

CURRICULUM VITAE

1. PERSONAL DATA

Surname: TOMA
First name: Octavian
Date/Place of Birth: 06 January 1975 / Bucharest, Romania
Nationality: Romanian
Gender: Male
Languages: English (good)
Romanian (native language)



Office: National Institute for Laser, Plasma and Radiation Physics (INFLPR)
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2. EDUCATION AND TRAINING

PhD in Physics

Dates / Institution: Nov. 2001 - Nov. 2007 / University of Bucharest, Romania.
Title of the Thesis: "Upconversion Processes in Solids Doped with Rare Earth Ions"
Specialization: Physics

MSc Degree in Physics

Dates / Institution: Oct. 1998 - June 1999 / Faculty of Physics, University of Bucharest, Romania
Title of the Thesis: "A Study of Second Harmonic Generation of the Nd:YAG Laser in KTP"

Diploma in Engineering Physics

Dates / Institution: Oct. 1993 - June 1998 / Faculty of Physics, University of Bucharest, Romania
Title of the Thesis: "Second Harmonic Generation of the Nd:YAG Laser using Thermal Phase Matching in MgO:LiNbO₃"

3. WORK EXPERIENCE

National Institute for Laser, Plasma and Radiation Physics

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

Period / Position:	09/2011 - current	Senior Scientific Researcher, 2nd rank
	06/2006 - 09/2011	Senior Scientific Researcher, 3rd rank
	07/2001 - 06/2006	Scientific Researcher
	12/1998 - 07/2001	Junior Scientist

4. PUBLICATIONS

Peer-review journals: 59 (53 in journals with ISI impact factor).
Contributed talks: International conferences: 35, of which
14 were published (more than 3 pages) in conference proceedings.

5. RESEARCH INTERESTS

Upconversion-Pumped Solid-State Lasers:

- Upconversion processes in erbium-doped active media;
- Diode-pumped Er lasers with emission in green (transition $^4S_{3/2} \rightarrow ^4I_{15/2}$).

Rare-earth phosphors:

- Spectroscopy of nanopowders doped with rare-earths ions;
- Influence of the nanoparticle structural properties on the spectroscopic properties of the dopant ions;
- Upconversion phosphors.
- Enhancement of conversion efficiency of the solar cells using upconversion processes in rare-earth-doped materials.

6. MISCELLANEOUS

Reviewer: Journal of Optoelectronics and Advanced Materials
Applied Physics B

7. COMPUTER SKILLS AND COMPETENCES

Operating systems: Windows, Unix, Linux.
Programming languages: C, C++, Pascal, Fortran
Numeric calculus: Fortran, MatLab.
Data analysis and representation: Gnuplot, Microcal Origin, Grace
Text editing: LaTeX, OpenOffice.org, MS Word
Presentations: LaTeX, OpenOffice.org, MS PowerPoint
CAD: Solid Edge