

# Serhiy Korposh

## List of Publications by Year in descending order

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Version: 2024-02-01

88  
papers

1,846  
citations

257450

24  
h-index

276875

41  
g-index

89  
all docs

89  
docs citations

89  
times ranked

1836  
citing authors

#	ARTICLE	IF	CITATIONS
1	Biomedical application of optical fibre sensors. <i>Journal of Optics (United Kingdom)</i> , 2018, 20, 073003.	2.2	124
2	Tapered Optical Fibre Sensors: Current Trends and Future Perspectives. <i>Sensors</i> , 2019, 19, 2294.	3.8	121
3	Optical fibre long period grating with a nanoporous coating formed from silica nanoparticles for ammonia sensing in water. <i>Materials Chemistry and Physics</i> , 2012, 133, 784-792.	4.0	77
4	Multi-parameter measurements using optical fibre long period gratings for indoor air quality monitoring. <i>Sensors and Actuators B: Chemical</i> , 2017, 244, 217-225.	7.8	74
5	Highly sensitive volatile organic compounds vapour measurements using a long period grating optical fibre sensor coated with metal organic framework ZIF-8. <i>Sensors and Actuators B: Chemical</i> , 2018, 260, 685-692.	7.8	70
6	Nanoassembled Thin Film Gas Sensors. III. Sensitive Detection of Amine Odors Using $\text{TiO}_2$ /Poly(acrylic acid) Ultrathin Film Quartz Crystal Microbalance Sensors. <i>Analytical Chemistry</i> , 2010, 82, 2228-2236.	6.5	64
7	Optical fibre long period grating gas sensor modified with metal organic framework thin films. <i>Sensors and Actuators B: Chemical</i> , 2015, 221, 891-899.	7.8	64
8	An ammonia sensor based on Lossy Mode Resonances on a tapered optical fibre coated with porphyrin-incorporated titanium dioxide. <i>Sensors and Actuators B: Chemical</i> , 2017, 242, 645-652.	7.8	63
9	Selective vancomycin detection using optical fibre long period gratings functionalised with molecularly imprinted polymer nanoparticles. <i>Analyst, The</i> , 2014, 139, 2229-2236.	3.5	61
10	A long period grating optical fiber sensor with nano-assembled porphyrin layers for detecting ammonia gas. <i>Sensors and Actuators B: Chemical</i> , 2016, 228, 573-580.	7.8	58
11	Carbon dioxide measurements using long period grating optical fibre sensor coated with metal organic framework HKUST-1. <i>Sensors and Actuators B: Chemical</i> , 2018, 255, 2483-2494.	7.8	58
12	Fiber optic long period grating sensors with a nanoassembled mesoporous film of $\text{SiO}_2$ nanoparticles. <i>Optics Express</i> , 2010, 18, 13227.	3.4	55
13	Highly sensitive optical fibre long period grating biosensor anchored with silica core gold shell nanoparticles. <i>Biosensors and Bioelectronics</i> , 2016, 75, 222-231.	10.1	50
14	Highly sensitive label-free antibody detection using a long period fibre grating sensor. <i>Sensors and Actuators B: Chemical</i> , 2018, 271, 24-32.	7.8	50
15	Characterization and Use of a Fiber Optic Sensor Based on PAH/ $\text{SiO}_2$ Film for Humidity Sensing in Ventilator Care Equipment. <i>IEEE Transactions on Biomedical Engineering</i> , 2016, 63, 1985-1992.	4.2	45
16	Refractive index sensitivity of fibre-optic long period gratings coated with $\text{SiO}_2$ nanoparticle mesoporous thin films. <i>Measurement Science and Technology</i> , 2011, 22, 075208.	2.6	44
17	A long period grating-based chemical sensor insensitive to the influence of interfering parameters. <i>Optics Express</i> , 2014, 22, 8012.	3.4	42
18	Optical fiber long period grating sensor with a polyelectrolyte alternate thin film for gas sensing of amine odors. <i>Sensors and Actuators B: Chemical</i> , 2013, 185, 117-124.	7.8	41

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19	Nano-assembled thin film gas sensors. IV. Mass-sensitive monitoring of humidity using quartz crystal microbalance (QCM) electrodes. <i>Sensors and Actuators B: Chemical</i> , 2010, 147, 599-606.	7.8	38
20	Polymeric optical fibre sensor coated by SiO <sub>2</sub> nanoparticles for humidity sensing in the skin microenvironment. <i>Sensors and Actuators B: Chemical</i> , 2018, 254, 887-895.	7.8	37
21	Simultaneous in situ temperature and relative humidity monitoring in mechanical ventilators using an array of functionalised optical fibre long period grating sensors. <i>Sensors and Actuators B: Chemical</i> , 2019, 286, 306-314.	7.8	37
22	Remarkable enantioselectivity of molecularly imprinted TiO <sub>2</sub> nano-thin films. <i>Analytica Chimica Acta</i> , 2011, 694, 142-150.	5.4	35
23	Optical fibre sensor for simultaneous temperature and relative humidity measurement: Towards absolute humidity evaluation. <i>Sensors and Actuators B: Chemical</i> , 2021, 344, 130154.	7.8	32
24	Pronounced aromatic carboxylic acid detection using a layer-by-layer mesoporous coating on optical fibre long period grating. <i>Sensors and Actuators B: Chemical</i> , 2012, 173, 300-309.	7.8	29
25	Real time monitoring of biofilm formation on coated medical devices for the reduction and interception of bacterial infections. <i>Biomaterials Science</i> , 2020, 8, 1464-1477.	5.4	26
26	Volatile Organic Compound Vapour Measurements Using a Localised Surface Plasmon Resonance Optical Fibre Sensor Decorated with a Metal-Organic Framework. <i>Sensors</i> , 2021, 21, 1420.	3.8	25
27	Volatile Organic Compounds Sensing Using Optical Fibre Long Period Grating with Mesoporous Nano-Scale Coating. <i>Sensors</i> , 2017, 17, 205.	3.8	24
28	Multi-Parameter Optical Fiber Sensing of Gaseous Ammonia and Carbon Dioxide. <i>Journal of Lightwave Technology</i> , 2020, 38, 2037-2045.	4.6	23
29	Bacteriorhodopsin-based biochromic films for chemical sensors. <i>Sensors and Actuators B: Chemical</i> , 2005, 107, 77-81.	7.8	21
30	[INVITED] Porphyrin-nanoassembled fiber-optic gas sensor fabrication: Optimization of parameters for sensitive ammonia gas detection. <i>Optics and Laser Technology</i> , 2018, 101, 1-10.	4.6	21
31	Optical Fibre-Based Pulse Oximetry Sensor with Contact Force Detection. <i>Sensors</i> , 2018, 18, 3632.	3.8	20
32	A U-Shape Fibre-Optic pH Sensor Based on Hydrogen Bonding of Ethyl Cellulose With a Sol-Gel Matrix. <i>Journal of Lightwave Technology</i> , 2021, 39, 1557-1564.	4.6	20
33	Optical Gas Sensor Fabrication Based on Porphyrin-Anchored Electrostatic Self-Assembly onto Tapered Optical Fibers. <i>Analytical Letters</i> , 2012, 45, 1297-1309.	1.8	19
34	A Novel Ammonia Gas Sensor Using a Nanoassembled Polyelectrolyte Thin Film on Fiber-optic Long-period Gratings. <i>Chemistry Letters</i> , 2012, 41, 1297-1299.	1.3	17
35	Respiratory Monitoring by Porphyrin Modified Quartz Crystal Microbalance Sensors. <i>Sensors</i> , 2011, 11, 1177-1191.	3.8	15
36	A single-film fiber optical sensor for simultaneous measurement of carbon dioxide and relative humidity. <i>Optics and Laser Technology</i> , 2022, 147, 107696.	4.6	15

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37	Surface polymer imprinted optical fibre sensor for dose detection of dabrafenib. <i>Analyst, The</i> , 2020, 145, 4504-4511.	3.5	14
38	Novel Highly Sensitive Protein Sensors Based on Tapered Optical Fibres Modified with Au-Based Nanocoatings. <i>Journal of Sensors</i> , 2016, 2016, 1-11.	1.1	13
39	Carboxyl-fentanyl detection using optical fibre grating-based sensors functionalised with molecularly imprinted nanoparticles. <i>Biosensors and Bioelectronics</i> , 2021, 177, 113002.	10.1	13
40	A reflection-mode fibre-optic sensor for breath carbon dioxide measurement in healthcare. <i>Sensing and Bio-Sensing Research</i> , 2019, 22, 100254.	4.2	11
41	Development and validation of a novel fibre-optic respiratory rate sensor (FiRRS) integrated in oxygen delivery devices. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 124002.	2.8	10
42	Response of bacteriorhodopsin thin films to ammonia. <i>Sensors and Actuators B: Chemical</i> , 2008, 129, 473-480.	7.8	9
43	A Textile Sleeve for Monitoring Oxygen Saturation Using Multichannel Optical Fibre Photoplethysmography. <i>Sensors</i> , 2020, 20, 6568.	3.8	9
44	Label-Free Creatinine Optical Sensing Using Molecularly Imprinted Titanium Dioxide-Polycarboxylic Acid Hybrid Thin Films: A Preliminary Study for Urine Sample Analysis. <i>Chemosensors</i> , 2021, 9, 185.	3.6	9
45	Chemically Functionalised Suspended-Core Fibre for Ammonia Gas Detection. <i>Journal of Lightwave Technology</i> , 2021, 39, 5197-5205.	4.6	9
46	Matrix influence on the optical response of composite bacteriorhodopsin films to ammonia. <i>Sensors and Actuators B: Chemical</i> , 2008, 133, 281-290.	7.8	8
47	Localised plasmonic hybridisation mode optical fibre sensing of relative humidity. <i>Sensors and Actuators B: Chemical</i> , 2022, 353, 131157.	7.8	8
48	Fibre-Optic Chemical Sensor Approaches Based on Nanoassembled Thin Films: A Challenge to Future Sensor Technology. , 2013, , .		7
49	Identification and quality assessment of beverages using a long period grating fibre-optic sensor modified with a mesoporous thin film. <i>Sensing and Bio-Sensing Research</i> , 2014, 1, 26-33.	4.2	7
50	All-optical switching based on optical fibre long period gratings modified bacteriorhodopsin. <i>Optics and Laser Technology</i> , 2018, 101, 162-171.	4.6	7
51	Real-Time Humidity Measurement during Sports Activity using Optical Fibre Sensing. <i>Sensors</i> , 2020, 20, 1904.	3.8	7
52	Optical Fibre Sensor for Capillary Refill Time and Contact Pressure Measurements under the Foot. <i>Sensors</i> , 2021, 21, 6072.	3.8	7
53	Simultaneous Monitoring of Humidity and Chemical Changes Using Quartz Crystal Microbalance Sensors Modified with Nano-thin Films. <i>Analytical Sciences</i> , 2011, 27, 253-258.	1.6	6
54	Optical Fibre Sensor for Simultaneous Measurement of Capillary Refill Time and Contact Pressure. <i>Sensors</i> , 2020, 20, 1388.	3.8	6

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55	Purge and Trap Sampling Coupled to Curie Point Thermal Desorption for the Detection of Parts per Trillion 2,4,6-Trichloroanisole in Water. <i>Chromatographia</i> , 2010, 71, 317-321.	1.3	5
56	Fabrication of Humidity-Resistant Optical Fiber Sensor for Ammonia Sensing Using Diazo Resin-Photocrosslinked Films with a Porphyrin-Polystyrene Binary Mixture. <i>Sensors</i> , 2021, 21, 6176.	3.8	5
57	A fiber-optic localized surface plasmon resonance (LSPR) sensor anchored with metal organic framework (HKUST-1) film for acetone sensing. , 2019, , .		5
58	(INVITED) Label-Free Detection of Antibodies Using Functionalised Long Period Grating Optical Fibre Sensors. <i>Results in Optics</i> , 2021, 5, 100172.	2.0	5
59	One-step Fabrication of Polystyrene@TiO <sub>2</sub> Nanosandwich Film by Phase Separation. <i>Chemistry Letters</i> , 2012, 41, 552-554.	1.3	4
60	Long Period Grating Based Fibre Optic Chemical Sensors. <i>Smart Sensors, Measurement and Instrumentation</i> , 2017, , 241-267.	0.6	4
61	Long-period grating fiber-optic sensors exploiting molecularly imprinted TiO <sub>2</sub> nanothin films with photocatalytic self-cleaning ability. <i>Mikrochimica Acta</i> , 2020, 187, 663.	5.0	4
62	Refractive index sensitivity of fibre optic long period gratings with SiO <sub>2</sub> nanoparticle based mesoporous coatings. <i>Proceedings of SPIE</i> , 2011, , .	0.8	3
63	Optical Fibre Long-Period Gratings Functionalised with Nano-Assembled Thin Films: Approaches to Chemical Sensing. , 2013, , .		3
64	Polymeric fibre optic sensor based on a SiO <sub>2</sub> nanoparticle film for humidity sensing on wounds. <i>Proceedings of SPIE</i> , 2016, , .	0.8	3
65	Highly sensitive ethanol vapour measurements using a fibre optic sensor coated with metal organic framework ZIF-8. , 2017, , .		3
66	Development of wearable optical-based fibre sensor system for pulse transit time measurement. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	3
67	Optical fibre temperature sensor based on thermochromic liquid crystal. , 2019, , .		3
68	Fibre Bragg Grating Based Interface Pressure Sensor for Compression Therapy. <i>Sensors</i> , 2022, 22, 1798.	3.8	3
69	Sensors for spacecraft cabin environment monitoring. <i>Acta Astronautica</i> , 2007, 61, 664-667.	3.2	2
70	Fabrication of highly efficient fibre-optic gas sensors using SiO <sub>2</sub> /polymer nanoporous thin films. , 2008, , .		2
71	Fabrication of sensitive fibre-optic gas sensors based on nano-assembled thin films. , 2008, , .		2
72	Detection of the volatile organic compounds emitted from paints using optical fibre long period grating modified with the mesoporous nano-scale coating. <i>Proceedings of SPIE</i> , 2015, , .	0.8	2

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73	Interrogation of fibre Bragg gratings through a fibre optic rotary joint on a geotechnical centrifuge. , 2016, , .		2
74	Ammonia sensing using lossy mode resonances in a tapered optical fibre coated with porphyrin-incorporated titanium dioxide. Proceedings of SPIE, 2016, , .	0.8	2
75	Intra-tracheal multiplexed sensing of contact pressure and perfusion. Biomedical Optics Express, 2022, 13, 48.	2.9	2
76	Deposition of SiO <sub>2</sub> /polymer nanoporous thin films on long-period grating (LPG) optical fibres and dramatic enhancement of the resonance bands. , 2008, , .		1
77	Detection of Ethanol in Human Breath Using Optical Fiber Long Period Grating Coated with Metal-Organic Frameworks. Proceedings (mdpi), 2017, 1, .	0.2	1
78	A Preliminary Study for Tunable Optical Assessment of Exhaled Breath Ammonia Based on Ultrathin Tetrakis(4-sulfophenyl)porphine Nanoassembled Films. Chemosensors, 2021, 9, 269.	3.6	1
79	Fast and Sensitive Detection of 2,3-Dimethyldinitrobutane (DMNB) as an Explosive Taggant Using Corundum Based Integrated Electrochemical Chips. Sensor Letters, 2011, 9, 266-271.	0.4	1
80	Electrochemical Detection of the Explosive Taggant 2,3-Dimethyldinitrobutane using a Single-Walled Carbon Nanotube Employed TiO <sub>2</sub> Composite Film. Nanoscience and Nanotechnology - Asia, 2012, 1, 47-52.	0.7	0
81	Detection of volatile organic compounds using optical fibre long period grating modified with metal organic framework thin films. Proceedings of SPIE, 2015, , .	0.8	0
82	FBG contact pressure sensitivity enhancement technology. , 2017, , .		0
83	Human IgM detection using an optical fibre long period grating sensor. , 2017, , .		0
84	Centrifuge application of fibre Bragg gratings: pile axial loads and wall bending moments. International Journal of Physical Modelling in Geotechnics, 0, , 1-16.	0.6	0
85	Ammonia Gas Detection Using an Optically Sensitive Hybrid Organicâ€“Inorganic Multilayer Nanoporous Film. Advanced Science Letters, 2013, 19, 415-419.	0.2	0
86	Molecularly Imprinted Nanoparticles Based on Long Period Grating Sensor for Detection of Fentanyl. , 2018, , .		0
87	Detection of Dabrafenib using Optical Fibre Long Period Grating Sensor Modified with Surface Imprinted Polymers for Dose Detection and Prevention of Cancer Resistance. , 2020, , .		0
88	Development and Translation of intra-Tracheal Multiplexed Sensing Endotracheal Tubes (iTraXS). , 2020, , .		0