CURRICULUM VITAE

PERSONAL INFORMATION

Name: Dimitra

Surname: Ladika

E-mail: dladika@iesl.forth.gr/ dimitra.ladika@ff.vu.lt/

Date of birth: 29-03-1993

ORCHID number: 0000-0003-2909-1949

EDUCATION

04/2023-06/2024: Postdoctoral researcher at Laser NanoPhotonics Group, Laser Research Center, Physics Faculty, Vilnius University, Lithuania

12/2023-03/2024: Postdoctoral researcher at Nonlinear Lithography group, Institute of Electronic Structure and Laser (IESL), Foundation for Research & Technology-Hellas (FORTH), Crete, Greece

04/2023-05/2023: Laserlab-Europe (PID:23912) at Laser NanoPhotonics Group, Laser Research Center, Physics Faculty, Vilnius University, Lithuania

04/2019-10/2023: PhD student at Department of Materials Science and Technology, University of Crete

PhD dissertation**: «** *Linear and Nonlinear Optical Properties of Materials for the Development of 3D Photonic Nanostructures at Telecommunication Wavelengths***»**

Supervisors: Dr. Maria Farsari, Dr. P. A. Loukakos, Prof. M. Kafesaki

09/2016-11/2018: Master's degree in "*Photonics and Nano-electronics*" by the department of Physics, University of Crete

Master Thesis: "*Optical characterization of organic nonlinear materials"*

Supervisor: Dr. Maria Farsari

11/2011-03/2016: Bachelor's degree from the Department of Physics, University of Patras

Bachelor thesis: "*Experimental study of the non-linear optical properties of polymer modified graphene"*

Supervisor: Prof. S. Couris

11/2008-06/2011: Greek high school certificate

TEACHING EXPERIENCE

• Reinforcing teaching to secondary school students, in the framework of a voluntary program of the Municipality of Patras in collaboration with the volunteers of Patras, 2013-2014.

• Teaching assistant at the Optics Laboratory at the Department of Physics of the University of Crete.

• Teaching assistant at the Mechanics and Thermodynamics Laboratory at the Department of Materials Science and Technology of the University of Crete.

• Teaching assistant at the Optics and Electricity Laboratory at the Department of Materials Science and Technology of the University of Crete.

SPECIALIZATION SEMINARS

- Introduction to the design of photonic and bio-photonic materials using computational methods at the National Hellenic Research Foundation, with A. Avramopoulos, 2016
- 5th Summer School "Photonics meets Biology" at F.O.R.T.H. in Heraklion, Crete, September 2019
- Siegman International School on Lasers 2020 (virtual)
- Siegman International School on Lasers 2022, Poland

INTERNSHIPS

NCSR DEMOKRITOS, Institute of Nuclear and Particle Physics, Topic "Electrical characterization of alloys at high temperature" Supervisor: Dr. G. Apostolopoulos

GRANTS

- **05/2022-09/2023**: The State Scholarships Foundation (I.K.Y.) - I.K.Y. Scholarship Program for PhD candidates in the Greek Universities. The implementation of the doctoral thesis was co-financed by Greece and the European Union (European Social Fund-ESF).

- **04/2023-05/2023:** Laserlab-Europe (PID:23912) at Laser NanoPhotonics Group, Laser Research Center, Physics Faculty, Vilnius University, Lithuania

PUBLICATIONS

- M. Stavrou, G. Zyla, **D. Ladika** et al. Push-Pull Carbazole-Based Dyes: Synthesis, Strong Ultrafast Nonlinear Optical Response, and Effective Photoinitiation for Multiphoton Lithography, 23 May 2024, PREPRINT (Version 1) available at Research Square https://doi.org/10.21203/rs.3.rs-4466733/v1/

- Wang, H., Zhang, W., **Ladika, D**., Yu, H., Gailevičius, D., Wang, H., Pan, C.-F., Nair, P. N. S., Ke, Y., Mori, T., Chan, J. Y. E., Ruan, Q., Farsari, M., Malinauskas, M., Juodkazis, S., Gu, M., Yang, J. K. W., Two-Photon Polymerization Lithography for Optics and

Photonics: Fundamentals, Materials, Technologies, and Applications. *Adv. Funct. Mater*. 2023, 2214211. https://doi.org/10.1002/adfm.202214211

- Sereikaite, V.; Navaruckiene, A.; Jaras, J.; Skliutas, E.; **Ladika, D**.; Gray, D.; Malinauskas, M.; Talacka, V.; Ostrauskaite, J. Functionalized Soybean Oil- and Vanillin-Based Dual Cure Photopolymerizable System for Light-Based 3D Structuring. Polymers 2022, 14, 5361. https://doi.org/10.3390/polym14245361

- **Ladika, D**., et al. Synthesis and application of triphenylamine-based aldehydes as photo-initiators for multi-photon lithography. Appl. Phys. A 128, 745 (2022). https://doi.org/10.1007/s00339-022-05887-1

- **Ladika D.**, et al. X-photon 3D lithography by fs-oscillators: wavelength-independent and photoinitiator-free, 06 December 2023, PREPRINT (Version 1) available at Research Square https://doi.org/10.21203/rs.3.rs-3708475/v1 (*submitted*)

- **Ladika D**., et al. Tailoring the optical properties of 3D photonic crystals by coating them with the ENZ material AZO in order to operate at the telecommunication wavelength (*under preparation*)

CONFERENCES

- Oral presentation at the Panhellenic Conference on Solid State Physics and Material Science, Patras 2019, entitled:

«*Testing Trichomes Designs of 3D Microstructures using Multiphoton Polymerization: Toward Hydrophobic Surfaces*» A. Mourka, **D. Ladika**, L. Papoutsakis, M. Vamvakaki, S.H. Anastasiadis and M. Farsari.

- Poster presentation at the NanoBio2018 conference entitled:

«*Highly efficient and biocompatible photoinitiators for multi-photon polymerization*» **D. Ladika**, K. Parkatzidis, G. Noirbent, M. Chatzinikolaidou, F. Dumur, M. Farsari and M. Vamvakaki

- Oral presentation and participation at the 9th International Summer School on Trends and new developments in Laser Technology, August 2020 (virtual), entitled:

«*Testing Trichomes Designs of 3D Microstructures using Multiphoton Polymerization: Toward Hydrophobic Surfaces*» **D. Ladika**, A. Mourka, L. Papoutsakis, M. Vamvakaki, S.H. Anastasiadis and M. Farsari.

- Oral presentation and participation at *Proceedings Volume 11675, Synthesis and Photonics of Nanoscale Materials XVIII; 1167509*,2021, SPIE LASE (virtual), entitled:

«Triphenylamine-based aldehydes: Photoinitiators for multiphoton polymerization» **D. Ladika**, M. Farsari, F. Dumur, G. Noirbent, D. Gigmes, D. Gray, A. Mourka

- Oral presentation and participation at Photonics meet Biology Summer School and Workshop, 27 July -1 August, 2022, Spetses Island, Greece, entitled:

«*3D photonic devices developed via Multiphoton Lithography for application in telecommunication wavelengths*» **D. Ladika**, A. Klini, P. Loukakos, M. Kafesaki, D. Gray and M. Farsari

- Oral presentation and participation at the Proc. SPIE LASE PC12410, *Nanoscale and Quantum Materials: From Synthesis and Laser Processing to Applications 2023; PC124100E* ,2023, San Francisco, California, United States, entitled:

«Three dimensional photonic nanostructures as effective nonlinear devices at telecommunication spectrum» **D. Ladika**, A. Klini, P. Loukakos, M. Kafesaki, M. Farsari, D. Gray

- Poster and three-minutes presentation at CLEO®/Europe-EQEC 2023, 26 - 30 June 2023, Munich, Germany, entitled:

«*Tailoring the optical response of 3D-printed photonic crystals using Aluminum Zinc Oxide*» **D. Ladika,** A. Theodosi, O. Tsilipakos A. Klini, P. Loukakos, M. Kafesaki, M. Farsari, D. Gray

- Oral presentation and participation at Open Readings 2024, Vilnius, Lithuania, entitled:

« *Photosensitized and non-photosensitized materials for multiphoton lithography* » **D. Ladika**, A. Butkus, M. Stavrou, G. Zyla, V. Melissinaki, E. Skliutas, E. Kabouraki, F. Dumur, D. Gray, S. Juodkazis, M. Farsari, M. Malinauskas

SKILLS

- Languages: Certificate of Proficiency in English, Michigan (C2)
- Other skills: Origin Lab, Microsoft Office, 3D-Poli software, 3D-CAD software