IOANNIS KONIDAKIS

Curriculum Vitae, August 2026

1. PERSONAL DETAILS

Name	:	Ioannis
Surname	:	Konidakis
Date of birth	:	4/9/1980
Nationality	:	Greek
Military service	:	11/2006-10/2007 (obligatory in Greece)
Work address 1	:	K2M Scientific, 4 Rousou Chourdou St., 71201, Heraklion, Crete, Greece
Work address 2	:	Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology - Hellas (FORTH), P.O Box 1527, 71110, Heraklion, Crete, Greece
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2. EDUCATION

- 7/2006: Ph.D. in Chemistry, University of Aberdeen, UK.
  Ph.D. Thesis title: "Activation volumes and ion transport mechanisms in glasses and polymers".
  Thesis advisors: Prof. M.D. Ingram, Prof. C.T. Imrie.
- 7/2002: B.Sc. Honours in Chemistry, University of Aberdeen, UK.

3. AWARDS & DISTINCTIONS

- 4/2026: Recognised as one of the Royal Society of Chemistry's 2025 outstanding reviewers (Mater. Horiz. 13, 6744, 2026).
- 9/2023: Successful evaluation of Glas-A-Fuels (GA 101130717), HORIZON-EIC-2023-PATHFINDEROPEN-01-01 proposal (Author, Coordinator and Key Researcher).
- 4/2022: Article in Nature Nanotechnology (Nat. Nanotechnol., 17, 485, 2022).
- 4/2022: Cover and cover story in Opto-Electronic Science vol. 1, issue 4, 2022.
- 12/2018, 8/2022, and 8/2025: Editor's choice article in Applied Physics A (Appl. Phys. A 124, 839, 2018), in Materials MDPI (Materials 15, 2983, 2022), and in Journal of Applied Physics (J. Appl. Phys. 138, 053103, 2025).
- 1/2014-12/2015: IKY Fellowship of Excellence for Post-graduate Research in Greece - Siemens Program, awarded from the State Scholarships Foundation (IKY).
- 7/2014: Post-deadline acceptance of paper: "All-optical optofluidic switching in a ZnO-overlaid microstructured optical fiber", BGPP 2014 - OSA, Barcelona, Spain.
- 9/2002-7/2006: Ph.D. Studentship, awarded from the Engineering and Physical Sciences Research Council (EPSRC, UK).
- 9/2000: COUTTS PRIZE, awarded from the Department of Chemistry for excellent performance in level 2 Chemistry, University of Aberdeen, UK.

4. POSITIONS

- 4/2023- : Chief Scientific Officer (CSO) of K2M Scientific.

5. RESEARCH APPOINTMENTS

- 5/2016- : Associate Researcher, Ultrafast Laser Micro and Nano-Processing Laboratory (ULMNP). Subgroup Leader of Lasers in Optoelectronics (LiOn), Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology-Hellas (FORTH), Heraklion, Crete, Greece.
- 9/2011-4/2016: Associate Researcher, Photonic Materials and Devices Laboratory (PMDL), Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology-Hellas (FORTH), Heraklion, Crete, Greece.
- 6/2008-8/2011: Post-doctoral Researcher, Theoretical and Physical Chemistry Institute (TPCI), National Hellenic Research Foundation (NHRF), Athens, Greece.

6. EXPERIENCE & MAIN RESEARCH INTERESTS

- Highly experienced in European research projects targeting the development of novel materials for optoelectronic, energy harvesting, and catalysis applications.
- Development of advanced composite glasses for optoelectronic, photonic, green-buildings, and catalysis applications.
- Laser-assisted synthesis and characterization of materials for advanced photonic and energy harvesting applications.
- Ultrafast laser time-resolved Transient Absorption Spectroscopy (TAS) in nanocatalysts, photovoltaic, thermoelectric, and optoelectronic materials.
- Electrical characterization of semiconductor materials.
- Non-linear optical properties of oxide glasses and crystals.
- Growth of glassy and crystalline materials inside photonic crystal fibers (PCFs), towards sensing, switching, opto-fluidic and photonic bandgap applications.
- Structure-properties correlation of inorganic oxide glasses.
- Physical chemistry of glasses and polymers - Ion transport and conductivity mechanisms.
- Investigation of ion dynamics in glasses and polymers - Impedance spectroscopy (IS) under Variable Pressure - Variable Temperature (VPVT) conditions.
- Thermal and mechanical properties of glasses and polymers (DSC, DTA, TGA).

7. EXTERNAL FUNDING

(The amounts refer to the IESL budget within the total budgets of the projects)

- 9/2023: **Glas-A-Fuels**, HORIZON, HORIZON-EIC-2023-PATHFINDEROPEN-01-01, “Single-atom photocatalysts enhanced by a self-powered photonic glass reactor to produce advanced biofuels”, 42 months, 800K € (GA 101130717).
- 6/2023: **APPROACH**, HORIZON, HORIZON-WIDERA-2022-TALENTS-03-01, “Advanced photonic processes for novel solar energy harvesting technologies”, 42 months, 833K € (GA 101120397).

- 4/2020: **TheSmartMat**, ΕΣΠΑ2014-2020, RIS3Crete, "Laser-assisted development of composite thermochromic materials for energy smart and safe buildings", 36 months, 113.5K € (KPHP1-0032623).
- 3/2020: **InComEss**, H2020, LC-NMBP-32-2019, "Innovative polymer-based composite systems for high-efficient energy scavenging and storage", 42 months, 258K € (GA 862597).
- 2/2020: **LASERGRAPH**, FLAG-ERA ERA-net, "In-situ laser fabrication of graphene electrodes and interlayers for next generation CIGS/Perovskite solar cells", 36 months, 250K €.
- 12/2013: State Scholarships Foundation (IKY), "Development of optical materials inside photonic bandgap optical fibers for advanced sensing applications", 24 months, 39K €.

8. TEACHING ACTIVITIES

- 9/2021- : Laboratory course: "Transient Absorption Spectroscopy of Energy Related Materials", within the frame of postgraduate course "Devices Processing Techniques and Characterization Methods", Hellenic Mediterranean University and IESL-FORTH, Heraklion, Crete, Greece.
- 9/2011-9/2017: Part-time Lecturer, undergraduate course: "Science of Ceramic Materials", Department of Materials Science and Technology, University of Crete, Heraklion, Crete, Greece.
- 11/2015-7/2016: Part-time Lecturer, foundation courses: "Inorganic and Physical Chemistry" and "Organic Chemistry", MBS College of Crete, Heraklion, Crete, Greece.
- 10/2012-6/2013: Part-time Laboratory Assistant, undergraduate laboratory courses: "Soft Matter" and "Solid State Materials", Department of Materials Science and Technology, University of Crete, Heraklion, Crete, Greece.
- 9/2002-5/2006: Laboratory Demonstrator, undergraduate laboratory courses: "General Chemistry level 1" and "Physical Chemistry level 2", Department of Chemistry, University of Aberdeen, UK.

9. SUPERVISION ACTIVITIES

- **Anna Karagiannaki (Master Thesis):** "Probing the effect of a glass network on the synthesis and luminescence properties of composite perovskite glasses", Department of Chemistry, UoC. Completed 12/2021.
- **Marios Adamidis (Undergraduate Thesis):** "Synthesis and photochromic properties of composite AgCl-$AgPO_3$ glasses", Department of Materials Science and Technology, UoC. Completed 2/2022.
- **Charalampos Goniotakis: (Undergraduate Thesis)** "Synthesis and characterization of composite two-dimensional (2D) materials composite inorganic oxide glasses", Department of Physics, UoC. Completed 2/2022. **(Master Thesis)** "Development of advanced photoactuator glass microwires", Materials Science and Engineering Department, UoC. Completed: 10/2024.
- **Aggeliki Rasouli (Master Thesis):** "Charge energy dynamics investigation by Transient Absorption Spectroscopy on polymer composites with single wall carbon nanotubes and

ionic liquid fillers for thermoelectric applications", Department of Electrical and Computer Engineering, HMU. Completed 10/2023.

- **Elena Agapaki (PhD Thesis):** "Development of advanced composite glasses for catalysis applications", Department of Chemistry, UoC. Ongoing.
- **Dimitris Georgakopoulos (Undergraduate Thesis):** "Development of all-glass waveguides and optical patterns by means of post-melting encapsulation of glass microwires", Department of Physics, UoC. Ongoing.

10. LEADING ACTIVITIES

- **Subgroup Leader of Lasers in Optoelectronics (LiOn):** LiOn is a subgroup within the ULMNP laboratory, consisting of post-docs, post-graduate students and undergraduate students. LiOn research focuses on two main aspects:
  i. Laser diagnostics and materials characterization for photovoltaic, thermoelectric, optoelectronic and nanocatalyst applications.
- **ii.** Development of advanced composite glasses for optoelectronic, photonic, thermochromic, and catalysis applications by means of novel melting and post-melting procedures.

11. PROFESSIONAL AFFILIATIONS

- Reviewer in the following international scientific journals:
  Elsevier: Opt. Mater., J. Alloys Compd., Thin Solid Films, Appl. Surf. Sci., Mater. Today Commun, Opt. Laser Technol., Ceram. Int., Mater. Chem. Phys., Sustain. Energy Tech., Next Energy.
  MDPI: Materials, Catalysts, Coatings, Nanomaterials, Inorganics, Molecules, Crystals.
  Optical Society of America (OSA): Appl. Opt., Opt. Lett..
  Royal Society of Chemistry (RSC): J. Mater. Chem. A, J. Mater. Chem. C, Nanoscale Horizons, Materials Horizons.
  Wiley: Adv. Opt. Mater., Small, Laser Photonics Rev..
  American Chemical Society (ACS): ACS Appl. Nano Mater., ACS Nano, ACS Appl. Opt. Mater..
- External evaluator and expert for Horizon Europe proposals and ERC grants.
- Member of the following scientific Societies: Optical Society of America (OSA), Greek Chemical Society, Royal Society of Chemistry (RSC) from 2003 to 2006.

12. ANNOUNCEMENTS IN NATIONAL CONFERENCES

(* denotes the presenter)

- **XXXVI Pan-Hellenic Conference on Solid-State Physics and Materials Science, Heraklion-Crete, Greece (9/2022).**
  Oral: "Post-melting encapsulation for the development of advanced composite glasses", I. Konidakis* and E. Stratakis.

13. ANNOUNCEMENTS IN INTERNATIONAL CONFERENCES

(* denotes the presenter)

- **Society of Glass Technology Conference, Birmingham, United Kingdom (4/2003).**

Oral: "Variable-Pressure Variable-Temperature ionic conductivities in sodium aluminoborate glasses", I. Konidakis*, C.T. Imrie and M.D. Ingram.

- **7th ESG Conference of Glass Science and Technology, Yalos 2004, Athens, Greece (4/2004).**
  Poster: "Activation volumes and ion-coupling mechanisms in mixed-cation glasses", I. Konidakis*, C.T. Imrie and M.D. Ingram.

- **Ionic and Electronic Properties of Solids, Dalton Discussion 7, University of St Andrews, United Kingdom (7/2004).**
  Oral: "What Variable-Pressure Variable-Temperature measurements are telling us about ion transport in glass", C.T. Imrie, I. Konidakis and M.D. Ingram*.

- **11th International Conference on the Structure of Non-Crystalline Materials, NCM-11, Paris, France (6/2010).**
  Poster: "Effect of synthesis method on the structure and properties of fast ion conducting glasses", I. Konidakis*, C.P.E. Varsamis and E.I. Kamitsos.

- **Photonics Europe 2012, SPIE, Brussels, Belgium (4/2012).**
  Oral: "Photonic bandgap guiding into a composite $AgPO_3$-glass/silica microstructured optical fibre", I. Konidakis, G. Zito and S. Pissadakis*.

- **Specialty Optical fibers, SOF-OSA 2012, Colorado, United States (6/2012).**
  Oral: "Photosensitive all-glass $AgPO_3$/silica photonic bandgap fibre", G. Zito, I. Konidakis and S. Pissadakis*.

- **4th International Symposium on Transparent Conductive Materials, TCM-2012, Hersonissos, Crete, Greece (10/2012).**
  Oral: "Growth of ZnO nanolayers inside the capillaries of photonic crystal fibres", I. Konidakis*, M. Androulidaki, G. Zito and S. Pissadakis.

- **15th International Conference on Transparent Optical Networks, ICTON-2013, Cartagena, Spain (6/2013).**
  Invited oral: "Electric field induced polarization effects in $AgPO_3$/silica photonic bandgap fiber", I. Konidakis* and S. Pissadakis.

- **23rd International Congress on Glass, ICG-2013, Prague, Czech Republic (7/2013).**
  Poster: "Contamination of phosphate glasses prepared from melts in alumina crucibles", I. Konidakis, D. Palles*, C.P.E. Varsamis and E.I. Kamitsos.

- **Photonics West 2014, SPIE, San Francisco, United States (2/2014).**
  Invited oral: "Materials growth and processing in the capillaries of photonic crystal fibres: towards the lab-in-a-fibre protocol", I. Konidakis, M. Konstantaki and S. Pissadakis*.

- **Bragg Gratings, Photosensitivity and Poling in Glass Waveguides, BGPP-2014, Barcelona, Spain (7/2014).**
  Oral: "Enhancement of plasmonic properties of an all-glass $AgPO_3$/silica photonic bandgap fiber using thermal poling", I. Konidakis* and S. Pissadakis.

Post-deadline oral: "All-optical optofluidic switching in a ZnO-overlaid microstructured optical fiber", I. Konidakis*, M. Konstantaki, K. Kosma and S. Pissadakis.

- **5th International Symposium on Transparent Conductive Materials, TCM-2014, Platanias-Chania, Crete, Greece (10/2014).**
  Oral: "An optical optofluidic switch developed in a ZnO-overlaid microstructured optical fiber", I. Konidakis, M. Konstantaki, K. Kosma and S. Pissadakis*.

- **Photonics West 2015, SPIE, San Francisco, United States (2/2015).**
  Oral: "Fiber endface Fabry-Perot vapor microsensors fabricated by multiphoton polymerization technique", V. Melissinaki*, I. Konidakis, M. Farsari and S. Pissadakis.

- **3rd EOS Conference on Optofluidics, EOSOF-2015, Munich, Germany (6/2015).**
  Oral: "A light-controlled optofluidic switch using ZnO as actuating material", I. Konidakis*, M. Konstantaki and S. Pissadakis.

- **2nd Israel-Greece Joint Meeting on Nanotechnology and BioNanoscience, Heraklion, Crete, Greece (10/2016).**
  Poster: "Organic- and all inorganic- lead halide perovskites: from material synthesis to advanced photovoltaic applications", I. Konidakis*, A. Kostopoulou*, G. Kakavelakis, T. Maksudov, E. Kymakis and E. Stratakis.

- **Merging Micro- and Nano-Optics: 3D Printing for Advanced and Functional Optics, Bad Honnef, Bonn, Germany (1/2017).**
  Poster: "Fiber endface Fabry-Perot microsensors for gaseous and liquid species fabricated by multiphoton polymerization technique", V. Melissinaki*, I. Konidakis, M. Farsari and S. Pissadakis.

- **Bragg Gratings, Photosensitivity and Poling in Glass Waveguides & Materials, BGPP-2018, Zurich, Switzerland (7/2018).**
  Oral: "Toward bioresorbable photosensitive fibers for theranostics", M. Konstantaki, S. Pissadakis, D. Pugliese, E. Ceci-Ginistrelli, N.G. Boetti, D. Milanese, I. Konidakis and D. Janner*.

- **11th International Symposium on Flexible Organic Electronics, ISFOE-2018, Thessaloniki, Greece (7/2018).**
  Poster: "Charge carrier dynamics in perovskite solar cells probed by femtosecond transient absorption spectroscopy", E. Serpetzoglou*, I. Konidakis, T. Maksudov, A. Panagiotopoulos, G. Kakavelakis, E. Kymakis and E. Stratakis.

- **1st International Conference on Nanotechnologies and Bionanoscience, NanoBio-2018, Heraklion, Greece (9/2018).**
  Oral: "Improved charge carrier dynamics of $CH_3NH_3PbI_3$ perovskite films probed by femtosecond transient absorption spectroscopy", I. Konidakis*, E. Serpetzoglou, T. Maksudov, G. Kakavelakis, E. Kymakis and E. Stratakis.

- **7th International Symposium on Transparent Conductive Materials, TCM-2018, Platanias-Chania, Crete, Greece (10/2018).**

Oral: “Charge carrier transport dynamics in perovskite solar cells by means of transient absorption spectroscopy”, E. Serpetzoglou*, I. Konidakis, T. Maksudov, G. Kakavelakis, A. Panagiotopoulos, E. Kymakis and E. Stratakis.

- **28th International Conference on Nanoscience and Nanotechnology, Nanoscience-2018, Barcelona, Spain (11/2018).**
  Keynote oral: “Composite glasses and perovskites for advanced photovoltaic and photonic applications”, I. Konidakis* and E. Stratakis.

- **2021 Fall Meeting E-MRS, European Materials Research Society, Virtual Conference (9/2021).**
  Oral: “Formation of highly luminescent and ultrastable perovskite patterns within phosphate glasses by means of post-glass melting encapsulation”, I. Konidakis*, K. Brintakis, A. Kostopoulou, I. Demeridou, E. Kavatzikidou and E. Stratakis.

- **2022 Spring Meeting E-MRS, European Materials Research Society, Virtual Conference (6/2022).**
  Oral: “Synthesis and optical/thermal reversible photo-switching of AgCl-$AgPO_3$ photochromic composite glass coatings for space applications”, I. Konidakis*, M. Adamidis and E. Stratakis.

- **EPF European Polymer Congress, EPF-2022, Prague, Czech Republic (6/2022).**
  Oral: “Polycarbonate and poly ether ether ketone composites with hybrid carbon nanotube fillers for thermoelectric application”, B. Krause*, I. Konidakis, H. Reith, E. Stratakis and P. Pötschke.

- **8th International Symposium on Transparent Conductive Materials, TCM-2022, Hersonissos, Crete, Greece (10/2022).**
  Oral: “Post-glass melting development of advanced composite glasses for optoelectronic and photochromic applications”, I. Konidakis*, M. Adamidis and E. Stratakis.

- **2nd International Conference on Nanotechnologies and Nanobioscience, NanoBio-2023, Heraklion, Greece (9/2023).**
  Oral: “Post-melting encapsulation of glass microwires for the development of advanced waveguides”, I. Konidakis*, F. Dragosli, A. Cheruvathoor Poulose, J. Kašlik, A. Bakandritsos, R. Zboril and E. Stratakis.

- **40th International Conference of the Polymer Processing Society, PPS-40, Auckland, New Zealand (4/2025).**
  Oral: “Thermoelectric materials based on carbon nanoparticles for the utilization of process waste heat during photocatalytic reactions”, M. Gültner*, B. Krause, I. Konidakis and E. Stratakis.

- **25th Anniversary of International Conference on Transparent Optical Networks, ICTON 2025, Barcelona, Spain (7/2025).**
  Invited oral: “Light waveguiding within phosphate glasses upon post-melting encapsulation of glass microwires”, I. Konidakis*, F. Dragosli, A. Cheruvathoor Poulose, J. Kašlik, A. Bakandritsos, R. Zboril and E. Stratakis.

- **17th International Conference on Surfaces, Coatings and Nanostructured Materials, NANOSMAT 2026, Rhodes, Greece (7/2026).**
  Oral: "Advanced optical waveguide design via encapsulation of 2,4,6-Triphenylpyrylium chloride in oxide glasses", E. Agapaki*, I. Konidakis, E. Evlyukhin, K. Katsara, G. Kenanakis, D. King, H. Han, P.K. Bhowmik and E. Stratakis.

14. INVITED LECTURES

- "Composite inorganic oxide glasses and optoelectronic applications", I. Konidakis, iPEN intensive course in Nano-Plasmonics and Nano-Photonics, virtual lecture (8/2021).
- "Time-resolved transient absorption spectroscopy in perovskite solar cells", I. Konidakis, iPEN intensive course in Laser Spectroscopy and Safety, Department of Physics, Politecnico di Milano (5/2019).

15. PAPERS IN REFEREED JOURNALS

(* denotes where Ioannis Konidakis is corresponding author)

1. "Significance of activation volumes for cation transport in glassy electrolytes", M.D. Ingram, C.T. Imrie, I. Konidakis and S. Voss, Phys. Chem. Chem. Phys. **6**, 3659 (2004).
2. "What variable-pressure variable-temperature measurements are telling us about ion transport in glass", C.T. Imrie, I. Konidakis and M.D. Ingram, Dalton Trans., 3067 (2004).
3. "A mechanistic approach to conductivity relaxation in ionic glasses", M.D. Ingram, R.D. Banhatti and I. Konidakis, Z. Phys. Chem. **218**, 1401 (2004).
4. "Pressure dependence of the ionic conductivity of Na- and Na-Rb borate glasses", A.W. Imre, S. Voss, F. Berkemeier, H. Mehrer, I. Konidakis and M.D. Ingram, Solid State Ionics **177**, 963 (2006).
5. "Activation volumes and site relaxation in mixed alkali glasses", M.D. Ingram, C.T. Imrie and I. Konidakis, J. Non-Cryst. Solids **352**, 3200 (2006).
6. "Structure and properties of mixed strontium-manganese metaphosphate glasses", I. Konidakis, C.P.E. Varsamis, E.I. Kamitsos, D. Moncke and D. Ehrt, J. Phys. Chem. C **114**, 9125 (2010).
7. "Effect of synthesis method on the structure and properties of $AgPO_3$-based glasses", I. Konidakis, C.P.E. Varsamis and E.I. Kamitsos, J. Non-Cryst. Solids **357**, 2684 (2011).
8. "Photosensitive, all-glass $AgPO_3$/silica photonic bandgap fiber", I. Konidakis, G. Zito and S. Pissadakis, Opt. Lett. **37**, 2499 (2012).
9. "Growth of ZnO nanolayers inside the capillaries of photonic crystal fibres", I. Konidakis, M. Androulidaki, G. Zito and S. Pissadakis, Thin Solid Films **555**, 76 (2014).
10. "Silver plasmon resonance effects in $AgPO_3$/silica photonic bandgap fiber", I. Konidakis, G. Zito and S. Pissadakis, Opt. Lett. **39**, 3374 (2014).
11. "Optical spectra tuning of all-glass photonic bandgap fiber infiltrated with silver fast-ion-conducting glasses", I. Konidakis* and S. Pissadakis, Materials **7**, 5735 (2014).

12. “Photorefractive tuning of whispering gallery modes of a spherical resonator integrated inside a microstructured optical fibre”, K. Kosma, I. Konidakis and S. Pissadakis, Eur. Phys. J. Spec. Top. **223**, 2035 (2014).
13. “Light driven optofluidic switch developed in a ZnO-overlaid microstructured optical fiber”, I. Konidakis, M. Konstantaki, G.D. Tsibidis and S. Pissadakis, Opt. Express **23**, 31496 (2015).
14. “Vibrational spectroscopic and bond valence study of structure and bonding in Al_2O_3-containing AgI-$AgPO_3$ glasses”, D. Palles, I. Konidakis, C.P.E. Varsamis and E.I. Kamitsos, RSC Adv. **6**, 16697 (2016).
15. “Silver iodide phosphate glass microsphere resonator integrated on an optical fiber taper”, K. Milenko, I. Konidakis and S. Pissadakis, Opt. Lett. **41**, 2185 (2016).
16. “Fiber endface Fabry-Perot microsensor with distinct response to vapors of different chlorinated organic solvents”, V. Melissinaki, I. Konidakis, M. Farsari and S. Pissadakis, IEEE Sens. J. **16**, 7094 (2016).
17. “The role of chemical structure in indacenodithienothiophene-*alt*-benzothiadiazole copolymers for high performance organic solar cells with improved photo-stability through minimization of burn-in loss”, C.L. Chochos, N. Leclerc, N. Gasparini, N. Zimmerman, E. Tatsi, A. Katsouras, D. Moschovas, E. Serpetzoglou, I. Konidakis, S. Fall, P. Leveque, T. Heiser, M. Spanos, V.G. Gregoriou, E. Stratakis, T. Ameri, C.J. Brabec and A. Avgeropoulos, J. Mater. Chem. A **5**, 25064 (2017).
18. “Improved carrier transport in perovskite solar cells probed by femtosecond transient absorption spectroscopy”, E. Serpetzoglou, I. Konidakis*, G. Kakavelakis, T. Maksudov, E. Kymakis and E. Stratakis, ACS Appl. Mater. Interfaces **9**, 43910 (2017).
19. “Effect of composition and temperature on the second harmonic generation in silver phosphate glasses”, I. Konidakis*, S. Psilodimitrakopoulos, K. Kosma, A. Lemonis and E. Stratakis, Opt. Mater. **75**, 796 (2018).
20. “Bioresorbable optical fiber Bragg gratings”, D. Pugliese, M. Konstantaki, I. Konidakis, E. Ceci-Ginistrelli, N.G. Boetti, D. Milanese and S. Pissadakis, Opt. Lett. **43**, 671 (2018).
21. “Enhancement of the power-conversion efficiency of organic solar cells via unveiling an appropriate rational design strategy in indacenodithiophene-*alt*-quinoxaline π-conjugated polymers”, C.L. Chochos, R. Singh, V.G. Gregoriou, M. Kim, A. Katsouras, E. Serpetzoglou, I. Konidakis, E. Stratakis, K. Cho and A. Avgeropoulos, ACS Appl. Mater. Interfaces **10**, 10236 (2018).
22. “α,β-Unsubstituted meso-positioning thienyl BODIPY: a promising electron deficient building block for the development of near infrared (NIR) p-type donor-acceptor (D-A) conjugated polymers”, B.M. Squeo, V.G. Gregoriou, Y. Han, A. Palma-Cando, S. Allard, E. Serpetzoglou, I. Konidakis, E. Stratakis, A. Avgeropoulos, T.D. Anthopoulos, M. Heeney, U. Scherf and C.L. Chochos, J. Mater. Chem. C **6**, 4030 (2018).

23. "Improved charge carrier dynamics of $CH_3NH_3PbI_3$ perovskite films synthesized by means of laser-assisted crystallization", I. Konidakis*, T. Maksudov, E. Serpetzoglou, G. Kakavelakis, E. Kymakis and E. Stratakis, ACS Appl. Energy Mater. **1**, 5101 (2018).
24. "Erasable and rewritable laser-induced gratings on silver phosphate glass", I. Konidakis*, E. Skoulas, A. Papadopoulos, E. Serpetzoglou, E. Margariti and E. Stratakis, Appl. Phys. A **124**, 839 (2018).
25. "Limitations of a polymer-based hole transporting layer for application in planar inverted perovskite solar cells", M. Petrovic, T. Maksudov, A. Panagiotopoulos, E. Serpetzoglou, I. Konidakis, M.M. Stylianakis, E. Stratakis and E. Kymakis, Nanoscale Adv. **1**, 3107 (2019).
26. "*In situ* monitoring of the charge carrier dynamics of $CH_3NH_3PbI_3$ perovskite crystallization process", E. Serpetzoglou, I. Konidakis, T. Maksudov, A. Panagiotopoulos, E. Kymakis and E. Stratakis, J. Mater. Chem. C **7**, 12170 (2019).
27. "Nitrogen-doped carbon nanotube/polypropylene composites with negative Seebeck coefficient", B. Krause, I. Konidakis, M. Arjmand, U. Sandararaj, R. Fuge, M. Liebscher, S. Hampel, M. Klaus, E. Serpetzoglou, E. Stratakis and P. Pötschke, J. Compos. Sci. **4**, 14 (2020).
28. "Highly luminescent and ultrastable cesium lead bromide perovskite patterns generated in phosphate glass matrices", I. Konidakis*, K. Brintakis, A. Kostopoulou, I. Demeridou, P. Kavatzikidou and E. Stratakis, Nanoscale **12**, 13697 (2020).
29. "Robust B-exciton emission at room temperature in few-layers of MoS_2:Ag nanoheterojunctions embedded into a glass matrix", A.S. Salam, I. Konidakis, I. Demeridou, E. Serpetzoglou, G. Kioseoglou and E. Stratakis, Sci. Rep. **10**, 15697 (2020).
30. "Probing the effect of a glass network on the synthesis and luminescence properties of composite perovskite glasses". A. Karagiannaki, I. Konidakis*, G. Kourmoulakis, I. Demeridou, J. Dzibelova, A. Bakandritsos and E. Stratakis, Opt. Mater. Express **12**, 823 (2022).
31. "Advanced composite glasses with metallic, perovskite, and two-dimensional nanocrystals for optoelectronic and photonic applications", I. Konidakis*, A. Karagiannaki and E. Stratakis, Nanoscale **14**, 2966 (2022).
32. "Laser-induced erasable and re-writable waveguides within silver phosphate glasses", K. Tsimvrakidis, I. Konidakis* and E. Stratakis, Materials **15**, 2983 (2022).
33. "Charge carrier dynamics in different crystal phases of $CH_3NH_3PbI_3$ perovskite photovoltaic active layer", E. Serpetzoglou, I. Konidakis, G. Kourmoulakis, I. Demeridou, K. Chatzimanolis, C. Zervos, G. Kioseoglou, E. Kymakis and E. Stratakis, Opto-Electron. Sci. **1**, 210005 (2022).
34. "Fast and selective reduction of nitroarenes under visible light with an earth-abundant plasmonic photocatalyst", A. Cheruvathoor Poulose, G. Zoppellaro, I. Konidakis, E.

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