

# CURRICULUM VITAE

## 1. PERSONAL DATA

**Surname:** GHEORGHE  
**First name:** Cristina-Petruta  
**Date/Place of Birth:** 01 August 1974 / Turnu Magurele, Romania  
**Nationality:** Romanian  
**Gender:** Female  
  
**Languages:** English  
Romanian (native language)



**Office:** National Institute for Laser, Plasma and Radiation Physics (INFLPR)  
Laboratory of Solid-State Quantum Electronics  
409 Atomistilor Str., P.O. Box MG-36, Magurele 077125, Ilfov, Romania  
Phone: +40 - 21 457-4550, ext. 2111  
FAX: +40 - 21 457-4243  
Email: [cristina.gheorghe@inflpr.ro](mailto:cristina.gheorghe@inflpr.ro)  
Web: <http://www.inflpr.ro>, <http://ecs.inflpr.ro>

## 2. EDUCATION AND TRAINING

### **Diploma in Engineering Physics**

Dates / Institution: Sept. 1992- June 1997 / Faculty of Physics, University of Bucharest, Romania

### **PhD in Physics**

Dates / Institution: 2005-2008 / Faculty of Physics, University of Bucharest, Romania  
Title of the Thesis: "Composition and structure effects of RE emission in crystals and ceramics"  
Granted by Order 3658/10.04.2009 of the Ministry of Education and Research

## 3. WORK EXPERIENCE

### **National Institute for Laser, Plasma and Radiation Physics**

Laboratory of Solid-State Quantum Electronics  
409 Atomistilor Str., Magurele 077125, Ilfov, Romania

Period / Position:	October 2011- present	Senior Researcher of 2nd rank
	2006 - 2011	Senior Researcher of 3rd rank
	2004 - 2006	Researcher
	2001 - 2004	Junior Scientist

#### **4. WORKING VISITS**

21.05.- 24.05.2013	Laboratoire de Chimie de la Matière Condensée de Paris - LCMCP de l'Ecole Nationale Supérieure de Chimie de Paris -ENSCP, Paris, France, in the frame of the <b>International project Romania-France, Contract 3 RO-FR/ 2012-2015.</b>
12.05. - 16.05.2012	Laboratoire de Chimie de la Matière Condensée de Paris - LCMCP de l'Ecole Nationale Supérieure de Chimie de Paris -ENSCP, Paris, France, in the frame of the <b>PostDoctoral Project, Contract PD 160/ 2010-2012.</b>
05.07. - 12.07.2010	Laboratoire de Chimie de la Matière Condensée de Paris - LCMCP de l'Ecole Nationale Supérieure de Chimie de Paris -ENSCP, Paris, France, in the frame of the <b>Bilateral Project Romania-France, PN II CAPACITATI Modul III-Brancusi, Contract 214-1/ 2009-2010.</b>

#### **5. RESEARCH INTERESTS**

- Single crystals doped with RE<sup>3+</sup> ions: structural, spectroscopic and laser characterization.
- Transparent ceramics doped with RE<sup>3+</sup> ions: structural, spectroscopic and laser characterization.
- Optical thermometry
- Up conversion processes in rare-earth-doped materials
- Nonlinear optical materials
- Applications of solid-state lasers

#### **6. PUBLICATIONS**

<b>Peer-review journals:</b>	<b>70</b>
<b>Contributed talks:</b>	<b>115</b> International conferences, of which <b>8</b> papers (more than 3 pages) published in the conference proceedings <b>11</b> oral presentations <b>5</b> invited presentations

#### **7. RESEARCH PROJECTS**

<b>Project Leader:</b>	<b>Young Doctoral project</b> (TD-30), Contract 30/ 2007-2008 <b>Post Doctoral project</b> (PD-160), Contract PD 160/ 2010-2012 <b>Young Team</b> (PN-II-RU-TE-2014-4-2443), Contract TE 208/ 2015-2017
<b>Key person:</b>	<b>15 National Research Projects</b> (Ideas, Partnerships) <b>5 international Research Projects</b>
<b>Participant:</b>	<b>9 International Collaborations</b>
●	<b>2001-2005.</b> <u>Title of cooperation:</u> "High resolution spectroscopy and laser emission characteristics of concentrated Nd laser materials", <b>Japan-Romania.</b> Collaborators: Institute for Molecular Science, Okazaki, Japan and Institute for Atomic Physics, ECS Laboratory, Bucuresti, Romania.
●	<b>2003-2007.</b> <u>Title of cooperation:</u> "Spectroscopic and Laser Emission properties of Linear and Non-linear Laser Materials", <b>France-Romania.</b> Collaborators: ENSCP, Lab. Phys. Chem. de l'Etat Solide, CNRS-UMR 7475, Paris, France and INFLPR, ECS Laboratory, Bucuresti, Romania.

- **2006-2010.** Title of cooperation: "Advanced materials and processes for coherent and incoherent photon sources", **Germany-Romania.**  
Collaborators: Universität Hamburg, Institute für Laser Physic, Hamburg, Germany and INFLPR, ECS Laboratory, Bucuresti, Romania.
- **2010-2014.** Title of cooperation: "Advanced materials and processes for coherent photonic sources", **France-Romania.**  
Collaborators: ENSCP, Lab. Phys. Chem. de l'Etat Solide, CNRS-UMR 7475, Paris, France and INFLPR, ECS Laboratory, Bucuresti, Romania.
- **2013-2016 .** Title of cooperation: "Advanced materials for coherent photon sources", **Norway-Romania.**  
Collaborators: SINTEF Materials and Chemistry, Sector Sustainable Energy Technology, Department of PV Silicon, Trondheim, Norway and INFLPR, ECS Laboratory, Magurele, Romania.
- **2013-2016 & 2017 - 2020.** Title of cooperation: "Advanced ceramic materials for solid-state laser sources", **Ukraine-Romania.**  
Collaborators: Institute for Single Crystals, National Academy of Sciences of Ukraine - ISC NASU, Department of Crystalline Materials of Complex Compounds, Laboratory of Optical Nanoceramics, Kharkov, Ukraine and INFLPR, ECS Laboratory, Magurele, Romania.
- **2019-2020.** Title of cooperation: "Cristale laser si optic nelineare avansate cu topire incongruenta crescute prin tehnico de crestere Czochralski", **France-Romania.**  
Collaborators: Institute de Recherche de Chimie Paris - UMR 8247, France and INFLPR, ECS Laboratory, Magurele, Romania.
- **2021-2025.** Title of cooperation: "Advanced ceramic materials for solid-state laser sources", **Ukraine-Romania.**  
Collaborators: Institute for Single Crystals, National Academy of Sciences of Ukraine – ISC NASU, Department of Crystalline Materials of Complex Compounds, Laboratory of Optical Nanoceramics, Kharkov, Ukraine and INFLPR, ECS Laboratory, Magurele, Romania.

## 8. MISCELLANEOUS

- **Reviewer:** Journal of Luminescence, Optical Materials, Journal of Materials Science, Journal of the American Ceramic Society, Journal of Alloys and Compounds, Journal of Applied Physics, Optical Materials Express, Materials Research Express, Materials.
- **Scientific adviser** 3 PhD students having their thesis in the field of spectroscopic investigations of single crystals and transparent ceramics doped with RE<sup>3+</sup> ions;
- **Member of the jury** PhD thesis defences.

## 9. COMPUTER SKILLS AND COMPETENCES

<b>Operating systems:</b>	Windows
<b>Numeric calculus:</b>	MatLab
<b>Data analysis and representation:</b>	Microcal Origin
<b>Text editing:</b>	OpenOffice.org, MS Word
<b>Presentations:</b>	OpenOffice.org, MS PowerPoint.