PERSONAL INFORMATION



LUPU NICOLETA

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Nationality	Romanian
Date of birth	27 September 1972

WORK EXPERIENCE

• Dates (from – to)	September 2004 - present
• Name and address of employer	National Institute of Research and Development for Technical Physics 15 (ex-47) Mangeron Boulevard, PO 3, PO Box 833, 700050 Iasi, Romania
• Type of business or sector	Research and Development
• Occupation or position held	2nd Grade Scientific Researcher (CS II) (September 2004- February 2015) 1st Grade Scientific Researcher (CS I) (February 2015-present) Head of Magnetic Materials and Devices Department (2004-2011) Interim General Director (22 June 2011 - 21 December 2015) General Director (23 December 2015 – present)
• Main activities and responsibilities	Co-organized and coordinated research projects for the investigation of magnetization processes and coercive field mechanisms in amorphous and nanocomposite magnetic materials. Organized and led research projects for the modeling of topological and magnetic structures in amorphous and nanocomposite alloys, as well as in nanomaterials (nanowires, nanopwders). Theoretical and experimental studies on the mechanisms leading to the increase of the glass-forming ability in multicomponent magnetic systems and formation of bulk amorphous shaped alloys. Theoretical studies on the interplay between microstructure and magnetic properties in bulk amorphous magnetic alloys. Studies related to the applications of magnetic and magnetostrictive materials in different conventional and novel applications. Design, preparation and characterization of novel hydrogen storage metallic materials.
• Dates (from – to)	September 2010 – December 2010 October 2012 – November 2012 January 20, 2015 – March 20, 2015
• Name and address of employer	Institute for Materials Research, Tohoku University, 2-1-1 Katahira, Aoba-ku, Sendai 980-8577, Japan
• Type of business or sector	Education; Research and Development
• Occupation or position held	Invited Professor
• Main activities and responsibilities	The investigation of magnetization processes and coercive field mechanisms in amorphous and nanocomposite magnetic materials
• Dates (from – to)	April 2006
• Name and address of employer	L'Université du Maine / UFR Sciences, Avenue Olivier Messiaen, 72085 Le Mans cedex 9, France
• Type of business or sector	Education, Research and Development
• Occupation or position held	Invited Associate Professor

• Main activities and responsibilities	Study of the magnetization processes in nanomaterials and nanostructured materials / Courses for M.Sc. students.
• Dates (from – to)	September 2003 – September 2004
• Name and address of employer	National Institute of Research and Development for Technical Physics, 47 Mangeron Boulevard, PO 3, PO Box 833, 700050 Iasi, Romania
• Type of business or sector	Research and Development
• Occupation or position held	3rd Grade Scientific Researcher
• Main activities and responsibilities	Co-organized and coordinated research projects for the investigation of magnetization processes and coercive field mechanisms in easy glass-forming alloys with discontinuous magnetic structures. Organized and led research projects for the modeling of topological and magnetic structures in amorphous alloys. Theoretical studies on the interplay between microstructure and magnetic properties in bulk amorphous magnetic alloys. Studies related to the application of bulk amorphous magnetic alloys in different conventional and novel applications.
• Dates (from – to)	September 1999 – September 2003
• Name and address of employer	National Institute of Research and Development for Technical Physics, 47 Mangeron Boulevard, PO 3, PO Box 833, 700050 Iasi, Romania
• Type of business or sector	Research and Development
• Occupation or position held	Scientific Researcher
• Main activities and responsibilities	Co-organized and coordinated research projects for the investigation of magnetization processes and coercive field mechanisms in easy glass-forming alloys with discontinuous magnetic structures. Organized and led research projects for the modeling of topological and magnetic structures in amorphous alloys. Theoretical and experimental studies on the mechanisms leading to the increase of the glass-forming ability in multicomponent magnetic systems and formation of the bulk amorphous shaped alloys. Theoretical studies on the interplay between microstructure and magnetic properties in bulk amorphous magnetic alloys. Studies related to the application of bulk amorphous magnetic alloys in different conventional and novel applications.
• Dates (from – to)	August 1997 – September 1999
• Name and address of employer	National Institute of Research and Development for Technical Physics, 47 Mangeron Boulevard, PO 3, PO Box 833, 700050 Iasi, Romania
• Type of business or sector	Research and Development
• Occupation or position held	Research Assistant
• Main activities and responsibilities	Conducted the process of research and development for the production of large glass-forming magnetic alloys as thick melt-spun ribbons, bars, cylinders, ring-shaped alloys. Investigated magnetic and physical properties of bulk amorphous alloys as a function of their preparation conditions, thickness, cooling rate, microstructure, annealing procedure and thermal and magnetic history of the samples.

EDUCATION AND TRAINING

• Dates (from – to)	October 1991 – July 1996
• Name and type of organization providing education and training	"Alexandru Ioan Cuza" University, Faculty of Physics, Iasi, Romania University – High Education Institution
• Principal subjects/occupational skills covered	Technological Physics
• Title of qualification awarded	Diploma of Physicist-Engineer
• Level in national classification (if appropriate)	--

• Dates (from – to)	October 1996 – July 1997
• Name and type of organization providing education and training	"Alexandru Ioan Cuza" University, Faculty of Physics, Iasi, Romania University – High Education Institution
• Principal subjects/occupational skills covered	Physics of Thin Films
• Title of qualification awarded	M.Sc. Degree
• Level in national classification (if appropriate)	--

• Dates (from – to)	September 1997 – July 2001
• Name and type of organization providing education and training	"Alexandru Ioan Cuza" University, Iasi, Romania University – High Education Institution
• Principal subjects/occupational skills covered	Preparation and Magnetic Properties of Bulk Amorphous Alloys
• Title of qualification awarded	Ph.D. in Physics
• Level in national classification (if appropriate)	--

• Dates (from – to)	August 20, 2000 – September 23, 2000
• Name and type of organization providing education and training	Institute for Materials Research, Tohoku University, Sendai, Japan
• Principal subjects/occupational skills covered	Nd-Fe-(Si,Al) Bulk Amorphous Alloys with Hard Magnetic Properties
• Title of qualification awarded	JSPS (Japan Society for the Promotion of Science) short-term fellowship
• Level in national classification (if appropriate)	--

• Dates (from – to)	April 1, 2002 – August 31, 2002
• Name and type of organization providing education and training	LTPCM-ENSEEG, Institut National Polytechnique de Grenoble, France
• Principal subjects/occupational skills covered	EU RTN-Network on Bulk Metallic Glasses (HPRN-CT-2000-0033) – "Preparation and Characterization of Fe-based Bulk Amorphous Alloys with Soft Magnetic Properties"
• Title of qualification awarded	EU RTN Post-doc Fellowship
• Level in national classification (if appropriate)	--

• Dates (from – to)	June 1, 2003 – August 15, 2003
• Name and type of organization providing education and training	LTPCM-ENSEEG, Institut National Polytechnique de Grenoble, France

• Principal subjects/occupational skills covered	EU RTN-Network on Nano-Al (HPRN-CT-2000-0038) – "Characterization of Amorphous and Nanocrystalline Materials by Means of Synchrotron Radiation"
• Title of qualification awarded	EU RTN Post-doc Fellowship
• Level in national classification (if appropriate)	--
• Dates (from – to)	February 12, 2003 – February 10, 2004
• Name and type of organization providing education and training	Institute for Materials Research, Tohoku University, Sendai, Japan
• Principal subjects/occupational skills covered	International Frontier Center for Advanced Materials (IFCAM) Project – "Development of Advanced Materials for Applications"
• Title of qualification awarded	IFCAM Post-doc Fellowship
• Level in national classification (if appropriate)	--
• Dates (from – to)	October 27, 2004 – August 26, 2005
• Name and type of organization providing education and training	Institut Laue-Langevin (ILL) and European Synchrotron Radiation Facilities (ESRF), Grenoble, France
• Principal subjects/occupational skills covered	EU Research Training Network "H-Sorption in MgH_2" (HPRN-CT-2002-00208) – "X-ray Powder Diffraction and SANS Investigations of the H-Sorption in MgH_2 Powders with Additives"
• Title of qualification awarded	EU RTN Post-doc Fellowship
• Level in national classification (if appropriate)	--

PERSONAL SKILLS

MOTHER TONGUE **ROMANIAN**

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
ENGLISH	C2	C2	C2	C2	C2
FRENCH	C1	C1	B2	B2	B2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user

COMMUNICATION SKILLS
- team spirit;
- good communication skills gained through the experience as Head of Department for over 7 years and General Director for the last 13 years;
- good ability to adapt to multicultural environments, gained though the work experience abroad;
- excellent social skills, including work with other people in multicultural environments.

ORGANISATIONA / MANAGERIAL SKILLS

Excellent skills in coordination and administration of people, projects and budgets at work, considering the position as Head of laboratory, director of

different national and international projects, and General Director of a National Institute of Research and Development.

TECHNICAL SKILLS

Excellent IT skills, including the use of new and innovative software. Excellent technical skills and competences in using specific equipments and devices for the preparation, characterization and applications od novel magnetic materials, and not only.

ADDITIONAL INFORMATION

Member of the Management Board of NIRDTP Iasi since 2007
President of the Management Board of NIRDTP Iasi since 22 June 2011
Member of the Scientific Council of NIRDTP Iasi
Member of the Physics Panel and Panel 1: Mathematics and Natural Sciences of the National Council for the Certification of Academic Degrees (Consiliului Naţional de Atestare a Titlurilor, Diplomelor şi Certificatelor Universitare – CNADTCU) from March 25, 2011 to September 5, 2012 and since May 2016

PI and member of the research team of over 30 projects, including 4 European and 6 international ones.
Co-responsible of 4 FP6 projects (2004-2010).
Team Leader of one FP7 Project *(*FP7-PEOPLE-2013-ITN - Grant Agreement No. 607080*;* 2013-2017*).*
Co-responsible and member of the Management Team for one FP7 Project (FP7-REGPOT-2012-2013-1 - Grant *A*greement *N*o. 316194*;* 2013-2017*).*
Coordinator of 3 bilateral international projects with partners from Grece (IMS/NCSR Demokritos, 2006-2008 and 2012-2014) and France (Université du Maine, Le Mans, 2009-2010).
Scientific Responsible for 2 bilateral projects in collaboration with institutions from Hungary and Italy (2006-2008). Coordinator of 8 projects with IUCN Dubna (2014-2021).

Publications (more than 290 papers in ISI journals), mostly concerning rapidly and slowly solidified alloy design, casting, and their magnetic and magnetoelastic properties as well as nanomaterials including their preparation and characterization.
Over 100 **papers**, including more than 40 invited ones, **presented at national and international conferences, workshops, symposia**.
Over 4000 **citations** in papers published in international journals **(h = 31)**.

10 national patents and 6 international patents

10 book-chapters in collaboration

Editor of 3 books: "Electrodeposited Nanowires" (228 pages) and "Nanowires Science and Technology" (402 pages), INTECH, Croatia, February 2010 (ISBN 978-953-7619-88-6 and ISBN 978-953-7619-89-3); „Magnetic Sensors and Actuators in Medicine" (474 pages), Woodhead Publishing – Elsevier, July 2023 (ISBN: 9780128232941, eBook ISBN: 9780128236000)

Member of the Organizing Committee of ISMANAM'2005, Paris, France, July 2005; ANMM'2005, Iași, Romania, September 2005; ANMM'2007, Iași, Romania, August 2007; ANMM'2011, Iași, Romania, September 2011; ANMM'2013, Sendai, Japan, October 2013; ANMM'2015, Iași, Romania, September 2015.

Member of the Joint European Magnetic Symposia (JEMS) Program Committee (September 2010 - December 2016).

Member of the International Symposium on Metastable, Amorphous and Nanostructured Materials (ISMANAM) Steering Committee since October 2011.

PROFESSIONAL AFFILIATIONS:

American Physical Society, IEEE & IEEE Magnetics Society, Materials Research Society, European Physical Society, Romanian Physical Society.
Member of the IEEE MAGNETICS SOCIETY ADVISORY COMMITTEE (2019-2021)
Member of the Technical Committee of the IEEE MAGNETICS SOCIETY since 2017
Representative of Romania in the General Council (GC) of the European Magnetism Association (EMA) (2017-2020)
Member of the Scientific Advisory Committee of the European School on Magnetism since 2023.

Referee for: Journal of Applied Physics; Journal of Physics D: Applied Physics; IEEE Transactions on Magnetics; Journal of Magnetism and Magnetic Materials; Materials Science & Engineering A; Physica B; Journal of Alloys and Compounds, etc.
Editor for IEEE Transaction on Magnetics – Conferences since 2016 **Editor for IEEE Transaction on Magnetics since 2017**
Associate Editor-in-Chief of IEEE Transaction on Magnetics since 2020
Editor-in-Chief of IEEE Transaction on Magnetics since January 1, 2026
Editor for AIP Advances (MMM Conference Proceedings) since 2019
Editor for Journal of Alloys and Compounds between 2019 and 2023
Member of the Editorial Board of npj Spintronics journal since 2023
Expert in the evaluation group for national projects (PNCDI I Programme, CEEX Programme, CNCSIS grants, PN II, PN III and PN IV Programmes, PNRR).
International evaluator for grants proposals from Czech Republic, Canada, Poland, Germany (DFG), France (ANR)
Evaluator for EU grants (FP6, HORIZON 2020, HORIZON EUROPE).

Management Committee substitute member for the COST action MP0903 "Nanoalloys as advanced materials: from structure to properties and applications"
Member of the Management Committee for the COST action IC1208 "Integrating devices and materials: a challenge for new instrumentation in ICT"

Member of the INTERMAG 2021, MMM 2022, INTERMAG 2023 and MMM 2023 Program Committee.
Member of the Joint MMM-INTERMAG 2025 Program Committee, and Publication Chair (IEEE) for the Joint MMM-INTERMAG 2022.
Program Co-Chair for the IEEE International Magnetics Conference - INTERMAG 2024, May 2024, Rio de Janeiro, Brazil.

In 2023, Dr. Lupu was awarded with the Alain Reza Yavari Senior Scientist Award, which recognizes a scientist with recent research leadership, ground-breaking results, and/or a highly distinguished career-long contribution in the field of rapidly quenched materials.

Fields of interest: magnetic and magnetoelastic materials, nanoparticles and nanowire arrays, structurally disordered materials, sensors and devices, including EHD and energy storage/transportation devices, hybrid materials, including semiconductor-magnetic materials and devices.

October 18, 2026 Nicoleta Lupu

