PERSONAL INFORMATION

ION Lucian

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Sex M | Date of birth 31/01/1967 | Nationality Romanian

WORK EXPERIENCE

1992-present

Dean of the Faculty of Physics, University of Bucharest (since 2019)
Professor (since 2015)
Associate Professor (2006-2015)
Lecturer (2003-2006)
Assistant Professor (1992-2003)

University of Bucharest, http://www.unibuc.ro

- Teaching experience: lectures on Solid State Physics, Semiconductor Physics, Physics of Mesoscopic Systems, Parallel Computer Programming
- Research experience: investigation techniques for electronic structure of crystalline semiconductors and nanostructures, electron-phonon coupling, semiconducting thin films and applications to optoelectronics and photovoltaics

Business or sector Higher education, research

1991-1992

Junior researcher

Research Institute for Electronic Components, 126A, str. Erou Iancu Nicolae, 077190, București, România

- Research experience – semiconducting thin films and applications

Business or sector Scientific research

EDUCATION AND TRAINING

1996 - 2002

Ph.D. degree in Condensed Matter Physics — EQF Level 8

University of Bucharest, Bucharest, Romania

- semiconductor thin films, theoretical and experimental study of defects, electronic and optical properties

1992 - 1993

DEA Physique des Solides — EQF Level 7

Universite Paris-Sud, France

- Theoretical and experimental methods in solid state physics

1986 - 1991

Engineer degree — EQF Level 6

University of Bucharest, Faculty of Physics

- Theoretical and experimental methods in semiconductor physics

PERSONAL SKILLS

Mother tongue(s): Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

French	C1	C2	C1	C1	C2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills
- good communication skills gained through my experience as professor and manager

Organisational / managerial skills
- leadership (currently Dean of Faculty of Physics)

Job-related skills
- Theoretical and experimental methods in solid state physics, particularly electronic structure and defects in semiconductors and semiconductor nanostructures, charge transport and optical properties.

Computer skills
- Proficient in C/C++, MPI, Python, PHP programming

Other skills
- network administration, administration of computer clusters (skills gained through my experience as scientist)

Driving licence
- B

ADDITIONAL INFORMATION

Publications
Presentations
Projects
Conferences
Seminars
Honours and awards
Memberships
References

Author / co-author of 82 scientific papers, books (în Romanian) and book chapters
Relevant book chapters (selection):
- G.A. Nemnes, U. Wulf, L. Ion, S. Antohe, “Ballistic Transistors: From Planar to Cylindrical Nanowire Transistors”, pp. 133-148, in “Trends in Nanophysics: Theory, Experiment and Technology”, A. Aldea, V. Birsan (Eds.) (Springer Verlag, Berlin, 2010)

Selected scientific papers:
- CA Pantis-Simut, AT Preda, L Ion, A Manolescu, GA Nemnes, Mapping confinement potentials and charge densities of interacting quantum systems using conditional generative adversarial networks, Machine Learning - Science and Technology, **4**, 025023 (2023)
- Irina Radu, VA Antohe, S Iftimie, A Radu, M Filipescu, L Ion, M Dinescu, S Antohe, On the physical and photo-electrical properties of organic photovoltaic cells based on 1,10-Phenanthroline and 5,10,15,20-Tetra(4-pyridyl)-21H,23H-porphine non-fullerene thin films, Applied Surface Science, **531**, 147332 (2020)
- TL Mitran, GA Nemnes, L Ion, D Dragoman, Ballistic electron transport in wrinkled superlattices, Physica E: Low-dimensional Systems and Nanostructures **81**, 131-135 (2016).
- Camelia Florica, Andreea Costas, Andra Georgia Boni, Raluca Negrea, Lucian Ion, Nicoleta Preda, Lucian Pintilie, Ionut Enculescu, Electrical properties of single CuO nanowires for device fabrication: Diodes and field effect transistors, Applied Physics Letters **106**, 223501 (2015).
- GA Nemnes, C Goehry, TL Mitran, Adela Nicolaev, L Ion, S Antohe, N Plugaru, A Manolescu, Band alignment and charge transfer in rutile-TiO 2/CH 3 NH 3 PbI 3− x Cl x interfaces, Physical Chemistry Chemical Physics **17,** 30417-30423 (2015).
- TL Mitran, A Nicolaev, GA Nemnes, L Ion, S Antohe, Magnetic behavior and clustering effects in Mn-doped boron nitride sheets, Journal of Physics: Condensed Matter **24**, 326003 (2012)
- TL Mitran, A Nicolaev, GA Nemnes, L Ion, S Antohe, Ab initio vibrational and thermal properties of AlN nanowires under axial stress, Computational Materials Science **50**, 2955-2959 (2011).
- DEN Brancus, L Ion, Optical phonon spectrum and the Fröhlich Hamiltonian in würtzite-type nanotubes, Journal of Physics: Condensed Matter **21**, 485301 (2009).
- DEN Brancus, L Ion, Full optical phonon spectrum and Fröhlich Hamiltonian in wurtzite-type free-standing quantum well wires, Physical Review B **76**, 155304 (2007).
- L. Ion, S Antohe, Electron-irradiation effects on CdSe thin films investigated by thermally stimulated current method, Journal of Applied Physics **97**, 013513 (2005).

Relevant projects:
- Confinement effects on bound-polaron in q-1D heterostructure made of wurtzite-type materials (2010-2011, project coordinator)
- Photodetectors based on multisegment nanowires (2007-2010, team coordinator).

Member of European Physical Society and of Romanian Physical Society.

Semnatar: Ion Lucian
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