



6th International Conference on Soft Materials (ICSM-2024)
November 17-20, 2024

Universitat Rovira i Virgili, Tarragona, Spain



UNIVERSITAT
ROVIRA I VIRGILI

| Location: Campus Catalunya. Avinguda Catalunya 35 - Tarragona | | | | | |
|---|----------------------------|--|--|---|---|
| Scientific Program | | | | | |
| 6th International Conference on Soft Materials (ICSM 2024) | | | | | |
| | Day 1 (Sunday 17 November) | Day 2 (Monday 18 November) Room: Sala de Graus | Day 3 (Tuesday 19 November) Room: Sala de Graus | Day 3 (Tuesday 19 November) [parallel session] Room: Aula 503 | Day 4 (Wednesday 20 November) Room: Aula 305 |
| 9:00 a. m. | | Conference Opening Ceremony | Keynote 3: Prof. Volker Abetz Helmholtz-Zentrum Hereon, Germany | | Keynote 6: Prof. Beatriz Prieto ICIQ, Spain |
| 9:40 a. m. | | Keynote 1: Prof. Andreas Fery IPFDD, Germany | Keynote 4: Prof. Holger Stark TU-Berlin, Germany | | Keynote 7: Prof. F. Faupel, Kiel Univ., Germany |
| 10:20 a. m. | | Keynote 2: Prof. Katja Loos University of Groningen, The Netherlands | Keynote 5: Prof. Myung Han Yoon, GIST, South Korea | | TEA BREAK & POSTER SESSION 2 (Meeting of the IBERNAM Board) |
| 11:00 a. m. | | TEA BREAK | TEA BREAK | | Hall Aula Magna |
| 11:30 a. m. | | Inv: Prof. M. Leocmach U Lyon 1, France | Inv: Prof. K. Zakrzewska AGH, Poland | | Inv: Prof. Hélène Debéda U Bordeaux, France |
| 11:50 a. m. | | Inv: Prof. K.K. Dey IITGN, India | Inv: Prof. M. Rodríguez-Méndez UVA, Spain | | Inv: Dr. S. Vallejos IMB-CNM-CSIC, Spain |
| 12:10 p. m. | | Inv: Prof. Dr. M. Schmiedeberg, Friedrich-Alexander-Universität | Inv: Dr. M. Quintana U San Luis Potosi, Mexico | | Inv: Prof. Biplab Kuita, BHU, India |
| 12:30 p. m. | | Inv: Prof. K. Sankhala IITJ, India | Inv: Dr. J. Kim Yonsei U, South Korea | | Inv: Prof.D. Sarkar, MNIT, India |
| 12:50 p. m. | | Oral 1 | Oral 9 | | Inv: Dr. A. Awasthi, UoR, India |
| 1:00 p. m. | | LUNCH BREAK | LUNCH BREAK | LUNCH BREAK | LUNCH BREAK |
| 2:00 p. m. | | Inv: Prof. F. Güell, UB, Spain | Inv: Dr. C. Bittencourt U MONS, Belgium | Inv: Prof. S. Sharma, IIT Mandi, India | |
| 2:20 p. m. | | Inv: Dr. Q. Besford, IPFDD, Germany | Inv: Prof. P. Roy, IITR, India | Inv: Prof. NS Rao, MNIT, India | |
| 2:40 p. m. | | Inv: Prof. S. Sinha Roy, SNU, India | Inv: Prof. Sujin Babu, IIT Delhi, India | Inv: Prof. R Singh, IIT Mandi, India | |
| 3:00 p. m. | | Oral 2 | Oral 10 | Inv: Prof. Prabhakar Dwivedi, India | |
| 3:10 p. m. | | Oral 3 | Oral 11 | Inv: Prof. Harsh Pandey, Manipal, India | |
| 3:20 p. m. | | Oral 4 | Oral 12 | Inv: Prof. K. Awasthi, MNIT, India | |
| 3:30 p. m. | | TEA BREAK | TEA BREAK | TEA BREAK | |
| 4:00 p. m. | | Inv: Prof. D. Samanta, Texax, USA | Inv: Prof. R. Dhiman, MNIT, India | | |
| 4:20 p. m. | | Inv: Prof. C. Synatschke, Germany | Inv: Dr. M. Islam, IMDEA, Spain | | |
| 4:40 p. m. | | Inv: Prof. Sunita Srivastava, India | Inv: Dr. Ankur Gupta, IIT Jodhpur, India | | |
| 5:00 p. m. | WELCOME RECEPTION | Oral 5 | Oral 13 | | |
| 5:10 p. m. | | Oral 6 | Oral 14 | | |
| 5:20 p. m. | | Oral 7 | Oral 15 | | |
| 5:30 a. m. | | Oral 8 | Oral 16 | | |
| 5:40 a. m. | | ICSM INT. ADV. COMM. MEETING | Oral 17 | | |
| 5:50 a. m. | | | Oral 18 | | |
| 6:00 p. m. | | SOCIAL PROGRAM: TOWN TOUR | POSTER SESSION 1 Hall Aula Magna | | |
| 8:00 p. m. | | | CONFERENCE DINNER | | |



ORAL & POSTER

| | | | |
|---------|------------|---------------|--|
| Oral 1 | Arnab | Maiti | Activity-induced diffusion recovery in crowded colloidal suspensions |
| Oral 2 | Sebastian | Uppapalli | Electrophoresis in Viscoelastic Microfluidics: Towards Novel Drug delivery systems |
| Oral 3 | Tirthankar | Banerjee | Hydrodynamics of dense pulsating matter |
| Oral 4 | Roshan | Singh | Why do symmetrically placed food sources give rise to dynamic clusters of microorganisms? |
| Oral 5 | Jagat | Singh | Confinement-Induced Self-Assembly of Diblock Copolymers |
| Oral 6 | Rik | Chakraborty | Propagation of Enzyme-driven Active Fluctuations in Crowded Milieu |
| Oral 7 | Mintu | Yadav | 2D lattice animal formation in the irreversible aggregation of patchy particles |
| Oral 8 | Kaustubh | Rane | Effect of anisotropy on the structures of clusters in suspensions and cavities in precipitates of nanoparticles |
| Oral 9 | Xueying | Guo | Bacterial lipid Langmuir monolayer challenged by an X-peptide: Insights into bacterial membrane rupture mechanisms |
| Oral 10 | Kaushiki | Roy | Understanding the role of steroid hormones in the regulation of Nanog: A crosstalk for the differentiation of embryonic stem cells |
| Oral 11 | Lou | Kondic | Network-based modeling of fluid flow through membranes |
| Oral 12 | Coral | Salvo | Optimization of Polyvinyl Chloride (PVC) Membrane Sensors for Enhanced Ion Selectivity and Sensitivity |
| Oral 13 | Foad | Salehnia | Indirect Laser Writing for Transferring Graphene- Based Sensing material to MEMS |
| Oral 14 | Jyayasi | Sharma | UV-light assisted hybrid InSe-Graphene gas sensors for NO ₂ detection |
| Oral 15 | Jayasri | Dontabhaktuni | Liquid Crystal driven multi-functional metasurfaces |
| Oral 16 | Joanna | Banaś-Gac | THIN FILM HETEROSTRUCTURES FOR GREEN HYDROGEN GENERATION AND LOW TEMPERATURE GAS SENSING |
| Oral 17 | Houyem | Trabelsi | Synthesis and gas sensing characterization of Cu ₂ S flake-like structures deposited by AACVD |
| Oral 18 | Pilar | Pina | Engineering Nanoimprinted Substrates for Superior SERS Detection of Sulfur Compounds: The Role of Gold Thickness |

| | | | |
|-----------|-------------|-----------|--|
| Poster 1 | Vaisakh | N P | Influence of substrate wettability on ordered assembly of gold nanorods at various length scales |
| Poster 2 | Cándid | Reig | Monolithic Integration of GMR Devices onto CMOS for Neuromorphic Perception |
| Poster 3 | Rosa | Garriga | Anti-corrosion peptide coatings for applications in flexible and transparent silver nanowire-based optoelectronics |
| Poster 4 | Edgar | Muñoz | Tectomer/gold nanoparticle-based colorimetric sensors for tyramine detection |
| Poster 5 | Murat | Gunes | Field Validation of Chemoresistive Micromachined Gas Sensors for Real-Time Wine Monitoring |
| Poster 6 | Zohre | Hamzei | Gas sensing characterization of PEDOT:PSS films |
| Poster 7 | Kamakshi | Pandey | Nanoporous ZIF-67 embedded polymer nanocomposite membranes for selective hydrogen separation |
| Poster 8 | Ankush | Agrawal | Incorporation of green synthesized ZnO with support of rGO sheets into PVDF membranes to improve their filtration and antibiofouling properties for wastewater treatment |
| Poster 9 | Priyanka | Aggarwal | One-step electrodeposition of Binder-free Mo-doped NiSe ₂ /CoSe ₂ Heterostructures on Ni foam: High current density bifunctional catalysts for water splitting |
| Poster 10 | Shiv Dutta | Lawaniya | Polypyrrole and Carbon Nano-Onions composite based Flexible Room Temperature Ammonia Sensor |
| Poster 11 | Devendar | Chauhan | Novel biomimetic patterned membrane surfaces with enhanced antifouling performance in water treatment: A computational study |
| Poster 12 | Ankit | Sharma | PMMA/PC polymer blended membranes for H ₂ gas separation applications |
| Poster 13 | Himanshu | Gupta | Realising Zinc Ion Hybrid Supercapacitors with High Energy Density and Enhanced Longevity using Ultrathin Porous Carbon Nanosheets derived from Chilli-Stem |
| Poster 14 | Deepika | Choudhary | High Performance Gel-Polymer Based Zn-Air Batteries using Cobalt oxide Bifunctional Electrocatalyst |
| Poster 15 | Fatima | Annanouch | Highly Sensitive 2D TMDs Based NO ₂ Gas Sensors via AACVD and APCVD Combination |
| Poster 16 | José Carlos | Santos | Electrochemical Deposition of Polyaniline on Laser-Induced Graphene for Room Temperature Ammonia Sensing |
| Poster 17 | Carlos | Ruiz | Gas Sensors based on Optical Resonances |
| Poster 18 | Manwen | Mezyen | Optimized Dysprosium-Doped SnO ₂ Thin Films for High-Sensitivity NO ₂ Detection |