CURRICULUM VITAE

Emmanuel Stratakis

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Founder & Leader of the Ultrafast Laser Micro- and Nano- Processing Laboratory

Heraklion, December 2019

1. EDUCATION

Ph.D in Physics, Department of Physics, University of Crete, Greece, 2001.
Thesis title: "*Photoinduced metastable phenomena in Hydrogenated amorphous Silicon; The role of microstructure, from amorphous to microcrystalline material*".
Advisor: Prof. Panagiotis Tzanetakis

M.Sc in Condensed matter Physics, Department of Physics, University of Crete, Greece, 1997.

B.Sc in Physics, Department of Physics, University of Crete, Greece, 1995.

2. AWARDS, DISTINCTIONS AND FELLOWSHIPS

- **National Representative to the EC Program Committee** on Nanotechnologies, Advanced materials, Biotechnology, Advanced Manufacturing and Processing (NMBP), Horizon 2020, 2019 –
- **National Representative to the High-Level Group of EC** on Nanosciences, Nanotechnology and Advanced Materials, 2017 –
- **National Representative to the OECD Working Party** on Bio-, Nano- and Converging Tech (BNCT), 2018 –
- **Member of the Scientific Committee of COST**, 2017 –
- **Member** of Engineering sectoral scientific council of the **National Council** for Research & Innovation, 2018 –
- **FORTH representative and Founder member** of the inter-institutional (Univ of Crete/Helenic Meditteranean University/FORTH) M.Sc. degree on Nanoenergy, 2018 –
- **FORTH representative and Founder member** of the inter-institutional Univ of Crete/ Technical University of Crete/FORTH) M.Sc. degree on Biomedical Engineering, 2017 –
- **National Expert to the EC Program Committee** on Nanotechnologies, Advanced materials, Biotechnology, Advanced Manufacturing and Processing (NMBP), Horizon 2020, 2014–2019.
- **Director of the European Nanoscience Facility of FORTH,** part of the NFFA-Europe Infrastructure, 2015 –
- **National Delegate of the Shadow committee for the Horizon 2020**: Nanotechnologies, Advanced materials, Biotechnology, Advanced Manufacturing and Processing, (2013 – 2014).
- **Manager (on behalf of FORTH-IESL)** of the Satellite Laboratory of the EU-NCL Research Infrastructure, 2015 –
- **National Representative and Member of the Management** Committee of the COST Actions MP0902, IC1208, MP1307, MP1302, (2011-2017).
- **Elected Vice representative** on behalf of the Researchers at the **Board of Directors of FORTH**, 2016 –
- **Member of the Editorial Board,** *Applied Sciences, MDPI* section *'Optics and Lasers'*, 2017 –
- **Member of the Editorial Board,** *International Journal of Molecular Sciences', MDPI,* section *'Materials*, 2018 –
- **Member of the Editorial Board,** *Optoelectronic Advances,* 2018 –
- **Member of the Editorial Board,** *Materials Today Bio, Elsevier,* 2018 –
- **Guest Editor of the Special Issue '**Biomimetic and Functional Materials', *International Journal of Molecular Sciences.*
- **Guest Editor of the Special Issue** 'Novel Biomaterials for Tissue Engineering', *International Journal of Molecular Sciences*.
- **FORTH representative** in the Working Team '*Energy'* of the Regional Council for Innovation of Crete Region, (2013 – 2014).
- **Student Scholarship, State Scholarship Foundation,** 1999, 2000, 2001, 2002, 2003.
- **Student Award, State Scholarship Foundation,** 1992, 1993, 1994.

3. EXPERIENCE

- **Research Director – Leader** of the Ultrafast Laser Micro- and Nano- Processing Laboratory, Institute of Electronic Structure and Laser (IESL), Foundation of Research and Technology Hellas (FORTH), 2007 –
- **Application Scientist**, **FORTH-IESL**, Laser and Applications Division, Heraklion, Greece 2007 –.
- **Adjunct Professor, University of Crete**, Materials Science and Technology Department, Greece (2001 – 2007).
- **Invited Professor, University of Crete**, Materials Science and Technology Department, Greece. 2008 –
- **Invited Professor,** Physics Department University of Crete, Greece 2016 –
- **Visiting Professor**, CNRS, LP3 Laboratory, Marseille, France (3 months, 2016)
- **Visiting Researcher**, CNR, IOM, Trieste, Italy (5 months, 2015)
- **Visiting Researcher, University of California, Berkeley**, Department of Mechanical Engineering, California, USA (Fall 2008)
- **Postdoctoral Researcher, University of California, Berkeley**, Department of Mechanical Engineering, California, USA (Fall 2006)
- **Postdoctoral Researcher, FORTH-IESL**, Amorphous Materials Laboratory (2003 – 2005).

4. RESEARCH INTERESTS

- **Laser-matter** interaction
- **Biomimetic multifunctional** surfaces (superhydrophobic, antireflective, antibacterial)
- **Advanced Processes** for **Photovoltaics** and **Energy Storage devices**
- **Processing** of **Graphene** and related **2D materials**
- **Biofabrication** for **Tissue Engineering** applications

5. ACHIEVEMENTS

- Ranked **among the first 100.000 scientists worldwide** in the recently reported bibliographic study: *A standardized citation metrics author database annotated for scientific field,* Ioannidis JPA, Baas J, Klavans R, Boyack KW (2019) PLoS Biol 17(8): e3000384. https://doi.org/10.1371/journal.pbio.3000384.
- **184 SCI publications** in international peer-reviewed journals including **14 invited review articles, 75 articles as corresponding author**, **17 articles as first author** and **1 monograph**.
- **7 invited chapters** in scientific books
- **6049 citations**, **h-index**: **42** (Source: Web of Science, 31/12/2019)
- **7633 citations**, **h-index**: **47, i-10-index: 128** (Source: Google Scholar, 31/12/2019)
- **5 patents**
- **6 Cover Pages** in *Advanced Functional Materials, Advanced Optical Materials, Advanced Energy Materials, Nanoscale, ChemNanoMat, Chemical Reviews*
- **> 170 Presentations** comprising **1 Plenary Lecture, 3 Keynote Lectures, 23 Invited Presentations,** in international conferences, **8 lectures** in Summer Schools, **>25** invited talks in Academia and Industry.
- **Principal Investigator** and **co-Investigator** in **13 European and 11 National** Research Projects, **(6 as Coordinator), Total funding: 6,454,893 € € @ 2012-2020**
- Granted **three FET–OPEN** grants, one as **Coordinator** (1.7% success rate)
- Granted a **FET Innovation Launchpad** grant (*LaBioNics*) as **Coordinator.**
- **Evaluator** of research proposals (RIAs, IAs, Binational, Fellowships) for **National** (Greece HFRI, NSF-USA, China, Italy, France, Austria, Belgium, Czech Republic, Cyprus, Switzeralnd, Kazakstan), **European** (ERC, H2020, FP7, ERANET) and **private** (Fondazione Cariplo) **funding agencies**. **Total funding: ~ 350 M€**

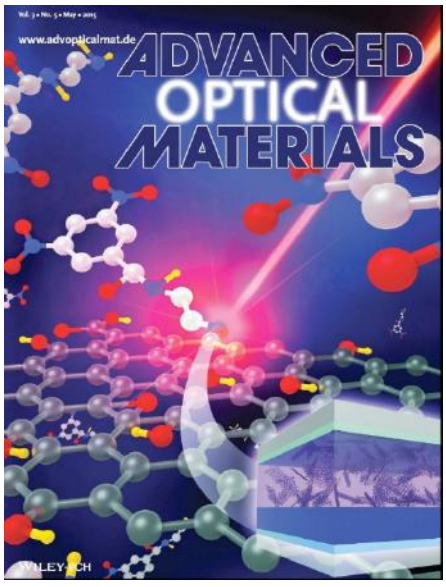
- **Technology consultant** for private funds and industry.
- **Referee** in high impact international scientific journals including *Phys Rev. Lett.,* Nature Communications; *Nature-Light:Science and Applications*; *Nanoletters, ACS Nano*, *Advanced Materials*, *Advanced Functional Materials, Advanced Ensrgy Materials; Biomaterials*, *Biomaterials Science, Acta Biomaterialia; Advanced Helalthcare Materials; Biofabrication, Tissue Engineering, Physical Review B, Nanoscale, Nature-Scientific Reports*
- **Principal Organiser** in **6** conferences/workshops; **Organizer** of **18** conferences/workshops.
- **Supervisor** of **17** PhD, **15** MSc and **38** BSc students.

6. PROFESSIONAL AFFILIATIONS

- EMRS (European Materials Research Society) Member of the Board of Delegates
- OSA (Optical Society of America) member
- MRS (Materials Research Society) member
- ACS (American Chemical Society) member
- ICPEPA (International Conference on Photo-Excited Processes and Applications), member of the International Advisory Committee
- CLEO (Conf. on Lasers and Electrooptics), member of the CM-Material Processing Commitee
- ACP, member of the Technical Programm Committe

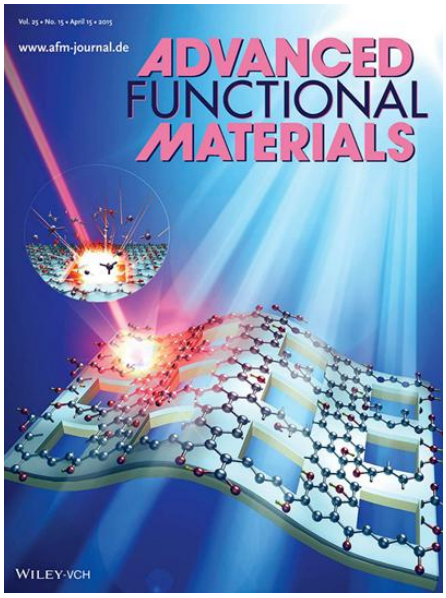
7. PUBLISHED WORK

7.1 JOURNAL COVERS



1. ***Inside Front Cover***
Photochemical Synthesis of Solution-Processable Graphene Derivatives (Adv. Optical Mater. 3, 5, page 596)
MAY 2015 | DOI: 10.1002/adom.201570027

The artwork represents the photochemical reaction for the synthesis of a graphene-based electron-accepting derivative. Ethylene-dinitro-benzoyl small molecules are shown in the vicinity of a graphene oxide nanosheet, one of which is preferentially bonded to the graphene oxide lattice under the photochemical action of a laser beam. On page 658, E. Kymakis, E. Stratakis, and co-workers use this photochemical synthetic route to create graphene-based electron acceptors with tunable bandgaps for organic solar cells.

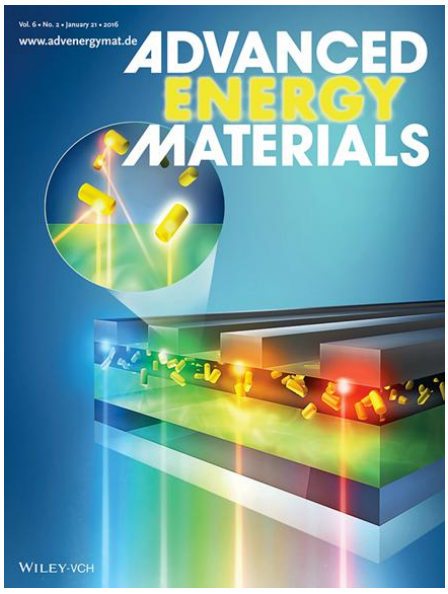


2. ***Inside Front Cover***
Reduced Graphene Oxide Micromesh Electrodes for Large Area, Flexible, Organic Photovoltaic Devices (Adv.Funct.Mater. 25,15, page 2206
APR 2015 | DOI: 10.1002/adfm.201570101

A facile, one step, roll-to-roll compatible laser patterning technique to improve and simultaneously tune the optoelectronic properties of graphene based transparent conductive electrodes (TCE) is demonstrated by E. Stratakis, E. Kymakis, and colleagues on page 2213. In order to overcome the trade-off between the sheet resistance and transparency, reduced graphene oxide micromeshes are laser-patterned on plastic substrate and incorporated in flexible organic photovoltaic devices as the TCE.

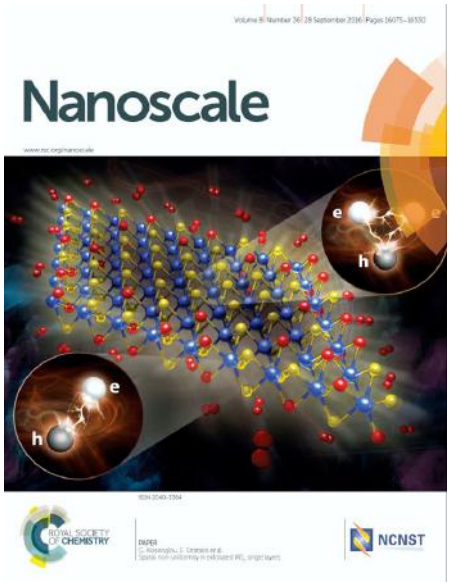
3. ***Back Cover***
Ternary Organic Solar Cells with Reduced Graphene Oxide–Sb2S3 Hybrid Nanosheets as the Cascade Material (ChemNanoMat 1,5, page 364)
SEP 2015 | DOI: 10.1002/cnma.201500117

The Back Cover illustrates the use of reduced graphene oxide-antimony sulfide (rGO-Sb2S3) hybrid nanosheets as the cascade material in ternary organic solar cells. Their utilization in PCDTBT:PC71BM blend leads to power conversion efficiency of 6.81%; a value 23% higher than the efficiency of the binary devices. The results demonstrate that the exploitation of on-demand functionalized graphene derivatives as electron cascade materials is a promising way towards improving the performance of organic photovoltaics. More details can be found in the Full Paper on page 346 in Issue 5, 2015



4. ***Back Cover***
Plasmonic Backscattering Effect in High Efficient Organic Photovoltaic Devices (Adv. Energy Mater 6,2 2016)
JAN 2015 | DOI: 10.1002/aenm.201670013

A new light trapping architecture to enhance the power conversion efficiency of organic photovoltaics is proposed and implemented. In article number 1501640, Emmanuel Kymakis and co-workers demonstrate that the incorporation of gold nanorods inside the rear buffer layer, leads to the redistribution of photons inside the active medium mainly through efficient light back-scattering, simultaneously increasing the exciton generation and charge collection.



5. ***Front cover***
Spatial non-uniformity in exfoliated WS2 single layers (Nanoscale, 2016,8, 16075-16076)
SEP 2016 | DOI: 10.1039/C6NR90196D

Extraordinary spatial non-uniformity of the photoluminescence (PL) and strain properties of exfoliated WS2 monolayers. PL enhancement of the outer regions is attributed to the pronounced oxygen chemisorption and physisorption.

6. ***Front cover***
The Role of Ligands in the Chemical Synthesis and Applications of Inorganic Nanoparticles
Chem. Rev. 201911984819-4880
Publication Date: March 28, 2019
https://doi.org/10.1021/acs.chemrev.8b00733

The cover depicts the multiple ways that a large variety of ligands can interact with the surface of nanoparticles. Ligands play a vital role in the synthesis of nanoparticles and define nanoparticle dispersity and function in complex media. (Image provided by Robert Gates Graphics)

7.2 PUBLICATIONS IN PEER-REVIEWED JOURNALS

*** Indicates Corresponding Author**

1. "*Stress and internal friction associated with light-induced structural changes of a-Si:H deposited on crystalline silicon microcantilevers,* **E. Stratakis**, E. Spanakis, H. Fritzsche, and P. Tzanetakis, J. Non-Cryst. Solids **266-269** (2000) 506-510.
2. "*Elastic properties, intrinsic and photo-induced stress in a-Si:H thin films with different hydrogen content*, E. Spanakis, **E. Stratakis**, P. Tzanetakis and Qi Wang, J. Appl. Phys. **89** (2001) 4294.
3. *'Light induced stress in a-$Si_{1-x}Ge_x$:H alloys and its correlation with the Staebler-Wronski effect,* E. Spanakis, **E. Stratakis**, P. Tzanetakis, H. Fritzsche, S. Guha and J. Yang, J. Non-Cryst. Solids **299-302** (2002) 521-524.
4. *Photoinduced Stress in Hydrogenated Amorphous Silicon Films*, **E. Stratakis**, E. Spanakis, P. Tzanetakis, H. Fritzsche, S. Guha and J. Yang, Appl. Phys. Lett. **80** (2002) 1734.
5. "*Metastable photoexpansion of amorphous hydrogenated silicon produced by exposure to short laser pulses*', E. Spanakis, **E. Stratakis**, and P. Tzanetakis, Journal of Non-Crystalline Solids **352** (2006) 429.

6. "*Silicon electron emitters fabricated by ultraviolet laser pulses*' V. Zorba, P. Tzanetakis, C. Fotakis, E. Spanakis, **E. Stratakis**, D. G. Papazoglou, I. Zergioti, Applied Physics Letters **88** (2006) 081103.
7. '*Making silicon hydrophobic: wettability control by two-lengthscale simultaneous patterning with fs-laser irradiation*': V. Zorba, L.Persano, D. Pisignano, A. Athanassiou, **E. Stratakis**, R. Cingolani P. Tzanetakis and C. Fotakis, Nanotechnology **17** (2006) 3234.
8. '*Atomic-Force-Microscopy-based, multiphoton, photoelectron emission imaging*', E. Spanakis, A. Chimmalgi, **E. Stratakis**, C. P. Grigoropoulos, C. Fotakis, P. Tzanetakis, Applied Physics Letters **89** (2006) 013110.
9. *'Carbon nanotube/PEDOT:PSS electrodes for organic photovoltaics':* E. Kymakis, G.Klapsis, **E. Stratakis** ,E. Koudoumas, N. Vidakis and Y.Franghiadakis, European Physical Journal Applied Physics **36**, (2007) 257.
10. *'Integration of carbon nanotubes as hole transport electrode in polymer/fullerene bulk heterojunction solar cells'* , E. Kymakis, **E. Stratakis** and E. Koudoumas, Thin Solid Films **515** (2007) 8598.
11. '*Regular arrays of Si microstructures by Laser and its Field Emission Properties*' V. Zorba, **E. Stratakis,** E. Spanakis, D.G. Papazoglou, I. Zergioti, P. Tzanetakis, C. Fotakis, Proc. IMechE, Part N: J. Nanoengineering and Nanosystems, **220** (2007) 543.
12. "*Tailoring the wetting response of silicon surfaces via fs laser structuring'* V. Zorba, **E. Stratakis**, M. Barberoglou, E. Spanakis, P. Tzanetakis, C. Fotakis. Appl. Phys. A, **93** (2008), 819–825.
13. *'Ultraviolet laser structuring of silicon carbide for cold cathode applications'* E. Spanakis, J. Dialektos, **E. Stratakis**, V. Zorba, P. Tzanetakis and C.Fotakis. phys. stat. sol. (c), **5**, (2008) 3309–3313.
14. *'Light - induced reversible hydrophilicity of ZnO structures grown by Aqueous Chemical Growth'* G. Kenanakis, **E. Stratakis**, K. Vlachou, D. Vernardou, E. Koudoumas, N. Katsarakis, Applied Surface Science, **254** (2008) 5695-5699.
15. '*Biomimetic artificial surfaces quantitatively reproduce the water repellency of a Lotus leaf*' , V. Zorba, **E. Stratakis***, M. Barberoglou, E. Spanakis, P. Tzanetakis, S. H. Anastasiadis and C. Fotakis. 'Advanced Materials **20**, (2008), 4049.
16. '*Imaging dielectric properties of Si nanowire oxide with conductive atomic force microscopy complemented with femtosecond laser illumination*' **E. Stratakis**, N. Misra, E. Spanakis, D. J. Hwang, C. P. Grigoropoulos, C. Fotakis, P. Tzanetakis, Nano Letters, **8**, (2008) 1949.
17. *'One Pot Direct Hydrothermal Growth of Photoactive TiO_2 Films on Glass'* D. Vernardou, **E. Stratakis**, G. Kenanakis, H. M. Yates, S. Couris, M. E. Pemble, E. Koudoumas and N. Katsarakis, J. Photochem. Photobiol. A, **202**, (2009) 81-85.
18. "*Polymer-nanotube composite mats with improved field emission performance and stability*", **E. Stratakis***, E. Kymakis, E. Spanakis P. Tzanetakis and E. Koudoumas, Phys. Chem. Chem. Phys., **11**, (2009) 703-709.
19. '*Laser writing of nanostructures on bulk Al via its ablation in liquids*' **E. Stratakis**, V. Zorba, M. Barberoglou, C. Fotakis and G. A. Shafeev, Nanotechnology, **20**, (2009) 105303.
20. "*Reversible Photoinduced Wettability Transition of Hierarchical ZnO Structures*", E. L. Papadopoulou, M. Barberoglou, V. Zorba, A. Manousaki, A. Pagkozidis, **E. Stratakis*,** and C. Fotakis, J. Phys. Chem. C, **113**, (2009) 2891.
21. '*Nanostructures formation under laser ablation of bulk Tantalum in water*', E. V. Barmina, M. Barberoglou, V. Zorba, A. V. Simakin, **E. Stratakis**, C. Fotakis, and G.A. Shafeev, Quantum Electronics, **39** (2009) 89-93.
22. "*Reversible wettability of ZnO nanostructured thin films prepared by pulsed laser deposition*", E. L. Papadopoulou, V. Zorba, A. Pagkozidis, M. Barberoglou, **E. Stratakis*,** and C. Fotakis, Thin Solid Films, **518** (2009) 1267.
23. *'Laser baser micro/nano-engineering for biological applications'* **E. Stratakis**, A. Ranella, M. Farsari and C. Fotakis, Progress in Quantum Electronics, **33** (2009) 127.
24. "*Influence Of Solution Chemistry On The Properties Of Hydrothermally Grown TiO_2 For Advanced Applications*" D. Vernardou, K. Vlachou, E. Spanakis, **E. Stratakis**, N. Katsarakis, E. Kymakis and E. Koudoumas, Catalysis Today **144**, (2009) 172.

25. "*Photoinduced hydrophilic and photocatalytic response of hydrothermally grown TiO_2 nanostructured thin films*", D. Vernardou, G. Kalogerakis, **E. Stratakis**, G. Kenanakis E. Koudoumas and N. Katsarakis, Solid State Sciences, **11** (2009) 1499.
26. "*Generation of Al nanoparticles via ablation of bulk Al in liquids with short laser pulses*", **E. Stratakis*,** M. Barberoglou, C. Fotakis, G. Viau, C. Garcia, and G. A. Shafeev, Optics Express **17**, (2009) 12650.
27. *Bio-inspired water repellent surfaces produced by ultrafast laser structuring of silicon',* M. Barberoglou, V. Zorba, **E. Stratakis***, E. Spanakis, P. Tzanetakis, S. H. Anastasiadis and C. Fotakis Applied Surface Science **255** (2009) 5425.
28. 'Femtosecond laser writing of nanostructures on bulk Al via its ablation in air and liquids' **E. Stratakis***, V. Zorba, M. Barberoglou, C. Fotakis and G. A. Shafeev, Applied Surface Science **255** (2009) 5346.
29. "*Silicon scaffolds promoting three-dimensional neuronal web of cytoplasmic processes*", E.L. Papadopoulou, A. Samara, M. Barberoglou, A. Manousaki, S.N. Pagakis, E. Anastasiadou, C. Fotakis, and **E. Stratakis**, Tissue Engineering C, **16**, (2010) 497-502.
30. "*Tuning cell adhesion by controlling the roughness and wettability of 3D micro/nano silicon structures*" A. Ranella, M. Barberoglou, S. Bakogianni, C. Fotakis and **E. Stratakis***, Acta Biomaterialia **6** (2010) 2711–2720.
31. *"Ultrafast electron dynamics in ZnO/Si micro-cones"* E. Magoulakis, E.-L. Papadopoulou, **E. Stratakis,** C. Fotakis, and P. A. Loukakos, Appl. Phys. A **98**, (2010) 701-705.
32. *"Three-dimensional carbon nanowall field emission arrays"* **E. Stratakis*,** R. Giorgi, M. Barberoglou, Th. Dikonimos, E. Salernitano, N. Lisi, and E. Kymakis, Appl. Phys. Lett. **96**, (2010) 043110-043112. [i]
33. "*From Superhydrophobicity and Water Repellency to Superhydrophilicity: Smart Polymer-Functionalized Surfaces*", **E. Stratakis**, A. Mateescu, M. Barberoglou, M. Vamvakaki, C. Fotakis and S. H. Anastasiadis, Chem. Commun., **46,** (2010) 4136-4138.
34. "*Electrowetting properties of micro/nanostructured black silicon*", M. Barberoglou, V. Zorba, A. Pagozidis, C. Fotakis and **E. Stratakis*,** Langmuir, **26,** (2010) 13007-13014.
35. "*Electrowetting properties of ZnO and TiO_2 nanostructured thin films*", E. L. Papadopoulou, A. Pagkozidis, M. Barberoglou, C. Fotakis and **E. Stratakis***, J. Phys. Chem. C, **114**, (2010) 10249-10253.
36. "*Generation of nanostructures on metals by laser ablation in liquids: new results*", Barmina, E. B., **Stratakis, E.**, Fotakis, C., Shafeev, G.A Quantum Electronics **40** (2010) 1012-1020.
37. "*Laser control of the properties of nanostructures on Ta and Ni under their ablation in liquids*", E. V. Barmina, M. Barberoglou, V. Zorba, A.V. Simakin, **E. Stratakis**, C.Fotakis and G.A. Shafeev, JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS **12** (2010) 495.
38. "Plasmonic organic photovoltaics doped with metal nanoparticles" G. D. Spyropoulos, M. Stylianakis, **E. Stratakis**, E. Kymakis, Photonics and Nanostructures - Fundamentals and Applications **9**, (2011), 184. [ii]
39. "Plasmonic Organic Photovoltaic Devices on Transparent Carbon Nanotube Sheets" E. Kymakis, **E. Stratakis**, E. Koudoumas and C. Fotakis, IEEE Transactions on Electron Devices, **58**, (2011) 860.
40. *'Enhanced structural stability and performance durability of bulk heterojunction photovoltaic devices incorporating metallic nanoparticles'* Paci, B., Spyropoulos, G. D., Generosi, A., Bailo, D. Albertini, V. R., **Stratakis, E.**, Kymakis, E. Advanced Functional Materials **21**, (2011) 3573-3582.
41. '*Controlling cell adhesion via replication of laser micro/nano-textured surfaces on polymers'* N. Koufaki, A. Ranella, K. E Aifantis, M. Barberoglou, S. Psycharakis, C. Fotakis, **E. Stratakis***, Biofabrication **3**, 045004 (2011).
42. *'Spin coated carbon nanotubes as the hole transport layer in organic photovoltaics'* E. Kymakis, E. Koudoumas, M. Stylianakis, G. D. Spyropoulos, C. Fotakis, **E. Stratakis**, Solar Energy Materials & Solar Cells, **96,** 298 (2011).

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[i] Virtual Journal of Nanoscale Science and Technology, 21, 6 (2010).
[ii] Sciencedirect Top 25 Hottest Articles, July - September 2011 [1st], Jan – Dec 2011 [2nd]

43. *'Spin coated graphene films as the transparent electrode in organic photovoltaic devices'* , **Stratakis, E.**, Kymakis, E., Stylianakis, M.M., Koudoumas, E., Fotakis, C, Thin Solid Films **520** (2011) 1238-1241.
44. *'Nano-textured W shows improvement of thermionic emission properties'*, Barmina, E.V., Serkov, A.A., **Stratakis, E.**, Fotakis, C., Stolyarov, V.N., Stolyarov, I.N., Shafeev, G.A. Applied Physics A: Materials Science and Processing **106** (2012) , pp. 1-4.
45. *'Thermoplastic deformation of silicon surfaces induced by ultrashort pulsed lasers in submelting conditions'*, Tsibidis, G.D., **Stratakis, E.**, Aifantis, K.E., Journal of Applied Physics **111** (2012) , art. no. 053502.
46. *'Tailoring the wetting properties of polymers from highly hydrophilic to superhydrophobic using UV laser pulses'* Pazokian, H., Selimis, A., Barzin, J., Jelvani, S., Mollabashi, M., Fotakis, C., **Stratakis E.***, Journal of Micromechanics and Microengineering **22** (2012) , art. no. 035001.
47. *'Spin coated carbon nanotubes as the hole transport layer in organic photovoltaics'* Kymakis, E., Stylianakis, M. M., Spyropoulos, G.D., **Stratakis, E.**, Koudoumas, E., Fotakis, C. Solar Energy Materials and Solar Cells, **96** (2012) 298-301.
48. *'Organic bulk heterojunction photovoltaic devices with surfactant-free Au nanoparticles embedded in the active layer'* G.D. Spyropoulos, M. M. Stylianakis, **E. Stratakis***, E. Kymakis, Applied Physics Letters **100**, (2012) 213904.
49. *'Nanomaterials by Ultrafast Laser Processing of Surfaces*', **E. Stratakis*,** Science of Advanced Materials **4** (2012) , 407-431
50. *'Free-standing graphene on microstructured silicon vertices for enhanced field emission properties'* **E. Stratakis***, Eda G., Yamaguchi,H. Kymakis E., Fotakis C., Chhowalla M., NANOSCALE, **4**, (2012), 3069-3074.
51. *'Solution-processable graphene linked to 3,5-dinitrobenzoyl as an electron acceptor in organic bulk heterojunction photovoltaic devices'* Stylianakis M.M., Spyropoulos G.D , **Stratakis E.***, Kymakis, E, CARBON **50** (2012) 5554-5561.
52. *'Properties of Silicon and Metal Oxide Electrowetting Systems'* Papadopoulou, E.L.; Zorba, V. **Stratakis E**, Fotakis, C., JOURNAL OF ADHESION SCIENCE AND TECHNOLOGY **26** (2012) 2143.
53. *'Leaf surface characteristics and wetting in Ceratonia siliqua L.'* Kolyva, F, **Stratakis E**, Rhizopoulou, Chimona, C, Fotakis, C., FLORA **207** (2012) 551-556.
54. *'Laser-assisted nanostructuring of Tungsten in liquid environment'* Barmina, EV; **Stratakis E**; Barberoglou, M; Stolyarov, VN; Stolyarov, IN; Fotakis, C; Shafeev, GA, APPLIED SURFACE SCIENCE **258** (2012) 5898-5902.
55. *'Organic bulk heterojunction photovoltaic devices with surfactant-free Au nanoparticles embedded in the active layer'* Spyropoulos, GD; Stylianakis, MM; **Stratakis* E**; Kymakis, E APPLIED PHYSICS LETTERS **100** (2012) 213904.
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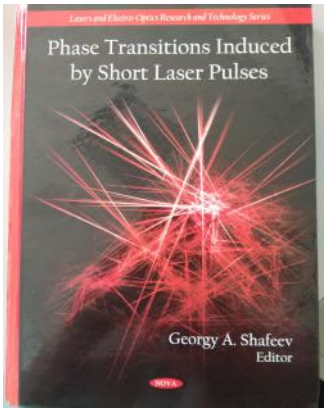
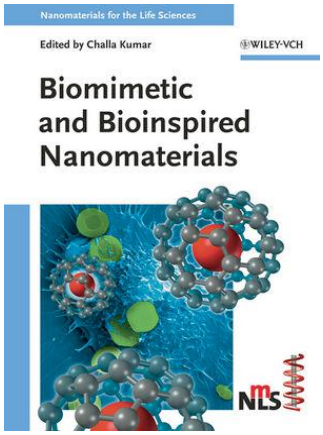


1. **E. Stratakis** and G. A. Shafeev: "*Phase Transformations in the UV laser Irradiation of Molecular Solids*", in "Laser Induced Phase Transitions" edited by G. Shafeev, NOVA Scientific Publishers, 2009.



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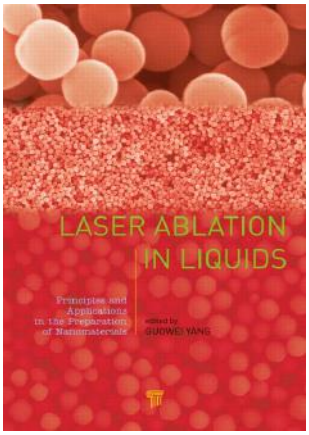

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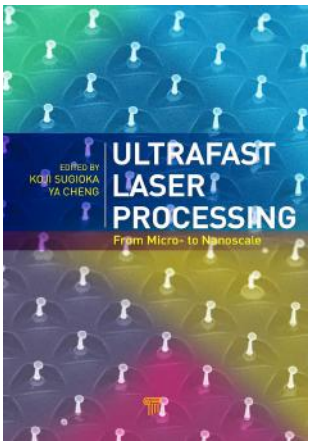

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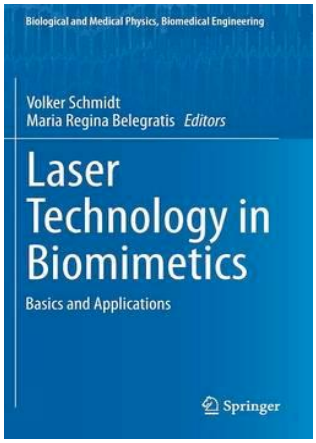

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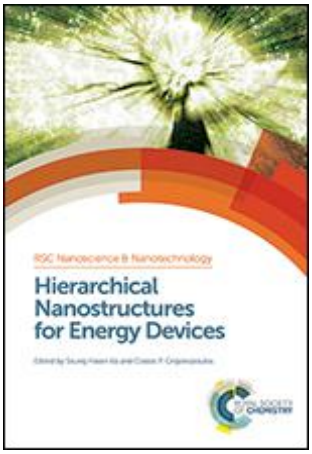

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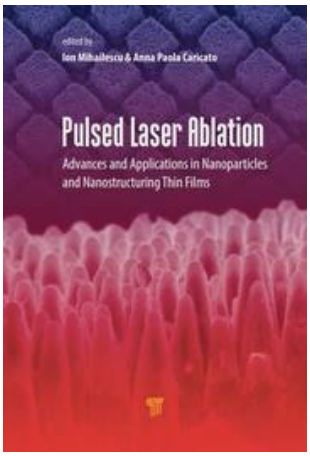

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2. "*Biomimetic micro/nanostructured functional surfaces for microfluidic and tissue engineering applications*", **E. Stratakis*,** A. Ranella, C. Fotakis, Biomicrofluidics, 5, 013411(2011).[ix]
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5. *'Laser-Assisted Reduction of Graphene Oxide for Flexible, Large-Area Optoelectronics'* E. Kymakis, C. Petridis, T.D. Anthopoulos, **E. Stratakis*,** IEEE JOURNAL OF QUANTUM ELECTRONICS 20 (1), art. no. 6573325 (2014).
6. *'Solution-Processed Reduced Graphene Oxide Electrodes for Organic Photovoltaics'* Petridis C., Konios D., Stylianakis M.M., Kakavelakis G., Sygletou M., Savva K., Tzourbakis P., Krassas M.,Vaenas N., **Stratakis E,** Kymakis E, Nanoscale Horizons, 1 (5), 375-382 (2016).
7. '*Graphene and transition metal dichalcogenide nanosheets as charge transport layers for solution processed solar cells',* Balis, **E. Stratakis*,** E. Kymakis, Materials Today 19 (10), 580-594 (2016).
8. *'Structures for biomimetic, fluidic, and biological applications',* **E. Stratakis***, H Jeon, S Koo, MRS Bulletin 41 (12), 993-1001 (2016).
9. '*Controlling the morphology and outgrowth of nerve and neuroglial cells: The effect of surface topography*', C Simitzi, A Ranella, **E. Stratakis***, Acta Biomaterialia, 51, 21 (2017).
10. *'Advanced Photonic Processes for Photovoltaic and Energy Storage Systems'* M Sygletou, C Petridis, E Kymakis, **E. Stratakis***, Advanced Materials, DOI:10.1002/adma.201700335 (2017).
11. *'Laser generated nanoparticles based photovoltaics'* C Petridis, K Savva, E Kymakis, **E. Stratakis***, Journal of colloid and interface science 489, 28-37 (2017).
12. *"Controlling the Outgrowth and Functions of Neural Stem Cells: The Effect of Surface Topography",* C Simitzi, K Karali, A Ranella, **E Stratakis,** ChemPhysChem 19, 1143-1163 (2018).
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14. The role of ligands in the chemical synthesis and applications of inorganic nanoparticles A Heuer-Jungemann, N Feliu, I Bakaimi, M Hamaly, A Alkilany, I Chakraborty, A Masood, M F Casula, A Kostopoulou, E Oh, K Susumu, M H Stewart, IL Medintz, **E. Stratakis**, W J Parak, A G Kanaras, Chemical Reviews 119 (8), 4819-4880 (2019).

[ix] Most Cited Biomicrofluidics Articles
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7.7 MONOGRAPHS

1. *'Nanomaterials by Ultrafast Laser Processing of Surfaces'*, **E. Stratakis*,** Science of Advanced Materials **4** (2012), 407-431.

7.8 SELECTED PUBLICATIONS (IF > 6.0, SCI-2018)

47 articles in journals with Impact Factor **(IF)>6** and **18** articles in journals with **IF>12**

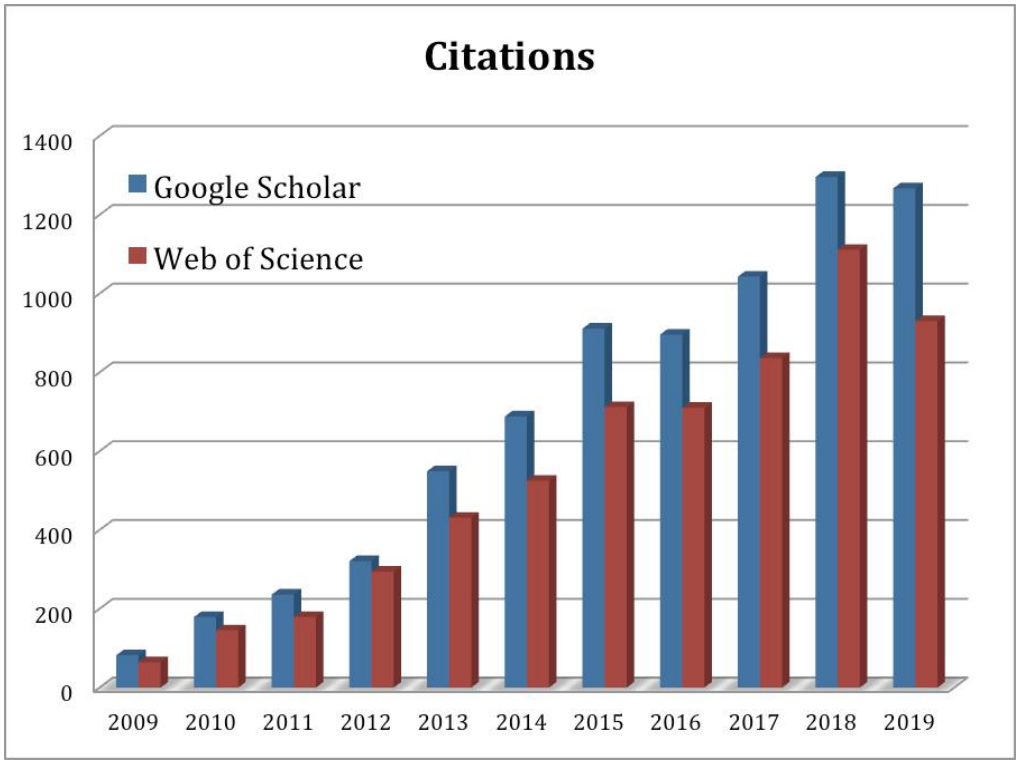
Journal	IF (SCI-2018)	Number of publications
Chemical Reviews	54.301	1
Materials Today	21.695	2
Advanced Materials	19.791	4
Advanced Energy Materials	16.721	2
Light: Science & Applications	14.078	1
ACS Nano	13.942	1
NanoLetters	12.712	1
Advanced Functional Materials	12.124	6
Nanoscale Horizons	10.706	1
Advanced Science	9.034	1
Journal of Materials Chemistry A	8.867	5
Small	8.643	1
Biomaterials	8.402	1
Chemistry of Materials	8.354	1
ACS Applied Materials & Interf.	7.504	5
Nanoscale	7.367	7
Advanced Optical Materials	6.875	1
ACS photonics	6.756	1
Carbon	6.337	1
Acta Biomaterialia	6.319	2
Chemical Commun.	6.319	1
		TOTAL = 46

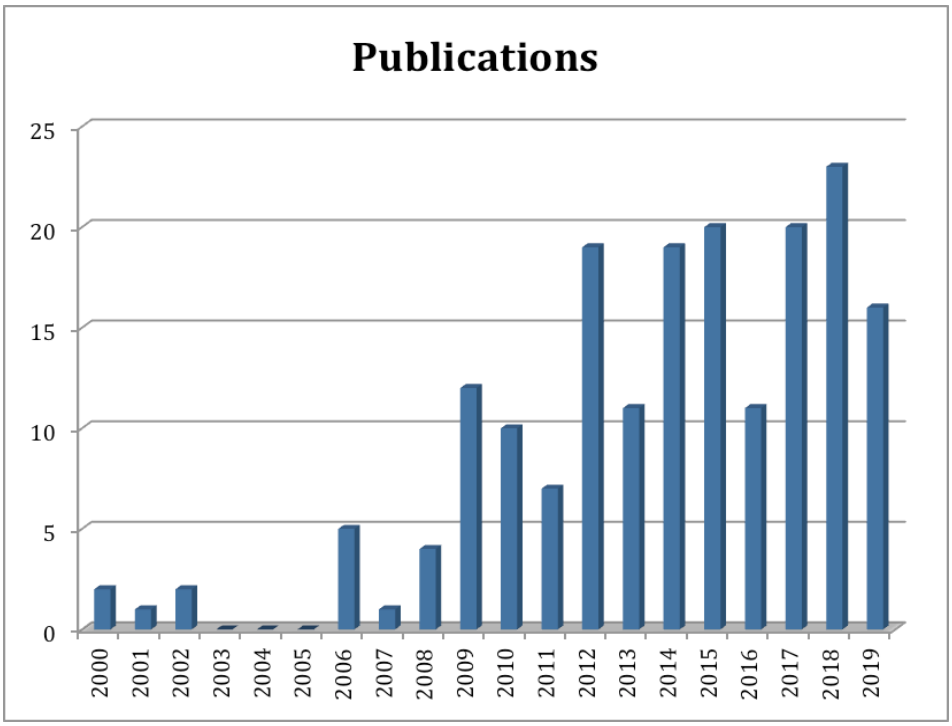
7.9 CITATIONS METRICS / RESEARCH IMPACT (December 2019)

A) Web of Science:

B) Google Scholar

	All	Since 2015
Citations	7633	5437
h-index	47	39
i10-index	128	117





8. PATENTS

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2. *'ABLATING SiC WAFER CONFIGURATIONS AND MANUFACTURING LIGHT EMITTING DIODE (LED) DEVICES'* **E. Stratakis**, E. V. Barmina, G. A. Shafeev, C. Fotakis, File number, 2014/0100424, Hellenic Industrial Property Organisation. PCT Publication number: WO 2016016670 A1.
3. 'MEASURING CRYSTAL QUALITY IN LOW DIMENSIONAL 2D MATERIALS BASED ON POLARIZATION RESOLVED SECOND HARMONIC GENERATION', **E. Stratakis**, S. Psilodimitrakopoulos, I. Paradisanos, L. Mouchliadis, A. lemonis, G. Kioseoglou. PCT Publication number: PCT/GR2018/000014.
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5. LASER FABRICATED SUPEROLEOPHILIC METALLIC COMPONENT WITH OIL RETENTION PROPERTIES FOR FRICTION REDUCTION E. Stratakis, A. Mimidis, E. Skoulas, J. Siegel, C. F. Baron, PCT Publication number: PCT/GR2019/000056.

9. PUBLICITY/MEDIA

- **Documentary**, **BBC**, *'Genius of Nature',* Film Produced by Terra Mater Factual Studios in co-production with BBC, http://www.terramater.at/productions/genius-of-nature/.
- **Documentary**, **Euronews**, *FUTURIS,* Documentary devoted to our European project LiNaBioFLuid, *http://www.euronews.com/programs/futuris*
- **Interview,** Efimerida Sintaktwn, '*Τα βιομιμητικά συστήματα μπορούν να εφαρμοστούν σε ένα ευρύ φάσμα υλικών',* http://www.efsyn.gr/arthro/ta-viomimitika-systimata-mporoyn-na-efarmostoyn-se-ena-eyry-fasma-ylikon.
- **Spotlight on Science,** The European Synchrotron - ESRF, '*Organic photovoltaic device local structure revealed by combined X-ray diffraction and fluorescence',* http://www.esrf.eu/home/news/spotlight/content-news/spotlight/spotlight193.html.
- **Highlight,** The international Society for Optics and Photonics (SPIE) Newsroom, '*Laser structuring of water-repellent biomimetic surfaces',*http://spie.org/newsroom/1441-laser-structuring-of-water-repellent-biomimetic-surfaces?SSO=1.
- **Highlight,** MaterialsViews '*Flexible graphene oxide films for new organic solar cells*',http://www.materialsviews.com/flexible-graphene-oxide-films-for-new-organic-solar-cells/.
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- **Article**, Protothema.gr, '*Παγκόσμια πατέντα από το Ινστιτούτο Τεχνολογίας: Η φύση προς όφελος του ανθρώπου',* https://www.protothema.gr/greece/article/784645/pagosmia-pateda-apo-to-institouto-tehnologias-i-fusi-pros-ofelos-tou-anthropou/.

- **Article,** Patris Newspaper, '*Μεγάλη επιτυχία δύο Κρητικών ερευνητών από το ΙΤΕ και το ΤΕΙ Κρήτης, Αφορά στην ανάπτυξη εύκαμπτων πλαστικών φωτοβολταϊκών'*, http://archive.patris.gr/articles/235462#.Wvfd4S-B3-Y.
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- **Article,** ΣΚΑΙ.gr, *Έλληνες επιστήμονες αναπτύσσουν νευρώνες πάνω σε μικροτσίπ',* http://www.skai.gr/news/technology/article/291501/ellines-epistimones-anaptussoun-neurones-pano-se-mikrotsip/.
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10. CONFERENCES

More than **170 Presentations** in International Conferences, Summer Schhols, Academic Institutes and Industry. Only the PLENARY/KEYNOTE/INVITED presentations are listed below.

10.1 PLENARY/KEYNOTE/INVITED PRESENTATIONS

1. **Plenary Lecture,** "*Pulsed Laser Generation of Novel Nanomaterials and Related Applications*" Light Conference: International Conference on Micro/Nano Optical Engineering - Taiwan (Light Conference: ICOME-T2015), National Cheng Kung University, Tainan, July 10-14, (2015).
2. **Keynote Introduction Lecture**,*"Ultrafast Laser Engineering of Biomimetic Responsive Surfaces for Microfluidics and Tissue Engineering"* E-MRS FALL MEETING 2013, September 16-20 (2013) Warsaw, Poland. Symposium G, Bioinspired and Biointegrated Materials as Frontiers Nanomaterials III.
3. **Keynote Lecture**, "*Laser engineering of biomimetic materials for microfluidic and tissue engineering applications*" EMRS Spring 2015, Lille, Symposium V May 11-15 (2015).
4. **Keynote Lecture**, *"Laser induced surface structures as biomimetic model of fluid transport and neural tissue engineering,* EMRS Spring Meeting, Lille, Symposium K, May 22-06 (2017).
5. **Invited,** '*Two recent advances in materials structuring and diagnostics at the nanoscale employing ultrafast pulsed lasers*' INTERNATIONAL CONGRESS ON APPLICATIONS OF LASERS & ELECTRO_OPTICS (ICALEO), October 20-23 (2008), Temecula, CA.
6. **Invited,** '*Materials engineering and diagnostics at the nanoscale employing ultrafast pulsed lasers*', 1st INTERNATIONAL CONFERENCE from NANOPARTICLES & NANOMATERIALS to NANODEVICES & NANOSYSTEMS (IC4N), June 16-18, (2008), Halkidiki Greece.
7. **Invited,** '*Laser engineering of biomimetic materials for microfluidic and tissue engineering applications*', E-MRS SPRING MEETING 2009, June 6-12, (2009), Strasbourg, France. Symposium M 'Bioinspired and Biointegrated Materials as New Frontiers Nanomaterials'.
8. **Invited,** '*Application of ultra short pulse lasers for materials micro/nanoprocessing and diagnostics*', 11th international Conference on Laser Ablation (COLA) 22-27 November**,** Singapore, (2009).
9. **Invited,** '*Multifunctional and responsive surfaces based on fs laser micro/nano structuring*', LASERION 2010, July 7-10, (2010) Schloß Ringberg, Tegernsee, Germany.

10. **Invited,** '*Ultrafast laser micro/nano processing for microfluidic and tissue engineering apllications*', European Conference on Lasers and Electro-Optics and the XIIth European Quantum Electronics Conference (CLEO®/Europe-EQEC) May 22-26, (2011) Munich Germany.
11. **Invited,** "*Biomimetic micro/nano textured materials with special responsive properties*", E-MRS SPRING MEETING 2011, May 9-13, (2011) Nice, France. Symposium P, Bioinspired and Biointegrated Materials as New Frontiers Nanomaterials.
12. **Invited,** "*Laser assisted photochemical modification of graphene*" 9th International Conference on Nanosciences & Nanotechnologies (NN12), 3-6 July (2012) Thessaloniki, Greece.
13. **Invited,** "*Laser-based micro-/nano- processing for microfluidic and tissue engineering apllications*" E-MRS SPRING MEETING 2012, May 9-13 (2012) Strasbourg, France. Symposium V, Laser materials processing for micro and nano applications.
14. **Invited,** "*Pulsed Laser Assisted Generation of Novel Materials and Related Applications*", 8th International Conference on Photo-Excited Processes and Applications (ICPEPA-8), August 12-17 (2012) Rochester, NY.
15. **Invited,** "*Laser fabrication of novel materials for plasmonic and graphene-based organic photovoltaics*" Collaborative Conference on Materials Research (CCMR), June 24 - 28, (2013) Jeju Island, South Korea,
16. **Invited,** "*Pulsed Laser Generation of Novel Nanomaterials for Organic Electronics*" 10th International Conference on Nanosciences & Nanotechnologies (NN13), 9-12 July (2013) Thessaloniki, Greece.
17. **Invited,***"Direct Laser Texturing of Biomimetic Surfaces for Neural Tissue Engineering*", EMRS Fall 2014 Warsaw Symposium W, 15-18 September 2014
18. **Invited,***""Laser nanostructuring with temporally delayed fs double laser pulses"*, SPIE Photonics West 2015, San Francisco, February 7-12 (2015).
19. **Invited,***"* "*Pulsed Laser Generation of Novel Nanomaterials for Nanoelectronic Applications*" Invited Lecture – Photonica 2015, Fifth International School and Conference on Photonics, August 24-28 (2015).
20. **Invited,***"* EMRS Spring 2016, Lille, Symposium A, May 02-06 (2016).
21. **Invited,***"* EMRS Spring 2016, Lille, Symposium J, May 02-06 (2016).
22. **Invited,***"* '*Photo-assisted Synthesis of 2D Nanosheet based Hybrid Materials for Organic Electronics*', MRS Spring 2016 meeting, Symposium EP05, Phoenix March 28-April 1 (2016).
23. **Invited,***"* "*Laser Assisted Generation of Novel Nanomaterials for Nanoelectronic Applications*" Nanax 7, (2016) Philipps University Marburg, Germany.
24. **Invited,***"* *"Ultrashort pulsed laser surface structuring for extreme wettability and tissue engineering*" International Conference on Laser Ablation (COLA 2017), September 3-8, (2017), Marseille.
25. **Invited,** "Ultrashort pulsed laser surface structuring for biomimetics and tissue engineering", in "Laser Applications in Microelectronic and Optoelectronic Manufacturing Conference (LAMOM XXIII)", SPIE Photonics West 2018, San Francisco, January 28-31.
26. **Invited,** "Ultrashort pulsed laser surface structuring and diagnostics", Light Conference (2018), organized by Springer Nature, Light Science & Applications, Changchun, China July 16-18, 2018.
27. **Invited, '**Applications of Ultrafast Lasers in Materials Engineering and Diagnostics' INTERNATIONAL SYMPOSIUM FLAMN-19, FUNDAMENTALS OF LASER ASSISTED MICRO- & NANOTECHNOLOGIES, JUNE 30 - JULY 4, 2019 ST. PETERSBURG, RUSSIA.
28. **Invited**, 'Applications of Ultrafast Lasers in Materials Engineering and Diagnostics', Asia-Pacific Conference on Near-field Optics, Xiamen International Conference & Exhibition Center, Xiamen, China, July 14-19, 2019.

10.2 LECTURES IN SUMMER SCHOOLS

1. *'Ultrafast laser processing of organic photovoltaic materials'* 2th IUVSTA School on Lasers in Materials Science Laser Engineering of Surfaces and Coatings Isola di San Servolo, Venice, Italy 13th-20th July (2014)
2. *'Laser processing of Graphene for Printed Flexible and Transparent Electronics'*, Summer School on "Transparent Electronics: From Materials & Devices to Devices & Systems August (2014)
3. '*Graphene for Printed Flexible and Transparent Electronics'* Summer school in "Transparent Electronics: From Materials & Devices to Devices & Systems", July 2013
4. '*Laser assisted photochemical modification of graphene for organic electronics'* Summer school in "Graphene: Properties & Applications" Patras, Greece, July 2013.
5. "*Plasmonic Organic Electronics*" 3rd Erasmus Intensive Programme: Summer school in 'Bioinspired Materials for Solar Energy Utilization', Crete, July 2012
6. "*Plasmonic Organic Photovoltaics*" 2nd Erasmus Intensive Programme: Summer school in 'Org. Electronics and Applications', Chania, Crete, July 2011
7. "*Low frequency Organic Electronic Applications*" 1st Erasmus Intensive Programme: Summer school in 'Org. Electronics and Applications', Chania, Crete, July 2010
8. "*Biomimetic Artificial Micro/Nano Structured Surfaces for Microfluidic and Tissue Engineering Applications*", Summer School in Multiscale Material Mechanics and Engineering Sciences: Curricula Interfacing and Innovation, August, 2010, Epanomi, Greece.

10.3 CONFERENCES ORGANIZATION

1. **International Conference:** 2010 Villa Conference on Interaction Among Nanostructures (VCIAN-2010), June 21-25 2010, Santorini, Greece. (http://www.oanano.org/vcian)
2. **International Conference:** Energy Materials and Nanotechnology meeting 2012, April 16-20 2012, Orlando Florida (http://emnc.org/vcian). **Co-Chair** of the Villa Conference on Plasmonic Materials (VCPM).
3. **Workshop: Recent Advances in Biophotonics,** October 7-8 2009 Delphi, Greece. Supported by the FP6 ToK NOLIMBA "Non Linear Imaging at Microscopic Level for Biological Applications" (http://www.ico-photonics-delphi2009.org/)
4. **Member of the organizing Committee. EMRS 2013 FALL Symposium G**: Bioinspired and Biointegrated Materials as Frontiers Nanomaterials III September 16-20 (2013) Warsaw, Poland.
5. **Co-Organizer: Workshop on Biophotonics,** October 2-3 (2013), Hersonissos, Crete, Greece.
6. **Principal Organizer: Final Workgroup, Management Committee and Evaluation Meetings** of the COST Action MP0902-COINAPO, October 12-16, (2013) Heraklion Crete Greece.
7. **Principal Organizer: EMRS 2014 Falls Symposium U**: Bioinspired and Biointegrated Materials as Frontiers Nanomaterials IV September 15-19 (2014) Warsaw, Poland.
8. **Principal Organizer: 1st Israel-Greece Joint Meeting on Nanotechnology and BioNanosciene:** October 19-21 (2014), Weizmann Institute of Sciences, Rehovot Israel.
9. **Principal Organizer: 2nd Israel-Greece Joint Meeting on Nanotechnology and BioNanosciene:** October 25-28 (2016), Heraklion, Crete, Greece.
10. **Principal Organizer: Workshop on 'Organic Photovoltaics: From Materials to Market'**, part of the Industrial Technologies Conference, Athens Friday 11 (2014).
11. **Member of the international organizing Committee: EMN Meeting/ Optoelectronics** (2015), April 24-27,Beijing,China.
12. **Member of Scientific Committee**, **EMRS 2015 SPRING, Symposium CC:** 'Laser and plasma processing for advanced applications in material science' May 11-15 (2015) Lille, France.
13. **Member of Scientific and Program Committee**, **EMRS 2015 SPRING, Symposium V:** Bioinspired and Biointegrated Materials as Frontiers Nanomaterials V, May 11-15 (2015) Lille, France.
14. **Member of Scientific and Program Committee**, Light Conference: International Conference on Micro/Nano Optical Engineering - Taiwan (Light Conference: ICOME-T2015), National Cheng Kung University, Tainan, July 10-14, 2015, Organized by Light: Science & Applications (LSA), NPG (Nature Publishing Group).

15. **Member of Scientific and Program Committee**, **'CM - Materials Processing with Lasers'**, European Conference on Lasers and Electro-Optics and the XIIth European Quantum Electronics Conference (CLEO®/Europe-EQEC), June 21-25 (2015), Munich Germany.
16. **Member of the Local Organizing Committee:** Joint QualityNano-NANoREG-EU-NCL Conference and Training Workshop, July 13-17, Heraklion, Crete Greece.
17. **Member of Organizing Committee**, **EMRS 2016 Fall, Symposium B**: '*Bioinspired and biointegrated materials as frontiers nanomaterials VI*' Sept. 19-22 (2016) Warsaw, Poland.
18. **Chair** of the **1st Interantional Conference of Nanotechnologies and Bionanoscience,** September 24-28, Heraklion, Crete, Greece.

11. FUNDING RESOURCES

11.1 GRANTED RESEARCH PROJECTS

Principal Investigator (PI) and **co-Investigator (co-PI)** in **13 European** and **11 National** Research Projects, (**6 as Coordinator**), Total funding: **6,454,893 €** @ 2012-2020

No	Call/Title	Budget	Funding Source	Role	Dates
1	**BioCombs4Nanofibers** HORIZON 2020 FET OPEN GA 260619 *'Antiadhesive Bionic Combs for Handling of Nanofibers*	516.250 €	European Commission	FORTH-PI	2019 – 2023
2	**NeuroStimSpinal** HORIZON 2020 FET OPEN GA 829060 *'A STEP FORWARD TO SPINAL CORD INJURY REPAIR USING INNOVATIVE STIMULATED NANOENGINEERED SCAFFOLDS'*	353.000 €	European Commission	FORTH-PI	2019 – 2023
3	**IQONIQ** HORIZON 2020 FOF-03-2018 GA 820677 *'Innovative strategies, sensing and process Chains for increased Quality, re-configurability, and recyclability of Manufacturing Optoelectronics'*	395.000€	European Commission	FORTH-PI	2018 – 2022
4	**LaBionicS** HORIZON FET Innovation Launchpad GA 801250 *'Laser Bionic Surfaces'*	100.000€	European Commission	**Coordinator**	2018 – 2019
5	**MouldTex** HORIZON 2020 FOF-06-2017, GA 768705 *'FRICTION OPTIMISATION OF SEALS THROUGH ADVANCED LASER SURFACE TEXTURING OF MOULDS'*	595.500€	European Commission	FORTH-PI	2017 – 2021
6	**NFFA Europe EU Infrastructure** HORIZON 2020-INFRAIA GA 654360	1.083.000 €	European Commission	FORTH-PI	2015-2020

	'*Nanoscience Foundries & Fine Analysis*'				
7	**LiNaBioFLuid** HORIZON 2020 FET OPEN GA 665337 *'Laser-Induced Nanostructures as Biomimetic Model of Fluid Transport in the Integument of Animals'*	492.250 €	European Commission	**Coordinator**	2015 – 2018
9	**NANoREG 2** *"Development and implementation of Grouping and Safe-by-Design approaches within regulatory frameworks"*	50.000 €	European Commission	FORTH-PI	2015 – 2018
9	**3D NEUROSCAFFOLDS** *3D Scaffolds hosting neural stem cells: developing Neuroimplants and Neurobiosensors*	1.037.000 €	Greek Ministry of Education	FORTH – Co-PI	2012 – 2015
10	**LAG NP** Grant Agreement No. 226164 '*Laser-assisted generation of functionalized metallic nanoparticles*'	120.000 €	European Commission	FORTH-PI	2012 – 2014
11	**OPTBIO** FP7–INFRASTRUCTURES–2008-1 "*Advanced Optical Techniques in Bio-imaging and Bio-processing*"	200.000 €	European Commission	FORTH-PI	2009 – 2013
12	**KRIPIS BIOSYS** *'ΑΝΑΠΤΥΞΗ ΔΙΕΠΙΣΤΗΜΟΝΙΚΩΝ ΕΡΕΥΝΗΤΙΚΩΝ ΔΡΑΣΤΗΡΙΟΤΗΤΩΝ ΣΤΗΝ ΚΑΤΕΥΘΥΝΣΗ ΤΗΣ ΒΙΟΛΟΓΙΑΣ ΣΥΣΤΗΜΑΤΩΝ'*	270.000 €	Greek Ministry of Education	IESL - PI	2012 - 2015
13	**FLEXFED** Action Archimedes III '*Flexible Field Emission Elements Based on Micro/Nano Graphitic Nanostructure'*	100.000€	Greek Ministry of Education	Co-investigator	2012 – 2014
14	**OREA** Erasmus Lifelong Learning Programme, 539876-LLP-1-2013-1-GR Erasmus-EQR *'Organic Electronic and Applications'*	50.000€	European Commission	FORTH-PI	2013 - 2015
15	**iPEN** EACEA, Erasmus+, 80509 *'Innovative Photonics Education in NanoTechnology'*	50.000 €	European Commission	FORTH-PI	2017-2019
	SINTERINK Greece-Israel Bilateral Τ5ΔΙΣ-00190 'Digital conductive and dielectric nanoinks printing for energy applications'	150.000 €	European Structural and Investment Funds	FORTH-PI	2019-2021
16	**CORI** Greece-Israel Bilateral Τ5ΔΙΣ-00150 'Enhancement of the adhesion properties of Cornea implants'	190.000 €	European Structural and Investment Funds	FORTH-PI	2019-2021

17	**MIS5004385** ΕΔΒΜ-ΕΣΠΑ 'ΑΝΑΠΤΥΞΗ ΒΙΟΜΙΜΗΤΙΚΩΝ ΜΙΚΡΟ/ΝΑΝΟ ΔΟΜΩΝ ΜΕΣΩ ΔΙΑΜΟΡΦΩΣΗΣ ΤΗΣ ΠΟΛΩΣΗΣ ΥΠΕΡΒΡΑΧΕΩΝ ΠΑΛΜΩΝ ΛΕΙΖΕΡ'	72.000 €	European Structural and Investment Funds	**Coordinator**	2018-2019
18	**MIS5004411** ΕΔΒΜ-ΕΣΠΑ 'Ανάπτυξη υβριδικών 2Δ υλικών-περοβσκιτών για ενίσχυση της απόδοσης των περοβσκιτικών φωτοβολταϊκών κυψελίδων'	65.000 €	European Structural and Investment Funds	**Coordinator**	2018-2019
19	**EPIGRAPH** FLAG-ERA JTC 2017 'GRAPHene biomolecular and electrophysiological sensors integrated in an "all-in-one device" for the prediction and control of EPIleptic seizures(towards a general device for most brain disorders)'	100.000 €	European Structural and Investment Funds	**Coordinator**	2018-2020
20	**GRAPH-EYE** FLAG-ERA JTC 2017 ,All optical, high resolution, non-invasive, quality control of crystalline GRMs via imaging of their non-linear optical properties'	100.000 €	European Structural and Investment Funds	FORTH-PI	2018-2020
21	**ΕΟΦ** T1ΕΔΚ-02024 'Alternative smart ocular implants with controlled ophthalmic pharmacokinetics'	293.878 €	European Structural and Investment Funds	**Coordinator**	2018 – 2021
22	**PrintWin** T1ΕΔΚ-01082 'Printable perovskite based solar glasses'	226.150€	European Structural and Investment Funds	FORTH-PI	2018 – 2021
23	**ΠΡΟΣΦΥΣΙΣ** T1ΕΔΚ- 02451 'Advanced wearable sensors for health monitoring systems'	253.365 €	European Structural and Investment Funds	FORTH-PI	2018 – 2021
24	**THEDYS** T1ΕΔΚ - 05080 'Biomarker detection and therapy of dyskinesias induced by pharmacological treatment of Parkinson's Disease'	195.500 €	European Structural and Investment Funds	IESL-PI	2018 – 2021

11.2 INFRASTRUCTURE OBTAINED FROM GRANTED PROJECTS

- *Light Conversion*, PHAROS-SP laser source, 1.5mJ pulse energy
- *Light Conversion*, LYRA and ORPHEOUS Optical Parametric Amplifiers
- *IPG Photonics,* Short pulse Fiber Laser
- *NKT Photonics, Origami* 10 XPS

- *Scanlab*, Galvanometric scanner
- *Aerotech*, high precision work station
- *Newport*, XYZ high precision electronic stage
- *Newport*, Transient Absorption Spectrometer (TAS)
- *Horiba*, iHR-320 Spectrometer
- *Lulzbot*, 3D Printer
- *Zeiss*, Live-cell and calcium imaging system
- Zeiss, Non-linear microscopy workstation
- *Hamamatsu*, LCOS-SLM
- *Glovebox, MBraun*, MB-Unilab Plus (1450/780)
- *Cryostat* (4-300K), Janis

12. ACADEMIC ACTIVITIES

12.1 TEACHING

1. University of Crete, Materials Science and Technology Department; **Adjunct Professor** (2001-2008) and **Invited Professor** (2008-)

- Mechanical and Thermal Properties of Materials
- Laboratory of Hard Matter
- Physics Laboratory

2. University of Crete, Physics Department; **Invited Professor** (2016-)

- Laser & Modern Optics Laboratory

3. Technological Educational Institute of Crete, Visiting Lecturer (2001-2008)

- General Physics
- Audio Signal Processing
- Theory of Electrical Circuits
- Physics Laboratory
- Laboratory of Electrical Circuits

4. MSc courses in the 'Organic Electronics and Applications' MSc program (2017-2018)

- An Introduction to Optoelectronics & Lasers
- Devices Processing Techniques and Characterization Methods

12.2 STUDENT SUPERVISION

Doctorates (PhDs)

1	V. Zorba	2004 - 2008	Physics Deparment, University of Crete (Co-supervision with Prof. C. Fotakis)
2	M. Barberoglou	2009 - 2013	Physics Deparment, University of Crete (Co-supervision with Prof. C. Fotakis)
3	Ch. Simitzi	2010 - 2014	Biology Deparment, University of Crete (Co-supervision with Prof. I. Athanasakis)
4	M. Sygletou	2013 - 2017	Physics Deparment, University of Crete (Co-supervision with Prof. C. Fotakis)
5	I. Paradissanos	2014-2018	Physics Deparment, University of Crete (Co-supervision with Prof. G. Kioseoglou and C. Fotakis)
6	K. Savva	2014-2018	Physics Deparment, University of Crete (Co-supervision with Prof. C. Fotakis)
7	D. Angelaki	2014-	Physics Deparment, University of Crete (Co-supervision with Prof. C. Fotakis)

8	E. Serpetzoglou	2015-	Physics Deparment, University of Crete (Co-supervision with Prof. D. Charalampidis)
9	E. Babaliari	2016-	Materials Science and Technology Deparment, University of Crete (Co-supervision with Prof. A. Mitraki)
10	I. Demeridou	2016-	Physics Deparment, University of Crete (Co-supervision with Prof. I. Kominis)
11	E. Skoulas	2016-	Materials Science and Technology Deparment, University of Crete (Co-supervision with Prof. D. Papazoglou)
12	A. Papadopoulos	2016-	Materials Science and Technology Deparment, University of Crete (Co-supervision with Prof. G. Kioseoglou)
13	A. Mimidis	2017 -	Materials Science and Technology Deparment, University of Crete (Co-supervision with Prof. G. Kioseoglou)
14	D. Xydias	2017-	Materials Science and Technology Deparment, University of Crete (Co-supervision with Prof. A. Mitraki)
15	M. Petrakakis	2018-	Materials Science and Technology Deparment, University of Crete (Co-supervision with Prof. S. Tzortzakis)
16	M. Kefalogianni	2019	Physics Deparment, University of Crete (Co-supervision with Prof. I. Kominis)
17	M. C. Velli	2019-	Physics Deparment, University of Crete (Co-supervision with Prof. G. Tsironis)
18	K. Argyrou	2019-	Chemistry Deparment, University of Crete (Co-supervision with Prof. A. Coutsolelos)
18	L. Vagiaki	2019-	Biology Deparment, University of Crete (Co-supervision with Prof. K. Sidiropolulou)
19	M. Vlachou	2019-	Materials Science, Deparment, University of Crete (Supervisor)

Masters (MScs)

1	M. Barberoglou	2006-2007	Physics Deparment, University of Crete (Co-supervision with Prof. C. Fotakis)
2	N. Koufaki	2009-2010	Physics Deparment, University of Crete (Co-supervision with Prof. C. Fotakis)
3	S. Bakogianni	2009-2010	Physics Deparment, University of Crete (Co-supervision with Prof. C. Fotakis)
4	M. Sygletou	2011- 2012	Physics Deparment, University of Crete (Co-supervision with Prof. C. Fotakis)
5	I. Paradissanos	2012-2013	Materials Science and Technology Deparment, University of Crete (Co-supervision with Prof. G. Kioseoglou)
6	K. Savva	2012-2013	Physics Deparment, University of Crete (Co-supervision with Prof. P. Tzanetakis)
7	A. Miaris	2012-2013	National Technical University of Athens (Co-supervision with Prof. I. Zergioti)
8	I. Demeridou	2014-2015	Physics Deparment, University of Crete (Co-supervision with Prof. G. Kioseoglou)
9	M. Stivaktaki	2014-2015	Physics Deparment, University of Crete (Co-supervision with Prof. G. Kioseoglou)
10	E. Skoulas	2015-2016	Materials Science and Technology Deparment, University of Crete (Co-supervision with Prof. C. Papazoglou)
11	A. Papadopoulos	2015-2016	Materials Science and Technology Deparment, University of Crete (Co-supervision with Prof. G.

			Kioseoglou)
12	A. Mimidis	2015 - 2016	Materials Science and Technology Deparment, University of Crete (Co-supervision with Prof. D. Papazoglou)
13	C. Yiannakou	2017 - 2018	Medical School, University of Crete (Co-supervision with Prof. A. Gravanis)
14	C. Lanara	2018 - 2019	Materials Science and Technology Deparment, University of Crete (Co-supervision with Prof. D. Papazoglou)
15	K. Argyrou	2018 - 2019	Materials Science and Technology Deparment, University of Crete (Co-supervision with Prof. G. Kioseoglou)
16	N. Livakas	2019-2020	Physics Deparment, Univ. of Crete
17	A. Loufardaki	2019- 2020	Mat. Science and Techn. Deparment, Univ. of Crete
18	A. Pylostomou	2019- 2020	Physics Deparment, University of Crete
19	E. Petraki	2019-2020	Mat. Science and Techn. Deparment, Univ. of Crete
20	A. Tsangadoura	2019-2020	Physics Deparment, University of Crete

13. ADMINISTRATION AND EVALUATION EXPERIENCE

National Delegation and other Commitees

- National Representative to the EC Program Committee on Nanotechnologies, Advanced materials, Biotechnology, Advanced Manufacturing and Processing (NMBP), Horizon 2020, 2019 -
- Member of Engineering sectoral scientific council of the National Council for Research & Innovation, 2018 –
- FORTH representative and Founder member of the inter-institutional (Univ of Crete/TEI of Crete/FORTH) M.Sc. degree on Nanoenergy, 2018 -
- National Representative to the High-Level Group of EU on Nanosciences, Nanotechnology and Advanced Materials, 2017 -
- Member of the Scientific Committee of COST, 2017-
- Member of the Steering Committee of the Personalised Healthcare Flagship Initiative, 2017-
- FORTH representative and Founder member of the inter-institutional Univ of Crete/ Technical University of Crete/FORTH) M.Sc. degree on Biomedical Engineering, 2017 –
- National Expert to the EC Program Committee on Nanotechnologies, Advanced materials, Biotechnology, Advanced Manufacturing and Processing (NMBP), Horizon 2020, 2014 -
- Director of the European Nanoscience Facility of FORTH, part of the NFFA-Europe Infrastructure, 2015 -
- National Delegate of the Shadow committee for the Horizon 2020: Nanotechnologies, Advanced materials, Biotechnology, Advanced Manufacturing and Processing, (2013 – 2014)
- Manager, on behalf of FORTH-IESL, of the Satellite Laboratory of the EU-NCL Research Infrastructure, 2015 -
- National Representative and Member of the Management Committee of the COST Actions MP0902, IC1208, MP1307, MP1302, (2011-2017).
- FORTH representative in the Working Team '*Energy*' of the Regional Council for Innovation of Crete Region, (2013 – 2014)
- Member of the Local Stakeholders Group for the project

REBUS, *Renovation for Energy efficient BuildingS*, Region of Crete (2016-)
- Elected member of the Researchers Council of FORTH
- Elected Vice representative on behalf of the Researchers at the Board of Directors of FORTH, 2016

Evaluation Committes

- European Research Council (ERC); Remote Evaluator for Panels PE7 and PE8)
- European Commision: 7th Framework Programm, (FP7) " PEOPLE-IEF-IIF-IOF".
- National Science Foundation (NSF), U.S.A.
- Hellenic Foundation for Research and Innovation (HFRI)
- General Secretrariat of Research and Technology (GSRT)
- Research Promotion Foundation Cyprus (RPF)
- Fund for Scientific Research (FNRS) Belgium
- The French National Research Agency (ANR)
- German Research Foundation (DFG)
- Czech Science Foundation (GACR)
- Ministry of Education Youth and Sports (MEYS) Czech Republic
- Austria Science Fund (FWF)
- International Bureau of the Federal Ministry of Education and Research at the Project Management Agency c/o German Aerospace Center (DLR), ERANET-RUS call
- Research Council of Norway (RCN)
- Fondazione Cariplo Scientific Research Unit, Italy

Doctorates Evaluation

- University of Crete, Greece.
- University of Southampton, United Kingdom.
- Indian Institute of Technology, India.
- Politecnico di Milano, Italy.
- National Capodistrian University of Athens, Greece.

14. RESEARCH TEAM

The Ultrafast laser Micro- and Nano- Processing Laboratory, comprises 11 Postdocs, 9 PhD students, 7 MSc students, 3 Technicians, 1 Technology Transfer Manager. The Lab Alumni includes 5 scientists. In particular:

RESEARCH GROUP PARTICIPANT	POSITION
Dr. Emmanuel Stratakis	Leader
Dr. George Tsibidis	Postdoc Researcher
Mr. Sotiris Psilodimitrakopoulos	Postdoc Researcher
Dr. Evi Kavatzikidou	Postdoc Researcher
Dr. Ioannis Konidakis	Postdoc Researcher
Dr. Athanassia Kostopoulou	Postdoc Researcher
Dr. Leonidas Mouhliadis	Postdoc Researcher
Dr. Kyriaki Savva	Postdoc Researcher
Dr. Konstantinos Brintakis	Postdoc Researcher
Dr. Abdus Salam Sarkar	Postdoc Researcher
Dr. Maria Pervolaraki	Postdoc Researcher
Dr. Stella Maragkaki	Postdoc Researcher
Dr. Ioanna Sakelari	Postdoc Researcher

Dr. Fotios Fraggelakis	Postdoc Researcher
Mrs Aleka Manousaki	Technical Scientific Personnel
Mr Giannis Labrakis	Technical Scientific Personnel
Mr Andeas Lemonis	Technical Scientific Personnel
Mrs Ioanna Demeridou	PhD candidate
Mrs Despoina Angelaki	PhD candidate
Mr Antonis Papadopoulos	PhD candidate
Mrs Ritsa Babaliari	PhD candidate
Mr Alexandros Mimidis	PhD candidate
Mr Dionisis Xydias	PhD candidate
Mr Evangelos Skoulas	PhD candidate
Mr Eythimis Serpetzoglou	PhD candidate
Mr George Maragkakis	PhD candidate
Mr Manolis Petrakakis	PhD candidate
Mrs Maria Kefalogianni	PhD candidate
Mrs Maria-Christina Velli	PhD candidate
Mrs Katerina Argyroy	PhD candidate
Mr Kourmoulakis Georgios	PhD candidate
Mrs Lida Vagiaki	PhD candidate
Mrs Matina Vlachou	PhD candidate
Mrs Athanasia Pylostomou	MSc candidate
Mrs Antonia Loufardaki	MSc candidate
Mr Nikolaos Livakas	MSc candidate
Mrs Eirini Petraki	MSc candidate
Mrs Anatoli Tsagadoura	MSc candidate
Mrs Anna Karagiannaki	MSc candidate
Mrs Serpil Kiokekli	MSc candidate
Mr Alexios Pagkozidis	Technology Transfer Manager

LAB ALUMNI

Name	CURRENT POSITION
Dr. Vassilia Zorba	Staff Scientist, Lawrence Berkeley National Laboratory CA US
Dr. Evie Papadopoulou	Postdoctoral Researcher, at IIT - Istituto Italiano di Tecnologia
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