

OPERA COST Action - Workshop
" Application-oriented material development"
Bucharest, September 12-14, 2023

September 12

12:30	Registration (snack, coffee)
14:00	Workshop opening
14:15	Short presentation of the host institution
14:30	S1.01 (Invited) Marin Alexe "Ferroelectric Topological Structures in Epitaxial Layers"
15:00	S1.02 (Invited) Beatrice Negulescu "Combinatorial pulsed laser deposition for interface engineering in ferroelectric capacitors"
15:30	S1:03 Andra Georgia Boni "Exploring the Influence of Non-Ferroelectric Elements on Polarization Switching in Ferroelectric Devices: Towards Understanding and Controlling Dynamic Behavior"
15:50	S1.04 C.Chirila "Epitaxial ferroelectric thin films and their potential for energy storage"
16:10	Coffee break
16:30	S2.01 (Invited) C. Dias "Novel 2D materials for neuromorphic computing"
17:00	S2.02 M. Kirti "Optimization of Semiconductor-Superconductor hybrid systems for the development of Andreev qubits"
17:20	S2:03 Kipkurui Ronoh "Synthesis and Characterization of HOPG-Thin metallic films"
17:40	End of first day

September 13

8:00	Registration
9:00	S3.02 (Invited) K. Biermann "Development of customized GaAs-based terahertz quantum-cascade lasers"
9:30	S3.01 (Invited) Q.C. Bui/N. Cogneau "Surface charge effects in GaN NWs: An advantage for enhancing the piezoelectric conversion efficiency"
9:50	S3:03 A.Chevillard "How Can InGaN/GaN Heterostructures Be Advantageous for the Piezoelectric Conversion of GaN Nanowires and their Applications?"

10:10	S3:04 Ion Lungu “ DC current-voltage and impedance spectroscopy characterization of CdS/ZnTe heterostructures ”
10:30	S3:05 N.M. Ferreira “ Optimizing the properties of CaMnO₃ for thermoelectric applications through Laser Floating Zone processing ”
10:50	Coffee break
11:10	S4:01 (Invited) Matthew Zervos “ Controversial issues and challenges pertaining to the growth and properties of Cu₂O ”
11:40	S4:02 A.C. Galca “ Giant room temperature magnetoresistance of unrelaxed La.67Ba.33Ti.02Mn.98O₃ epilayers grown on 001-oriented SrTiO₃ ”
12:00	S4:03 Moritz L. Weber “ Metal exsolution dynamics and thermal stability limitations of exsolved nanoparticles at complex oxide surfaces ”
12:20	S4.04 V. Videva “ Photoluminescence analysis of 2D nanolayers synthesized by CVD method ”
12:40	Lunch break
14:10	S4:01 (Invited) R. Vilarinho “ Electric-field engineered lattice distortions for optoelectronic devices ”
14:40	S5:02 Aleksandra Nadolska “ Electrical characterisation and nanomanipulation of MoO_{3-x} monolayer grown on graphite ”
15:00	S5:03 L. Méchin “ Epitaxial La_{2/3}Sr_{1/3}MnO₃ thin films on vicinal SrTiO₃ substrates for sensitive anisotropic magnetoresistive ”
15:20	S5.04 Danica Piper “ Fabrication of LaMnO₃ based epitaxial thin films and DFT calculation ”
15:40	S5:05 Cosmin Romanitan “ Tuning of the Oxidation State of Vanadium Oxide by Pulsed Laser Deposition ”
16:00	Coffee break and Poster Session P01: Abdelkader Nebatti Ech-Chergui “ Unveiling the potential of spray-coated Pr:SnS₂ thin films for photocatalytic and antibacterial applications ” P01: J.A. Guliyev “ APPLICATION OF NANOPOROUS ANODIC ALUMINIUM OXIDE MEMBRANES IN VARIOUS INDUSTRIES OR FIELDS ” P03: Oguzhan Der “ Unlocking Innovation Through Application-Oriented Material Development ” P04: Lala Gahramanli “ Investigating the effect of thermal annealing and changing the concentration of GO in GO/PVA nanocomposites on their structural, electrical, and optical properties ” P05: Zehra Ozden ERDOGAN “ Preparation of DAOx immobilized AuNPs@CQD for optical sensor applications ” P06: Çisem KIRBIYIK KURUKAVAK “ Synthesis and Characterizations of Perovskite Quantum Dots and Carbon Quantum Dots as Core Shell Structure ” P07: Mutahire TOK “ Synthesis of Perovskite Quantum Dots and Their Using in Perovskite Solar Cells as Additive ”

	<p>P08: Marwène Oumezzine “Magnetocaloric and Giant Magnetoresistance Effects in La-Ba-Mn-Ti-O Epitaxial Thin Films”</p> <p>P09: Darija Petković „PLD growth of strontium titanate thin films on silicon substrate for photoelectrochemical water-splitting”</p> <p>P10: Aivara Spokas “Development of GaAsBi MQWs technology for NIR emitters”</p> <p>P11: Gustas Petrusevicius “Investigation of the AlN Buffer Layer Role in Optimizing the AlGaN/GaN Nonlinear Optical Waveguide Structure”</p>
18:00	End of the second day

September 14

8:00	Registration
9:00	S6:01 (Invited) Athansios Domoulas “ Artificial Synapses made of ferroelectric epitaxial Hf_{0.5}Zr_{0.5}O₂ / SrTiO_{3-δ} on silicon ”
9:30	S6.02 (Invited) Florencio Sánchez “ Epitaxial stabilization of ferroelectric HfO₂ via doping and interface effects ”
10:00	S6.03 Alina Marinela Ionescu “ Improving the Properties of Superconductor/Ferromagnet Heterostructures YBa₂Cu₃O_{7-x}/CaRuO₃ ”
10:20	Coffee Break
10:40	S7:01 (Invited) Susana Cardosos Freitas “ Controlling the quality of thin film multilayers in large area wafers for industry-relevant sensor applications ”
11:10	S7:02 Renata Butkute “ Optimization of Epitaxy Conditions of InGaAs and GaAsBi Multiple Quantum Well Structures for Applications in NIR VECSELS ”
11:30	S7:03 Magdalena Nistor “ Is another epitaxial relationship of ZnO thin films on c-cut sapphire possible ”
11:50	Closing remarks
12:10	Lunch break
13:15	Short lab tour (10 minutes’ walk to lab building)
15:00	End of the third day

September 15

9:00-15:00 MC meeting (a coffee break and lunch break included)