



5th Workshop

NANOTECHNOLOGIES FOR 21st CENTURY

COOPERATION EVENT BETWEEN ALBANIA, JAPAN AND SPAIN

Tirana, Albania (October 31st, 2024)

This Workshop aims to keep the collaboration between the three countries, Albania, Japan, and Spain in the field of Nanoscience and Nanotechnologies and their applications in important areas such as life sciences, information technologies and energy. Scientists and representatives from institutions of the three countries will share ideas about collaboration opportunities and research support programs in the research and development including cooperation with industry in the field of nanotechnology.

LOCATION: NanoBalkan2024 will take place in Tirana, Albania

DATE: October 31, 2024

ORGANISERS:

Event organized by Phantoms Foundation (Spain) with the support from Spain of ICN2, CERCA, BIST, from Albania of NanoAlb, Academy of Sciences and from Japan of Univ. Keio, Univ. Tokyo and the embassies of Spain and Japan in Albania.

ORGANISING COMMITTEE

Antonio Correia (Phantoms Foundation, Spain) - Coordinator

Arben Merkoçi (ICN2, Spain) – Co-Coordinator

Ruslán Alvarez (ICN2, Spain)

Majlinda Vasjari (NanoAlb, University of Tirana, Albania)

Kledi Xhaxhiu (*NanoAlb, University of Prishtina*)

TENTATIVE PROGRAM

9:00-9:30 Welcome, Organizers & Representatives from the Embassies of Japan and Spain in Tirana



Spain

9:30-9:45 Prof. Javier Rodríguez Viejo (*UAB Professor and Senior Group Leader, Universitat Autònoma de Barcelona, Spain*), “Thermal and thermoelectric properties of low dimensional and disordered solids.”

9:45-10:00 Dr. Elena del Corro (*Senior Researcher, Advanced Electronic Materials and Devices, Catalan institute of nanoscience and Nanotechnology, Barcelona, Spain*) “New generation of advanced and multifunctional neural interfaces based on novel materials”

10:00-10:15 Prof. Aitor Mugarza (*ICREA Research Professor ATOMIC MANIPULATION AND SPECTROSCOPY GROUP, Catalan institute of nanoscience and Nanotechnology, Barcelona, Spain*) “Bottom-up strategies for low-dimensional nanoarchitectures”

10:15-10:30 Prof. Daniel Maspoch (*ICREA Research Professor, SUPRAMOLECULAR NANOCHEMISTRY AND MATERIALS, Catalan institute of nanoscience and Nanotechnology, Barcelona, Spain*) “Title to be sent”

10:30-10:45 Brainstorming and session closing

10.45-11:15 Coffee break and Networking



Japan

11:15-11:30 Prof. Yasuaki Einaga (*Keio University*) “Electrochemical CO₂ reduction by Boron-doped Diamond Electrodes”

11:30-11:45 Dr. Mai Tomisaki (*Kyushu University*) “Efficient and Flexible Generation of Hydrogen and Oxygen from Water Decomposition”

11:45-12:00 Prof. Gjergj Dodbiba (*The University of Tokyo*) “Measuring Nanoparticle Size Distribution in a Fluid Using an Interactive Force Apparatus Under an Electric Field.”

12:00-12:15 Prof. Yuya Oaki (*Keio University*) “Introduction of Simple AI in Experimental Laboratory: Sparse Modeling for Small Data”

12:15-12:30 Prof. Takeshi Kondo (*Tokyo University of Science*) “Application of Boron-doped Diamond Powder to Electrolytic Processes”

12:30-12:45 Prof. Takashi Uemura (*The University of Tokyo*) “Metal-Organic Frameworks for Advanced Polymers”

12:45-13:00 Brainstorming and session closing

13.00-14:30 Lunch



Albania

14:30-14:45 Prof. Anila Hoda (*Agriculture University of Tirana, Nanoalb*) “Unveiling the Potential of Mercuric Reductase from *Pseudomonas fluorescens*: Structural Insights, Functional Mechanisms, and Bioremediation Applications”

14:45-15:00 Prof. Fetah I. Podvorica (*University of Prishtina, Nanoalb*) “Tethering lignite surface with organic layers”

15:00-15:15 Prof. Kledi Xhaxhiu and Nensi Isak (*NanoAlb,, University of Tirana*) “Extractive stripping voltammetry combined with nanosensors– a promising electrochemical approach for various applications”

15:15-15:30 Prof. Avni Berisha (*NanoAlb, University of Prishtina*) “Molecular Docking and Adsorption of 'forever molecules': Per- and Polyfluoroalkyl onto 2D Carbon Nanomaterials”

15:30-15:45 Prof. Albana Hasimi and Partizan Malkaj (*Polytechnic University of Tirana, NanoAlb*) " Potential use of PVA modified with MMT in medical masks. Case study: Incorporation of lavender oil in PVA/MMT "

15:45-16:00 Prof. Majlinda Vasjari (*University of Tirana, NanoAlb*) “Fabrication of printed electrochemical sensors for pollution monitoring”

16:00-16:15 Brainstorming and session closing

16:15-16:45 Coffee break and Networking