PERSONAL INFORMATION

HROȘTEA Laura

Erbiceni, Iaşi, 707190, Romania

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Sex Female | Date of birth 02/09/1993 | Nationality Romanian

EDUCATION AND TRAINING

Dates	10.2019 – present
Title of qualification	**Trainee**
Principal occupational skills	Entrepreneurship. Main subjects: Business financing, Financial management, Business development strategies, Marketing strategies, Career counselling etc.
Name and type of organisation providing education and training	Operational Programme Human Capital 2014-2020, project number POCU/380/6/13/123623, project title “PhD Students and Postdoctoral Researchers Prepared for the Labour Market”
Dates	2017 – present
Title of qualification	**PhD student – co-directed thesis (Romania – France)**
Principal occupational skills	*Study of optical and electronic transport properties of some thin films (based on conjugat polymers) for organic solar cell applications*
Name and type of organisation providing education and training	Faculty of Physics, “Alexandru Ioan Cuza” University of Iasi, 11 Carol I Blvd., RO-700506, Iasi, Romania (supported by Romanian Government Grant) Faculty of Sciences, Angers University, 2 bd. Lavoisier, 49045 Angers, France (supported by French Government Grant and by Erasmus + 2018 - 2020)
Dates	06.2019 – 12.2019; 06.2016 – 08.2016; 07.2015 – 09.2015; 06.2014 – 09.2014
Title of qualification	**Erasmus Student**
Principal occupational skills	Study of some physico-chemical properties of thin films used in photovoltaic Applications (AZO thin films, Bi_2O_3 thin films, polymers thin films, silicon thin films) Main subjects: Ellypsometry , spectrophotometry, Xray Diffraction technique, profilometry, contact angle and conductivity measurements, numerical simulation of solar cells and measurements etc.
Name and type of organisation providing education and training	Faculty of Science, Angers University, 2 bd. Lavoisier, Angers, France
Dates	2015 – 2017
Title of qualification	**Master of Science in Physics (Physics for Advanced Technologies)**
Principal occupational skills	Thesis: ***Study of alternative multilayer transparent electrode structures for thin-film solar cells,*** supervisor: Prof.univ.dr.habil. Liviu LEONTIE Main subjects: Special chapters of quantum physics, Experimental methods for material characterization, Fundamentals of mathematical physics, Physics of materials (Dielectrics, Magnetics, Polymers, Semiconductors), Advanced techniques for materials preparation, Experimental Characterization methods, Quantum Physics etc.
Name and type of organisation providing education and training	Faculty of Physics, “Alexandru Ioan Cuza” University, 11 Carol I Blvd., RO-700506, Iasi, Romania
Dates	2012 – 2017
Title of qualification	**Psychological and Pedagogical Courses (First and Second Module)**
Principal occupational skills	Main subjects: Psychology of education, Classroom Management, Computer assisted instruction, Pedagogy, School Practice, Psychology of adolescents, youth and adults, Advice and Guidance, Intercultural Education, Educational Project Management etc.
Name and type of organisation providing education and training	Teacher Training Department, “Alexandru Ioan Cuza” University, 11 Carol I Blvd., RO-700506, Iasi, Romania

Dates	2012 - 2015
Title of qualification	**Bachelor of Science in Medical Physics**
Principal occupational skills	Thesis: ***Thin Film Organic Solar Cells***, supervisor: Prof.univ.dr.habil. Liviu LEONTIE Main subjects: Classical Mechanics, Theoretical mechanics, Quantum mechanics, Electrodynamics, Thermodynamics & statistical physics, Molecular Physics and Heat, Electricity and Magnetism, Electronics, Oscillations and Waves, Optics, General biophysics, Atom and molecule physics, Physics of nucleus, Detectors, dosimetry and radioprotection, Radiobiology, Fundamentals of chemistry
Name and type of organisation providing education and training	Faculty of Physics, “Alexandru Ioan Cuza” University, 11 Carol I Blvd., RO-700506, Iasi, Romania

WORK EXPERIENCE

Dates	12 – 13.10.2019
Occupation or position held	**Research student at Festival of Science in the Pays de la Loire, Angers**
Name and address of employer	University of Angers, Faculty of Science, 2 bd. Lavoisier, Angers, France
Type of business or sector	Voluntary activities - presentation of didactic materials and experiences
Dates	11.2016 – 12.2018
Occupation or position held	**Secretary**
Name and address of employer	Faculty of Physics, “Alexandru Ioan Cuza” University, 11 Carol I Blvd., RO-700506, Iasi, Romania
Type of business or sector	Public Activities
Dates	02.2016 – 10.2017
Occupation or position held	**Volunteer**
Name and address of employer	Service Department for Students and Graduates, “Alexandru Ioan Cuza” University of Iasi,11 Carol I Blvd., RO-700506, Iasi, Romania
Type of business or sector	Voluntary Activities
Dates	01.2016 – 06.2017
Occupation or position held	**Science teacher (Physics and Chemistry)**
Name and address of employer	Seven Hills International School, 1 Chimiei Blvd., Iasi, Romania
Type of business or sector	Academic and Educational Activities
Dates	04.2014 – 10.2017
Occupation or position held	**Research student member**
Name and address of employer	Atmosphere Optics, Spectroscopy and Lasers Laboratory, Faculty of Physics, “Alexandru Ioan Cuza” University, 11 Carol I Blvd., RO-700506, Iasi, Romania
Type of business or sector	Academic. Educational & Research & Development
Dates	09.2018; 09.2017; 09.2016; 09.2015; 09.2014; 09.2013
Occupation or position held	**Research student**
Name and address of employer	"Researchers' Night" Event organized by Faculty of Physics, “Alexandru Ioan Cuza” University of Iasi,11 Carol I Blvd., RO-700506, Iasi, Romania
Type of business or sector	Voluntary activities - presentation of didactic materials and experiences

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	B2	B2	B2	B2	B2
Spanish	B1	B1	B1	B1	B1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user

Communication skills	▪ Communication skills with different people or situations ▪ Team spirit ▪ Open-mindedness ▪ Ability to give and receive feedback ▪ Analysis and synthesis capacity ▪ Empathy, honesty, respect.
Organisational / managerial skills	▪ Leadership ▪ Attention to details and analytical skills ▪ Punctuality ▪ Ability to anticipate
Job-related skills	▪ Capacity to prepare and to characterize different thin film samples using various methods and devices
Computer skills	▪ Good command of Microsoft Office™ tools (Word™, Power Point™, Excel™, Publisher™) ▪ Knowledge in graphing software: PhotoScape; ▪ Data processing programs: Origin.

Annex: Training activities, papers, oral communications, posters

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A. Training activities and projects

1. **11.2019 – 11.2020:** Operational Programme Human Capital 2014-2020, project number POCU/380/6/13/123623, project title "PhD Students and Postdoctoral Researchers Prepared for the Labour Market", UAIC, Iasi, **Romania**
2. **01 – 10.07.2019:** 4th International Summer School on Organic Photovoltaic Systems, Kavala, **Greece** http://summerschool.teiemt.gr/
   - Energy and resources (3h); Photovoltaic Technologies (3h); Scientific writing in energy engineering (4.5h); Organic photovoltaics (9h); LCC-LCA of various PV technology (6h); PV system applications (3h); Modelling and simulation in energy engineering (6h); Case studies and techno-economic analysis of PV systems (6h).
3. **05 – 16.11.2018:** ULYSSES 41035SM Project - Development and characterization of Bragg-type layers for efficiency enhancement of photovoltaic cells (50h), Dublin Institute of Technologies, Dublin, **Ireland**
4. **09.07.2018:** FEMS Junior Euromat 2018 – Solutions for Critical Raw Materials Under Extreme Conditions, Budapest Training School (8h), Budapest, **Hungary**
5. **01.10 – 1.12.2017:** Doctoral school courses, Iasi, **Romania**,
   - Topical problems in magnetism (13h) •Special chapters of theoretical physics (13h) •Investigation techniques for the study of highly organized molecular structures (11h) •Advanced materials for functional applications (13h) •Topical problems in dielectric physics. Advanced characterization methods of the electrical properties of the materials (9h) •Advanced applications of plasma in medicine and environment (11h) •Methodology and ethics in scientific research (14h)

B. Papers

1. **L. Hrostea,** L. Leontie, M. Girtan, *Chemical Sensitization for Electric Properties Improvement of PBDB-T-SF Polymer for Solar Cells Application*, IOP Conf. Series: Materials Science and Engineering (WOS)
2. **L. Hrostea**, L. Leontie, M. Girtan, *Characterization of PBDB-T-SF: fullerene blend thin films for solar cell applications*, Romanian Reports in Physics, 72, 2 (2020) (WOS IF = 1.94)
3. **L. Hrostea,** M. Girtan, R. Mallet, L. Leontie, *Optical and Morphological Properties of P3HT and P3HT: PCBM Thin Films used in Photovoltaic Applications*, IOP Conf. Series: Materials Science and Engineering 374 (2018) 012015 doi:10.1088/1757-899X/374/1/012015 (WOS)
4. S. Antohe, Sorina Iftimie, **Laura Hrostea**, V.A. Antohe, Mihaela Girtan, *A Critical Review of Photovoltaic Cells Based on Organic Monomeric and Polymeric Thin Film Heterojunction*, Thin Solid Films (2017), https://doi.org/10.1016/j.tsf.2017.09.041 (WOS IF = 1.86)
5. Girtan M., **Hrostea L.,** Boclinca M., Negulescu B., Study *of oxide/metal/oxide thin films for transparent electronics and solar cells applications by spectroscopic ellipsometry*, AIMS Materials Science, 2017, 4(3): 594-613 doi: 10.3934/matersci.2017.3.594. (WOS)
6. **L. Hrostea**, M. Boclinca, M. Socol, L. Leontie, A. Stanculescu, M. Girtan – *Oxide/metal/oxide electrodes for solar cell applications* – Solar Energy Volume 146, 2017, Pages 464–469, DOI: 10.1016/j.solener.2017.03.017 (WOS IF = 4.37)

C. Oral communications

1. **L. HROSTEA**, L. LEONTIE, M. GIRTAN, *Chemical Sensitization for Electric Properties Improvement of Fluorinated Polymer for Solar Cells Application*, ICIR Euroinvent 2020, International conference on innovative research, 20 - 21 May 2020, Iași, Romania (o) – **BEST ORAL PRESENTATION prize** http://www.euroinvent.org/conference/

2. **L. HROSTEA**, M. GIRTAN, L. LEONTIE, *Comparison of physical properties of P3HT and PBDBT-T polymer thin films used in solar cells*, JED3M, Brest, France, fev. 2019 (o) https://jed3mbrest2019.sciencesconf.org

3. **L. HROSTEA**, M. GIRTAN, L. LEONTIE, *Measurement of optical constants in P3HT and P3HT:PCBM thin films by spectrophotometry and spectroscopic ellipsometry*, 18th International Balkan Workshop on Applied Physics Constanţa, Romania, July 10-13, 2018 (o) http://ibwap.ro/wp-content/uploads/2018/07/IBWAP-2018-BOOK-of-ABSTRACTS.pdf

4. **L. HROSTEA**, Mihaela GIRTAN, Liviu LEONTIE, *Studiul unor proprietăți fizice ale straturilor subțiri de ZnO:Al și Bi2O3 utilizate în celule solare*, TIM18 Physics Conference, Conferința Doctoranzilor, 24 – 26 May 2018, Timișoara, Romania (o) https://timconference.uvt.ro/archive/tim18/Conference_Schedule_TIM18.pdf

5. **L. Hrostea**, M. Girtan, R. Mallet, L. Leontie, *Optical and Morphological Properties of P3HT and P3HT: PCBM Thin Films used in Photovoltaic Applications*, ICIR Euroinvent 2018, International conference on innovative research, 17 – 18 May 2018, Iași, Romania (o) http://www.euroinvent.org/conference/?page_id=24

6. M. Girtan, **L. Hrostea**, B. Negulescu, *Ellipsometric modelling in the optimization of thin films fabrication processes*, invited lecture, Training School 6-8 February 2018, Sofia

7. M. Girtan , B. Negulescu, **L. Hrostea**, M. Boclinca , *Reduction and replacement of critical raw material used for transparent electrodes in flat screens, transparent electronics and solar cells*, EMRS-fall Meeting, 18-21 September 2017, Warsaw (o)

8. **L. Hrostea**, F. Husanu, M. Girtan, L. Leontie, S. Gurlui, S*tudy of some physical properties of AZO thin films deposited as single-layer and tri-layer structures*, International Physics Conference – Tim17 – Physics without frontiers, may 2017, West University of Timisoara, Romania (o)

9. **L. Hrostea**, M. Girtan, L. Leontie, *Oxide/metal/oxide structures used in solar cells***,** The 45-th National Conference on Physics and Modern Education Technologies, May 2017, Iasi, Romania

D. Posters

1. **L. HROSTEA**, M. GIRTAN, L. LEONTIE**,** *Electrical characterization of new polymer:fullerene blend thin films used in solar* cells, JED3M, Nantes, France, iun. 2019 (p)
https://jed3m2019nantes.sciencesconf.org/data/pages/JED2019Nantes_AbstractBooklet_2.pdf

2. **L. Hroștea**, P. Lisnic, M. Gîrtan, L. Leontie, *Polymer and Polymer:Fullerene blend thin films–optical characterization by spectroscopic ellipsometry*, The 6th International Colloquium ”Physics of Materials” PM-6, Bucharest, Romania, Nov 15 – 16, 2018 (p)

3. **L. HROSTEA**, Mihaela GIRTAN, Liviu LEONTIE, *Optical properties of P3HT and P3HT:PCBM blend thin films by spectroscopic ellipsometry*, The 46-th National Conference on Physics and Modern Education Technologies, May 2018, Iasi, Romania (p) http://ftem.faculty.ro/sectiuni_l5.html

4. **L. Hrostea**, M.L. Grilli, M. Girtan, *Indium free Oxide/Metal/Oxide for solar cell applications*, EMRS-fall Meeting, 18-21 September 2017, Warsaw (p)