

2. Internal and external mobility for dissemination of results (conferences, participation in international scientific congresses), year 2024 (third year). <https://bionanosurf.ugal.ro/>

In 2024, it was possible to participate in **two international scientific conferences** with **4 papers presented orally**, exceeding the number proposed in the implementation plan, as follows:

Three professors and scientific researchers from the Lower Danube University in Galati, members of the scientific research project 102/2024 or collaborators participated, with KeyNote or Oral scientific presentations, at the **International Conference on Materials Science, Engineering and Technology Scientific Session, 10-12 September 2024, Furama RiverFront, SINGAPORE**. The theme of the conference was: "Shaping The Future Through Materials Research And Innovation".

<https://www.chemistryviews.org/2nd-international-conference-on-materials-science-engineering-and-technology-2024/>

www.materialsconference.net



<https://materialsconference.net/conference-abstract-book/>

<https://materialsconference.net/conference-program/>

The three scientific papers were named and presented as follows:

2.1. Session 1: OPENING AND PLENARY SESSION, 10 September 2024.

Keynote Talk at Session 9: Materials Horizons for New Edge Technology.

Title: Nanoporous TiO₂ film obtained electrochemically on Ti6Al4V implant alloy.

Presenter: Lidia Benea, Dunărea de Jos university of Galati, Romania.

Authors: Lidia Benea, Daniela Laura Buruiană.

<https://materialsconference.net/conference-abstract-book/>

<https://materialsconference.net/conference-program/>



2.2. Session 4: BIOMATERIALS and BIODEVICES, 10 September 2024

Oral presentation.

Title: Corrosion behavior of 316L stainless steel structures in salivary solutions in the presence of lactic acid.

Presenter: Daniela Laura Buruiană.

Authors: Daniela Laura Buruiană, Lidia Benea.

<https://materialsconference.net/conference-abstract-book/>

<https://materialsconference.net/conference-program/>



2.3. Session 20: ADVANCED MATERIALS FOR SUSTAINABILITY AND INNOVATION

Keynote Talk:

Title: Surface functionalization of zinc with polymers by electrochemical techniques for enhanced properties.

Presenter: Alina Crina Ciubotariu

Authors: Alina Crina Ciubotariu, Lidia Benea.

<https://materialsconference.net/conference-abstract-book/>

<https://materialsconference.net/conference-program/>



2.4. Chair Session 9.

At this conference, professor Lidia Benea was chair at Session 9: Materials Horizons for New Edge Technology, 11 September 2024.

Session 9: Materials Horizons for New Edge Technology.

<https://materialsconference.net/conference-program/>

SESSION 9: MATERIALS HORIZONS FOR NEW EDGE TECHNOLOGY

Date: 11 September 2024
Time: 09:00-10:30 (SGT)
Room B: Mercury II (Level 5)
Chair: Lidia Benea, *Dunarea de Jos University of Galati, Romania*

09:00-09:20 Invited Talk (Virtual)

Title: Native point defect control of Schottky barriers and piezovoltage in ZnO nanowires
Leonard J Brillson, *The Ohio State University, United States*

09:20-09:40 Invited Talk (Virtual)

Title: Acoustofluidics-enabled Raman spectroscopy of living human red blood cells in a 3D-printed chip
Ueslen Rocha Silva, *Federal University of Alagoas, Brazil*

09:40-10:00 Invited Talk (Virtual)

Title: Harvesting neutralization energy creatively
Guo-Ming Weng, *Shanghai Jiao Tong University, China*

10:00-10:20 Invited Talk (Virtual)

Title: Developing carbon materials for energy storage solutions
Manmatha Mahato, *Korea Advanced Institute of Science and Technology, South Korea*

10:20-10:30 e-Poster Presentation (Virtual)

Title: Electrical and thermal properties of XLPE based nanocomposites for cable insulation
Nur Amira Nor Arifin, *Cable Diagnostics Laboratory, TNB Research, Malaysia*

10:30-11:00 Networking Coffee/Tea Break at Conference Area, Level 5

13

11 SEPTEMBER 2024: DAY 2

SESSION 8: PLENARY SESSION

Date: 11 September 2024
Time: 09:00-10:30 (SGT)
Room A: Mercury III (Level 5)
Chair: John Zhou, *University of Technology Sydney, Australia*

09:00-09:30 Keynote Talk

Title: Emerging semiconductor ionic materials and advanced fuel cells
Bin Zhu, *Southeast University, China*

09:30-10:00 Keynote Talk

Title: Designing and optimizing alternant and non-alternant nanographenes for spintronic and optoelectronic applications
Aristides Zdetis, *University of Patras, Greece*

10:00-10:30 Keynote Talk

Title: Phonon-mediated microfluidic synthesis, processing and manipulation of two-dimensional and bulk crystals
Leslie Yeo, *Royal Melbourne Institute of Technology, Australia*

SESSION 9: MATERIALS HORIZONS FOR NEW EDGE TECHNOLOGY

Date: 11 September 2024
Time: 09:00-10:30 (SGT)
Room B: Mercury II (Level 5)
Chair: Lidia Benea, *Dunarea de Jos University of Galati, Romania*

09:00-09:20 Invited Talk (Virtual)

Title: Native point defect control of Schottky barriers and piezovoltage in ZnO nanowires
Leonard J Brillson, *The Ohio State University, United States*

09:20-09:40 Invited Talk (Virtual)

Title: Acoustofluidics-enabled Raman spectroscopy of living human red blood cells in a 3D-printed chip
Ueslen Rocha Silva, *Federal University of Alagoas, Brazil*

09:40-10:00 Invited Talk (Virtual)

Title: Harvesting neutralization energy creatively
Guo-Ming Weng, *Shanghai Jiao Tong University, China*

10:00-10:20 Invited Talk (Virtual)

Title: Developing carbon materials for energy storage solutions
Manmatha Mahato, *Korea Advanced Institute of Science and Technology, South Korea*

10:20-10:30 e-Poster Presentation (Virtual)

Title: Electrical and thermal properties of XLPE based nanocomposites for cable insulation
Nur Amira Nor Arifin, *Cable Diagnostics Laboratory, TNB Research, Malaysia*

10:30-11:00 Networking Coffee/Tea Break at Conference Area, Level 5

Date: 11 September 2024; Time: 09:00-10:30 (SGT).

Room B: Mercury II (Level 5)

Chair: Lidia Benea, *Dunarea de Jos University of Galati, Romania.*

<https://materialsconference.net/conference-program/>

2.5. Adrian Mazilu, **Lidia Benea**, Vasile Basliu.

Corrosion Resistance in Seawater of Low Alloy Steels BVDH36 and LRAH36.

Paper presented at:

12th Edition of SCDS-UDJG, **Scientific Conference of Doctoral Schools from "Dunărea de Jos" University of Galati**, 6th and 7th of June 2024, Section "Future of Nanotechnologies, Functional Materials and Coatings".



<https://cssd-udjg.ugal.ro/>

<https://cssd-udjg.ugal.ro/index.php/programme>