



PERSONAL INFORMATION **Elena Laura Abramiuc**

 National Institute of Materials Physics  
 +40-(0)21-3690185, +40-(0)21-2418100  
 [laura.stoflea@infim.ro](mailto:laura.stoflea@infim.ro)

 <https://infim.ro/en/@laura-stoflea/>

ORCID: 0000-0003-1821-8449

Hirsch: 11 (Web of Science)

Sex F | Date of birth 20/11/1988 | Nationality Romanian

WORK  
EXPERIENCE

2012 - Present **Scientific Researcher III**  
National Institute of Materials Physics  
Str. Atomistilor nr. 405 A, Măgurele, Ilfov, Romania  
Techniques: X-ray photoelectron spectroscopy (XPS), low energy electron diffraction (LEED), molecular beam epitaxy (MBE), low energy electron microscopy (LEEM), photoelectron microscopy (PEEM).  
**Business or sector** Research

EDUCATION  
AND TRAINING

2014-2019 **Ph.D**  
Physics Faculty – University of Bucharest  
405 Atomistilor Str., Măgurele (Romania)  
Condensed Matter Physics, Thesis: „Study of charge accumulation and reactivity of surfaces exhibiting ferroelectric polarization”, supervised by Asoc. Prof. CS1 Lucian Pintilie

2011-2013 **Master of Science (M.Sc.)**  
Faculty of Applied Chemistry and Materials Science – University Politehnica of Bucharest (Romania)  
Specialization Pharmaceutical and Cosmetic Products,  
Thesis: “Advanced methods of synthesis and characterization of magnetic nanoparticles for biomedical applications”, supervised by Conf. Dr. Ing. George Marton

- 2007-2011 **Bachelor of Science (B.Sc.)**  
 Faculty of Applied Chemistry and Materials Science – University Politehnica of Bucharest (Romania)
- Specialization Science and Engineering of Oxide Materials and Nanomaterials, Thesis: "Drying oxide materials in microwave field", supervised by Conf. Dr. Zeno Ghizdaveț
- 2003-2007 **Secondary School**  
 Stefan Odobleja High School  
 Bucharest (Romania)
- Mathematics and Computer Science Class

**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	A2	A2	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

Communication skills ▪ Good communication skills

Job-related skills ▪ Keywords : synchrotron radiation, surface science, clusters and nanoparticles, ferroelectrics, photocatalysis, catalysis.

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Independent user	Independent user	Independent user

Levels: Basic user - Independent user - Proficient user  
[Digital competences - Self-assessment grid](#)

- good programming skills ( IgorPro) gained during school and and work
- good command of office suite (word processor, spread sheet, presentation software)

Driving licence B

**ADDITIONAL INFORMATION**

## Publications

- [1] Abramiuc LE, Tănase LC, Barinov A, Chirilă CF, Teodorescu CM, *Nanoscope correlations from curve fitting of photoelectron spectromicroscopy data cubes of lead zirconate titanate films*, **Results in Physics**, Vol. 36, p.105436 (2022).
- [2] Cojocaru B, Colbea C, Avram D, Istrate C, Abramiuc L, Tiseanu C, *Role of Ln type in the physical mechanisms of defect mediated luminescence of Li, Ln-SnO<sub>2</sub> nanoparticles*, **Journal of Materials Chemistry C**, Vol. 9, p. 148-157 (2021).
- [3] Neațu F, Abramiuc LE, Trandafir M, Negrea R, Florea M, Teodorescu CM, Neațu S, *Degenerated TiO<sub>2</sub> Semiconductor Modified with Ni and Zn as Efficient Photocatalysts for the Water Splitting Reaction*, **ChemCatChem**, Vol. 12, p. 4642-4651 (2020)
- [4] Bucur IC, Apostol NG, Stoflea LE, Tănase LC, Tache CA, Lungu GA, Costescu RM, Chirilă CF, Trupina L, Pintilie L, Teodorescu CM, *Room temperature ferromagnetism and its correlation to ferroelectricity of manganese embedded in lead zirco-titanate*, **Thin Solid Films**, doi: 10.1016/j.tsf.2018.11.018 (2018).
- [5] Tănase LC, Abramiuc LE, Popescu DG, Trandafir A-M, Apostol NG, Bucur IC, Hrib L, Pintilie L, Pasuk I, Trupina L, Teodorescu CM, *Polarization Orientation in Lead Zirconate Titanate (001) Thin Films Driven by the Interface with the Substrate*, **Physical Review Applied**, Vol. 10 (2018).
- [6] Bucur IC, Tănase LC, Stoflea EL, Lungu GA, Chirilă C, Trupina L, Apostol NG, Costescu RM, Negrea RF, Pintilie L, Teodorescu CM, *Triggering surface ferroelectric order in Pb(Zr,Ti)O<sub>3</sub> (001) by deposition of platinum*, **Applied Surface Science**, Vol. 432, p. 27 (2018).
- [7] Abramiuc EL, Tănase LC, Barinov A, Apostol NG, Chirilă C, Trupina L, Pintilie L, Teodorescu CM, *Polarization landscape effects in soft X-ray-induced surface chemical decomposition of lead zirco-titanate, evidenced by photoelectron spectromicroscopy*, **Nanoscale**, Vol. 9, p. 11055-11067 (2017).
- [8] Tănase LC, Lungu GA, Abramiuc EL, Bucur IC, Apostol NG, Costescu RM, Tache CA, Macovei D, Barinov A, Teodorescu CM, *Long-range magnetic interaction in Mn<sub>x</sub>Ge<sub>1-x</sub>: structural, spectromicroscopic and magnetic investigations*, **Journal of Materials Science**, Vol. 52, p.3309-3320 (2017).
- [9] Beșleagă C, Abramiuc EL, Tănase LC, Stancu V, Tomulescu AG, Sima M, Trincă L, Plugaru N, Pintilie L, Nemnes GA, Iliescu M, Svavarsson HG, Manolescu A, Pintilie I, *Iodine Migration and Degradation of Perovskite Solar Cells Enhanced by Metallic Electrodes*, **Journal of Physical Chemistry Letters**, Vol. 7(24), p. 5168-5175 (2016).
- [10] Tănase LC, Apostol NG, Abramiuc EL, Tache CA, Hrib L, Trupina L, Pintilie L, Teodorescu CM, *Ferroelectric triggering of carbon monoxide adsorption on lead zirconate (001) surfaces*, **Scientific Reports**, Vol. 6, p. 35301(1-18) (2016).
- [11] Tănase LC, Bocîrnea AE, Serban AB, Abramiuc LE, Bucur IC, Lungu GA, Costescu RM, Teodorescu CM, *Growth mechanisms and band bending in Cu and Pt on Ge(001) investigated by LEED and photoelectron spectroscopy*, **Surface Science**, Vol. 653, p. 97-106 (2016).
- [12] Apostol NG, Stoflea LE, Tănase LC, Bucur IC, Chirilă C, Negrea RF, Teodorescu CM, *Band bending at copper and gold interfaces with ferroelectric Pb(Zr,Ti)O<sub>3</sub> investigated by photoelectron spectroscopy*, **Applied Surface Science**, Vol. 354, p. 459-468 (2014).
- [13] Pintilie L, Ghica C, Teodorescu CM, Pintilie I, Chirilă C, Pasuk I, Trupina L, Hrib L, Boni AG, Apostol NG, Abramiuc LE, Negrea R, Stefan M, Ghica D, *Polarization induced self-doping in epitaxial Pb(Zr<sub>0.20</sub>Ti<sub>0.80</sub>)O<sub>3</sub>*, **Scientific Reports**, Vol. 5, p. 14974 (2015).
- [14] Stoflea LE, Apostol NG, Trupina L, Teodorescu CM, *Selective adsorption of contaminants on Pb (Zr, Ti) O<sub>3</sub> surfaces shown by X-ray photoelectron spectroscopy*, **Journal of Materials Chemistry A**, Vol. 2, p. 14386-14392 (2014).
- [15] Stoflea LE, Apostol NG, Chirila C, Trupina L, Negrea R, Pintilie L, Teodorescu CM, *Schottky barrier versus surface ferroelectric depolarization at Cu/Pb(Zr, Ti)O<sub>3</sub> interfaces*, **Journal of Materials Science**, Vol. 49, p. 3337-3351 (2014).
- [16] Opris CM, Pavel OD, Moragues A, El Haskourib J, Beltran D, Amoros P, Marcos MD, Stoflea LE, Parvulescu VI, *New multicomponent catalysts for the selective aerobic oxidative condensation of benzylamine to N-benzylidenbenzylimine*, **Catalysis Science & Technology**, accepted DOI: 10.1039/C4CY00795F (2014).
- [17] Lungu GA, Stoflea LE, Tanase LC, Bucur IC, Radutoiu N, Vasiliu F, Mercioniu I, Kuncser V, Teodorescu CM, *Room Temperature Ferromagnetic Mn:Ge(001)*, **Materials**, Vol. 7, p. 106-129 (2014)
- [18] Neatu F, Ciobanu M, Stoflea LE, Frunza L, Parvulescu VI, Michelet M, *Arylation of alkynes over hydrotalcite docked Rh-m-TPPTC complex*, **Catalysis Today** (2014).
- [19] Apostol NG, Stoflea LE, Lungu GA, Tache CA, Popescu DG, Pintilie L, Teodorescu CM, *Band bending at free Pb(Zr,Ti)O<sub>3</sub> surfaces analyzed spectroscopy by X-ray photoelectron*, **Materials Science and Engineering: B**, Vol. 178, p. 1317-1322 (2013).

- [20] Apostol NG, Stoflea LE, Lungu GA, Tanase LC, Chirila C, Frunza L, Pintilie L, Teodorescu CM, *Band bending in Au/Pb(Zr,Ti)O<sub>3</sub> investigated by X-ray photoelectron spectroscopy: Dependence on the initial state of the film*, **Thin Solid Films**, Vol. 545, p. 13-21 (2013).
- [21] Apostol NG, Stoflea LE, Lungu GA, Chirila C, Trupina L, Negrea RF, Ghica C, Pintilie L, Teodorescu CM, *Charge transfer and band bending at Au/Pb(Zr<sub>0.2</sub>Ti<sub>0.8</sub>)O<sub>3</sub> interfaces investigated by photoelectron spectroscopy*, **Applied Surface Science**, Vol. 273, p. 415-425 (2013).
- [22] Lungu GA, Apostol NG, Stoflea LE, Costescu RM, Popescu DG, Teodorescu CM, *Room Temperature Ferromagnetic, Anisotropic, Germanium Rich FeGe(001) Alloys*, **Materials**, Vol. 6, p. 612-625 (2013).

**Project:**

PN-III-P1-1.1-PD-2019-0763 Investigation by photoelectron spectro-microscopy of the interplay between surface chemistry and polarization landscape of ferroelectric surfaces (FERROSPECTROMIC), Project Director, 2020-2022, 246950 RON.