

Curriculum Vitae

Yannis Orphanos PhD (b. 1974) received his Bachelor's degree (BSc) in Mechanical Engineering in 2003 from the Mechanical Engineering department of the T.E.I. of Crete, Greece. In 2008 he received his MSc degree in Optics & Vision from the Departments of Medicine, Mathematics & Physics of University of Crete, Greece. In 2015 he was awarded a PhD degree from the Material Science Department of University of Patras, Greece. His research focused in methodologies of dynamic nanoscopic material characterization using acoustic sources generated by ultrashort laser pulses. He is currently Special Technical Laboratory Personnel in the T.E.I. of Crete and member of the Centre for Plasma Physics and Lasers (CPPL) of the T.E.I. of Crete. He has more than 15 years experience in laser-based related experimental techniques, in the fields of holographic interferometry and electronic speckle pattern interferometry, laser secondary sources, laser ultrasonics, laser acoustics and materials characterization.

He has participated at various capacities in many EU or nationally funded / co-funded research projects: (i) “*National research infrastructure for HiPER*” (funded by the European Regional Development Fund and National Funds through the Operational Programme “Competitiveness and Entrepreneurship”), (ii) “*Innovative optoacoustic device for 3D spatiotemporal micro-characterization of composite materials based on ultrafast laser pulses*” (funded by the European Social Fund and National funds through the Operational Programme “Education and Lifelong Learning”, Action Archimedes III), (iii) “*HiPER-GR – Hellenic network for the European Research infrastructure HiPER*” (funded by the European Regional Development Fund and National Funds through the Operational Programme “Competitiveness and Entrepreneurship”), (iv) “*Multifunctional encoding system for assessment of movable cultural heritage (MultiEncode)*” (funded by the European Union and National funds under FP6-POLICIES-3.6, Proposal No FP6-2003-SSP-3), (v) “*Laser Multitask non destructive technology in conservation diagnostic procedures (LASERACT)*” (funded by the European Union and National funds under FP5-EESD, Project ID EVK4-CT-2002-00096), (vi) “*Acoustic microscopy using laser-generated ultra-high frequency ultrasounds*” (funded by European Union and National funds through the Operational Programme “Education and Initial Vocational Training”, Action Archimedes II).

He has more than 30 publications in peer-reviewed scientific journals (among them Applied Physics Letters, Optics Express, Microelectronics Engineering etc) and conference proceedings.

Selected publications

- V. Dimitriou, E. Kaselouris, Y. Orphanos, M. Bakarezos, N. Vainos, I.K. Nikolos, M. Tatarakis, and N.A. Papadogiannis, *The thermo-mechanical behavior of thin metal films under nanosecond laser pulse excitation above the thermoelastic regime*, Appl. Phys. A 118, 739 (2015).
- E. Tzianaki, M. Bakarezos, G.D. Tsibidis, Y. Orphanos, P.A. Loukakos, C. Kosmidis, P. Patsalas, M. Tatarakis, and N.A. Papadogiannis, *High acoustic strains in Si through ultrafast laser excitation of Ti thin-film transducers*, Opt. Express 23, 17191 (2015).
- E. Kaselouris, I. K. Nikolos, Y. Orphanos, E Bakarezos, N. A. Papadogiannis, M. Tatarakis and V. Dimitriou, “*A Review of simulation methods of laser matter interactions focused on nanosecond laser pulsed systems*”, J. Multiscale Model. (2015), DOI: 10.1142/S1756973713300013
- E. Kaselouris, I. K. Nikolos, Y. Orphanos, E Bakarezos, N. A. Papadogiannis, M. Tatarakis and V. Dimitriou, “*Elastoplastic study of nanosecond-pulsed laser interaction with metallic films using 3D multiphysics fem modeling*”, Int. J. Damage Mech. (2015), DOI: 10.1177/1056789515576553
- V. Dimitriou, E. Kaselouris, Y. Orphanos, M. Bakarezos, N. Vainos, M. Tatarakis, and N.A. Papadogiannis, *Three dimensional transient behavior of thin films surface under pulsed laser excitation*, Appl. Phys. Lett. 103, 114104 (2013).
- Y. Orphanos, V. Dimitriou, E. Kaselouris, E. Bakarezos, N. Vainos, M. Tatarakis, and N.A. Papadogiannis, *An integrated method for material properties characterization based on pulsed laser generated surface acoustic waves*, Microelectron. Eng. 112, 249 (2013).