

**1st International Conference On Spectroscopy In Material Science
(ICOSIMS-2023)-VIRTUAL**

20-22 June 2023

Detailed Programme in (GMT+1) time zone

Day - 1 (20-06-2023)

Session 1	Chairs: Prof. Armando Neves, UA and Dr. Suresh Kumar Jakka, UA
09.00 – 09.30	Welcome address Prof. João Veloso, Vice-Rector, UA Prof. João Miguel Dias, Director, Department of Physics, UA Prof. Anotonio Luis Ferreira, Director, i3N – Aveiro, UA Prof. Luís Cadillon Costa, Director, PAMD, i3N-Aveiro, UA
09.30 – 10.15 Plenary 1	Prof. Luis D. Carlos, <i>University of Aveiro, Portugal</i> The Coming of Age of Luminescence Nanothermometry
10.15 – 10.45 IT - 1	Prof. Michal Piasecki, <i>Jan Dlugosz University, Poland</i> Luminescence and non-linear optical properties at mid-infrared spectral range
10.45 - 11.15 IT - 2	Prof. Emilio Nogales, <i>Universidad Complutense de Madrid, Spain</i> Thermometry based on luminescence spectroscopy from cavities in Ga ₂ O ₃ :Cr micro- and nanowires
11.15 – 11.30	Break
11.30 – 12.00 IT - 3	Prof. Jayalakshmi V, <i>NIT Warangal, India</i> Energy Saving, Transparency Changing Thermochromism in green synthesized ZnO nanoparticles doped Cholesteric Liquid Crystals for Smart Windows
12.00 – 12.15 O - 1	Dr. Goreti Pereira, <i>University of Aveiro, Portugal</i> Hydrophilic Ag ₂ Se Quantum Dots Fluorescence Enhancement by Photoactivation
12.15 – 12.30 O - 2	Mr. Chris Mathew, <i>VIT, India</i> Dye-doped Cholesteric Liquid Crystal Shells for Anti- Counterfeiting application
12.30 – 12.45 O - 3	Mr. Renato Grigolon Capelo, <i>Université de Bourgogne, France</i> Luminescent lanthanide-MOFs coatings on oxide glasses for sensing applications
12.45 - 13.00 O - 4	Mr. Umer Mushtaq, <i>NIT Srinagar, India</i> Color tunable luminescence and Judd-Ofelt analysis for host sensitized Dy ³⁺ doped Zinc Gallate phosphor
13.00 – 14.00	Lunch Break

Session 2	Chairs: Prof. Luis Rino, UA and Dr. Joana Rodrigues, UA
14.00 – 14.30 IT - 4	Prof. Haranath Divi, NIT Warangal, India Development of High Resolution X-ray Imaging Screens for Non-Destructive Testing of Machine Parts
14.30 – 15.00 IT - 5	Dr. Bartosz Bondzior, Polish Academy of Sciences, Poland How to utilize the luminescence of well-known fluorides and phosphates – a few examples of novel approach
15.00–15.15 O - 5	Dr. Ramsagar Yadav, Banaras Hindu University, Varanasi, India Frequency conversion in rare earth doped phosphor materials
15.15–15.30 O - 6	Ms. Paulina Kapuśniak, Jan Długosz University, Czestochowa, Poland Examination of the surface layer of bioactive glass before and after immersion in SBF (Simulated Body Fluid) – Raman analysis
15.30 – 15.45	Break
15.45 – 16.00 O - 7	Dr. Albano Carneiro, University of Aveiro, Portugal Modeling energy transfer-driven lanthanide-based luminescent thermometer
16.00 – 16.15 O - 8	Mr. P. Reddi Babu, Sri Venkateswara University, India Broadband near infrared emission of Er ³⁺ ions doped fluorophosphate glasses for solid state laser applications
16.15 – 16.30 O - 9	Dr. S. Ponkumar, Government Arts College, Rasipuram, Tamil Nadu, India Defect induced PL enhancement in Dy ³⁺ doped ZrO ₂
16.30 – 16.45 O - 10	Mr. Chris Mathew, Vellore Institute of Technology AP, India Dye-doped Cholesteric Liquid Crystal Shells for Anti- Counterfeiting application
16.45 – 17.00 O - 11	Mr. Nisar Hussain, NIT Srinagar, India Luminescence properties of Ba ₂ La ₈ (SiO ₄) ₆ O ₂ : Sm ³⁺ oxyapatite phosphors for near-UV-based solid-state lighting
17.00 – 17.05 SO - 1	Ms. Teresa Duarte, University of Aveiro, Portugal Optical characterization of wide (WBS) and ultrawide (UWBS) bandgap semiconductors
17.05 – 17.10 SO - 2	Ms. Vertika Siwach, Delhi Technological University, India Green emitting luminescent behaviour of Tb ³⁺ induced lithium aluminoborosilicate glasses for optoelectronic devices
17.10 – 17.15 SO - 3	Dr. N. Pushpa, SJC Institute Of Technology, Chickballapur, India Role of solvent on morphology and photoluminescence property of ZnO nano rods synthesized by hydrothermal method
17.15 – 17.20 SO - 4	Dr. Ronaldo Oliveira, Universidade Federal do Ceará, Brazil Up-conversion luminescence in phosphors based on a Holmium co-doped solid solution based on Yb doped BiVO ₄
17.20 – 17.25 SO - 5	Mr. Indrajeet Maurya, Delhi Technological University, India Multifunctional Sm ³⁺ induced bismuth lithium tungstate phosphor for flexible anti-counterfeiting and encryption
17.25 – 17.30 SO - 6	Mr. Zafari Umar, Jan Długosz University, Poland First-Principles investigation of the electronic structure of Phosphor materials doped with Transition Metal Ions
17.30 – 17.35 SO - 7	Ms. Anu, Delhi Technological University, India Photoluminescence studies of Samarium ions doped tungstate phosphors for w-LEDs

Day - 2 (21-06-2023)

Session 3	Chairs: Prof. Haranath Divi, NIT Warangal, India and Dr Pavani Krishnapuram, UA
9.00 – 9.45 Plenary 2	Prof. Frederic Smektala, Université de Bourgogne, France Chalcogenide fibers for supercontinuum generation and methane spectroscopy near 8 μm
9.45 – 10.15 IT - 6	Prof. Victor Lavin, University of La Laguna, Spain New Advances in Rare Earth Luminescent Pressure and Temperature Sensors
10.15 – 10.45 IT - 7	Prof. Nikolai Andreevitch Sobolev, University of Aveiro, Portugal Electron paramagnetic resonance in the materials science
10.45 – 11.00 O - 12	Mr. Krishnakanth Chithari, NIT Warangal, India Electro-optical properties of synthesized TiO ₂ nanorods doped with Nematic Liquid Crystals
11.00 – 11.15 O - 13	Mr. Praveen Sundar Pallepamu, Sri Venkateswara University, India The Effect of Crystalline Size and Photoluminescence on BaLa _{1-x} AlO ₄ : Eu ³⁺ (x=0.1,0.3,0.5 mol %) for Solid-State Lightning Applications
11.15 – 11.30	Break
11.30 – 11.45 O - 14	Ms. Alice Marciel, University of Aveiro, Portugal Optical spectroscopic studies of metal oxides thin films for electrochromic applications
11.45 – 12.00 O - 15	Mr. T. Reddeppa, REVA University, Bengaluru, India Visible and NIR steady state luminescence properties of Dy ³⁺ -doped calcium phosphate glasses for light emitting diodes
12.00 – 12.15 O - 16	Ms. Deepali Chauhan, Delhi Technological University, India Spectroscopic features of thermally stable red emitting Pr ³⁺ doped sodium calcium metasilicate phosphor for w-LED applications
12.15 – 12.30 O - 17	Ms. Sofia Zanella, University of Aveiro, Portugal Lanthanide-based logic: a promising approach in the field of molecular computing
12.30 – 12.45 O - 18	Mr. Irfan Ayoub, NIT Srinagar, India Photoluminescence and Judd-Ofelt estimations of red-emitting Eu ³⁺ doped BaLa ₂ ZnO ₅ phosphor
12.45 – 13.00 O - 19	Ms. Ramadevi Suguru Pathinti, NIT Warangal, India Electro-optical properties of Hydrothermally synthesized ZnO nanorods dispersed in nematic liquid crystals
13:00 – 14.00	Lunch break

Session 4	Chairs: Prof. V. Jayalakshmi, NIT Warangal, India and Prof. Bartosz Bondzior, Poland	Session 5	Chairs: Prof. Manuel Graça, UA and Dr. Suresh Kumar Jakka, UA
14.00 – 14.30 IT - 8	Dr. Latif Ullah Khan, <i>SESAME, Jordan</i> X-ray Absorption Spectroscopy in Luminescent Materials: From Trivial Data Analysis to Machine Learning	14.00 – 14.30 IT - 16	Dr. Padarti Jeevan Kumar, <i>Kitami Institute of Technology, Japan</i> Enhancing Interfacial Stability in Sulfide-Based Solid-State Batteries: Amorphous LLZTO Coatings for Nickel-Rich High-Voltage Cathode
14.30 – 15.00 IT - 9	Dr. Mariela Nolasco <i>University of Aveiro, Portugal</i> Micro-structure and dynamics of polymers: lessons learned from inelastic neutron scattering (INS) and periodic - DFT calculations	14.30 – 15.00 IT - 17	Dr. Luka Pavic, <i>Ruder Bošković Institute, Croatia</i> Exploring the Electrical Transport in Oxide Glasses through Model-Free Scaling Procedures of Conductivity and Permittivity Spectra
15.00 – 15.30 IT - 10	Dr. Manish Kumar, <i>University of Turku, Finland</i> Photophysical Characterization of Thermally Activated Delayed Fluorescence Emitters	15.00 – 15.15 O - 35	Dr. Paulo Fernandes, <i>University of Maringá, Brazil</i> Electrical impedance spectroscopy applied in the investigations of complex fluids
		15.15 – 15.30 O - 36	Dr. K. Kiran Kumar Reddy, <i>Fiji National University, Fiji</i> Insights in to the β relaxation process of the pure and NaF complexed PEO/PVP polymer blend electrolytes using dielectric relaxation spectra
15.30 – 15.45 O - 20	Mr. Saumya Ranjan Pradhan <i>NIT Warangal, India</i> Poly (acrylic acid)-coated liquid crystal droplets for sensitivity detection of Beta-amyloid1-42 ($A\beta$ 1-42)	15.30 – 15.45 O - 37	Ms. Imen Hammami <i>University of Aveiro, Portugal</i> Electrical and Biological Response of Biomaterials Based on Bioactive Glass Modified by Niobium Insertion for Implants Coatings
15.45 – 16.00 O - 21	Mr. Latief Mohiuddin <i>NIT SRINAGAR, India</i> Effect of Cu Doping on The Structural and Optical Properties of Zirconia Nanopowders Synthesized via Non-Aqueous Sol-Gel route	15.45 – 16.00 O - 38	Mr. João Pedro Lemos Morais <i>Federal Institute of Maranhão (IFMA), Brazil</i> Preparation and Character-ization of PANi/Gal blend
16.00 - 16.15	Break		

16.15 – 16.30 O - 22	Dr. Ravipati Praveena <i>Gayatri Vidya Parishad College of Engineering (A), Visakhapatnam, India</i> Pure red upconverted and NIR luminescence properties of Er ³⁺ -doped SnO ₂ nanocrystalline powders	16.15 – 16.30 O - 39	Dr. Reddithota Vidyasagar <i>University of Aveiro, Portugal</i> Thermo-magnetic and thermo- electric characteristics of Fe-Mn-Ga magnetic shape memory alloy
16.30 – 16.45 O - 23	Dr. Chinna Jamalaiah Bungala <i>Rajeev Gandhi Memorial College of Engineering and Technology, India</i> Li ₆ AlGd(BO ₃) ₄ :Eu ³⁺ red emitting phosphors for lighting applications	16.30 – 16.45 O - 40	Ms. Sílvia Gavinho <i>University of Aveiro, Portugal</i> Structural and electrical spectroscopy characterizations of Bioglass® electrically charged by corona triode discharge system
16.45 – 17.00 O - 24	Dr. Upendra Kumar Kagola <i>REVA University, India</i> Photoluminescence characteristics of Er ³⁺ and Er ³⁺ /Yb ³⁺ co-doped heavy metal oxide glasses	16.45 – 17.00 O - 41	Mr. João Pedro Lemos Morais <i>Federal Institute of Maranhão (IFMA), Brazil</i> Galactomannan crosslinking in acidic and neutral pH
17.00 – 17.15 O - 25	Mr. Vikas Sangwan <i>Delhi Technological University, India</i> Influence of Dy ³⁺ ions on the spectroscopic studies of thermally stable telluro-zinc- phosphate glasses for white light emitting devices	17.00 – 17.15 O - 42	Dr. Antonio Sales <i>Universidade Federal do Ceará, Brazil</i> Dielectric properties of (BiNbO ₄) _x - (CaTiO ₃) _{1-x} by complex impedance spectroscopy
17.15 – 17.30 O - 26	Ms. Jaya Choudary <i>REVA University, India</i> Synthesis, structural and optical characterisation of Pr ³⁺ doped Zn ₃ (VO ₄) ₂ for Photocatalytic application	17.15 – 17.30 O - 43	Mr. João Pedro Lemos Morais <i>Federal Institute of Maranhão (IFMA), Brazil</i> Preparation and characterization of chitosan and chitosan/PVA thin films
17.30 – 17.45 O - 27	Mr. Kiran Kumar Bongani <i>Sri Venkateswara University, India</i> Structural, thermal and spectroscopic properties of Er ₂ O ₃ doped oxyfluoro tellurophosphate glasses	17.30 – 17.45 O - 44	Dr. Paulo Silva <i>Universidade Federal do Ceará, Brazil</i> Characterization and study of the dielectric properties of the BaBi ₄ Ti ₄ O ₁₅ (BBT) matrix with additions of Nb ₂ O ₅ for radio frequency applications

Day - 3 (22-06-2023)

Session 6	Chairs: Prof. Rosario Correia, UA and Dr. Jeevan Kumar, Kitama University, Japan
9.00 – 9:45 Plenary 3	Prof. Luís Manuel Cadillon Martins Costa, <i>University of Aveiro, Portugal</i> Impedance spectroscopy: a tool to characterize materials
9.45 – 10.15 IT - 11	Dr. Sofia Pessanha, <i>NOVA School of Science and Technology, Portugal</i> Beyond the characteristic lines: recognizing composition in biological tissues using X-ray Fluorescence
10.15 – 10.45 IT - 12	Prof. Mikhail Brik, <i>University of Belgrade, Serbia</i> Impurity Ions in Optical Materials: Calculations of Spectroscopic Properties
10.45 – 11.15 IT - 13	Prof. Sunitha Rattan, <i>Amity University, Noida, India</i> Electron Microscopy: A versatile Technique for Material Characterization
11.15 – 11.30	Break
11.30 – 11.45 O - 28	Mr. Michal Szyber, <i>Warsaw University of Technology, Poland</i> Water mobility in fluoropolymer membranes investigated by means of time domain terahertz spectroscopy
11.45 – 12.00 O - 29	Mr. Y. Paramesh Goud, Structural and magnetic properties of sodium vanadate tellurite glasses for magneto-optical device applications
12.00 – 12.15 O - 30	Mr. Miguel Andrés Hernández Rodríguez, <i>University of Aveiro, Portugal</i> Designing All-Photonic Molecular Analogs for Electrical Components: A Reprogrammable Luminescent Filter Based on Ln ³⁺ Ions
12.15 – 12.30 O - 31	Dr. Anuraag Gaddam, <i>University of Aveiro, Portugal</i> Distribution of Li, P, and F Atoms in phosphate-fluoride glasses investigated by solid-state NMR and atomistic simulations
12.30 – 12.45 O - 32	Dr. Pavel Zelenovskii, <i>University of Aveiro, Portugal</i> 2H NMR study of water confined in dileucine nanochannels
12.45 – 13.00 O - 33	Dr. Pukazhselvan Dharmakkon, <i>University of Aveiro, Portugal</i> Decoding the anomalies on the in-situ generated catalytic species in ceria catalyzed hydrogen storage system MgH ₂ by Raman spectroscopy
13:00 – 14.00	Lunch Break

Session 7	Chairs: Prof. Nikolai Sobolev, UA and Dr. Igor Bdikin, UA
14.00 – 14.30 IT-14	Dr. G.R. Dillip, Energy Institute Bengaluru Centre of RGIPT, India X-Ray Photoelectron Spectroscopy: An Emerging Tool to Understand the Electronic Structure of the Materials
14.30 – 15.00 IT-15	Prof. M. Jayasimhadri, Delhi Technological University, India Spectroscopic Properties of Rare Earth Activated Phosphor for Solid State Lighting Applications
15.00-15.15 O – 34	Mr. Vinod Kumar Srinivasulu Gari, REVA University, India Perovskite SrTiO ₃ for Photo Catalytic and Optoelectronic Applications
15.15 – 15.30	Break
15:30 - 15:35 SO – 8	Dr. N. Revathi, Dayananda Sagar Academy of Technology & Management, India SnS photoabsorber Layers by dry and wet deposition methods
15.35 -15.40 SO – 9	Dr. Vahideh Bayzi Esfahani, University of Aveiro, Portugal Spectroscopic studies in PVDF-based nanocomposite films: A comparative of co- and ter-polymers
15.40 – 15.45 SO – 10	Dr. Juscelino Sales, State University of Vale do Acaraú, Brazil Influence of TiO ₂ addition on the Mg ₄ Nb ₅ O ₉ ceramic phase and its application in the radiofrequency region
15.45 – 15.50 SO – 11	Mr. Adesh Prasad, Energy Institute, Centre of Rajiv Gandhi Institute of Petroleum Technology, Bengaluru, India Electrochemical Impedance Spectroscopy Study Analysis of MnO ₂ for High-Performance Aqueous Zn-Ion Batteries
15.50 – 15.55 SO – 12	Mr. Thiago Vasconcelos, Federal Institute of Education, Science and Technology of Ceará, Brazil Effect of addition of TiO ₂ on the dielectric behavior in radiofrequency region of the ZnNb ₂ O ₆ ceramic
15.55 – 16.00 SO – 13	Dr. Cauby Rodrigues Junior, Universidade Federal do Ceará, Brazil Characterization of electrical and dielectric properties of V ₂ O ₅ -added SrBi ₄ Ti ₄ O ₁₅ (SBTi) ceramic matrix for temperature sensor application
16.00 – 16.05 SO – 14	Ms. Alekson Nobrega, Universidade Federal do Ceará, Brazil New LTCC composites based on BaMoO ₄ and BiCu ₃ Ti ₃ FeO ₁₂ for use as potential radiofrequency devices
16.05 – 16.10 SO – 15	Dr. Daniel Freitas, Universidade Federal do Ceará, Brazil Electrical impedance and modulus studies of ferroelectric ceramic CaBi ₄ Ti ₄ O ₁₅ added with Bi ₂ O ₃
16:10 – 16:15 SO – 16	Ms. Francisco Nogueira, Universidade Federal do Ceará, Brazil Evaluation of the Radiofrequency Dielectric Properties of the CaMoO ₄ Matrix with 12% TiO ₂ Addition Under Temperature Variation
16:15 – 16:20 SO – 17	Dr. Graciliano Batista, Universidade Federal do Ceará, Brazil Impedance Spectroscopy Analysis of Sr ₃ V ₂ O ₈ Ceramic matrix with Different additions of Bi ₂ O ₃ for Radio Frequency Applications
16:20 – 16:25 SO – 18	Mr. J.C. Sales, Universidade Federal do Ceará, Brazil Increased thermal stability and dielectric properties of composites formed from Ba ₂ TiSi ₂ O ₈ -TiO ₂
16:25 – 16:30 SO – 19	Dr. Samuel Saturno, Universidade Federal do Ceará, Brazil Study of the dielectric properties of SrBi ₂ Nb ₂ O ₉ (SBN) ceramic matrix with bulk addition of CaTiO ₃ (CTO)

16:30 – 16.35 SO – 20	Dr. Adel Ben Ali, Université de Sfax, Tunisia Investigations on structural, morphological, and optical properties of La _{0.75} Ba _{0.25-x} Sr _x FeO ₃ (x = 0.0 and 0.1) nanoparticles and their gas-sensing performances
16:35 – 16.40 SO – 21	Dr. José da Cruz, State University of Maringá, Brazil Dielectric properties of composites formed by hydroxyapatite and niobium pentoxide
16:40 – 16.45 SO – 22	Mr. Adriel Santana, State University of Maringá, Brazil Molar Conductivity of Electrolyte Solutions: Its Dependence on Frequency Using Impedance Spectroscopy
Closing Remarks by organizers	