

CURRICULUM VITAE

Personal data

Name: Lucian BAIA

Year of birth:

Citizenship:

Web page

E-mail addresses

Scopus Author ID

ORCID

Google Scholar

Academic qualifications

04.03.2014 Habilitation thesis defense

10.1999-02.2003 PhD in Nature Sciences, Institute of Physical Chemistry (IPC), Julius Maximilians University, Würzburg, Germany

10.1998-06.1999 Master Degree in Physics, Oxide materials, Faculty of Physics, Babeş-Bolyai University (UBB), Cluj-Napoca, Romania

10.1994-06.1998 Degree in Physics, Mathematical-Physics, Faculty of Physics, UBB

10.1990-06.1995 Degree in Machine Building Engineer, Faculty of Machine Building Technical University, Cluj-Napoca, Romania

Current and previous positions

03.2021-present Full Professor at the Faculty of Physics, UBB

06.2014-present Senior Researcher at the Centre of Nanostructured Materials and Bio-nano-interfaces, Institute of Interdisciplinary Research in Bio-Nano-Sciences, UBB

03.2008-03.2021 Associate Professor at the Faculty of Physics, UBB

10.2003-03.2008 Lecturer at the Department of the Condensed State Physics and Advanced Technologies, Faculty of Physics, UBB

Other professional experience

10.2022-present Coordinator of the BioMedical Engineering & Technology (UBBMed-Tech) Section in the UBBMed Program within UBB School of Health

06.2022-06.2024 Coordinator of the Center for Virtual & Practical Engineering associated with the School of Engineering and Technology of UBB

2021-present Coordinator of the InfoBioNano4Health Platform: Inter-trans- and multi-

	disciplinary Health Infrastructure of UBB (included in the national Roadmap)
2020-present	Member of the Socio-Economic Council of UBB
08.05.2020-present	Member of the Materials Science Commission of the National Council for Scientific Research
24.11.2020-present	Coordinator of the Research Centre "Life in External Physical Conditions", Emil G. Racovita Institute for the Study of Life in Extreme Conditions, UBB
07.2017-present	Director of the Institute for Research-Development-Innovation in Applied Natural Sciences, UBB
07.2017-present	Coordinator of the Advanced Materials and Applied Technologies Laboratory, Institute for Research, Development and Innovation in Applied Natural Sciences, UBB
01.11.2016-present	Coordinator of the Laboratory for the study of materials used in photocatalytic applications, Research Centre of the Condensed Matter and Advanced Materials, Faculty of Physics, UBB
2003-present	Member of the Romanian Society of Physics
10.2005-06.2006	Post-doctoral senior researcher at IPC, Friedrich Schiller University (FSU), Jena, Germany, Head: Prof. Dr. Jürgen Popp
03.2005-05.2005	Invited visiting researcher at IPC, FSU, Jena, Head: Prof. Dr. Jürgen Popp
01.1998-04.1998	Erasmus-Socrates master student at the IPC, Julius Maximilians University, Würzburg, Germany, Head: Prof. Dr. Wolfgang Kiefer

Teaching activity

Courses in the **materials science** field (*Bachelor level*: Introduction to Nanotechnology, Heterogeneous Materials. Technological Applications; *Master level*: Nanotechnology for energy; Advanced Functional Materials; *PhD level*: Nanostructures and Macromolecular systems).

Research interest

Materials/nanostructures with tunable morphology and structure for environmental (photocatalysis) biomedical (tissue engineering) and technological applications

Additional information (books, book chapters, patents, editorial board member, awards, etc.)

- **Papers**: 161 in ISI journals, 203 in peer-reviewed journals; 3309 citations (without self-citations) and **h-index**: 32 (WOS at 07.12.2024), 5120 citations and **h-index**: 40 (GS at 07.12.2024);

- **Reviewer**: for journals (e.g., Appl. Mater. Today, Mater. Today Energy, Catal. Today, Sci. Reports, etc.); for Elsevier Books selection

- **Books and book chapters:** 11 book chapters (4 Elsevier, 1 Springer, 3 Wiley-Scrivener, and 3 in international Publishing Houses) and 3 books

- **Co-Editor of the Elsevier book** entitled *Advanced Nanostructures for Environmental Health*, ISBN: 9780128158821, in the series *Micro and Nano Technologies*, 582 pages, November 2019

- **Member of the Editorial Boards of Scientific Journals:**

Catalyst, IF: 4.14, https://www.mdpi.com/journal/catalysts/sectioneditors/catalytic_materials;

Molecules, IF: 4.4, <https://www.mdpi.com/journal/molecules/editors>,

Materials, IF: 3.62, <https://www.mdpi.com/journal/materials/editors>,

Exploration of BioMat-X, https://www.explorationpub.com/Journals/ebmx/Editorial_Board,

Eurasian Journal of Analytical Chemistry, [Editorial Team | Eurasian Journal of Analytical Chemistry](#);

- **Patents:**

European Patent Application:

(1) Processes for obtaining nanocomposite food packages (EP 3078275 A1/ 12.10.2016);

National Patents:

(1) Procedure of obtaining nanocomposites based on aerogel and noble metals with double functionality (RO 129023 B1, 2017);

(2) Procedure of obtaining graphene based materials by exfoliation (RO 131216 B1, 2017);

(3) Porous bioactive glass doped with gold nanoparticles (RO 132343, 2016);

(4) Procedure of obtaining composite materials „Nanoporous coal / bismuth and iron nanoparticles / titanium oxide" with analytical and photodegradation properties (RO 133255 B1, 2020);

(5) Procedure for obtaining food packages from nanostructured materials, (RO 130496, 2022);

National Patent application:

(1) Medical thoracolumbar elastic corset for new pets (rats, hamsters dwarf rabbits) (RO 138364A0, 2024);

- **Research projects (as project director/project leader):**

National

- **Complex Project carried out in RDI consortia:** *Graphene Oxide Composite Materials for Improving the Fire Performance of Building Components and Installations to Protect Life in the Event of Fire*, Project Code: 38PCCDI/2018, period 2018-2021, responsible UBB, UBB budget: 2 663000 lei (approx. 550000 Euro), funded by UEFISCDI, <https://uefiscdi.gov.ro/>.
- **Project IDEI:** *Design of composite nanoarchitectures for the production of hydrogen sidepolluting the environment*, Project Code: PN-II-ID-PCE-2011-3-0442, period 2011-2016, project director, project budget: 1500000 lei (approx. 330000 Euro), financed by UEFISCDI, <https://uefiscdi.gov.ro/>.
- **Excellent research projects for young researchers:** *New nano-composites based on TiO₂ aerogels and noble metals with applications in water quality purification and monitoring*, Project code: CEEX-ET no. 5911/2006: period 2006-2007, project director, project budget: 18 300 lei (approx. 40 160 Euro), funded by UEFISCDI, <https://uefiscdi.gov.ro/>.

International

- **Project M-ERANET:** *Smart functions of packages containing nanostructured materials in food, SMARTPACK*, Project Code: MNT-ERANET 7-065/2012, period 2012-2015, responsible UBB for the period 2014-2015, UBB budget: 80000 Euro, funded in Romania through UEFISCDI, <https://uefiscdi.gov.ro/>.
- **BMBS COST Project, Action BM1401:** *Raman-based applications for clinical diagnostics, Raman4clinics, Management Committee substitute for Romania*, 2014-2019.
- **Research projects (as a member of the project team):** 14 national projects and 4 international ones
- **Prizes and Awards:**
 - Comenius Prize (2011) of the UBB;
 - “Constantin Miculescu” Prize of the Romanian Academy (2017);
 - Prizes for Scientific Excellence (2014, 2017 and 2020)
 - Advanced Materials Award 2024 awarded by the International Association of Advanced Materials in recognition of innovative research in the field of Advanced Materials Science and Technology
 - Gold medal for the patent RO 129023 B1 (see above) at the 10th European Exhibition of Creativity and Innovation EUROINVENT 2018, Iasi, 17-19 May;

- *Gold medal* for the *patent RO 129023 B1 (see above)* at the *16th International Exhibition of Research, Innovations and Inventions PRO INVENT 2018*, Cluj-Napoca, 21-23 March 2018;
- *Silver medal* for the *patent RO 131216 B1 (see above)* at the *10th European Exhibition of Creativity and Innovation EUROINVENT 2018*, Iasi, 17-19 May;
- *Gold medal* for the *patent RO 132343 B1 (see above)* at the *14th European Exhibition of Creativity and Innovation EUROINVENT 2022*, Iasi, 26-28 May;
- *Silver medal* for the *patent EP 3078275 A1 (see above)* at the *15th European Exhibition of Creativity and Innovation EUROINVENT 2023*, Iasi, 11-13 May;
- *Gold medal* for the *patent EP 3078275 A1 (see above)* at the *27th International Exhibition of Inventions, INVENTICA 2023*, Iasi, 21-23 June.
- *Gold medal* for the *patent EP 3078275 A1 (see above)* at the *9th edition of the International Exhibition of Inventions and Innovations, TRAIAN VUIA" 2023* Timisoara, 15-17 June.
- *Gold medal* for the *patent EP 3078275 A1 (see above)* at the *21st International Exhibition of Research, Innovations and Inventions PRO INVENT 2023*, Cluj-Napoca, 25-28 October