizzo	Ms. Angela Erbaggio , University of Salerno, Italy
8.	CuO Nanoparticles-Decorated Femtosecond Laser-Irradiated WS ₂ -WO ₃ Heterojunctions to Realize Selective H ₂ S Gas Sensors J.-H. Kim	Prof. Jae Hun Kim , Inha University, Rep. of Korea
9.	Comprehensive Kinetic Modeling and DFT Analysis of Cationic and Anionic Dye Photocatalytic Degradation: Insights for Green Chemistry and Water Treatment Technologies A. Ranjbari and P.M. Heynderickx	Prof. Philippe Heynderickx , Ghent University Global Campus, Rep. of Korea
10.	Evaluating the Catalytic Performance of Mo ₃ P for the Hydrogen Evolution Reaction in Alkaline Media R. Oriňaková , A. Gubóová, M. Strečková and M. Paračková	Prof. Renáta Oriňaková , Pavol Jozef Šafárik University in Košice, Slovakia
11.	Carrageenan as an Ecological Binder for Sulfur-Based Nanostructured Electrodes for Li-S batteries A. Straková Fedorková , V. Niščáková, D. Zalka, N. Podrojková and I. Šišoláková	Prof. Andrea S. Fedorkova , Pavol Jozef Šafárik University in Košice, Slovakia
12.	Effect of acid etching on the supercapacitive performance of electrodeless Ni-B coatings M. Czagany , G. Meszaros and P. Baumli	Dr. Mate Czagany , University of Miskolc, Hungary
13.	Interfacial behavior between the electrolyte and the electrode P. Baumli , M. Czagany and M. Khairi	Prof Peter Baumli , University of Miskolc, Hungary
14.	Use of ceramic oxides to reduce erosion of wind turbines due to solid particle impact. L.E. Ramirez Pena , C.M. Garcia and J.S. Hernandez	Mr. Luis E. Ramirez Pena , ESFM-IPN, Mexico