

**IOANNIS KONIDAKIS**  
**PUBLICATIONS**  
*(Last update: October 2022)*

**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).

#### **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.