

CURRICULUM VITAE

1. PERSONAL DATA

Surname: PAVEL
First name: Nicolaie
Date/Place of Birth: 05 December 1965 / Stanesti-Arges, Romania
Nationality: Romanian
Gender: Male
Languages: English (good)
Japanese (medium)
Romanian (native language)

Office: National Institute for Laser, Plasma and Radiation Physics (INFLPR)
Laboratory of Solid-State Quantum Electronics
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Researcher ID: B-8766-2011 <https://www.webofscience.com/wos/author/record/1733948>
Google scholar profile link: <https://scholar.google.com/citations?hl=ro&user=Sn2FRH8AAAAJ>
Orchid iD: <https://orcid.org/0000-0002-0120-1184>
Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57208079581>

2. EDUCATION AND TRAINING

Dr. Habil. (Doctor abilitat):

Dates: Order 4458MD/09.08.2013 of the Romanian Ministry of National Education
Title of the Thesis: "Diode-Pumped Solid-State Lasers with Improved Output Characteristics"
Specialization: Physics

PhD in Physics

Dates / Institution: Sept. 1992 - Nov. 1997 / Institute of Atomic Physics, Bucharest, Romania
Order 5374/20.11.1997 of the Romanian Ministry of National Education
Title of the Thesis: "Contributions to the Compensation of Thermal Effects in Nd Lasers"
Specialization: Optics, Spectroscopy and Lasers

Diploma in Engineering Physics

Dates / Institution: Sept. 1985 - June 1990 / Faculty of Physics, University of Bucharest, Romania
Title of the Thesis: "Simulation of VVR-S Nuclear Reactor Operation"

Post PhD Scholarships

C. Fellow of the Alexander von Humboldt Foundation, Bonn, Germany
Period: 01 July - 30 September 2007
Research theme: "Powerful and Compact Solid-State Laser Sources with Emission in the Visible Blue and Green Spectral Ranges"
Institution: Institute for Laser Physics, Hamburg University, Hamburg 22761, Germany

- B.** Fellow of the Alexander von Humboldt Foundation, Bonn, Germany
 Period: 01 June 2005 - 30 November 2006
 Research theme: "Improving the Overall Optical-to-Optical Efficiency of Solid-State Lasers Emitting in Visible Region"
 Institution: Institute for Laser Physics, Hamburg University, Hamburg 22761, Germany
- A.** Fellow of the Japanese Society for the Promotion of Science, Tokyo, Japan
 Period: 18 March 1999 - 17 March 2001
 Research theme: "Development of a High-Brightness Laser System for Nonlinear Wavelength Conversion"
 Institution: Institute for Molecular Science, 38 Nishigonaka, Okazaki 444-8585, Japan

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:

June 2006 - present	Senior Scientific Researcher, 1st rank
June 2001 - May 2006	Senior Scientific Researcher, 3rd rank
April 1992 - May 2001	Scientific Researcher
Sept. 1990 - March 1992	Junior Scientist

Institute of Laser Physics, Hamburg University

Luruper Chaussee 149, Hamburg D-22761, Germany

Period / Position:

01 July 2007 - 30 Sept. 2007	Post-doctoral period (Alexander von Humboldt Foundation)
01 June 2005 - 30 Nov. 2006	Post-doctoral period (Alexander von Humboldt Foundation)

Institute for Molecular Science (IMS), National Institutes for Natural Sciences

Laser Research Center, 38 Nishigonaka, Myodaiji, Okazaki 444-8585, Aichi-ken, Japan

Period / Position:

01 May - 31 July, 11 October - 15 December 2010;	
29 January- 05 April 2009, 01 October - 30 November 2009:	
	Researcher: Research grant of IMS under the Collaborative Development of Innovation Seeds program of the Japan Science of Technology Agency
01 May 2004 - 31 March 2005:	Researcher: Research grant of IMS
10 Jan. 2004 - 23 March 2004:	Researcher: Research grant of IMS
02 June 2003 - 31 August 2003:	Researcher: Research grant of IMS
09 April 2002 - 12 Feb. 2003:	Researcher: Research grant of JSPS
28 August 2001 - 31 Oct. 2001:	Researcher: Research grant of IMS
18 March 1999 - 17 March 2001:	Post-doctoral period (fellow of the Japanese Society for the Promotion of Science, JSPS)

Information Technology, Research and Development Center

Mitsubishi Electric Corporation, Kamakura, Kanagawa 247-8501, Japan

Period / Position: 23 June 1998 - 15 March 1999: Visiting Researcher

Faculty of Engineering, Fukui University

Fukui 910-8509, Japan

Period / Position: 01 Oct. 1996 - 25 March 1998: Research Student, Grant of Japanese Ministry of Education, Science, Sport and Culture, MONBUSHO

4. PUBLICATIONS

- Patents:** 11 (2 in Japan & USA, 4 in Japan, 1 in France, 4 in Romania)
- Peer-review journals:** 85 (84 in journals with ISI impact factor)
- Contributed talks at**
- International Conferences: about 170 of which 50 were published (more than 3 pages) in conference proceedings
 - One chapter book
- The list of publications is available at: http://ecs.infpr.ro/publications/publications_NPavel.pdf

5. RESEARCH INTERESTS

Diode-Pumped Solid-State Lasers

- High peak-power passively Q-switched Nd:YAG/Cr⁴⁺:YAG laser for ignition of automobile engine;
- Laser ignition of CH₄/air and H₂/air mixtures in a constant-volume combustion chamber;
- Waveguide lasers realized by direct writing with a fs-laser beam;
- Diode-pumped Nd-based thin-disk lasers;
- Efficient solid-state lasers with emission into infrared and visible spectra;
- High power solid-state visible laser sources by quasi-phase-matching process;
- Edge-pumped Yb:YAG laser with high output power;
- High power diode side-pumped Nd:YAG lasers; oscillator and MOPA configurations;
- Longitudinally pumped miniature solid-state lasers.

6. MISCELLANEOUS

Associate

Editor Optics Express, OPTICA (formely OSA), since July 2020
(<https://opg.optica.org/oe/journal/oe/about.cfm#board>).

Membership: - OPTICA (formely OSA); **Senior Member** since July 2021.
- The International Society for Optics and Photonics (SPIE).

Contact person pentru Romanian International Commission for Optics - ICO Territorial Committee
(<https://www.e-ico.org/Romania>)

Reviewer: Optics Express, Optical Materials Express, Optics Letters,
Optics Communications, Opt. & Laser Technology,
Appl. Phys. B., Optical Engineering, Laser Physics Letters, Applied Physics Express

Awards: - The 2002 Year "Constantin Miculescu" Award of the Romanian Academy for the papers with the subject "Improving the Laser Performances of the Solid-State Miniature Lasers"; awarded in Bucharest on 21 December 2004.
- The Award for the Best Presentation at LASERS '99 Conference, 13-16 December 1999, Quebec, Canada, Paper TJ3: "100-W Green Average Power from a Diode-Pumped Nd:YAG MOPA System: Design and Operation".