

XVI-INTERNATIONAL CONFERENCE ON SURFACES, MATERIALS AND VACUUM



Zacatecas, México

September 25th-29th, 2023



CONSEJO ZACATECANO DE
CIENCIA, TECNOLOGÍA
E INNOVACIÓN
ESTADO DE ZACATECAS



SECRETARÍA DE
TURISMO
ESTADO DE ZACATECAS



Asesorarlo para invertir





Angus Rockett, PhD

Colorado School of Mines, USA

Current challenges for next generation photovoltaics



Carlos A. Martínez Huitle, PhD

Universidade Federal do Rio Grande do Norte, Brazil

The integration of electrochemical approaches with materials science
in the Water-Energy-Climate Nexus



Julio Chacón, PhD

School of Physical Sciences and Nanotechnology, Yachay Tech University,
Ecuador

Revealing supramolecular interactions between Biomolecules and Carbon
Nanostructures employing spectroscopic techniques



Jorge López, PhD

University of Texas at El Paso, USA

XPS Spectroscopy at UTEP



Jorge Varona, PhD

SEMTECH Corporation

Advancements in Materials and Manufacturing Processes for Integrated
Circuit Fabrication: A Comparative Analysis of Diverse Technology Nodes



Margarita Sánchez Domínguez, PhD

CIMAV Monterrey, México

Plasmonic hierarchical superstructures as highly efficient SERS
substrates and triboelectric nanogenerators



María Sánchez, PhD

Faculty of Physics. University of Havana, Cuba

Surface Photovoltage Spectroscopy in characterization of materials
and devices



Maureen Lagos, PhD

McMaster University, Canada

Spectroscopy and Imaging of Phonons in the Electron Microscope

Mexicapan

Conquistadores

Pedro Coronel

Office

Library

**Main
Entrance**

Entrance Hall

Register

**Coffee
Break**

Supercomputing Lab

Auditorium

Storage area

Executive rooms

WC

Free Software Laboratory

WC

ORAL PRESENTATIONS

MONDAY SEPTEMBER 25TH

LUMINISCENCIA PHENOMENA

[LPM-13] STRUCTURAL AND LUMINESCENT PROPERTIES OF BaZrO₃:Er³⁺+ NANOPARTICLES. José Guzmán Mendoza

[LPM-10] Advancements in [Eu₂DPA₃]_n MOF as a Highly Efficient Red-Emitting Phosphor with Thermal Stable Luminescence. Christian Javier Salas Juárez

[LPM-70] Redox Effect on Powder Luminescent of Ca₂AlO₄ Codoped with Eu and Dy. Jorge Montes

[LPM-74] UPCONVERSION LUMINESCENCE OF CaLaAlO₄: Tm³⁺, Yb³⁺ PHOSPHOR SYNTHESIZED VIA SOLUTION COMBUSTION METHOD FOR SOLID-STATE LIGHTING APPLICATIONS. Victor Mshi Igba

[LPM-240] SYNTHESIS OF Al₂(WO₄)₃:Eu³⁺ PHOSPHORS USING EVAPORATION METHOD. Piero Alessandro Pérez Ramos

THEORY AND SIMULATIONS OF MATERIALS

[TSM-285] PREDICTION OF POTENTIAL MAGNETIC TUNNELING JUNCTIONS WITH SPIN POLARIZATION IN VAN DER WAALS MONOLAYER HETEROSTRUCTURES MA₂X₄: A FIRST-PRINCIPLES STUDY. Brandon Pedroza-Rojas

[TSM-17] Study of the thermoelectric properties of AgBi₃S₄Se and AgBi₃SSe₄ by firstprinciples methods. Tomas Santillan Gomez

[TSM-298] AB-INITIO STUDIES OF THE INITIAL STAGES OF THE EPITAXIAL GROWTH OF GaN/GaAs SUPERLATTICES IN (hhl) Si SUBSTRATES ORIENTATIONS. Javier Alanis Perez

[TSM-284] AB INITIO PREDICTION OF MAGNETIC PROPERTIES OF DOPED TiS₂N₄: POTENTIAL APPLICATION IN SPINTRONIC DEVICES. Brandon Pedroza-Rojas

[TSM-176] Manganese deposit on the BP (111)-(2x2) surface: Density functional theory studies. Gregorio H. Cocolletzi

MICROELECTRONICS AND MEMS

[MEM-48] FLUID TURBULENCE EFFECT MITIGATION IN A HOT WIRE MICRO ANEMOMETER AND ITS IMPLEMENTATION IN A MECHANICAL VENTILATOR. *Iker Rodrigo Chavez Urbiola*

[MEM-81] Simulation of MEMs Low-Pressure Sensors with Polyethylene Terephthalate Diaphragm under Large Deflection Theory. *Victor Samuel Balderrama Vazquez*

[MEM-294] Depletion-mode In-Hf-Zn-O thin film transistors. *Isai S Hernandez-Luna*

[MEM-314] Implementation of a 5um node with NMOS technology based on In-Ga-Zn-O thin film transistors. *Norberto Hernandez-Como*

[MEM-358] Design platform for radiation-hardened digital CMOS integrated circuits. *Rodolfo Sanchez Fraga*

WS1

Cyclic Voltammetry and more...

Carlos A. Martínez-Huitle, Universidade Federal do Rio Grande do Norte
Brazil

ORAL PRESENTATIONS

TUESDAY SEPTEMBER 26TH

THIN FILMS

[THF-7] Effect of the trisodium citrate as a complexing agent in the deposition of ZnS by SILAR. *Jesús Octavio Sigala Valdez*

[THF-27] Glucose and pH relation in a Non-Enzymatic Glucose Sensor. *Pablo Tirado*

[THF-28] Novel method for the non-enzymatic detection of glucose in blood. *Alexis Cruz Zabalegui*

[THF-33] Automation of robotic device for Chemical deposition. By successive ionic layer adsorption and reaction(SILAR). *Herbert Martell Puente*

[THF-83] Synthesis of ZnO-Ag nanocomposites by combining Sol-Gel and laser ablation of solids in liquids. *Luis Silva Ramirez*

[THF-87] FABRICATION OF PRESSURE SENSORS FOR APPLICATIONS IN MEDIUM TO HIGH PRESSURE ENVIRONMENTS. *Carlos Augusto Lopez-Lazcano*

[THF-127] Modulación espacial de microcavidades ópticas con patrones metálicos embebidos. Hector Francisco Lara Alfaro

[THF-144] STRONG LIGHT-MATTER COUPLING IN HYBRID MICROCAVITIES. Héctor-Francisco Lara-Alfaro

[THF-162] 2D material transfer methods and deterministic assembly of van der Waals heterostructures. Ángel Andrés Torres Rosales

[THF-233] Selenization of niobium thin films by electrodeposition and rapid thermal processing for the obtention of NbSe₂ films. Francisco A. Amador

[THF-293] Sputtering yield amplification study of Si doped with W, Cu, Ag, or Mo. Julio Cruz

[THF-301] The 2p photoemission spectra for the fourth period of metal oxides based on transition metals. Orlando Cortazar-Martinez

RENEWABLE ENERGY

[RWE-242] Effect of silver deposits on Pinewood filter retention of antibiotic-resistant Escherichia coli. Denisse Fabiola Gonzalez Ramírez

[RWE-228] Ultrasound synthesis of a BaTiO₃@Bi catalyst and its photocatalytic activity on the degradation water pollutants. Anel Robles

[RWE-214] Synthesis of Bismuth Oxy-Halides with photocatalytic activity for Ibuprofen degradation. Daniel Flores-Ramírez

[RWE-38] TECHNOLOGIC TRANSFER OF FLEXIBLE ORGANIC SOLLAR CELLS BASED ON P3HT:PCBM/NP-CdS/TIO₂ ABSORBER. Carlos Montero Tavera

[RWE-69] EFFECT OF BISMUTH INCORPORATION ON STRUCTURAL, OPTICAL, AND ELECTRICAL PROPERTIES OF CuSbS₂ NANOSTRUCTURES. Edgar Puente López

[RWE-282] Bismuth-based layered oxide catalysts for hydrogen production. Gabriela Elizabeth Mijangos Zúñiga

[RWE-274] Influence of the substrate on the electrochemical properties of nanostructured cerium oxide thin films. Gabriela Mariela Reyes Chaparro

[RWE-24] Ex-situ modification of hematite photoanodes from porous CuO-Sb₂O₅-SnO₂ ceramics for photoelectrochemical water splitting. Luis A. Arellanes-Mendoza

[RWE-218] HYDROGEN PRODUCTION USING Ni-BASED CATHODE PRODUCED FROM WASTE NiMH BATTERIES Karina Pulido de la Cruz

[RWE-249] Preparation of M-LSCF (M= Ag,Co) catalyst and its catalytic performance for soot combustion. José Antonio Raya Colín

THEORY AND SIMULATIONS OF MATERIALS

[TSM-234] Computational simulations studies of boron phosphide nanotubes (BPNTs) with anti-cancer drugs. *A.C. Martínez-Olguín*

[TSM-251] Layered dependent surface states in BiSb. *Carlos Antonio Corona García*

[TSM-265] An experimental-computational study of the LP gas detection mechanisms on TiO₂-graphene nanohybrid. *Jonathan Rodriguez Hueso*

[TSM-232] HEAVY METALS ADSORPTION ON SRTIO₃(111) A DFT STUDY. *Reyes García Díaz*

[TSM-259] Atomic scale analysis of the perpendicular magnetic anisotropy in MnAl/CoAl heterostructures. *Rocio González Díaz*

[TSM-15] Understanding carboxylic acid surfactant adsorption and inhibition effect in area selective atomic layer deposition of ZnO on Cu and Cu₂O. *Luis Enrique López*

[TSM-19] Assessing the effects of surface functional groups on the Li storage capacities of Ti₂Ta₂C₃ MXene anode materials. *Victor Hugo Medina Macías*

[TSM-80] MXene heterostructures based on Cr₂C and Cr₂N: evidence of strong interfacial interactions that induce an antiferromagnetic alignment. *Sandra Julieta Gutierrez-Ojeda*

[TSM-268] Study of the possible adsorption mechanism of a CO₂ molecule on the surface of graphene and graphene oxide structures, via density functional theory. *Erica Valencia Gomez*

[TSM-241] Assessing the stability of Kagome D019-Mn₃Ga (0001) surfaces: A first-principles study. *Jose Mario Galicia Hernandez*

[TSM-362] Gallium diffusion channels boost the oxygen activation for the CO to CO₂ conversion in CeO₂. *Jonathan Guerrero-Sanchez*

NANOSTRUCTURES

[NSN-320] EXOTIC PHENOMENA IN PHOSPHORENE JUNCTIONS. *Isaac Rodríguez-Vargas*

[NSN-255] Ag/TiO₂ NANOPARTICLES SYNTHESIZED FROM SILVER SALT REDUCTION BY MEANS OF LASER ABLATION OF SOLID Ti IMMERSSED IN AQUEOUS SILVER NITRATE SOLUTIONS. *Jose Guadalupe Quiñones Galván*

[NSN-52] Photoelectrocatalytic activity of silicon nanowires decorated with electroless copper nanoparticles, graphene oxide, and g-C₃N₄ using plasma jet for removal of methyl orange under visible light *José de Jesús Pérez Bueno*

[NSN-275] SURFACE ENHANCED RAMAN SPECTROSCOPY OF METHYLENE BLUE DEPOSITED ON AG NANOSTRUCTURED SUBSTRATES PREPARED BY PULSED LASER DEPOSITION. *Jose Guadalupe Morales Mendez*

[NSN-47] RECYCLED POLYSTYRENE WITH GRAPHENE MATERIALS AS COATINGS FOR THE PROTECTION OF METAL ART PIECES. *Victoria Moreno*

LUMINISCENCIA PHENOMENA

[LPM-173] CdO-B₂O₃-Pr (III) inverted glasses, a brief luminescence study *Rosendo Lozada Morales*

[LPM-111] Formation and characterization of Calcium Tungstate activated with Terbium synthesized by the microwave-assisted Solvothermal technique *Karla Berenice Garcia Lopez*

[LPM-172] Commercial 3D resin blended with CaWO₄ based phosphors, a short luminescence study. *Salvador Carmona*

[LPM-329] Luminescent and biocompatibility study of the Erbium-based MOF. *Gilberto Alarcón Flores*

MULTIFUNCTIONAL AND MAGNETICS MATERIALS

[MMM-348] EXPLORING DNA IN SUSPENSION BY ELECTRICAL IMPEDANCE SPECTROSCOPY. *JESUS LEONARDO HEIRAS AGUIRRE*

[MMM-153] Positive exchange bias in CoFeB/D019-Mn₃Ge noncollinear antiferromagnetic polycrystalline thin films at room temperature for spintronics application. *Idris Opeyemi Olayiwola*

[MMM-25] Magnetic properties and coercivity mechanism of CoZr alloys rare earth free permanent magnets. *Aida Miranda*

[MMM-337] OPTICAL AND MAGNETIC CHARACTERIZATION OF LiCoO₂ AND LiNiO₂ NANOPARTICLES, *Maria del Pilar Gutiérrez-Amador*

[MMM-14] Multifunctional and Magnetic Materials Effective properties of multi-laminated Cosserat elastic composites with quasi-periodic structure *Y. Espinosa-Almeyda*

WS1

Cyclic Voltammetry and more...

Carlos A. Martínez-Huitle, Universidade Federal do Rio Grande do Norte Brazil

WS3

Introduction to Photovoltaics

Angus Rockett, Colorado School of Mines, USA

ORAL PRESENTATIONS

WEDNESDAY SEPTEMBER 27TH

NANOSTRUCTURES

[NSN-319] ELECTRONIC STRUCTURE FOR SPHERICAL AND ELLIPSOIDAL MULTI-SHELL GaAs/AIXGa_{1-X}As QUANTUM DOTS AS A FUNCTION OF ELECTRIC AND MAGNETIC FIELDS. Juan Carlos Martínez-Orozco

[NSN-225] Fabrication of Zeolite/Polymers nanofibers photocatalysts. Susana Meraz-Dávila

[NSN-22] ADSORPTION AND PHOTOCATALYTIC CHARACTERISTICS OF CO-Fe MIXED OXIDE NANOPARTICLES SYNTHESIZED BY THE PECHINI-TYPE SOL-GEL METHOD. Saúl Gálvez Barbosa

[NSN-184] ELECTRONIC AND STRUCTURE PROPERTIES OF HYDROGEN ADSORPTION ON γ -GRAPHYNE AND γ -BNyne. César Arturo Quej Solís

[NSN-115] SYNTHESIS OF CARBONO QUANTUM DOTS WITH DIFFERENT EMISSION SPECTRA FROM CITRIC ACID FOR ITS APPLICATION AS BIOLOGICAL MARKERS. Ulises Augusto Ortiz Gonzalez

[NSN-156] Degradation Analysis of Triple-Cation Perovskite Solar Cells by Electrochemical Impedance Spectroscopy. Diego Esparza

[NSN-277] SYNTHESIS OF 2D NANOSHEETS OF La₂Ti₂O₇ AND ITS MODIFICATIONS WITH Ce FOR SUBSEQUENT STUDY OF THERMAL-STRUCTURAL PROPERTIES USING RAMAN SPECTROSCOPY IN SITU RAISING TEMPERATURE. Hiram Ojeda

[NSN-34] OBTENTION OF HEXAGONAL BORON NITRIDE NANOSHEETS BY LIQUID PHASE EXFOLIATION AND THEIR USE FOR THE REMOVAL OF DYES FROM WATER. Nancy Vázquez Canales

[NSN-9] One-dimensional ZnO nanostructures for photocatalytic and sensing applications. Andrés Galdámez-Martínez

[NSN-116] FROM WASTE TO NANOMATERIALS: USE OF AGRO-INDUSTRIAL WASTES TO OBTAIN GRAPHENE OXIDE FOR CATALYTIC APPLICATIONS. Juan Marcos Castro-Tapia

[NSN-54] FABRICATION OF A MEMBRANE OF GO/FLG

HETEROSTRUCTURES FOR THE REMOVAL AND INACTIVATION OF S.

AUREUS FROM WATER. Selene Acosta

[NSN-135] OBTAINING TiO₂ NANOPARTICLES USING STEVIA REBAUDIANA AND ITS ANTIFUNGAL EFFECT. Héctor Eduardo Martínez-Flores

[NSN-239] STRUCTURAL AND OPTICAL CHARACTERIZATION STUDY OF MULTISTACKED InAs/GaAs QUANTUM DOT HETEROSTRUCTURES. C. A. Mercado Ornelas

[NSN-159] THERMOELECTRICITY IN NANOSTRUCTURED PHOSPHORENE. Karla Johana Lamas Martínez

[NSN-138] SYNTHESIS AND CHARACTERIZATION OF BINARY Fe₂O₃@TiO₂ NANOCOMPOSITE FOR PHOTOCATALYTIC DEGRADATION OF DYES IN WATER. Israel Águila Martínez

[NSN-119] SYNTHESIS OF Fe₂O₃ NANOPARTICLES BY LASER ABLATION IN DIFFERENT LIQUID MEDIA. Elder Alejandro Meza Ramírez

BIOMATERIALS AND POLYMERS

[BIO-21] CHITOSAN/PVA BIOPOLYMER FUNCTIONALIZED WITH SELENIUM NANOPARTICLES, AS AN ANTIBACTERIAL AGENT FOR THE FOOD PACKAGING INDUSTRY. Ivone Michel Wong-Miramontes

[BIO-66] RELEASE STUDY OF CHITOSAN AND THYME ESSENTIAL OIL-LOADED NANOPARTICLES CONTAINED IN NANOCOATINGS BY UV-VIS SPECTROSCOPY. Zormy Nacary Correa Pacheco

[BIO-243] Obtaining Carbon Black (CB) with Titanium Dioxide (TiO₂) Nanoparticles through Green Synthesis, Areli Pamela González Delgadillo

[BIO-163] Production of Polyester Fiber functionalized with ZnO nanoparticles Using Virgin and Recycled PET, Eduardo Leonel Guerreo Aguilar

[BIO-113] CELLULOSE ACETATE NANOFIBERS DECORATED WITH USING ELECTROSPINNING TECHNIQUE, Aime Margarita Gutierrez Peralta

[BIO-129] Synthesis and characterization of biodiesel using carbon fibers, Aldo Martínez-Pérez

[BIO-58] Use of hybrid biofoams for the remotion of agricultural pollutants on water. Abraham Becerra

[BIO-190] Identification of useful characteristics of zeolite for its use as main component Metarhizium anisopliae for entomopathogenic fungal used in the biological control of sugarcane pests. José Alberto Aguilar Ayala

[BIO-279] PREPARATION AND CHARACTERIZATION OF CONTROLLED RELEASE SYSTEMS OF BIOHERBICIDA@QUITOSANO. Josefina Aguila-López

[BIO-31] ENZYMATIC FUNCTIONALIZATION DEVELOPMENT FOR SUBDERMAL GLUCOSE MONITORING. Estephanny Jocelyn Alvarado Muñoz

ATOMIC LAYER DEPOSITION

[ALD-364] Semiconductors and integrated circuit fabrication technology in Mexico. Joel Molina.

[ALD-11] Atomic layer deposition supercycle approach applied to the Al-doping of nearly saturated ZnO surfaces. Axel Ortiz Ortiz Atondo

[ALD-18] Computational-Experimental Study of the Nucleation Process of TiO₂ on Graphene. Jonathan Rodriguez

[ALD-192] TEMPERATURE DEPENDENT ANALYSIS OF TRAP-ASSISTED TUNNELING IN MIS CAPACITORS WITH Al₂O₃ DEPOSITED BY ALD. Daniel Rocha-Aguilera

[ALD-300] THERMAL CONDUCTIVITY STUDY OF Hf_xTi_{1-x}O₂ MONOLAYER ALLOY. Maritza Iveth Perez Valverde

[ALD-317] Promising Nickel Oxide (NiO_x) as Hole Transport Layer in Perovskite Solar Cell synthesized by Atomic Layer Deposition. Mario Hidrogo

WS2

Surface photovoltage spectroscopy, fundamentals and applications

Maria Sánchez, Facultad de Física. Universidad de la Habana.

Tech talk I

Capture Pumps for Ultra High Vacuum (UHV) And Extreme High VACUUM (XHV)

Todd TeVogt

Edwards Vacuum

WS2

Surface photovoltage spectroscopy, fundamentals and applications

Maria Sánchez, Facultad de Física. Universidad de la Habana.

ORAL PRESENTATIONS

THURSDAY SEPTEMBER 28TH

SEMICONDUCTORS

[SEM-53] REVISITING THE CHARGE TRANSPORT PROPERTIES OF HIGH PERFORMANCE TANDEM SOLAR CELLS THROUGH THE SHOCKLEY MODEL FOR A PN JUNCTION. *Jaime Mimila-Arroyo*

[SEM-60] Correlation between physical and structural properties of pure CdS and doped with divalent and trivalent cations. *Elvia Angelica Sanchez-Ramirez*

[SEM-235] SYNTHESIS AND CHARACTERIZATION OF DOPED ZNO THIN FILMS VIA SOL-GEL METHOD FOR SOLAR CELL APPLICATIONS. *Angel Yamil Lomeli Felix*

[SEM-146] Design and automated device for the deposition of thin film employing Successive ionic layer adsorption and reaction (SILAR) method. *Carlos Alberto Hernandez-Gutierrez*

[SEM-349] Resistive Humidity Sensor based on MCM-41 and Polymer. *Juan Manuel Gonzalez Delgadillo*

[SEM-347] MOLECULAR BEAM EPITAXY OF InAs SEMICONDUCTOR QUANTUM DOTS CAPTURED WITHIN ASYMMETRIC (Al)GaAs CONFINEMENT BARRIERS *V. H. Méndez García*

[SEM-264] ANALYSIS OF THE MOSS-BURSTEIN EFFECT IN TIN N-TYPE DOPED GaAs(631) AND GaAs(100) LAYERS GROWN BY MBE. *M. F. Mora Herrera*

[SEM-91] Growth of GaAsSb ternary epitaxial layers on the GaAs side of the L-S phase diagram at low temperature. *Alejandro Martinez Reyes*

[SEM-325] Quasi-van der Waals Epitaxy of Aluminum Arsenide (AlAs) on Graphene/GaAs substrates: Temperature-Dependent Morphology. *Angel leonardo Martinez-Lopez*

[SEM-306] Synthesis and characterization of 3:1 BiOBr/BiOCl composites in the photocatalytic decomposition on methyl orange. *Miguel Angel Santana-Aranda*

CHARACTERIZATION AND METROLOGY

[CHM-212] The relation between the Shirley background and Auger peaks in photoemission spectra: the Interchannel Coupling with Valence Band Losses mechanism. *Alberto Herrera-Gomez*

- [CHM-227]** The IVL background of Ti 2p photoemission spectra near the Ti 1s ionization threshold. *Dulce-Maria Guzman-Bucio*
- [CHM-133]** Design, synthesis, and optical analysis of homogeneous and inhomogeneous optical filters, grown by reactive sputtering with magnetron, *Noemi Abundiz Cisneros*
- [CHM-327]** Detailed analysis of the Ti 2s photoelectron spectra obtained with hard X-ray photoemission spectroscopy near the Ti 1s ionization threshold. *Dagoberto Cabrera-German*
- [CHM-304]** HAFNIUM OXYNITRIDE (HfO_{1-x}N_x) AND SILICON HAFNIUM OXYNITRIDE (SiHfO_{1-x}N_x) COMPONENTS IN Hf 4f XPS SPECTRA. *Marisol Mayorga-Garay*
- [CHM-72]** STUDY OF THE PLASMA EMISSION AND ELECTRICAL PARAMETERS OF PULSED-DIRECT CURRENT REACTIVE MAGNETRON SPUTTERING OF A SI TARGET, *Lorena Cruz*
- [CHM-271]** Ellipsometry study of the dielectric function of Cu₃Se₂ thin films deposited by electrodeposition *Carolina Diliegros-Godines*
- [CHM-124]**, Study of Ni- and Co-based coatings: Microstructure and electrochemical behavior, *María Fernanda Dueñas Arteaga*
- [CHM-136]** Study of AB(OS)₃ perovskites for applications in solar cells. *Elida Flores Sigala*
- [CHM-62]** THERMAL PROPERTIES OF POROUS SILICON ELABORATED WITH LOW ANODIZATION TIMES, *Jesus Claudio Sanchez Najera*
- [CHM-93]** DEVELOPMENT OF AN XYZ MOTION SYSTEM FOR THE LIBS TECHNIQUE USING ARDUINO, *Luis Ramirez-Santiago*
- [CHM-355]** OPTICAL ABSORPTION SPECTRUM OF URINE IN AN ANIMAL MODEL OF SEPTIC SHOCK, *Sindy Janneth Olvera Vazquez*

WS2

Surface photovoltage spectroscopy, fundamentals and applications

Maria Sánchez, Facultad de Física. Universidad de la Habana.

Tech talk II

Nanociencias. Dr. James Lallo

ORAL PRESENTATIONS

FRIDAY SEPTEMBER 29TH

PLASMA AND VACUUM

[PLV-35] The surface temperature of a 2" water-cooled Ti target during DC magnetron sputtering in Ar and Ar/N₂ gas mixtures. [Stephen Muhl](#)

[PLV-88] Characterization of the plasma resulting from the combination of the laser ablation of a Mo target in a N₂ microwave ECR discharge..
[Enrique Campos-Gonzalez](#)

[PLV-266] TERNARY COMPOUND THIN FILMS PRODUCED BY A NOVEL CYLINDRICALHOT REFRACTORY ANODE VACUUM ARC SYSTEM (CHRAVA). [Ivan Camps](#)

[PLV-96] Graphene Oxide Coatings Obtained by Atmospheric Pressure Plasma Jet for Protection of Aluminum. [José de Jesús Pérez Bueno](#)

[PLV-260] Thin films deposited by the ablation of metallic Sn at different oxygen pressures. [L.P. Rivera](#)

[PLV-340] Synthesis and Characterization of Stannane and its impact in Extreme Ultraviolet Lithography and Vacuum Technology. [Raquel Garza](#)

TRIBOLOGY, SURFACES AND INTERFACES

[TSI-82] Microstructural behavior of the Ti-Al-Mo-N system controlled by Mo content: impact on the mechanical and anticorrosive performance.
[Uriel Jiron Lazos](#)

[TSI-112] Design of Immiscible and Isomorphic Metallic Element Interfaces. [Carlos Rivera-Rodríguez](#)

[TSI-100] DEPOSITION OF GaN THIN FILMS USING A HYBRID PLASMA SYSTEM. [Enrique Camps](#)

[TSI-181] Study of cavitation produced by laser-induced dielectric breakdown on borided and non-borided AISI 316L stainless steel surfaces.
[Ernesto García](#)

Tech talk III

Panalytical. Thin film analysis using x-ray diffraction: Examples for solar cell layers characterization.

Dr. Leandro Fernandes de Almeida.