

Wednesday, November 28

Opening

Location: Carreta

Time: 09h30 – 10h00

Presenter	Title
Dr. David Garza	Welcome to The International Conference on Nanotechnology Tec.Nano 2018

Plenary Sessions

Location: Carreta (PC) & Library (PL)

Time: 10h00 – 17h00

Presenter	Title	Code
Prof. Kumar Wickramashinghe	To be announced	PC-01
Prof. Pierre Berini	Nanoplasmonics	PC-02
Prof. Jeffrey Stansbury	Functional Nanogels as a Versatile Means to Construct and Modify Photopolymer Networks	PC-03
Prof. Elvin Blanco	Leveraging Cancer Nanotherapeutics Towards Cardiovascular and Chronic Lung Diseases	PL-04
Prof. Joel Voldman	Microscale Cell Culture Systems for Manipulating Cell Phenotype	PL-05

Discussion Panel 1

Location: Carreta

Time: 17h30 – 18h30

Moderator: Laura Romero

Presenter	Company	Code
Lic. Karym Giacomán Zapata	Clúster de Nanotecnología de Nuevo León A.C.	DP-01
M.C. Ma. Luisa Porras Ramírez	CEMEX – Research Group	DP-02
Lic. Alejandra Villavicencio	Thermo Fisher Scientific – IT Center of Excellence	DP-03
Ing. Joel Gutiérrez Antonio	Nanomateriales S.A. de C.V.	DP-04
Dr. Joaquín Oseguera	Trames S.A. de C.V. / Termoinnova S.A. de C.V.	DP-05

Thursday, November 29

Plenary Session

Location: Carreta (PC)

Time: 08h00 – 09h00

Presenter	Title	Code
Dr. Manuel Zertuche	Ecosistema i ² e en Distrito Tec	PC-06

Oral Contributions

09h30 – 13h00

Advance and Smart Materials

Chair: Dr.

Location: CEDDIE

Presenter	Title	Code
Marcelo Lozano	Flexible, Multi-Functional Organic-Inorganic Composites for Passive Thermal Management via Conduction and Radiation	ASM-01
Roxana M. Del Castillo	Experimental and Computational Study of Conductivity of Multilayer Graphene in Polypropylene Nanocomposites	ASM-02
Alejandro Guajardo-Cuéllar	Analysis of Transport Behavior and Geometric Effects in Graphene	ASM-03
Giovanni Ramirez	Nanocomposite Coatings for Tribological Applications	ASM-04
Grissel Trujillo-de Santiago	Chaotic Printing: Using Chaos to Fabricate Densely Packed Micro- and Nanostructure at High Resolution and Speed	ASM-05
José Solís-Romero	Application of Grey-fuzzy-Taguchi Method for Optimising the Tribological Performance of a DLC Coating	ASM-06

Nanodevices

Chair: Dr. Alán Aguirre-Soto

Location: CEDDIE

Presenter	Title	Code
B. Paulina López Juárez	Formation of PEG-DA Polymerized Microparticles by Different Microfluidic Devices:: A T-Junction Device and a Flow Focusing Device	NDV-01
Ricardo Tellez-Limon	Near-field Characterization of Plasmonic Resonances of Metallic Nano-structures Integrated to Ion-exchanged Glass Waveguides	NDV-02
Fabiola Armenta-Monzón	Detection of the Anapole State of Silicon Rings by Far-Field Scattering Radiation Diagrams	NDV-03
Alejandra Martínez-Dibildox	Mechanical Manipulation of Caco-2 Cell Behavior on Microfluidic Platforms	NDV-04
Naim Bulos	Mechano-electrospinning of Photo-crosslinkable Polymers for the Fabrication of Monolithic Suspended Nanowires	NDV-05
Ricardo Flores-Hernandez	Tailoring the Diameters of Electro-mechanically Spun Fibers by Controlling their Deborah Numbers	NDV-06

Lab-on-a-Chip

Chair: Dr. Roberto Gallo

Location: Library

Presenter	Title	Code
Sergio Ayala-Mar	Design and Application of an Insulator-based Dielectrophoresis Microfluidic Device for the Isolation and Purification of Exosomes	LOAC-01
José. I. Martínez-López	Manufacturing of Asymmetric Split and Recombine Micromixers with a Variable Cross-Section	LOAC-02
Ricardo Garcia-Ramirez	Experimental Analysis of the Jetting to Dripping Transition in a Flow Focusing PDMS Device for Water in Oil Emulsion (Insulin Lispro® in Miglyo® 829)	LOAC-03
Fabian Romero Soto	Wireless Electrolysis Pump for Flow Volume Control for Automation of Bioanalytical Assays	LOAC-04
Beatriz Bosques Palomo	Origami Centrifugal Microfluidic Disc	LOAC-05
Flor Valencia Velarde	3D Mixing Structures on Origami Centrifugal Microfluidic Discs	LOAC-06
Natalia Nevarez Tinoco	Passive and Active Reversible Valves on CD Microfluidics	LOAC-07
Alejandro Lujambio Ángeles	Glassy Carbon Thin Films with Guided Micro-Wrinkled Surface Induced by Photo-Crosslinking Gradient in Precursor Photoresist	LOAC-08
Ana Cristina Corona	Point-of-Need CD Microfluidic Fabrication with a Cutter Potter	LOAC-09
Binny Jind	Computational and Experimental Analysis of the Influence of Channel Design Over Joule Heating Effects in Insulator-Based Dielectrophoretic Devices.	LOAC-10
Braulio Cárdenas Benítez	Lowering the Required Trapping Voltage in Insulator-based Dielectrophoretic Systems by Post-array Optimization	LOAC-11
Salomon Marquez	Micro and Nanofabrication Strategies for Biosensing Platforms based on Silicon Technology –Integration of Microfluidic Systems with Rapid Prototyping Techniques–	LOAC-12
Laura Oropeza-Ramos	Micro-droplets Detection and Sorting Based Device for Biochemistry Assays	LOAC-13

Nanophotonics

Chair: Dr. Israel De León

Location: Library, room 6B

Presenter	Title	Code
Alejandro Reyes-Coronado	Electronic Tweezers: Controlled Manipulation of Nanoparticles using Swift Electrons	NPT-01
Jorge A. Reyes Esqueda	Structure and Optical Response Correlation for Low-Dimension Heterostructures, Two cases: Random Lasing from ZnO Nanofilms and Second Harmonic Generation from LiNbO3 Micro-powders	NPT-02

N. Apurv Chaitanya	Circular Differential Scattering of Achiral Structures	NPT-03
Ulises Felix-Rendon	Numerical Modeling of an Ultrasensitive Nanoplasmonic Biosensor based on an Integrated Mach-Zehnder Interferometer	NPT-04
Erick I. Duque	Solitons in Nonlocal Media Generated with the Numerical Variational Method	NPT-05
César E. García-Ortiz	Plasmonic Luneburg Lens Characterization with Phase Detection	NPT-06

Nanobiotechnology and Nanomedicine

Chair: Dr. Gerardo García-Rivas

Location: Library, Art-gallery

Presenter	Title	Code
Javier Donoso-Quezada	Exosomes as Nanocarriers for the Delivery of Bioactive Compounds from Black Bean Extract with Antiproliferative Activity in Cancer Cell Lines	NBNM-01
Tamia Yáñez	Biomechanical Analysis of Human Arm using Open Sim Program: Focused on Inverse Dynamics and Kinematics (withdrawal)	NBNM-02
Jorge Alfredo Uquillas	Natural Surface Architectures to Control Cell Fate	NBNM-03
Hector A. Cabrera-Fuentes	Nanoparticle Drug Delivery Systems for Prevention of Cardiovascular Disease	NBNM-04
Anay Lázaro-Alfaro	Development of Polymeric Nanovehicles for siRNA Delivery into Cardiac Cells	NBNM-05
Goldie Oza	Biosynthesized Au-Fe ₃ O ₄ Nanocomposites using Iterative Seeding of Au on Iron Oxide and their Applications in Drug Delivery, Magnetic Hyperthermia and MRI for Cancer Theranostics	NBNM-06
Alan R. Márquez-Ipiña	A Virus-free Fe ₃ O ₄ Nanoparticle-based Influenza Vaccine	NBNM-07
Víctor H. Sánchez Rodríguez	GelMA Semi-Automated Process: Halloysite Nanotubes Composite Scaffolds for 3D Cell Culture	NBNM-08
Jorge L. Cholula-Díaz	Cytotoxic Activity on Human Breast Cancer Cells of Green Synthesized Ag/Au Alloy Nanoparticles	NBNM-09
César A. Villalobos Díaz	Evaluation of the Antifungal Properties of Zinc Oxide and Titanium Dioxide Nanoparticles for the Control of Biodeterioration in Cultural Heritage	NBNM-10
Ivonne Contreras-Gamboa	Using Nanofiber Networks Derived from Turnip Mosaic Viral Particles in Cell-culture Applications	NBNM-11
Rafael Vazquez-Duhalt	Multifunctionalized Biocatalytic P22 Nanoreactor for Combinatory Treatment of ER+ Breast Cancer	NBNM-12
Omar Lozano-García	Development of a Polymeric Nanovector for Antioxidant Delivery in Cardiac Nanomedicine Applications	NBNM-13
Milena Ureña	Effect of a Bee Product Component on Human Cell Lines	NBNM-14
Edith Velázquez-Lam	Functionalization of Viral-derived Nanoparticles with Health-promoting Plant Biomolecules	NBNM-15
Karen Martirosyan	Superparamagnetic Nanostructured Media for Biomedical Applications	NBNM-16

Nanomaterials Processing and Characterization

Chair: Dr. Joaquín Oseguera-Peña

Location: Library, room 6A

Presenter	Title	Code
Calef Sánchez-Trasviña	Development and Characterization of PEGylated Chromatographic Monoliths as a Novel Platform for the Separation of PEGylated Proteins	NMPC-01
Beatriz De Los Santos-González	Chemical Modification of Chromatographic Monoliths with Dendron Structures for Recovery of Molecules with Biotechnologic Interest	NMPC-02
Angélica Hernández González	Development of a Novel Sun Skin Bioprotector using Silica Nanoparticles and Enriched with Antioxidants	NMPC-03
Gilberto E. García	Optimization of Surface Roughness on Slitting Knives by Titanium Dioxide Nanoparticles as an Additive in Grinding Lubricant	NMPC-04
Sreed Sharma Kanakillam	Nanostructured Cobalt Oxide Thin Films for Photocatalysis using Pulsed Laser Fragmentation in Liquid Technique	NMPC-05
Rafael Villaurrutia	Novel Solutions on Electron Microscopy for Nanomaterials Characterization	NMPC-06
Fernando Santiago	Analysis of Tribomechanical Behavior of AISI 8620 Steel Treated by Different Plasma Assisted Process	NMPC-07
María Paula Salinas	Electrodeposition of Metallic and Multimetallic Nanoparticles with Properties Electrocatalytic for Applications in the Generation and Storage of Energy	NMPC-08
Anirban Roy	Nanoscale IR Spectroscopy and Imaging Looking beyond the Diffraction Limit	NMPC-09
Cesar D. Rivera-Tello	The Methane Flow Dependence on the Micro-Tribological Properties of DLC Coatings made by PECVD	NMPC-10
Daniel Olvera-Trejo	Electrospray-jet printing of InZnO Thin Films Transistors	NMPC-11
Gladys Díaz Armas	Mechanical Characterization of Thin Film Biomaterials Using Centrifugal Microfluidics	NMPC-12
Stephen Muhl	Tribological Properties of TiOxNy thin films as a Function of the Relative Humidity	NMPC-13
Andrés López Velázquez	Evaluation of Graphene as a Reinforcement Material in a Solar Collector for Domestic Use	NMPC-14
José Medina	Prevention and Eradication of Microorganisms in Cultural Heritage using a Biocide made of Silver Nanoparticles	NMPC-15
Lina M. De León Covián	Carbon Nanofibers based on Polyacrylonitrile prepared by the Forcespinning Process, and their Application in Lithium-ion Batteries	NMPC-16
Martin Flores	Tribocorrosion and Wear Mechanism of Zr/ZrN/CNx Multilayers Deposited by HIPIMS on Ti6Al4V Biomedical Alloy	NMPC-17

Workshops

Location: Laboratories (WL)

Time: 14h30 – 16h30

Organizer	Title	Code
Flavio F. Contreras-Torres	Basic X-ray Diffractometry in Fundamentals of Nanoscience	WL-01
Laura Romero	Nanotechnology in Cosmetics: Learning about Liposomes and Nanoemulsions	WL-02
José Guillermo González	An Approach to Bionanotechnology and Bacterial Cultures: Production of Magnetic Nanoparticles	WL-03
José Guillermo González	The Use of the "Dynamic Light Scattering, DLS" Method as a Tool for the Characterization of Nanoparticles Size	WL-04
José Guillermo González	Nanocancer: Learning about the Recovery of Cellular Nanovesicles from Cancer Lines	WL-05
José Guillermo González	Dendritic Nanostructures for the Purification of Biomolecules	WL-06
Lázaro Huerta Arcos	X-ray Photoelectron Spectroscopy: Fundamentals and Applications in Nanomaterial	WL-07

Posters Contributions

Pabellón Carreta

16h30 – 18h30

Advance and Smart Materials

Presenter	Title	Code
Bryan Cerón	Device for Hand Motor Rehabilitation, Using Grip Force Sensing	ASM-P01
Axel Melchor Gaona-Carranza	Fabricating Perovskite Solar Cells: Evaluating Spin-Coating Methods	ASM-P02
Lizbeth Melo Maximo	Corrosion Protection Performance of 304L Steel in an Incinerator Atmosphere	ASM-P03
Martin Miranda López	Effect of the addition of Co3O4 Nanoparticles on the Electrical Properties and Microstructure of SnO2 Based Varistors	ASM-P04
Irvin Veloz Martínez	Biocompatibility analysis on PMMA based nanocomposites for potential application on cranioplasty: Homosapiens BJ fibroblasts proliferation and attachment study via fluorescent microscopy	ASM-P05
Alejandro Noguerón	Formaldehyde adsorption on hydrogenated aluminum nitride monolayer	ASM-P06
Rodrigo Cue Sampedro	Research on Low-e Nanocoatings on Glass Using PVD by Sputtering	ASM-P07
Ricardo Alva	Green Synthesis of Silver Nanoparticles for their Application in PEDOT:PSS Films with Electrochromic Effect	ASM-P08
Loamy Oliva	Micropartículas de Óxido de Zinc y su aplicación como bloqueador solar	ASM-P09
Blanca Cortes	Extraction of Citric Acid for the Cross-linking of Bioplastic	ASM-P10

Nanodevices

Presenter	Title	Code
Marcos De Donato	Development of an Electromagnet-Based Microfluidic Device for Separation and Analysis of Circulating Tumor Cells	NDV-P01
Alejandro Noguerón	Understanding the CoGa (100) Surfaces: An Ab-initio Study	NDV-P02

Lab-on-a-Chip

Presenter	Title	Code
Talia Sánchez	Design and Analysis of a 3D printed Continuous Microfluidic Cell Culture Device for the Expression of Recombinant Therapeutic Proteins	LOAC-P01

Nanophotonics

Presenter	Title	Code
Diana Pineda Vázquez	Light Reflectance of a Monolayer of Gold Nanoparticles System: Comparison between Theoretical Models and Experimental Measurements	NPT-P01

Nanobiotechnology and Nanomedicine

Presenter	Title	Code
Gabriela Torres	Optimization, Characterization and Encapsulation Efficiency Analysis of Eudragit L100 Nanoparticles loaded with Fenofibrate by Nanoprecipitation Method	NBNM-P01
Rodrigo Balam Muñoz Soto	Analysis of the cytotoxic effect of polymeric nanoparticles on A549 cell line	NBNM-P02
Alberto Rodríguez	Development of a Platform for Resveratrol Delivery: Optimization of PLGA-Resveratrol Nanoparticle Synthesis Through Combined Factorial-Fractional and Box-Behnken Design Methodologies	NBNM-P03
Pablo Soto Reyes Villada	Development of Biocompatible Nanoparticles for Efficient Probing in the Study of Nano-bio-interactions in Cardiac Cells.	NBNM-P04

Roberto Quintanilla Treviño	Development of a Platform for Resveratrol Delivery: Optimization of PLGA-Resveratrol Nanoparticle Synthesis Through Metaheuristic Algorithms	NBNM-P05
Paulina Hernández-Fontes	Development of a Platform for Resveratrol Delivery: Resveratrol-loaded Nanoparticles Optimization and ROS Modulation In Vitro in Cardiac Cells	NBNM-P06
Emmanuel Gaona Carranza	Biocompatibility in vitro Evaluation of Europium-doped Nanohydroxyapatite Scaffolds	NBNM-P07
Paula Eugenia Morales	Nano and Micro Dispersions of Two-phase Amorphous-Amorphous Drug Formulations as Strategy to Enhance Solubility of Pharmaceuticals	NBNM-P08
Abril Gomez-Guzman	Immobilization of Chlorella vulgaris and a consortium of Chlorella vulgaris, Pseudomonas putida and Bacillus cereus in Hydrogels of PEG-DA (575 Mn) with Photo-Interfacial Polymerization for the Removal of Nutrients from Wastewater	NBNM-P09
Paola García	Development of a Platform for Resveratrol Delivery: Functionalization of Resveratrol-loaded Nanoparticles and Hypertrophy Modulation in Cardiac Cells	NBNM-P10
Antonio Hernández	Use of Nanostructures to Measure High Energy Radiation	NBNM-P11
Héctor Chapoy Villanueva	Nanoliposomes: A Possible Nanovector-based Therapy for Cardiovascular Diseases	NBNM-P12
Carlos E. Guerrero-Beltrán	Delivery of Anti-Angiogenic siRNA by Neovessel Targeted Microparticles for Inhibiting Neovascularization in Atherosclerotic Lesions	NBNM-P13
Judith Bernal-Ramirez	Fusogenic Peptide H5WYG Functionalization Modifies Mesoporous Silica Nanoparticles Internalization	NBNM-P14
Hilda B. Sánchez Madrigal	Solubility Evaluation of Crystalline and Amorphous Irbesartan and Study of Co Amorphous System Irbesartan-Urea	NBNM-P15

Nanomaterials Processing and Characterization

Presenter	Title	Code
Edgar R López-Mena	Organic Fuel Concentration Effect on IZO TFT Performance Prepared by Combustion-assisted Solution Process	NMPC-P01
Antonio Jiménez-Rodríguez	Synthesis of Cu ₂ O Nanocubes and their Potential Application in Glucose Detection	NMPC-P02
Almendra Reyes	Biological Synthesis of Copper Nanoparticles Using Galphimia glauca and Taraxacum officinale	NMPC-P03
Milton Elías	Nano-Characterization of Unusual Polarization in Electron Ceramics	NMPC-P04
Alfonso Nieto Arguello	Green Synthesis and Characterization of Anisotropic Noble Metal Nanostructures	NMPC-P05
Yadira Vega-Cantú	A Simple Method for the Obtention of Carbon Nanoribbons from Multiwalled Carbon Nanotubes (MWCNTs)	NMPC-P06
Fernando García Escobar	Formulation and characterization of oil-in-water microemulsions for enhanced solubility and stability of curcumin	NMPC-P07
Andrés Aguirre	The Effects of Different Drying Methods on the Morphology and Physical Properties of Mesoporous Silica Nanoparticles	NMPC-P08
Diana Ofelia López Cantú	Solubility Study of Ibuprofen Co-crystals and its Characterization	NMPC-P09
Jose Ibarra	Behavior of Stainless Steel 440C, to Erosion by Impact of Solid Particles of SiO ₂	NMPC-P10
Karla Martínez	Comparación de las propiedades fisicoquímicas de mielato del Apis Mellifera de Calnali, Hidalgo y la marca comercial Carlota	NMPC-P11
Pamela Santos Aguilar	X-ray Diffraction Line Profile Analysis: A Study in Polymorphic TiO ₂ Nanostructures	NMPC-P12
Ariosto Medina	HRTEM Nanoparticles of Ti-Nb-Ta-Zr Obtained by Mechanical Alloying	NMPC-P13
Ariosto Medina	Corrosion Tests on 4140 Steel Nitride by Plasma	NMPC-P14
Delia Cristal Rivera Flores	Extracción de Aceite de Gaulteria de Planta de Axocopaque y su Síntesis a partir de Ácido Salicílico	NMPC-P15
Elaine Díaz Villagrán	Implementation of Scanning Tunneling Microscopy and Spectroscopy for achieving atomic resolution and the measurement of LDOS on HOPG and Graphite samples	NMPC-P16

Friday, November 30

Discussion Panel 2

09h00 – 10h00

Location: Library auditorium

Moderator: Dr. Javier Serrano

Presenter	Title	Code
Dr. Ricardo Guzmán	Consideraciones Socioculturales en el Surgimiento de las Nanotecnologías	DP2-01
Dr. Edgardo Ayala	Nanotecnología y Crecimiento Económico	DP2-02
Dr. Roberto Garza	Aspectos Legales de la Nanotecnología	DP2-03
Dr. Gerardo García-Rivas	Sistema Nacional de Evaluación Nanotoxicológica	DP2-04
Dr. Javier Serrano	Aproximación Ética a los Usos Agrícolas de la Nanotecnología	DP2-05

Nanotechnological Company Fair

09h00 – 17h00

Location: Carreta

Company	Responsible	Stand
Bruker México	Iván García	CF-01
TIL S.A. de C.V.	Brenda Rodríguez	CF-02
Nanociencias de México S.A. de C.V.	Marcela Espinoza	CF-03
Micromeritics	Marcela Espinoza	CF-04
Bruker USA	Stephen Ziegler	CF-05
Thermo Fisher Scientific	Pablo Reynoso	CF-06
Malvern Panalytical	Thelma Rivera	CF-07
Anton-Paar México S.A. de C.V.	Dante Flores	CF-08
Carrera INCQ-ITESM	Ana Victoria Benavides	CF-09
Posgrado en Nanotecnología-ITESM	Erika Murrieta	CF-10
American Chemical Society, Chapter Monterrey	Narda Baeza	CF-11
Intercovamex S.A. de C.V.	Luis Fernando García	CF-12
TA Instruments	Luis Amezquita	CF-13
CTR Scientific S.A. de C.V.	Samantha Cervantes Barraza	CF-14
PerkinElmer	Juan Gerardo Díaz	CF-15