



Andrei
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CONTACT

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EDUCATION AND TRAINING

- 1/10/19 – CURRENT** – Timișoara, Romania
 - PhD candidate - Erbium doped optical materials**
 - West University of Timișoara, UVT
 - (final year - thesis writing, no courses)
 - uvt.ro
- 1/10/19 – 14/6/21** – Timișoara, Romania
 - 2nd Master degree in Physics and technology of advanced materials / M.Sc.**
 - West University of Timișoara, UVT
 - optical spectroscopy of advanced materials
 - crystal growth methods
 - extreme light
 - ECTS | 120 | uvt.ro
- 2/9/15 – 4/9/15** – Trnava, Slovakia
 - Training Workshop on Light-Based Technologies**
 - Laserlab Europe
- 9/6/14 – 19/12/14** – Timișoara, Romania
 - User training of experimental techniques: Time resolved photoluminescence, Raman, Ellipsometry, XPS**
 - LERF, INCEMC
- 1/10/11 – 1/9/12** – Timișoara, Romania
 - Scholarship Spin and Orbital Physics : Research of advanced new oxides (SOPRANO)**
 - INCEMC
 - Hydrothermal synthesis technique of oxide materials
 - X-ray diffraction (XRD) technique for materials characterization
- 1/10/08 – 1/11/09** – Chisinau, Moldova
 - 1st Master degree in physics / M.Sc.**
 - University of the Academy of Sciences of Moldova, UnASM
 - lasers and non-linear optics;
 - physics and methods of research the solid state;
 - physics of nanotechnologies and nano materials;
 - the materials technology
 - ECTS | 90
- 1/9/02 – 1/10/06** – Chisinau, Moldova
 - Bachelor of engineering in computers and optical networks/ B.Eng.**
 - Free International University of Moldova, ULIM
 - hands-on experience in Microchip PIC Assembly programming and C# (basic), for automation data acquisition and temperature control setup;
 - Repair/configuration PC, LAN networks setup;
 - hands-on experience in electronic components soldering on PCB;
 - maintenance of analytical equipment;

WORK EXPERIENCE

1/6/14 – CURRENT

Research assistant / Scientific researcher (CS)

Renewable Energies – PV Laboratory (LERF), of National Institute for R&D (INCEMC) / www.repvl.ro.

Research and development of materials with potential applications as optical crystals, photocatalysts, laser active media and luminescent solar concentrators.

Timisoara, Romania

1/8/08 – 1/6/14

Research assistant / Scientific researcher

Institute of Applied Physics of the Academy of Sciences of Moldova

Research of optical materials using photoluminescence, UV-VIS and Raman spectroscopies.

Chisinau, Moldova

SKILLS AND INTERESTS



Materials sciences and characterization:

- hands-on experience in experimental techniques :
Photoluminescence stationary/time resolved, Raman, UV- VIS spectroscopy, XRD, XPS;
- hands-on experience in materials synthesis techniques:
Hydrothermal, Co-precipitation, Bridgman crystal growth;
- obtained materials (powders and several crystals): $Y_2O_3:Er$, $Y_3Ga_5O_{12}$, $SrAl_2O_4$, $MgAl_2O_4$, $YFeO_3$, $LnFeO_3$, $Cu_2Y_2O_5$, $CuYO_2$, $BaF_2:Er$, fluorescent/phosphorescent materials dispersed in plastics and transparent PMMA;
- performing optical alignments for spectroscopic measurements; experimental data analysis, handling of scientific literature, writing of scientific articles, poster and oral presentations at national/international conferences.

Engineering:

- past hands-on experience in Microchip PIC ASM programming, PC, LAN networks repair/configuration;
- past hands-on experience in electronic components soldering;
- maintenance of analytical equipment

Digital skills:

- Microsoft Office; Origin; Matlab (basic); Microchip PIC Assembly language; C# (basic), AutoCAD(basic).

WORK QUALITIES

Ability to work

- as part of a team, with minimal supervision;
- independently using own initiative and focus on details;
- organized, curious when motivated.

LANGUAGE SKILLS

MOTHER TONGUE(S): Romanian

OTHER LANGUAGE(S):

English

Listening
B1

Reading
B2

**Spoken
production**
B2

**Spoken
interaction**
B2

Writing
B2

Russian

Listening
C1

Reading
B2

**Spoken
production**
C1

**Spoken
interaction**
C1

Writing
B1

PROJECTS PARTICIPATION



1. Advanced Light Emissive Device Structures, Science and Technology Center in Ukraine STCU, USA - Moldova (2009-2011);
2. Scholarship SOPRANO PEOPLE-2007-1-1-ITN, UE - 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, Romania (2019-2020).

AWARDS & PATENTS



1. 4th place, diploma for contribution to the development of demonstrative setup photovoltaic - photocatalytic hybrid system at Regional Innovation Fair 2015 Arad, Romania.
2. co-author of patent of synthesis method OSIM A 00971, Procedeu de sinteză a fotocatalizatorilor activi în vizibil de tip PdS/Cd_xZn_{1-x}S utilizând precursori cu puritate scăzută, RO-BOPI 6/2018, p.18.

HOBBIES / CIVIL STATUS / DRIVING LICENCE



Contribution to the conservation of Romanian traditional rural crafts / married / cat. B.