

Curriculum vitae

PERSONAL INFORMATION

Andrei Racu



- 1, P. Ispirescu, 300094 Timisoara (Romania)
- (+40) 773714153
- andrei.racu@gmail.com
- [www.UEFISCDI ID \(UEF-ID, BrainMap\): U-1700-031B-7382](#)

Sex Male | Nationality Romanian

WORK EXPERIENCE

- 1/6/14–Present** **Scientific researcher, (started as research assistant)**
Renewable Energies – Photovoltaic Laboratory (LERF), of National Institute for Research and Development in Electrochemistry and Condensed Matter (INCEMC), Timisoara (Romania)
Research and development of optical materials for potential applications as luminescent solar concentrators, photocatalysts, ceramic laser active media.
- 1/8/08–1/6/14** **Scientific researcher, (started as research assistant)**
Institute of Applied Physics of the Academy of Sciences of Moldova, Chisinau (Moldova)
Research of optical materials using photoluminescence and Raman spectroscopies.

EDUCATION AND TRAINING

- 2/9/15–4/9/15** **Training Workshop on Light-Based Technologies**
Laserlab Europe, Trnava (Slovakia)
- 9/6/14–19/12/14** **User training of experimental techniques: Raman, Ellipsometry, XPS, MP-AES.**
LERF, INCEMC, Timisoara (Romania)
- 1/10/11–1/9/12** **Scholarship Spin and Orbital Physics : Research of advanced new oxides (SOPRANO)**
INCEMC, Timisoara (Romania)
 - Hydrothermal synthesis technique of oxide materials
 - X-ray diffraction (XRD) technique for materials characterization
- 1/10/08–1/11/09** **Master degree in Physics / M.Sc.**
University of the Academy of Sciences of Moldova, UnASM, Chisinau (Moldova)
Main subjects:
 - Lasers and non-linear optics
 - Physics and methods of research the solide state
 - Physics of nanotehnologies and nanomaterials
 - The materials tehnology
- 1/9/02–1/10/06** **Bachelor of engineering in computers and networks/ B.Eng.**
Free International University of Moldova, ULIM, Chisinau (Moldova)

PERSONAL SKILLS

Mother tongue(s) Romanian

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B2	B2	B2	B2
www.efset.org/cert/JRoTUQ					
Russian	C1	B2	C1	C1	B1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Job-related skills Familiar with:

- experimental techniques : Stationary and time resolved photoluminescence, Raman, UV- VIS spectroscopy, Ellipsometry, XRD, XPS, MP-AES.
- materials synthesis techniques: hydrothermal, co-precipitation, solid state reaction.
- obtained powder materials: $Y_2O_3:Er$, $Y_3Ga_5O_{12}$, $SrAl_2O_4$, $MgAl_2O_4$, $YFeO_3$, $LnFeO_3$, $Cu_2Y_2O_5$, $CuYO_2$ and also dispersion of powder materials in transparent PMMA.

Driving licence B

ADDITIONAL INFORMATION

Projects participation

1. Advanced Light Emissive Device Structures, Science and Technology Center in Ukraine STCU (2009-2011);
2. Scholarship SOPRANO PEOPLE-2007-1-1-ITN Romania, (2011- 2012);
3. Mobile pilot plant for wastewater treatment using solar energy, PN-II- PT-PCCA- 2013-4- 1708, Romania (2014-2016);
4. Obtaining of luminescent materials and estimation of their applicability in conversion of solar radiation into electricity, PN 16 14 03-10, Romania (2017).
5. Nanostructured carbon materials for advanced industrial applications, PN-III-P1-1.2-PCCDI-2017-06.19, Romania (2018).
6. Tehnologii inovative de obtinere a dispozitivelor integrate de generare și stocare a energiei electrice, PN 19 22 01 03 (2019-2020).

Awards 4th place, diploma for contribution to the development of demonstrative setup fotovoltaic - photocatalytic hybrid system at Regional Innovation Fair 2015 Arad, Romania.

Civil status Married