

Qiyin Fang

List of Publications by Year in descending order

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141
papers

2,124
citations

257450

24
h-index

265206

42
g-index

144
all docs

144
docs citations

144
times ranked

1970
citing authors

#	ARTICLE	IF	CITATIONS
1	CMOS Image Sensors for High Speed Applications. <i>Sensors</i> , 2009, 9, 430-444.	3.8	154
2	Fully Integrated Single Photon Avalanche Diode Detector in Standard CMOS 0.18- μm Technology. <i>IEEE Transactions on Electron Devices</i> , 2008, 55, 760-767.	3.0	140
3	Time-domain laser-induced fluorescence spectroscopy apparatus for clinical diagnostics. <i>Review of Scientific Instruments</i> , 2004, 75, 151-162.	1.3	122
4	Fast model-free deconvolution of fluorescence decay for analysis of biological systems. <i>Journal of Biomedical Optics</i> , 2004, 9, 743.	2.6	103
5	High-Speed, Single-Photon Avalanche-Photodiode Imager for Biomedical Applications. <i>IEEE Sensors Journal</i> , 2011, 11, 2401-2412.	4.7	82
6	Detection of rupture-prone atherosclerotic plaques by time-resolved laser-induced fluorescence spectroscopy. <i>Atherosclerosis</i> , 2009, 204, 156-164.	0.8	77
7	In vivo detection of macrophages in a rabbit atherosclerotic model by time-resolved laser-induced fluorescence spectroscopy. <i>Atherosclerosis</i> , 2005, 181, 295-303.	0.8	65
8	Intraoperative delineation of primary brain tumors using time-resolved fluorescence spectroscopy. <i>Journal of Biomedical Optics</i> , 2010, 15, 027008.	2.6	65
9	Effects of fiber-optic probe design and probe-to-target distance on diffuse reflectance measurements of turbid media: an experimental and computational study at 337 nm. <i>Applied Optics</i> , 2004, 43, 2846.	2.1	57
10	Polydopamine-polyethylene glycol-albumin antifouling coatings on multiple substrates. <i>Journal of Materials Chemistry B</i> , 2018, 6, 940-949.	5.8	52
11	Distinction of brain tissue, low grade and high grade glioma with time-resolved fluorescence spectroscopy. <i>Frontiers in Bioscience - Landmark</i> , 2006, 11, 1255.	3.0	50
12	Laguerre-based method for analysis of time-resolved fluorescence data: application to in-vivo characterization and diagnosis of atherosclerotic lesions. <i>Journal of Biomedical Optics</i> , 2006, 11, 021004.	2.6	50
13	Toward a Miniaturized Wireless Fluorescence-Based Diagnostic Imaging System. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2008, 14, 226-234.	2.9	46
14	Effects of incomplete decay in fluorescence lifetime estimation. <i>Biomedical Optics Express</i> , 2011, 2, 2517.	2.9	42
15	Ultrafast method for the analysis of fluorescence lifetime imaging microscopy data based on the Laguerre expansion technique. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2005, 11, 835-845.	2.9	39
16	In-situ monitoring and detection of spatter agglomeration and delamination during laser-based powder bed fusion of Invar 36. <i>Optics and Laser Technology</i> , 2021, 136, 106741.	4.6	39
17	Development of a Low-Cost Hemin-Based Dissolved Oxygen Sensor With Anti-Biofouling Coating for Water Monitoring. <i>IEEE Sensors Journal</i> , 2014, 14, 3400-3407.	4.7	37
18	<title>Study of resistance against photorefractive light-induced scattering in LiNbO ₃ :Fe,Mg crystals</title>. , 1995, 2529, 14.		32

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19	CMOS-Based Active Pixel for Low-Light-Level Detection: Analysis and Measurements. IEEE Transactions on Electron Devices, 2007, 54, 3229-3237.	3.0	32
20	Characterization of Fluorescence Lifetime of Photofrin and Delta-Aminolevulinic Acid Induced Protoporphyrin IX in Living Cells Using Single- and Two-Photon Excitation. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 158-166.	2.9	32
21	Design of a flat field concave-grating-based micro-Raman spectrometer for environmental applications. Applied Optics, 2012, 51, 6855.	1.8	28
22	Optofluidic Device Based Microflow Cytometers for Particle/Cell Detection: A Review. Micromachines, 2016, 7, 70.	2.9	28
23	Hyperspectral fluorescence lifetime imaging for optical biopsy. Journal of Biomedical Optics, 2013, 18, 096001.	2.6	26
24	A Novel, High-Dynamic-Range, High-Speed, and High-Sensitivity CMOS Imager Using Time-Domain Single-Photon Counting and Avalanche Photodiodes. IEEE Sensors Journal, 2011, 11, 1078-1083.	4.7	25
25	Rapid prototyping of all-solution-processed multi-lengthscale electrodes using polymer-induced thin film wrinkling. Scientific Reports, 2017, 7, 42543.	3.3	25
26	High-throughput acousto-optic-tunable-filter-based time-resolved fluorescence spectrometer for optical biopsy. Optics Letters, 2009, 34, 1132.	3.3	24
27	Time-Resolved Fluorescence in Photodynamic Therapy. Photonics, 2014, 1, 530-564.	2.0	22
28	CMOS Active-Pixel Sensor With In-Situ Memory for Ultrahigh-Speed Imaging. IEEE Sensors Journal, 2011, 11, 1375-1379.	4.7	21
29	High Throughput AOTF Hyperspectral Imager for Randomly Polarized Light. Photonics, 2018, 5, 3.	2.0	21
30	Development of a catadioptric endoscope objective with forward and side views. Journal of Biomedical Optics, 2011, 16, 066015.	2.6	20
31	Porcine cortical bone ablation by ultrashort pulsed laser irradiation. Journal of Biomedical Optics, 2012, 17, 028001.	2.6	20
32	Monitoring Photosensitizer Uptake Using Two Photon Fluorescence Lifetime Imaging Microscopy. Theranostics, 2012, 2, 817-826.	10.0	20
33	Skin erythema and pigmentation: a review of optical assessment techniques. Photodiagnosis and Photodynamic Therapy, 2021, 33, 102127.	2.6	20
34	Modeling of Skin Tissue Ablation by Nanosecond Pulses From Ultraviolet to Near-Infrared and Comparison With Experimental Results. IEEE Journal of Quantum Electronics, 2004, 40, 69-77.	1.9	19
35	Exploring the Impact of a Mobile Health Solution for Postpartum Pelvic Floor Muscle Training: Pilot Randomized Controlled Feasibility Study. JMIR MHealth and UHealth, 2019, 7, e12587.	3.7	19
36	CMOS photodetector systems for low-level light applications. Journal of Materials Science: Materials in Electronics, 2009, 20, 87-93.	2.2	18

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37	Integrated Time-Resolved Fluorescence and Diffuse Reflectance Spectroscopy Instrument for Intraoperative Detection of Brain Tumor Margin. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 49-57.	2.9	18
38	Reviewâ€”Point-of-Care Urinalysis with Emerging Sensing and Imaging Technologies. Journal of the Electrochemical Society, 2020, 167, 037518.	2.9	18
39	Dual-modality optical biopsy of glioblastomas multiforme with diffuse reflectance and fluorescence: <i>ex vivo</i> retrieval of optical properties. Journal of Biomedical Optics, 2017, 22, 027002.	2.6	18
40	Mechanism study of porcine skin ablation by nanosecond laser pulses at 1064, 532, 266, and 213 nm. IEEE Journal of Quantum Electronics, 2001, 37, 322-328.	1.9	17
41	Fiber-optic probe design and optical property recovery algorithm for optical biopsy of brain tissue. Journal of Biomedical Optics, 2013, 18, 107004.	2.6	16
42	CMOS imaging for biomedical applications. IEEE Potentials, 2008, 27, 31-36.	0.3	15
43	High-speed multifocal array scanning using refractive window tilting. Biomedical Optics Express, 2015, 6, 3737.	2.9	15
44	Counting of <i>Escherichia coli</i> by a microflow cytometer based on a photonicâ€”microfluidic integrated device. Electrophoresis, 2015, 36, 298-304.	2.4	15
45	Hyperspectral Imaging and Classification for Grading Skin Erythema. Frontiers in Physics, 2018, 6, .	2.1	14
46	Timeâ€”resolved fluorescence (TRF) and diffuse reflectance spectroscopy (DRS) for margin analysis in breast cancer. Lasers in Surgery and Medicine, 2018, 50, 236-245.	2.1	13
47	Optofluidic Dissolved Oxygen Sensing With Sensitivity Enhancement Through Multiple Reflections. IEEE Sensors Journal, 2019, 19, 10452-10460.	4.7	13
48	Highly Multiplexed Confocal Fluorescence Lifetime Microscope Designed for Screening Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-9.	2.9	13
49	In Vivo Study of Intradermal Focusing for Tattoo Removal. Lasers in Medical Science, 2002, 17, 154-164.	2.1	12
50	Streak camera crosstalk reduction using a multiple delay optical fiber bundle. Optics Letters, 2012, 37, 250.	3.3	12
51	Measurements of extrinsic fluorescence in Intralipid and polystyrene microspheres. Biomedical Optics Express, 2014, 5, 2726.	2.9	12
52	Hyperspectral imaging: comparison of acousto-optic and liquid crystal tunable filters. , 2018, , .		12
53	Compact, non-invasive frequency domain lifetime differentiation of collagens and elastin. Sensors and Actuators B: Chemical, 2015, 219, 283-293.	7.8	11
54	Influence of environmental conditions in bovine bone ablation by ultrafast laser. Journal of Biophotonics, 2019, 12, e201800293.	2.3	11

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55	Performance evaluation of fiber optic probes for tissue lifetime fluorescence spectroscopy. , 2003, 4958, 43.		10
56	Single-shot acquisition of time-resolved fluorescence spectra using a multiple delay optical fiber bundle. Optics Letters, 2008, 33, 791.	3.3	10
57	Luminescence lifetime imaging using a cellphone camera with an electronic rolling shutter. Optics Letters, 2020, 45, 81.	3.3	10
58	Experimental recovery of intrinsic fluorescence and fluorophore concentration in the presence of hemoglobin: spectral effect of scattering and absorption on fluorescence. Journal of Biomedical Optics, 2015, 20, 127003.	2.6	9
59	Characterization of SPAD Array for Multifocal High-Content Screening Applications. Photonics, 2016, 3, 56.	2.0	9
60	Skin erythema assessment techniques. Clinics in Dermatology, 2021, 39, 591-604.	1.6	9
61	Efficacy and specificity of inhibitors of BCL-2 family protein interactions assessed by affinity measurements in live cells. Science Advances, 2022, 8, eabm7375.	10.3	9
62	Ultrafast laser ablation and machining large-size structures on porcine bone. Journal of Biomedical Optics, 2013, 18, 070504.	2.6	8
63	Hyperspectral imaging assessment for radiotherapy induced skin-erythema: Pilot study. Photodiagnosis and Photodynamic Therapy, 2021, 33, 102195.	2.6	8
64	Novel ultra-fast deconvolution method for fluorescence lifetime imaging microscopy based on the Laguerre expansion technique. , 2004, 2004, 1271-4.		7
65	The Use of Motion Analysis as Particle Biomarkers in Lensless Optofluidic Projection Imaging for Point of Care Urine Analysis. Scientific Reports, 2019, 9, 17255.	3.3	7
66	Optical Biopsy of the Upper GI Tract Using Fluorescence Lifetime and Spectra. Frontiers in Physiology, 2020, 11, 339.	2.8	6
67	Acousto-optic tunable filter-based hyperspectral imaging system characterization. , 2019, , .		6
68	New Methods for Time-resolved Fluorescence Spectroscopy Data Analysis Based on the Laguerre Expansion Technique. Methods of Information in Medicine, 2007, 46, 206-211.	1.2	5
69	5-aminolevulinic acid induced protoporphyrin IX as a fluorescence marker for quantitative image analysis of high-grade dysplasia in Barrett's esophagus cellular models. Journal of Biomedical Optics, 2015, 20, 036010.	2.6	5
70	Medical Physics and Imaging—A Timely Perspective. Frontiers in Physics, 2021, 9, .	2.1	5
71	Cross-talk reduction in a multiplexed synchroscan streak camera with simultaneous calibration. Optics Express, 2019, 27, 22602.	3.4	5
72	Laguerre nonparametric deconvolution technique of time-resolved fluorescence data: application to the prediction of concentrations in a mixture of biochemical components. , 2004, 5326, 8.		4

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73	Diagnosis of Vulnerable Atherosclerotic Plaques by Time-Resolved Fluorescence Spectroscopy and Ultrasound Imaging. , 2006, 2006, 2663-6.		4
74	Observation of ultraslow stress release in silicon nitride films on CaF ₂ . Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, 041515.	2.1	4
75	5-aminolevulinic acid for quantitative seek-and-treat of high-grade dysplasia in Barrett's esophagus cellular models. Journal of Biomedical Optics, 2015, 20, 028002.	2.6	4
76	Hyperspectral image processing for detection and grading of skin erythema. Proceedings of SPIE, 2017, , .	0.8	4
77	Demonstrating a Technology-Mediated Intervention to Support Medication Adherence in Community-Dwelling Older Adults in Primary Care: A Feasibility Study. Gerontology and Geriatric Medicine, 2019, 5, 233372141984517.	1.5	4
78	Spectral assessment of radiation therapy-induced skin erythema. , 2020, , .		4
79	Integrated CMOS Sensors for Fluorescence Spectroscopy and Imaging. , 2009, , .		3
80	A Frequency-domain optofluidic dissolved oxygen sensor with total internal reflection design for in situ monitoring. IEEE Journal of Selected Topics in Quantum Electronics, 2020, , 1-1.	2.9	3
81	Re-engaging in Aging and Mobility Research in the COVID-19 Era: Early Lessons from Pivoting a Large-Scale, Interdisciplinary Study amidst a Pandemic. Canadian Journal on Aging, 2021, 40, 669-675.	1.1	3
82	Bovine cortical bone ablation by femtosecond laser (Conference Presentation). , 2018, , .		3
83	Multiplexed confocal microscope with a refraction window scanner and a single-photon avalanche photodiode array detector. Optics Letters, 2020, 45, 69.	3.3	3
84	Enhanced red emission of glycothermally synthesized Ce:YAG nanophosphors via Mn ²⁺ addition. Materials Chemistry and Physics, 2021, , 125497.	4.0	3
85	New methods for time-resolved fluorescence spectroscopy data analysis based on the Laguerre expansion technique--applications in tissue diagnosis. Methods of Information in Medicine, 2007, 46, 206-11.	1.2	3
86	Ablation of skin tissue by nanosecond laser pulses at 1064, 532, 266, and 213 nm. , 2000, 3914, 110.		2
87	Application of the Laguerre Deconvolution Method for Time-Resolved Fluorescence Spectroscopy to the Characterization of Atherosclerotic Plaques. , 2005, 2005, 6559-62.		2
88	Calibration of Spectral Imaging Devices With Oxygenation-Controlled Phantoms: Introducing a Simple Gel-Based Hemoglobin Model. Frontiers in Physics, 2019, 7, .	2.1	2
89	Multipage storage in a LiNbO ₃ :Fe crystal sheet using the photorefractive light-climbing effect. Applied Optics, 1996, 35, 6744.	2.1	1
90	Nonparametric analysis of time-resolved fluorescence data based on the Laguerre expansion technique. , 0, , .		1

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91	Novel methods of time-resolved fluorescence data analysis for in-vivo tissue characterization: application to atherosclerosis. , 2004, 2004, 1372-5.		1
92	Multiphoton, confocal, and lifetime microscopy for molecular imaging in cartilage. , 2005, , .		1
93	Applications of time-resolved fluorescence spectroscopy to atherosclerotic cardiovascular disease and brain tumors diagnosis. , 2005, , .		1
94	Wafer-level packaging of three-dimensional MOEMS device with lens diaphragm. , 2007, , .		1
95	Performance of a Diaphragmed Microlens for a Packaged Microspectrometer. Sensors, 2009, 9, 859-868.	3.8	1
96	Multilayered MOEMS Tunable Spectrometer for Fluorescence Lifetime Detection. IEEE Photonics Technology Letters, 2010, 22, 486-488.	2.5	1
97	New model of subconjunctival tumor development in rabbits. Journal of Biomedical Optics, 2013, 18, 070501.	2.6	1
98	Dual-Modality Imaging Microfluidic Cytometer for Onsite Detection of Phytoplankton. Photonics, 2021, 8, 435.	2.0	1
99	A Novel Optical Property Recovery Algorithm for Use in the Optical Biopsy of Brain Tissue. , 2012, , .		1
100	(Invited) A Frequency Domain Optofluidics Dissolved Oxygen Sensor with Enhanced Sensitivity for Water Monitoring. ECS Meeting Abstracts, 2016, , .	0.0	1
101	Radiation therapy induced-erythema: comparison of spectroscopic diffuse reflectance measurements and visual assessment. , 2019, , .		1
102	Investigating Bcl-2 family protein-protein interactions using a high-speed multiplexing confocal FLIM microscope. , 2019, , .		1
103	<title>One-way aberration-free image communication through a phase-disturbing medium using photorefractive four-wave mixing</title>. , 1995, , .		0
104	The inhomogeneity of two-wave coupling in photorefractive crystals in 90° geometry. Applied Physics B: Lasers and Optics, 1996, 63, 35-38.	2.2	0
105	Tattoo removal in micropigs with low-energy pulses from a Q-switched Nd:YAG laser at 1064 nm. , 2001, 4244, 55.		0
106	Quantitative understanding of skin tissue ablation from UV to NIR with a new plasma model. , 0, , .		0
107	Compact time-resolved laser-induced fluorescence spectroscopic system for clinical investigations of diseased tissues. , 2003, 4958, 60.		0
108	Lifetime fluorescence apparatus for clinical investigations of tissues. , 2003, 5141, 40.		0

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109	Validation of a time-resolved fluorescence spectroscopy apparatus in a rabbit atherosclerosis model. , 2004, , .		0
110	Picosecond fluorescence lifetime imaging microscope for imaging of living glioma cells. , 2005, 5699, 33.		0
111	Detection of high-risk atherosclerotic lesions by time-resolved fluorescence spectroscopy based on the Laguerre deconvolution technique. , 2006, , .		0
112	Characterization of time-domain fluorescence properties of typical photosensitizers for photodynamic therapy. , 2007, , .		0
113	Towards a Lab-in-a-Pill for Wireless GI Endoscopy. ECS Meeting Abstracts, 2008, , .	0.0	0
114	CMOS Camera-on-Chip Image Sensor for Biomedical Applications. ECS Meeting Abstracts, 2008, , .	0.0	0
115	Breakdown Mechanism in Silicon Avalanche Photodiodes. ECS Meeting Abstracts, 2008, , .	0.0	0
116	Time-Resolved Fluorescence Spectra of Upper GI Tract: An Ex-Vivo Study. ECS Meeting Abstracts, 2010, , .	0.0	0
117	Wide Field Catadioptric System Design for Endoscopic Auto-Fluorescence Imaging. ECS Meeting Abstracts, 2010, , .	0.0	0
118	A Novel CMOS Image Sensor Using Time-Domain Single-Photon Counting. ECS Meeting Abstracts, 2010, , .	0.0	0
119	A dual view catadioptric endoscope for fluorescence endoscopy. , 2010, , .		0
120	Distortion correction and cross-talk compensation algorithm for use with an imaging spectrometer based spatially resolved diffuse reflectance system. Review of Scientific Instruments, 2016, 87, 123112.	1.3	0
121	A real-time endoscope tip motion tracker. , 2021, , .		0
122	Editorial Introduction to JSTQE Special Issue on Biophotonics. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-4.	2.9	0
123	Using Fluorescence Lifetime Imaging Microscopy to Monitor Photofrin Uptake, Re-distribution, and Intracellular Microenvironment. , 2010, , .		0
124	Using Fluorescence Lifetime Imaging Microscopy to Monitor Photofrin Uptake, Redistribution, and Intracellular Microenvironment. ECS Meeting Abstracts, 2010, , .	0.0	0
125	Poster "Thur Eve" 09: Effects of Small Sample Size on Diffuse Reflectance Spectroscopy for the Identification of Brain Tumours. Medical Physics, 2010, 37, 3888-3888.	3.0	0
126	Development of a Miniaturized Dissolved Oxygen Sensor for Water Monitoring. ECS Meeting Abstracts, 2012, , .	0.0	0

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127	A Novel Microfluidic Cell Culture Device for High Content Screening Applications. ECS Meeting Abstracts, 2012, , .	0.0	0
128	Instrumentation Design of a High-Speed Fluorescence Lifetime Imaging Microscope Tailored to High-Throughput Screening for Drug Discovery. ECS Meeting Abstracts, 2014, , .	0.0	0
129	Peg Surface Modification to Control Biofouling in Microfluidic High Content Screening Devices. ECS Meeting Abstracts, 2014, , .	0.0	0
130	Applications of Optoelectronics Sensor Technology in Environmental and Personal Health Monitoring. ECS Meeting Abstracts, 2014, , .	0.0	0
131	In-Line Monitoring of Bacteria in Drinking Water By Infrared Spectroscopy and Micro-Flow Cytometry. ECS Meeting Abstracts, 2014, , .	0.0	0
132	Single Photon Avalanche Diode for a Time-Gated Raman Spectrometer. ECS Meeting Abstracts, 2014, , .	0.0	0
133	Development of a Miniaturized Dissolved Oxygen Sensor with Anti-Biofouling Coating for Water Monitoring. ECS Meeting Abstracts, 2014, , .	0.0	0
134	(Invited) A Frequency Domain Optofluidics Dissolved Oxygen Sensor. ECS Meeting Abstracts, 2018, , .	0.0	0
135	Experiential learning of data acquisition and sensor networks with a cloud computing platform. , 2019, , .		0
136	Detection of trichomonal vaginalis through lensless optofluidic microscopy. , 2019, , .		0
137	A multiplexed confocal FLIM microscope with 4-taps time-gated imager. , 2020, , .		0
138	A novel dual-path high-throughput acousto-optic tunable filter imaging spectropolarimeter. Journal of Spectral Imaging, 0, , .	0.0	0
139	Optical model of light propagation in total internal reflection fluorescence sensors. Applied Optics, 2020, 59, 10651.	1.8	0
140	Effects of Drilling Technology on Mini-Implant Primary Stability: A Comparison of the Mechanical Drilling and Femtosecond Laser Ablation. Frontiers in Physics, 2021, 9, .	2.1	0
141	Diagnosis of Vulnerable Atherosclerotic Plaques by Time-Resolved Fluorescence Spectroscopy and Ultrasound Imaging. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0