





## PERSONAL INFORMATION

## Mihai GABOR



-  Technical University of Cluj-Napoca, Physics and Chemistry Department, Str. Memorandumului No. 28 RO-400114 Cluj-Napoca, ROMANIA
-  +40-264-401475
-  [mihai.gabor@phys.utcluj.ro](mailto:mihai.gabor@phys.utcluj.ro)
-  <https://c4s.utcluj.ro/Mihai.html>

## WORK EXPERIENCE

## Associate Professor

Department of Physics and Chemistry, Faculty of Materials and Environmental Engineering, Technical University of Cluj-Napoca, Str. Memorandumului No. 28 RO-400114 Cluj-Napoca, ROMANIA

- Teaching and research activities

## EDUCATION AND TRAINING

- 2011 **Ph.D. in Physics and Materials Engineering**  
 Awarded by "Henri Poincaré" University, Nancy, France and Technical University of Cluj-Napoca, Romania  
 Thesis title: "Spintronics with alternative materials: full-Heusler alloys and dilute magnetic oxides"
- 2007 **M.Sc. in Physics**  
 Awarded by "Babeş-Bolyai" University, Cluj-Napoca, Romania  
 Subject: Solid State Physics
- 2006 **M.Sc. in Physics**  
 Awarded by "Joseph Fourier, University, Grenoble, France  
 Subject: Physics of Materials and Nanostructures
- 2005 **B. Sc. in Physics**  
 Awarded by "Babeş-Bolyai" University, Cluj-Napoca, Romania  
 Subject: Physics

## RESEARCH INTERNSHIPS AND TRAINING COURSES

- 2005-2011 **Research internships for approx. 24 months**
  - (1) - ENEA, Frascati, Rome, Italy (research internship- Pulsed Laser Deposition of oxide multilayers, low temperature magnetic and magneto-transport measurements);
  - (2) - CEA-SPINTEC, Grenoble, France (master internship – numerical modeling of exchange bias in nanostructures);
  - (3) - LPM, University "Henri Poincaré" Nancy, France (doctoral thesis research internships – growth of thin films and heterostructures by molecular beam epitaxy, magneto-electrical characterizations, numerical methods);
- Training courses**
  - (1) - Bruker AXS, Karlsruhe, Germany (High Resolution and Powder X-ray diffraction, Stress and texture).
  - (2) - UJF-INPG, Grenoble, France, Experimental methods for nanotechnologies.
  - (3) - *Sumer schools*: European School of Magnetism ESM 2007, Cluj-Napoca, Romania; European School of Magnetism ESM 2009, Timisoara, Romania.

RESEARCH GRANTS

- 2018-2020 PN-III-P1-1.1-TE nr. 24/02.05.2018 Research Grant “*Spin-orbitronic devices for non-volatile magnetic memories*”, Financing organization MRI-UEFISCDI, Val. 100k Euro. <https://c4s.utcluj.ro/SOTMEM/sotmem.html>
- 2015-2017 PN-II-RU-TE nr. 255/01.10.2015 Research Grant “*Advanced spintronic devices for communication and data storage technologies based on Heusler compounds*”, Financing organization MRI-UEFISCDI, Val. 125k Euro. <https://c4s.utcluj.ro/SPINCOD/spincod.html>
- 2014-2015 TUCN – Research grant (2014 –2015), TE-29317/2014 “*Advanced materials with applications for spintronic devices for information storage technologies*”, Financing organization TUCN, Val. 7k Euro.
- 2008 (3 months) EURATOM-ENEA, Rome, Italy Research grant (2008 ) „Growth and characterization of magnetic multilayers structures”, Val. 3k Euro.

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
French	B2	B2	B2	B2	B2

Research subjects Thin films, magnetism, spintronic and spin-orbitronic devices, memristors.

Research skills Thin films and multilayers deposition by means of molecular e-beam epitaxy (MBE), pulsed laser deposition (PLD) and sputtering. Structural (XRD), morphological (AFM, XRR), magnetic static (MFM, VSM, SQUID) and dynamic (FMR) characterization of thin films and multilayers. Patterning of devices by UV lithography and ion beam etching. Analytical and numerical methods for modelling magnetism and transport in spinorbitronic structures. Micromagnetic simulations.

IT skills LabView visual programming language and Python, C/C++ programming in Linux/Windows, Micromagnetic Simulations in OOOMF and MuMag, numeric/symbolic calculations Mathematica, Matlab.

Publications 69 **ISI** papers, **921 citations**, Hirsch index **h=16** (ISI WoK), (<https://publons.com/researcher/1623419/mihai-gabor/>), **1188 citations** , Hirsch index **h=19** (Google Scholar) <https://scholar.google.ro/citations?user=eFyqRPAAAAAJ&hl=en>), coauthor of 2 books and 2 national patents.

Honors / awards / other 2014 – Excellence in research prize awarded by TUCN.  
 2016 – Invited professor University Paris 13, Paris, France.  
 2017 – Invited researcher at SPINTEC-CEA, Grenoble, France.  
 2017 – Jury member of a PhD thesis University Grenoble Alpes, Grenoble, France.  
 2019 – Jury member of a PhD thesis University Grenoble Alpes, Grenoble, France.

Cluj-Napoca,  
06.06.2020

dr. Mihai GABOR