

**IOANNIS KONIDAKIS**  
**PUBLICATIONS**  
*(Last update: October 2023)*

**P1. B.Sc. HONOURS THESIS**

1. “Synthesis and characterization of hybrid rod-disc-like liquid crystals”, Department of Chemistry, University of Aberdeen, Scotland, UK (4/2002).

**P2. Ph.D. THESIS**

1. “Activation volumes and ion transport mechanisms in glasses and polymers”, Department of Chemistry, University of Aberdeen, Scotland, UK (4/2006).

**P3. 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<sub>3</sub>-based glasses”, I. Konidakis, C.P.E. Varsamis and E.I. Kamitsos, [J. Non-Cryst. Solids 357, 2684 \(2011\)](#).
8. “Photosensitive, all-glass AgPO<sub>3</sub>/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<sub>3</sub>/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<sub>2</sub>O<sub>3</sub>-containing AgI-AgPO<sub>3</sub> 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 microsensors with distinct response to vapors of different chlorinated organic solvents", V. Melissinaki, I. Konidakis, M. Farsari and S. Pissadakis, [IEEE Sensors 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  $\pi$ -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. " $\alpha,\beta$ -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  $\text{CH}_3\text{NH}_3\text{PbI}_3$  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  $\text{CH}_3\text{NH}_3\text{PbI}_3$  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<sub>2</sub>: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<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> 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.C Poulouse, G. Zoppellaro, I. Konidakis, E. Serpetzoglou, E. Stratakis, O. Tomanec, M. Beller, A. Bakandritsos and R. Zbořil, [Nat. Nanotechnol. 17, 485 \(2022\)](#).
35. “Whispering gallery mode resonances in thermally poled borosilicate glass hetero-fibers”, N. Korakas, V. Tsafas, O. Tsilipakos, I. Konidakis, B. Moog, C. Craig, G. Filippidis, D.W. Hewak, M.N. Zervas and S. Pissadakis, [J. Light. Technol. 40, 4786 \(2022\)](#).
36. “Probing the carrier dynamics of polymer composites with single and hybrid carbon nanotube fillers for improved thermoelectric performance”, I. Konidakis\*, B. Krause,

G.H. Park, N. Pulumati, H. Reith, P. Pötschke and E. Stratakis, [ACS Appl. Energy Mater.](#) **5**, 9770 (2022).

37. “Liquid phase isolation of SnS monolayers with enhanced optoelectronic properties”, A.S. Sarkar, I. Konidakis, E. Gagaoudakis, G.M. Maragkakis, S. Psilodimitrakopoulos, D. Katerinopoulou, L. Sygellou, G. Deligeorgis, V. Binas, I.M. Oikonomou, P. Komninou, G. Kiriakidis, G. Kioseoglou and E. Stratakis, [Adv. Sci.](#) **10**, 2201842 (2023).
38. “Post-glass melting synthesis and photochromic properties of composite AgCl-AgPO<sub>3</sub> glasses”, M. Adamidis, I. Konidakis\* and E. Stratakis, [J. Materiomics](#), **9**, 455 (2023).
39. “Two-dimensional metal halide perovskites and their heterostructures: from synthesis to applications”, A. Kostopoulou, I. Konidakis\* and E. Stratakis, [Nanophotonics](#) **12**, 1643 (2023).
40. “Change of conduction mechanism in polymer/single wall carbon nanotube composites upon introduction of ionic liquids and their investigation by transient absorption spectroscopy: implication for thermoelectric applications”, B. Krause, I. Konidakis, E. Stratakis and P. Pötschke, [ACS Appl. Nano Mater.](#) **6**, 13027 (2023).

#### **P4. PAPERS IN PROCEEDINGS OF INTERNATIONAL CONFERENCES**

1. “Photonic bandgap guiding into a composite AgPO<sub>3</sub>-glass/silica microstructured optical fibre”, I. Konidakis, G. Zito and S. Pissadakis, Photonics Europe 2012, Brussels, Belgium, [Proc. SPIE 8426](#), 842607 (2012).
2. “All-glass AgPO<sub>3</sub>/silica photonic band-gap fibre”, G. Zito, I. Konidakis and S. Pissadakis, Specialty Optical Fibers-OSA 2012, Colorado, United States, [SM3E.6](#) (2012).
3. Invited: “Electric field induced polarization effects in AgPO<sub>3</sub>/silica photonic bandgap fiber”, I. Konidakis and S. Pissadakis, 15<sup>th</sup> International Conference on Transparent Optical Networks, ICTON-2013, Cartagena, Spain, [We.B6.6](#) (2013).
4. Invited: “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, Photonics West 2014, San Francisco, United States, [Proc. SPIE 8982](#), 89820C (2014).
5. “Enhancement of plasmonic properties of an all-glass AgPO<sub>3</sub>/silica photonic bandgap fibre using thermal poling”, I. Konidakis and S. Pissadakis, Bragg Gratings, Photosensitivity and Poling in Glass Waveguides, BGPP-2014, Barcelona, Spain, [JTU2C.4](#) (2014).

6. Post-deadline: “All-optical optofluidic switching in a ZnO-overlaid microstructured optical fiber”, I. Konidakis, M. Konstantaki, K. Kosma and S. Pissadakis, Bragg Gratings, Photosensitivity and Poling in Glass Waveguides, BGPP-2014, Barcelona, Spain, [JTU6A.2 \(2014\)](#).
7. “Fiber endface Fabry-Perot vapor microsensors fabricated by multiphoton polymerization technique”, V. Melissinaki, I. Konidakis, M. Farsari and S. Pissadakis, Photonics West 2015, San Francisco, United States, [Proc. SPIE 9374, 93740D \(2015\)](#).
8. Invited: “All glass photonic bandgap fibers and fiber-tapers infiltrated with silver fast-ion-conducting glasses”, 17<sup>th</sup> International Conference on Transparent Optical Networks, ICTON-2015, Budapest, Hungary, [We.A5.2 \(2015\)](#).
9. “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, Bragg Gratings, Photosensitivity and Poling in Glass Waveguides & Materials, BGPP-2018, Zurich, Switzerland, [BTu4A.4 \(2018\)](#).

## **P5. CHAPTERS IN BOOKS**

1. “Molten glass-infiltrated photonic crystal fibers”, I. Konidakis, in [Optofluidics, Sensors and Actuators in Microstructured Optical Fibers](#), S. Pissadakis and S. Selleri (Eds.), Woodhead Publishing, Cambridge, UK, 2015, Chapter 5, pp. 111-136, ISBN: 978-1-78242-329-4.