MARIA KONSTANTAKI

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Senior Application Scientist
Institute of Electronic Structure and Laser
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Laboratory web page

BIOGRAPHY

Dr. Maria Konstantaki is a Senior Application Scientist at the Institute of Electronic Structure and Laser, Foundation for Research and Technology – Hellas (FORTH). She holds a Ph.D. in Electronic and Electrical Engineering from the University of Strathclyde, Scotland, and a B.Sc. in Physics from the University of Crete, Greece. She has over two decades of expertise in advancing the science and technology of optical fiber sensor design and development.

She has played a key role in numerous European research initiatives as Deputy Principal Investigator in major Horizon Europe and Horizon 2020 projects, including PhotonHub Europe, ACTPHAST 4.0, and REMADE@ARI, contributing to the development of photonic technologies and innovation networks across Europe. She has coordinated bilateral research projects with SMEs to facilitate effective technology transfer and innovation collaboration.

Alongside her research, Dr. Konstantaki has broad experience in academic teaching and mentoring. She has supervised undergraduate and MSc theses, introduced courses on optical fibers at the Technological Educational Institute of Crete (now the Hellenic Mediterranean University), and contributed to experimental physics courses at the University of Crete. She is also very active in STEM outreach activities at IESL, aimed at engaging high school students.

Dr. Konstantaki has authored 44 publications in peer-reviewed international journals and more than 60 conference proceedings, including invited papers, accumulating over 1,500 citations and an h-index of 23. She has been the recipient of Marie Skłodowska-Curie PhD research fellowship and her research has been featured by OPTICA and recognized in competitions such as Greece Innovates! for applied photonic sensor technology. She has collaborated extensively with international research teams across Europe and beyond, contributing to multi-institutional projects in photonics.

Dr. Konstantaki is actively involved in the international photonics community through participation in technical program committees, session chairing, and conference organization. She has co-organized scientific workshops that promote the dissemination of advanced research and foster interdisciplinary collaboration within the photonics field in the area of circular economy and laser manufacturing. She also maintains a continuous record of peer-review service for leading international journals in photonics and optical engineering, as well as for national and European research funding bodies. She is a member of OPTICA and SPIE.

RESEARCH INTERESTS

- **Optical fiber sensors:** Design, fabrication, and characterization of optical fiber sensors for precise measurement of physical, chemical, and biological parameters.
- **Novel optical fibers for sensing application:** Exploration of advanced optical fibers (bioresorbable, microstructure etc.) to enhance sensor performance and functionality.
- **Functional coatings and nanomaterials:** Use of thin films, nanostructures, and hybrid materials to enable selective and enhanced optical transduction mechanisms.
- **Environmental, biomedical, and industrial sensing**: Application of fiber-based photonic sensors to address challenges in environmental monitoring, medical diagnostics, and industrial process control.
- **Precision agriculture**: Development and deployment of optical fiber sensor systems for monitoring soil conditions, environmental parameters and equipment performance to enable sustainable and efficient agriculture.
- **Technology translation and user adoption**: Committed to facilitating the integration and practical adoption of optical fiber sensor technologies by end users through design optimization, system simplification, and interdisciplinary collaboration.
- **Photonics for sustainability and circular economy:** Promoting the use of photonic technologies to resource-efficient manufacturing, recycling processes, and environmental impact assessment.

EDUCATION

PhD Electronic and Electrical Engineering | University of Strathclyde **1994 – 1997**

Department of Electronic and Electrical Engineering, University of Strathclyde, Glasgow, Scotland, UK,
Thesis: “Simultaneous sensing of strain and temperature using optical fibres”
Supervisor: Prof. Brian Culshaw (Emeritus)

B.Sc Physics | University of Crete **1989 – 1993**

Department of Physics, University of Crete, Greece
Final year project: “Study of the excited states of CS_2 using multiphoton ionization”

RESEARCH EXPERIENCE

Senior Application Scientist | Foundation for Research and Technology -Hellas **2026-pres.**

Institute of Electronic Structure and Laser
Research focus: Optical fiber sensors design and development

Principal Application Scientist | Foundation for Research and Technology - Hellas **2017 – 2025**

Institute of Electronic Structure and Laser

Technical Scientist | Foundation for Research and Technology - Hellas **2006 – 2016**

Institute of Electronic Structure and Laser

Post-doctoral Researcher | Foundation for Research and Technology - Hellas **2000 – 2005**

Institute of Electronic Structure and Laser
Research focus: Optical fiber sensors design and development

Post-doctoral Researcher | Foundation for Research and Technology - Hellas **1998 – 1999**

Institute of Electronic Structure and Laser
Research focus: Study of the nonlinear optical properties of novel materials

Research assistant | University of Strathclyde **1994 – 1996**

Department of Electronic and Electrical Engineering
Research focus: Optical fiber sensors design and development
Marie Skłodowska-Curie PhD fellow

ACADEMIC RECORD AND CITATIONS METRICS

- 44 SCI publications in peer-reviewed international journals including 1 invited review
- 92 presentations (oral and poster) at international conferences, including 62 published in proceedings and 20 invited talks.

https://orcid.org/0000-0003-4967-7197
https://www.webofscience.com/wos/author/record/A-2412-2014

Citation metrics | as of June 2025

	Publications	Citations	h index
Web of Science	*80 (core collection)*	1598 *(1,524 non self)*	23
Scopus	125	1900	23
Google scholar	114	2210	22 *(i10-index: 38)*

ACADEMIC ACTIVITIES/ACHIEVEMENTS

- Expert reviewer for Science Foundation Ireland (2022)
- Reviewing activities:
  - Nature Portfolio: Communications Physics, Communications Engineering, Scientific Reports
  - Elsevier B.V.: Materials Chemistry and Physics, Sensors and Actuators: A. Physical, Sensors & Actuators: B. Chemical, Sensors and Actuators Reports, Optical Fiber Technology, Optics and Laser Technology, Measurement, Materials Science and Engineering Book Series
  - IEEE: Sensors Journal, Photonics Technology Letters, Journal of Selected Topics in Quantum Electronics, Journal of Lightwave Technology, Photonics Journal.
  - Optica: Applied Optics, Optics Express
  - SPIE: Optical Engineering
  - MDPI: Sensors, Micromachines, Applied Sciences, Fibers, Photonics
- Editorial Board member: Sensors (MDPI), 2019-present
- Editor of Special Issue: "Novel Optical Fibers, Devices and Applications" in Materials, Multidisciplinary Digital Publishing Institute (MDPI), Switzerland, 2019
- Member of Technical Program Committee of scientific international conferences:
  - BGPP, OPTICA, Long Beach, 2026
  - SPIE Photonics Europe, Strasburg, 2026
  - SPIE Photonics Europe, Strasburg, 2024
- Organisation of Workshops:
  - Laser Spectroscopy and Photonic Technologies for Circular Economy, Heraklion, 2025
  - Advanced Laser Processing in Photonics: State-of-the-art and Prospects, Athens, 2006
- Conference Session Chairing:
  - Photonics Europe, Strasburg, 2024
  - 17th COLA, Heraklion, 2024
  - CLEO Europe, Munich, 2023
  - 7th EWOFS, Limassol, 2019
  - 26th OFS, Lausanne, 2018
- OPTICA news release on our work on: Bioresorbable optical fiber Bragg gratings, (2018)
- Shortlisted in the 2nd round of the Applied Research & Innovation Competition, Greece Innovates!, organized by SEV (Hellenic Federation of Enterprises) and Eurobank for our work on: A photonic sensor for monitoring shear stress between human skin and artificial surfaces of limbs and wheelchairs, (2013)
- Featured in the yearly highlights of Optics and Photonics News, OPTICA:
  - Optics in 2012, Optics in 2011
- Marie Skłodowska-Curie PhD research fellow, 1994-1996

EDUCATIONAL ACTIVITIES

Thesis supervision: 7 undergraduate and 1 graduate **2019 –pres.**

- *Stavroula Spyropoulou*, MSc, Department of Physics, University of Crete
  Development of an optical fiber pH sensor (July 2025- present)
- *Nikos Klonos*, BSc, Department of Physics, University of Crete
  Optical fiber sensor for asphaltene assessment in crude oils (February 2025 – present)
- *Thanos Ioannidis*, BSc, Department of Physics, University of Crete
  Development of pH optical fiber sensor with a TiO_2 overlayer, (February 2024 - April 2025)
- *Panagiotis Kleitsiotis*, BSc, Department of Physics, University of Crete
  Copper oxide coated fiber optic sensor for detection of volatile compound vapors, (September 2024 - February 2024)
- *Eleni Grantzioti*, BSc, Department of Physics, University of Crete
  Optical fiber sensors for the detection of vapors of volatile organic compounds and ammonia, (June 2022-February 2023)
- *Emmanouil Anthoulakis*, BSc, Department of Physics, University of Crete
  Development of an optical fiber sensor for agricultural drone spraying monitoring, (February 2021-January 2022)
- *Nikolaos Poumpouridis*, BSc, Department of Physics, University of Crete
  Development and assessment of optical fiber humidity sensors, (July 2020- September 2021)
- *Dimitra Skiani*, BSc, Department of Physics, University of Crete
  Optical fiber sensor with silk fibroin overlayer for volatile organic compound vapors, (February 2019 – June 2020)

Course contributor | Department of Physics, University of Crete **2008 - pres.**

Course: Laboratory on Lasers and Modern Optics,
Contribution with a lecture and a lab experiment on optical fiber sensors

Adjunct Lecturer | Department of Electrical Engineering, Technological Educational Institute of Crete – TEI of Crete, (currently Hellenic Mediterranean University) **2011 - 2017**

Course: Optical fibers and networks: *4 hours /week lecture & tutorial*

Adjunct Lecturer | Department of Informatics Engineering, Technological Educational Institute of Crete – TEI of Crete, (currently Hellenic Mediterranean University) **2001 - 2012**

Course: Optical communications, (2001- 2012): *6 hours /week lecture, tutorial & laboratory*
Introduced a new university course, organized the associated laboratory infrastructure, and authored detailed laboratory student guidelines.

Course: Guiding structures, (2003-2006): 4 *hours /week lecture & tutorial*

STEM outreach **2022-pres.**

Responsible, on behalf of IESL-FORTH, for organizing tours and interactive demonstrations for school pupils to promote physics and STEM subjects.

PATENTS

- S. Pissadakis, V. Sarakatsianos, I. Chapalo, M. Konstantaki, T. Manouras, M. Vamvakaki, A. Charonis, *Suture, method for fabricating suture, and system for assisting with suture placement,* EP25193243, (31/07/2025)
- A. Ikiades, D. Armstrong, G. Hare, M. Konstantaki, *Ice detection apparatus and method*, WO2004110865A1 (23/12/2004), Granted: ATE378255T1, US7586419B2, EP1633626B1, ES2302932T3, DE60317573T2

FUNDED PROJECT TEAM MEMBER

- PhotonHub Factory for Next-Generation Photonics Innovation Support: Boosting European Industrial Competitiveness and securing Technological Sovereignty, Horizon Europe, GA 101189537, 1/2025-12/2028, *Deputy PI*
- REMADE@ARI, Recyclable Materials Development @ Analytical Research Infrastructures-, Horizon Europe, GA 101058414, 9/2022-8/2026, *Deputy PI*
- PhotonHub Europe: One-Stop-Shop Open Access to Photonics Innovation Support for a Digital Europe, Horizon 2020, GA 101016665, 1/2021-4/2026, *Deputy PI, Coordinator of bilateral research projects for the benefit of SEMs*
- PHAETHON, Photonic sensors in ophthalmological sutures, GSRT, ΕΡΕΥΝΩ-ΚΑΙΝΟΤΟΜΩ-ΔΗΜΙΟΥΡΓΩ, 5/2022- 7/2025, *Team member*
- ACTPHAST 4.0, ACceleraTing PHotonics innovAtion for SME's: a one STop-shop-incubator, Horizon 2020, GA 779472, 11/2017-1/2023, *Deputy PI*
- ACTPHAST 4R Accelerating Photonics Deployment via one Stop Shop Advanced Technology Access for Researchers, Horizon 2020, GA 825051, 1/2019-12/2023, *Deputy PI*
- RespiceSME, Regional, National and European Support for Photonics Innovation Clusters enhancing SMEs Innovative Potential, Horizon 2020, GA 687961, 1/2016-12/2017, *Deputy PI*
- ACTPHAST, Access Center to Photonics Innovation Solutions and Technology Support, FP7-GA 619205, 11/2013- 04/2018, *Deputy PI*
- Optical Fiber Sensors for Improving Quality of Life, ΑΝΑΠΤΥΞΙΑΚΕΣ ΠΡΟΤΑΣΕΙΣ ΕΡΕΥΝΗΤΙΚΩΝ ΦΟΡΕΩΝ- ΚΡΗΠΙΣ» (Proposals for the Development of Research Institutions-GSRT, 7/2023-10/2014, *Team member*
- IASIS, Intelligent Adaptable Surface with Optical Fiber Sensing for Pressure-Tension Relief, FP7, GA 232479, 11/2009 – 1/2012, *Team member*
- ROM, Réseau Optique Méditerranée, INTERREG, 6/2005-6/2007, *Team member*
- ACIDS, Air Conformal fiber optic Ice Detection System, GROWTH, G4RD-CT-2001-00612, 2000-2003, *Team member*
- OSMOS, Optical fiber Sensing system for Monitoring of Structures, BRITE-EURAM/CRAFT, BRE2 CT92 0335 , 1994-1997, *Team member*

PUBLICATIONS IN PEER REVIEWED INTERNATIONAL JOURNALS

1. L. Smeesters, et al., *2025 photonics for agrifood roadmap: towards a sustainable and healthier planet*, J. Phys. Photonics 7 (2025) 032501. https://doi.org/10.1088/2515-7647/adbea9.
2. M. Konstantaki, E. Anthoulakis, S. Christodoulou, S. Pissadakis, *Assessment of Drone Agricultural Spraying Operations Using Optical Fiber Sensors*, IEEE Journal of Selected Topics in Quantum Electronics 31 (2025) 1–8. https://doi.org/10.1109/JSTQE.2025.3592264.
3. E. Grantzioti, S. Pissadakis and M. Konstantaki, "Optical Fiber Volatile Organic Compound Vapor Sensor With ppb Detectivity for Breath Biomonitoring," in *IEEE Sensors Journal*, 25, 5, (2025) 8224-8229. https://doi.org/10.1109/JSEN.2025.3527765.
4. I. Chapalo, V. Sarakatsianos, E. Grantzioti, M. Konstantaki, G.D. Tsibidis, T. Manouras, M. Vamvakaki, S. Pissadakis, *Inscription of Bragg reflectors in polypropylene no-core optical fibers using 248 nm laser radiation*, Opt. Express, OE 32 (2024) 45554–45565. https://doi.org/10.1364/OE.539137.
5. D. Lopez-Torres, C.E. Aguado, G.A. Pappas, M. Konstantaki, A. Klini, A. Lappas, F.J. Arregui, S. Pissadakis, Piezotronic, *ZnO Overlaid Bragg Grating Organic Vapor Sensors*, IEEE Sensors J. 23 (2023) 12536–12543. https://doi.org/10.1109/JSEN.2023.3270966.
6. T. Chalyan, I. Magnus, M. Konstantaki, S. Pissadakis, Z. Diamantakis, H. Thienpont, H. Ottevaere, *Benchmarking Spectroscopic Techniques Combined with Machine Learning to Study Oak Barrels for Wine Ageing*, Biosensors 12 (2022) 227. https://doi.org/10.3390/bios12040227.
7. M. Konstantaki, G. Violakis, G.A. Pappas, T. Geernaert, N. Korakas, N. Tiriakidis, T. Tiriakidi, K. Tiriakidis, H. Thienpont, F. Berghmans, J. Botsis, S. Pissadakis, *Monitoring of Torque Induced Strain in Composite Shafts with Embedded and Surface-Mounted Optical Fiber Bragg Gratings*, Sensors 21 (2021) 2403. https://doi.org/10.3390/s21072403.
8. M. Konstantaki, D. Skiani, D. Vurro, A. Cucinotta, S. Selleri, A. Secchi, S. Iannotta, S. Pissadakis, *Silk Fibroin Enabled Optical Fiber Methanol Vapor Sensor*, IEEE Photon. Technol. Lett. 32 (2020) 514–517. https://doi.org/10.1109/LPT.2020.2982451.
9. D. Pugliese, M. Konstantaki, I. Konidakis, E. Ceci-Ginistrelli, N.G. Boetti, D. Milanese, S. Pissadakis, *Bioresorbable optical fiber Bragg gratings*, Opt. Lett. 43 (2018) 671. https://doi.org/10.1364/OL.43.000671.
10. R. Gassino, Y. Liu, M. Konstantaki, A. Vallan, S. Pissadakis, G. Perrone, *A Fiber Optic Probe for Tumor Laser Ablation With Integrated Temperature Measurement Capability*, J. Lightwave Technol. 35 (2017) 3447–3454. https://doi.org/10.1109/JLT.2016.2618618.
11. A. Candiani, M. Konstantaki, A. Pamvouxoglou, S. Pissadakis, *A Shear Sensing Pad, Based on Ferrofluidic Actuation in a Microstructured Optical Fiber*, IEEE J. Select. Topics Quantum Electron. 23 (2017) 210–216. https://doi.org/10.1109/JSTQE.2016.2607460.

12. M. Barozzi, A. Manicardi, A. Vannucci, A. Candiani, M. Sozzi, M. Konstantaki, S. Pissadakis, R. Corradini, S. Selleri, A. Cucinotta, *Optical Fiber Sensors for Label-Free DNA Detection*, J. Lightwave Technol. 35 (2017) 3461–3472. https://doi.org/10.1109/JLT.2016.2607024.

13. I. Konidakis, M. Konstantaki, G.D. Tsibidis, S. Pissadakis, *Light driven optofluidic switch developed in a ZnO-overlaid microstructured optical fiber*, Opt. Express 23 (2015) 31496. https://doi.org/10.1364/OE.23.031496.

14. A.Bertucci, A. Manicardi, A. Candiani, S. Giannetti, A. Cucinotta, G. Spoto, M. Konstantaki, S. Pissadakis, S. Selleri, R. Corradini, *Detection of unamplified genomic DNA by a PNA-based microstructured optical fiber (MOF) Bragg-grating optofluidic system*, Biosensors and Bioelectronics 63 (2015) 248–254. https://doi.org/10.1016/j.bios.2014.07.047.

15. A. Duduś, R. Blue, M. Konstantaki, S. Pissadakis, D. Uttamchandani, *Optical characterisation of long-period grating using liquid droplets on an electrowetting-on-dielectric platform*, Micro & Nano Letters 9 (2014) 399–402. https://doi.org/10.1049/mnl.2014.0188.

16. M. Konstantaki, P. Childs, M. Sozzi, S. Pissadakis, *Relief Bragg reflectors inscribed on the capillary walls of solid-core photonic crystal fibers*, Laser & Photonics Reviews 7 (2013) 439–443. https://doi.org/10.1002/lpor.201200115.

17. A. Candiani, A. Bertucci, S. Giannetti, M. Konstantaki, A. Manicardi, S. Pissadakis, A. Cucinotta, R. Corradini, S. Selleri, *Label-free DNA biosensor based on a peptide nucleic acid-functionalized microstructured optical fiber-Bragg grating*, J. Biomed. Opt 18 (2013) 057004. https://doi.org/10.1117/1.JBO.18.5.057004.

18. M. Konstantaki, A. Klini, D. Anglos, S. Pissadakis, *An ethanol vapor detection probe based on a ZnO nanorod coated optical fiber long period grating*, Opt. Express 20 (2012) 8472. https://doi.org/10.1364/OE.20.008472.

19. A. Candiani, M. Konstantaki, W. Margulis, S. Pissadakis, *Optofluidic magnetometer developed in a microstructured optical fiber*, Opt. Lett. 37 (2012) 4467. https://doi.org/10.1364/OL.37.004467.

20. M. Konstantaki, S. Pissadakis, *Optically tunable long period fiber gratings utilizing a photochromic out-cladding overlayer*, Optical Fiber Technology 17 (2011) 168–170. https://doi.org/10.1016/j.yofte.2011.01.012.

21. M. Konstantaki, A. Candiani, S. Pissadakis, *Optical fibre long period grating spectral actuators utilizing ferrofluids as outclading overlayers*, JEOS:RP 6 (2011) 11007. https://doi.org/10.2971/jeos.2011.11007.

22. A. Candiani, W. Margulis, C. Sterner, M. Konstantaki, S. Pissadakis, *Phase-shifted Bragg microstructured optical fiber gratings utilizing infiltrated ferrofluids*, Opt. Lett. 36 (2011) 2548. https://doi.org/10.1364/OL.36.002548.

23. A. Candiani, M. Konstantaki, W. Margulis, S. Pissadakis, *A spectrally tunable microstructured optical fibre Bragg grating utilizing an infiltrated ferrofluid*, Opt. Express 18 (2010) 24654. https://doi.org/10.1364/OE.18.024654.

24. E. Koudoumas, O. Kokkinaki, M. Konstantaki, N. Kornilios, S. Couris, S. Korovin, V. Pustovoi, V.E. Ogluzdin, *Nonlinear optical response of silicon nanocrystals*, Optical Materials 30 (2007) 260–263. https://doi.org/10.1016/j.optmat.2006.11.065.

25. A. Ikiades, G. Howard, D.J. Armstrong, M. Konstantaki, S. Crossley, *Measurement of optical diffusion properties of ice for direct detection ice accretion sensors*, Sensors and Actuators A: Physical 140 (2007) 24–31. https://doi.org/10.1016/j.sna.2007.05.036.

26. G. Violakis, M. Konstantaki, S. Pissadakis, *Accelerated recording of negative index gratings in Ge-doped optical fibers using 248-nm 500-fs laser radiation*, IEEE Photon. Technol. Lett. 18 (2006) 1182–1184. https://doi.org/10.1109/LPT.2006.874731.

27. M. Konstantaki, S. Pissadakis, S. Pispas, N. Madamopoulos, N.A. Vainos, *Optical fiber long-period grating humidity sensor with poly(ethylene oxide)/cobalt chloride coating*, Appl. Opt. 45 (2006) 4567. https://doi.org/10.1364/AO.45.004567.

28. S. Pissadakis, M. Konstantaki, *Photosensitivity of germanosilicate fibers using 213nm*, picosecond Nd:YAG radiation, Opt. Express 13 (2005) 2605. https://doi.org/10.1364/OPEX.13.002605.

29. M. Konstantaki, G. Tamiolakis, A. Argyris, A. Othonos, A. Ikiades, *Effects of Ge concentration, boron co-doping, and hydrogenation on fiber Bragg grating characteristics*, Microw. Opt. Technol. Lett. 44 (2005) 148–152. https://doi.org/10.1002/mop.20572.

30. E. Koudoumas, M. Konstantaki, A. Mavromanolakis, S. Couris, M. Fanti, F. Zerbetto, K. Kordatos, M. Prato, *Large Enhancement of the Nonlinear Optical Response of Reduced Fullerene Derivatives*, Chemistry A European J 9 (2003) 1529–1534. https://doi.org/10.1002/chem.200390175.

31. E. Koudoumas, O. Kokkinaki, M. Konstantaki, S. Couris, S. Korovin, P. Detkov, V. Kuznetsov, S. Pimenov, V. Pustovoi, *Onion-like carbon and diamond nanoparticles for optical limiting*, Chemical Physics Letters 357 (2002) 336–340. https://doi.org/10.1016/S0009-2614(02)00557-2.

32. A. Arigiris, M. Konstantaki, A. Ikiades, D. Chronis, P. Florias, K. Kallimani, G. Pagiatakis, *Fabrication of high-reflectivity superimposed multiple-fiber Bragg gratings with unequal wavelength spacing*, Opt. Lett. 27 (2002) 1306. https://doi.org/10.1364/OL.27.001306.

33. E. Koudoumas, M. Konstantaki, A. Mavromanolakis, S. Couris, Y. Ederle, C. Mathis, P. Seta, S. Leach, *Ultrafast nonlinear optical response of C_{60}–polystyrene star polymers*, Chemical Physics Letters 335 (2001) 533–538. https://doi.org/10.1016/S0009-2614(01)00088-4.

34. E. Koudoumas, M. Konstantaki, A. Mavromanolakis, X. Michaut, S. Couris, S. Leach, *Transient and instantaneous third-order nonlinear optical response of C_{60} and the higher fullerenes C_{70}, C_{76} and C_{84}*, J. Phys. B: At. Mol. Opt. Phys. 34 (2001) 4983–4996. https://doi.org/10.1088/0953-4075/34/24/302.

35. S.B. Korovin, A.N. Orlov, A.M. Prokhorov, V.I. Pustovoi, M. Konstantaki, S. Couris, E. Koudoumas, *Nonlinear absorption in silicon nanocrystals*, Quantum Electron. 31 (2001) 817–820. https://doi.org/10.1070/QE2001v031n09ABEH002052.

36. M. Konstantaki, E. Koudoumas, S. Couris, P. Lainé, E. Amouyal, S. Leach, *Substantial Non-linear Optical Response of New Polyads Based on Ru and Os Complexes of Modified Terpyridines*, J. Phys. Chem. B 105 (2001) 10797–10804. https://doi.org/10.1021/jp010497e.

37. M. Konstantaki, E. Koudoumas, S. Couris, J.M. Janot, H. Eddaoudi, A. Deratani, P. Seta, S. Leach, *Optical limiting behaviour of the water-soluble C_{60}/γ-cyclodextrin complex*, Chemical Physics Letters 318 (2000) 488–495. https://doi.org/10.1016/S0009-2614(00)00037-3.
38. W.C. Michie, B. Culshaw, A. McLean, M. Konstantaki, S. Hadjiloucas, *Distributed water ingress and water potential measurements using fibre optics*, Cement and Concrete Composites 19 (1997) 35–44. https://doi.org/10.1016/S0958-9465(96)00039-X.
39. W. Jin, W.C. Michie, G. Thursby, M. Konstantaki, B. Culshaw, *Simultaneous measurement of strain and temperature: error analysis*, OE 36 (1997) 598–609. https://doi.org/10.1117/1.601233.
40. W. Jin, W.C. Michie, G. Thursby, M. Konstantaki, B. Culshaw, *Geometric representation of errors in measurements of strain and temperature*, OE 36 (1997) 2272–2278. https://doi.org/10.1117/1.601453.
41. G. Thursby, D. Walsh, M. Konstantaki, B. Culshaw, W.C. Michie, *Simultaneous recovery of strain and temperature fields by the use of two-moded polarimetry with an in-line mode splitter/analyzer*, Opt. Lett. 20 (1995) 1919. https://doi.org/10.1364/OL.20.001919.
42. W.C. Michie, B. Culshaw, M. Konstantaki, I. McKenzie, S. Kelly, N.B. Graham, C. Moran, *Distributed pH and water detection using fiber-optic sensors and hydrogels*, J. Lightwave Technol. 13 (1995) 1415–1420. https://doi.org/10.1109/50.400706.
43. W.C. Michie, N.B. Graham, F. Santos, E. Bergqvist, B. Carlstrom, C. Moran, B. Culshaw, I. McKenzie, M. Konstantakis, *Distributed sensor for water and pH measurements using fiber optics and swellable polymeric systems*, Opt. Lett. 20 (1995) 103. https://doi.org/10.1364/OL.20.000103.
44. J. Baker, M. Konstantaki, S. Couris, *A resonance enhanced multiphoton ionization study of the CS_2 molecule: The 4 p Rydberg states*, The Journal of Chemical Physics 103 (1995) 2436–2444. https://doi.org/10.1063/1.469666

SCIENTIFIC BOOK CHAPTER

S. Couris, M. Konstantaki, E. Koudoumas, *Characterization of Nonlinear Optical Materials for Photonic Applications*, in: E. Marom, N.A. Vainos, A.A. Friesem, J.W. Goodman, E. Rosenfeld (Eds.), Unconventional Optical Elements for Information Storage, Processing and Communications, Springer Netherlands, Dordrecht, 2000: pp. 143–154. https://doi.org/10.1007/978-94-011-4096-6_16.

PUBLICATIONS IN CONFERENCE PROCEEDINGS

1. N. Klonos, V. Sarakatsianos, E. Antoniou, E. Chamilaki, N. Pasadakis, S. Pissadakis, M. Konstantaki, *Advancing sustainable crude oil transportation through optical fiber asphaltene precipitation monitoring*, Proc. SPIE 14086, Optical Sensing and Detection IX, 140860P, SPIE, 2026; https://doi.org/10.1117/12.3101722

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