



UNITED Scientific Group
A Non-profit Scientific Organization

NANO

Boston Conference

April 22-24, 2019

VENUE

Crowne Plaza Boston - Newton
320 Washington St, Newton, MA 02458
United States

Exhibitors

HEIDELBERG
INSTRUMENTS

 **Nano**
natureresearch

SPRINGER NATURE



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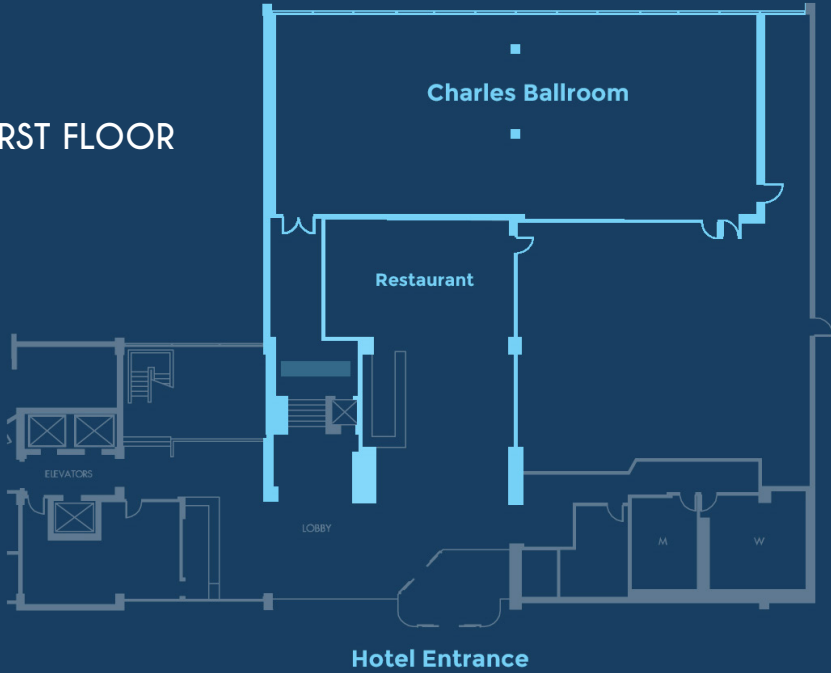


The event invitation code is: **nwnc**

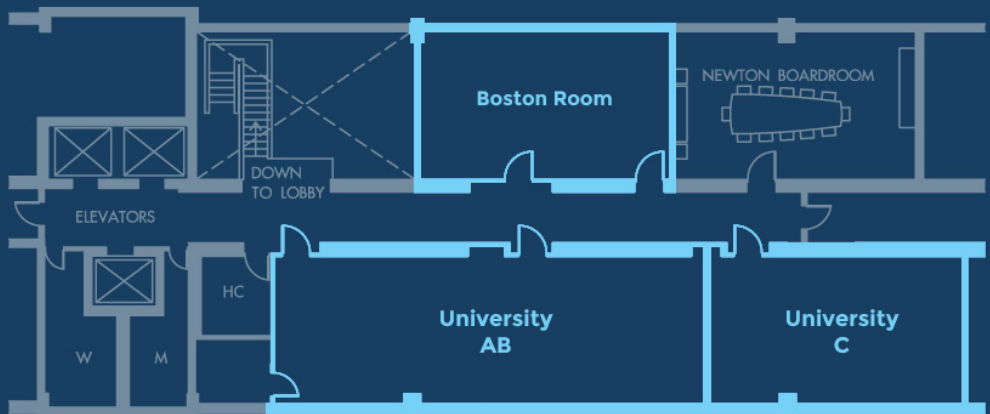
WiFi Network – IHG Connect | Password – Newton

Venue Floor Plan

FIRST FLOOR



SECOND FLOOR



- 08:30-10:00 NWC Boston-2019 Registrations
- 08:30-09:30 Welcome Coffee
- 09:20-09:30 Conference Introduction

Plenary Session

@ Charles Ballroom

- 09:30-10:15 **John C. Polanyi**
University of Toronto, Canada
STILL PLENTY OF ROOM AT THE BOTTOM; Surface Aligned Reaction Suggests New Paths to Nanofabrication
- 10:15-11:00 **Shaker A. Mousa**
Albany College of Pharmacy and Health Sciences, NY
Impact of Nanobiotechnology on the Future of Medicine: The Road from Nanomedicine to Precision Medicine

Keynote Session

@ Charles Ballroom

- 11:00-11:30 **Stephen D. Miller**, Northwestern University Medical School, IL
MARCO-Targeting PLG Nanoparticles Modulate Inflammatory Monocytes for Amelioration of (Neuro)Inflammatory Diseases
- 11:30-12:00 **Thomas J. Webster**, Northeastern University, MA
Two Decades of Commercializing Nanomedicine (with FDA Approval)
- 12:00-12:30 **Orlando Auciello**, University of Texas at Dallas, TX
Science and Technology of Multifunctional/Biocompatible Ultrananocrystalline Diamond (UNCD™) Coatings and Applications to a New Generation of Implantable Medical Devices
- 12:30-12:50 **Sponsor Introduction** @ Charles Ballroom
- 12:50-13:00 **Group Photo** @ Charles Ballroom
- 13:00-14:00 **Lunch** @ Restaurant
- 14:00-14:30 **Ahmed A. Busnaina**, Northeastern University, MA
Printing of Nano and Microscale Electronics and Sensors on Flexible or Rigid Substrates
- 14:30-15:00 **Li Qiu Wang**, The University of Hong Kong, Hong Kong
Love or Hate Water?
- 15:00-15:30 **Svetlana V. Boriskina**, Massachusetts Institute of Technology, MA
Energy-Saving & Comfortable Clothes from Recycled Plastic Bags
- 15:30-15:50 **Tea Break**

15:50-16:20 **Bhanu Jena**, Wayne State University, MI
Porosome: Cells Secretary Nanomachine

16:20-16:50 **Jae-Jin Shim**, Yeungnam University, South Korea
Development of Nanocomposites for Energy Storage and Photocatalysis

Symposium: **"Nanohydroxyapatite and Its Applications in Guided Bone Regeneration"**

16:50-17:20 **Mario E. Rodriguez Garcia**, National Autonomous University of Mexico, Mexico
Physicochemical Characterization of Nano Bio-Hydroxyapatite Obtained by Thermal Annealing

17:20-17:50 **Gilberto Lopez-Chavez**, Advanced Human Bioengineering, Mexico
Clinical Applications of Nano-Hydroxyapatite

Session -1 Nanotechnology and Nanosciences

@ Charles Ballroom

Chairs: *Ram Gupta*, Pittsburg State University, KS
Radmila Tomovska, University of the Basque Country, Spain

09:00-09:25 **Hai-Feng Ji**, Drexel University, PA
Recent Advance in Phosphorus Nanomaterials

09:25-09:50 **Ram Gupta**, Pittsburg State University, KS
Nanostructured Materials for Energy Generation and Storage

09:50-10:15 **Igor Linkov**, US Army Engineer Research and Development Center, MA
From Nano to Emerging Technologies: Lessons Learned from Risk Assessment and Management

10:15-10:40 **Radmila Tomovska**, University of the Basque Country, Spain
Waterborne 3D Graphene Based Self-Assembly Materials for CO₂ Capture

10:40-10:50 **Tea Break**

10:50-11:15 **G. Fred Lopez**, Northeastern University, MA
Nanoparticle Synthesis of Titanium Compounds via the Flow-Levitation Method, Applications, and Characterization

11:15-11:40 **Simone Musso**, Aramco Services Company, TX
Why Nano Matters for Completion: From Monitoring to Healing of Smart Cement

11:40-12:05 **Igor Levitsky**, Emitech Inc., MA
Silicon-Organic Nanocomposites as Chemical Sensors for Explosive Trace Detection

12:05-12:30 **Ofra Paz-Tal**, Nuclear Research Center, Negev (NRCN), Israel
Polydiacetylene (PDA)-TTA Vesicles –Nanostructure Arrays: A Potential Tool for Radionuclide Sensing

12:30-12:55 **Ethan Languri**, Tennessee Tech University, TN
Applications of Nanodiamond Colloids in Industry

12:55-13:15 **Prathik Roy**, SpringerNature, NY
Accelerating your Research Using Nature Research Group's AI Powered Nanotechnology Platform

13:15-14:00 **Lunch**

@ Restaurant

Chairs: *Jae-Jin Shim*, Yeungnam University, South Korea
Peter Baumli, University of Miskolc, Hungary

- 14:00-14:25** **Prantik Mazumder**, *Corning Research and Development Corporation, NY*
Nano-Engineering the Wetting, Optical and Adhesion Property Glass Surface and its Applications
- 14:25-14:50** **Mingda Li**, Massachusetts Institute of Technology, MA
Quantized Dislocations
- 14:50-15:10** **Zhaoyang Liu**, Hamad Bin Khalifa University, Qatar
Fast and Efficient Oil/Water Separation with ZnO Nanorods/Carbon Microfiber Composite Membranes
- 15:10-15:30** **Ge Wang**, University of Science and Technology Beijing, China
Constructing of Ultrathin 2D Material for Highly Efficiency Electrocatalysis
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- 15:30-15:40** **Tea Break**
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- 15:40-16:00** **Peter Baumli**, University of Miskolc, Hungary
Preparation and Characterization of Alkaline Metals Doped Zinc Oxide Particles and their Adsorption Behavior
- 16:00-16:20** **Doga Kavaz**, Cyprus International University, Turkey
Green Synthesis of Nano Particles from Agricultural Waste for Treatment of Oil Contaminated Water
- 16:20-16:40** **Shaikh Tofazzel Hossain**, SUNY Oneonta, NY
Cu-O-Ce Solid Solutions and CuO/CeO₂ Nanorods Catalysts for the Application of CO Oxidation
- 16:40-17:00** **Pei Zhao**, University of Waterloo, Canada
A Three-Electrode EPD System for the Deposition of Carbon Nanotubes onto Silicon
- 17:00-17:20** **Yongliang Wang**, China University of Mining and Technology, China
Adaptive Finite Element Analysis for Multistage Fracturing of Rock

17:20-18:15 **Posters Session**

@ University C Room

Chairs: *Hari Shanker Sharma, Uppsala University, Sweden*
Wong Tin Wui, Universiti Teknologi MARA, Malaysia

09:00-09:25 Hari Shanker Sharma, Uppsala University, Sweden
Alzheimer's Disease Neuropathology is Exacerbated Following Traumatic Brain Injury: Neuroprotection by Co-Administration of Nanowired Mesenchymal Stem Cells and Cerebrolysin

09:25-09:50 Renal Backov, University of Bordeaux, France
Integrative Chemistry toward "Out of the Box" Heterogeneous Catalysis

09:50-10:15 Yongmei Zheng, Beihang University, China
Bioinspired Wettability Surfaces: Development in Micro- and Nanostructures

10:15-10:40 Wong Tin Wui, Universiti Teknologi MARA, Malaysia
Current Progress in Nanocarrier Design for the Treatment of Lung and Metabolic Diseases

10:40-11:00 Tea Break

11:00-11:20 Huanchen Li, NanoSurgery Inc., MA
Nano Surgery

11:20-11:40 Aruna Sharma, Uppsala University, Sweden
Brain Injury Exacerbates Neuropathology of Sleep Deprivation: Superior Neuroprotection by Co-Administration of TiO₂-Nanowired with Alpha-MSH and Cerebrolysin

11:40-12:00 Maria Augustyniak, University of Silesia in Katowice, Poland
Chronic Exposure to Graphene Oxide can Influence on Life Expectancy and DNA Stability in *Acheta domesticus*

12:00-12:20 Jianjun Wei, University of North Carolina at Greensboro, NC
A Chip-Based Nano-Optic-Fluidic Biosensor for Protein Detection

12:20-12:40 Charles Jakobsche, Clark University, MA
A Versatile Platform for Adding Functional Properties to Amyloid Fibrils

12:40-13:40 Lunch @ Restaurant

Chairs: *Maria Augustyniak, University of Silesia in Katowice, Poland*
Yaping Zhao, Shanghai Jiao Tong University, China

13:40-14:05 Yaping Zhao, Shanghai Jiao Tong University, China
Production of Nanoparticles Based on Supercritical CO₂ Antisolvent Nanotechnology and its Application in Food and Pharmaceuticals

14:05-14:25 Rajnish Kumar Chaturvedi, CSIR-Indian Institute of Toxicology Research, India
Nanomedicine in Parkinson's and Alzheimer's Disease

- 14:25-14:45** **Mengistie L. Debasu**, University of Aveiro, Portugal
Highly Sensitive Near-Infrared (GdNd)₂O₃ Nanothermometers Operating in the Biological Windows
- 14:45-15:00** **Tianyuan Zhang**, Zhejiang University, China
Mesenchymal Stem Cell Engineering using Ferrimagnetic Nanocube for an Improved Ischemic Stroke Treatment
- 15:00-15:15** **Chevva Harish**, University of North Carolina at Greensboro, NC
Study of Growth Science of Bottom-Up and Solid-State Silver Nanowires (Ag NWs) and their Potential Application in Surface Enhance Raman Scattering (SERS) and Antibacterial Activities
- 15:15-15:30** **Khalaf Jasim**, University of Central Florida, FL
Targeted Chemotherapy Approach Based on Iron-Releasing Nanoparticle Conjugates for Triggered Metastatic Melanoma Therapy *in vitro*
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- 15:30-15:45** **Tea Break**
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- 15:45-16:00** **Marta Dziewiecka**, University of Silesia in Katowice, Poland
Evaluation of Selected Biological Parameters in *Acheta domesticus* after Long-Lasting Exposure to Graphene Oxide Nanoparticles in Food
- 16:00-16:15** **Emmanuel Eni Amadi**, University of Bradford, United Kingdom
***In vitro* Investigation into the Genotoxic Effects of Graphene Oxide on Human DNA before and after Exposure to Human Whole Blood from Healthy Individuals and Pulmonary Disease Patients: Asthma, COPD and Lung Cancer Patients**
- 16:15-16:30** **Thamonwan Angkuratipakorn**, Thammasat University, Thailand
Tailoring Cellulose Nanocrystals by Food Grade Cationic Surfactant (Lauric Arginate) for Stabilizing Edible Pickering Oil-in-Water Emulsion
- 16:30-16:45** **Ching Chang**, National Tsing Hua University, Taiwan
Growth of Nitrogen-Incorporated Ultra-Nano Crystalline Diamond with Acicular-Shaped Grains Using Si₃N₄ as Interface Layer and Study Its Application in Biosensor
- 16:45-17:00** **Ajmeeta Sangtani**, University of Maryland-College Park, MD
Intracellularly-Actuated Nanoparticle-Drug Bioconjugates for Overcoming Multidrug Resistance in Cancer Cells

17:20-18:15 **Posters Session**

@ University C Room

Keynote

- 08:30-09:00** **Yong Zhang**, Xi'an Jiaotong University, China
Development of High-Performance Ionization Sensors
- Chair:** *Tandabany Dinadayalane, Clark Atlanta University, GA*
- 09:00-09:25** **Yukiko Yasukawa**, Chiba Institute of Technology, Japan
Nano-Design of the Magneto-Optical Materials
- 09:25-09:50** **Issai Shlimak**, Bar Ilan University, Israel
Irradiation-Induced Metal-Insulator Transition in Monolayer Graphene
- 09:50-10:15** **Tandabany Dinadayalane**, Clark Atlanta University, GA
Computational Study on Binding of Histidine and Proline with Graphene in Gas and Aqueous Phases
- 10:15-10:40** **Chuan-Jian Zhong**, State University of New York at Binghamton, NY
Nano Catalysis for Sustainable Energy and Environment
- 10:40-11:00** **Tea Break**
- 11:00-11:20** **Basudev Pradhan**, University of Central Florida, FL
Hybrid Graphene-Perovskite Quantum Dot Phototransistor with High Responsivity
- 11:20-11:40** **Jelena Kosmaca**, University of Latvia, Latvia
Application of One-Dimensional GeSn, CuO and Bi₂Se₃ Nanomaterials in Nanoelectromechanical Switches
- 11:40-12:00** **Mian Akif Safeen**, University of Poonch, Pakistan
Non-Volatile, Reversible Metal Insulator Switching in Oxide Interfaces Controlled by Gate Voltage and Light
- 12:00-12:15** **Niloufar Yavarishad**, University of Wisconsin-Milwaukee, WI
Room-Temperature Self-Powered Energy Photodetector based on Optically-Induced Seebeck Effect in Cd₃As₂
- 12:15-12:30** **Elaheh Kheirandish**, University of Wisconsin-Milwaukee, WI
Free-Standing Two-Dimensional Alumina Grown by Graphene-Assisted Atomic Layer Deposition
- 12:30-12:45** **Kuan-Yu Chen**, National Tsing Hua University, Taiwan
Development of Fe₂O₃ Hollow Microspheres-Incorporated rGO Sponge for Effective Electromagnetic Wave Absorption
- 12:45-13:00** **Raheel Ahmed Janjua**, University of Science and Technology of China, China
Non-Conventional Ratiometric Upconversion Luminescence Remote Thermometry Based on Non-Thermally Coupled Levels of Er in High-Temperature Cubic Phase NaYF₄: Yb, Er

13:00-13:15 **Best Poster Presentation Awards and Closing Remarks****13:15-** **Lunch & Departures**

- P-01** Ana Carolina Lopez de Dicastillo, University of Santiago, Chile
Novel Antimicrobial Nanostructures with Different Morphologies Obtained by Atomic Layer Deposition Processes Over Electrospun Matrixes
- P-02** Shoroog Alraddadi, Umm Al-Qura University, Saudi Arabia
The Effect of Oxygen Pressure on the Magnetic and Transport Properties of Ultra-Thin Magnetite Films
- P-03** Siwapon Srisonphan, Kasetsart University, Thailand
Graphene-Si Field Effect Photodetector
- P-04** Laxmi Kafle, Chonbuk National University, South Korea
Catalytic Reduction of 4-Nitrophenol by Magnetically Recoverable Silver Metal Nano-Composite
- P-05** Laura Romero Castillo, University of Castilla-La Mancha (UCLM), Spain
Neutral High-Generation Phosphorus Dendrimers Inhibit Macrophage-Mediated Inflammatory Response *in vitro* and *in vivo*
- P-06** Mate Czagany, University of Miskolc, Hungary
Effect of Surfactants on the Ni-P Bath and on the Formation of Electroless Ni-P-TiC Nanocomposite Coatings
- P-07** Dheeraj Varanasi, University of Miskolc, Hungary
Effect of Alloying Elements on the Steel-Cu Joint Microstructure at Smaller Holding Time
- P-08** Laszlo Somlyai-Sipos, University of Miskolc, Hungary
Synthesis and Investigation of Nickel and Copper Nanoparticles
- P-09** Ruma Maji, University of Kwazulu Natal, South Africa
pH-Responsive Lipid Hybrid-Dendrimer Nanoparticles: To Combat Anti-Bacterial Drug Resistance
- P-10** Barbara Flasz, University of Silesia in Katowice, Poland
Vitellogenin Expression after Graphene Oxide Intoxication and Therapeutic Effect of Ascorbic Acid in *Acheta domesticus*
- P-11** Valeria del Campo, Federico Santa Maria Technical University, Chile
Electrical Conduction in the Ag/Si Interface of Silicon Solar Cells
- P-12** Jovian Lazare, Clark Atlanta University, GA
Binding Affinities of Selected Aliphatic α -Amino Acids with Graphene: A Computational Study
- P-13** Sung Mi Jung, Korea Institute of Toxicology, South Korea
Functional Inorganic Nanomaterial Aerogels for Chemical Sensor Applications
- P-14** Eun Gyung Lee, National Institute for Occupational Safety and Health (NIOSH), DC
Characterization of Aerosolized Particles from Nanoclay Composites during Manipulation Processes

- P-15** **Xiao-Fei Zeng**, Beijing University of Chemical Technology, China
Monodispersed Functional Nanoparticles Prepared by HGRT Technology and their Applications in Transparent Polymer-Based Nanocomposites
- P-16** **Yuan Le**, Beijing University of Chemical Technology, China
Polymerization of n-Butyl Cyanoacrylate as Drug Carrier Using High Gravity Technology
- P-17** **Herlys Viltres Cobas**, University of Western Ontario, Canada
A Possible Interaction Mechanism between Arsenite Species and $\text{Fe}_3\text{O}_4@ \alpha\text{-FeOOH}$ Nanoparticles in Aqueous Medium
- P-18** **Xiaowei Tian**, The University of Hong Kong, Hong Kong
Engineering Embolic Particles from a Periodically-Pulsating Charged Liquid Meniscus



We wish to meet again at

NWC Boston

April 20-22, 2020

Boston, MA



UNITED Scientific
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NANO Boston Conference

8105, Rasor Blvd - Suite #112, PLANO, TX 75024

Ph: +1-408-426-4832, +1-408-426-4833

Toll Free: +1-844-395-4102; **Fax:** +1-408-426-4869

Email: nwc@nanoworldconference.com

Web: <https://nanoworldconference.com/>