

Xuming Zhang

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

136
papers

4,061
citations

30
h-index

60
g-index

152
ext. papers

4,917
ext. citations

5.1
avg, IF

5.52
L-index

#	Paper	IF	Citations
136	Plasmonic photocatalysis. <i>Reports on Progress in Physics</i> , 2013 , 76, 046401	14.4	942
135	Switchable magnetic metamaterials using micromachining processes. <i>Advanced Materials</i> , 2011 , 23, 1792-4	15.6	167
134	A study of the static characteristics of a torsional micromirror. <i>Sensors and Actuators A: Physical</i> , 2001 , 90, 73-81	3.9	144
133	A Micromachined Reconfigurable Metamaterial via Reconfiguration of Asymmetric Split-Ring Resonators. <i>Advanced Functional Materials</i> , 2011 , 21, 3589-3594	15.6	135
132	Optofluidic waveguide as a transformation optics device for lightwave bending and manipulation. <i>Nature Communications</i> , 2012 , 3, 651	17.4	123
131	Microfluidic reactors for photocatalytic water purification. <i>Lab on A Chip</i> , 2014 , 14, 1074-82	7.2	112
130	Refractive index measurement of single living cells using on-chip Fabry-Pérot cavity. <i>Applied Physics Letters</i> , 2006 , 89, 203901	3.4	102
129	Laser-induced thermal bubbles for microfluidic applications. <i>Lab on A Chip</i> , 2011 , 11, 1389-95	7.2	96
128	Optofluidic planar reactors for photocatalytic water treatment using solar energy. <i>Biomicrofluidics</i> , 2010 , 4, 43004	3.2	91
127	Recycled waste black polyurethane sponges for solar vapor generation and distillation. <i>Applied Energy</i> , 2017 , 206, 63-69	10.7	89
126	A review of MEMS external-cavity tunable lasers. <i>Journal of Micromechanics and Microengineering</i> , 2007 , 17, R1-R13	2	89
125	Tunable active edge sites in PtSe ₂ films towards hydrogen evolution reaction. <i>Nano Energy</i> , 2017 , 42, 26-33	17.1	77
124	Microfluidic photoelectrocatalytic reactors for water purification with an integrated visible-light source. <i>Lab on A Chip</i> , 2012 , 12, 3983-90	7.2	72
123	Hot Electron Tunneling of Metal-Insulator-COF Nanostructures for Efficient Hydrogen Production. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 18290-18294	16.4	55
122	Differential single living cell refractometry using grating resonant cavity with optical trap. <i>Applied Physics Letters</i> , 2007 , 91, 243901	3.4	49
121	Microfluidic immobilized enzyme reactors for continuous biocatalysis. <i>Reaction Chemistry and Engineering</i> , 2020 , 5, 9-32	4.9	49
120	Electrochemical Surface Plasmon Resonance Fiber-Optic Sensor: In Situ Detection of Electroactive Biofilms. <i>Analytical Chemistry</i> , 2016 , 88, 7609-16	7.8	43

119	Discrete wavelength tunable laser using microelectromechanical systems technology. <i>Applied Physics Letters</i> , 2004 , 84, 329-331	3.4	41
118	Optofluidic microcavities: Dye-lasers and biosensors. <i>Biomicrofluidics</i> , 2010 , 4, 043002	3.2	39
117	Miniature fiber optic pressure sensor with composite polymer-metal diaphragm for intradiscal pressure measurements. <i>Journal of Biomedical Optics</i> , 2008 , 13, 044040	3.5	39
116	Linear MEMS variable optical attenuator using reflective elliptical mirror. <i>IEEE Photonics Technology Letters</i> , 2005 , 17, 402-404	2.2	39
115	A digitally generated ultrafine optical frequency comb for spectral measurements with 0.01-pm resolution and 0.7- μ s response time. <i>Light: Science and Applications</i> , 2015 , 4, e300-e300	16.7	38
114	Rough gold films as broadband absorbers for plasmonic enhancement of TiO ₂ photocurrent over 400-800 nm. <i>Scientific Reports</i> , 2016 , 6, 33049	4.9	37
113	MEMS variable optical attenuator using low driving voltage for DWDM systems. <i>Electronics Letters</i> , 2002 , 38, 382	1.1	37
112	Plasmonic Au/TiO ₂ -Dumbbell-On-Film Nanocavities for High-Efficiency Hot-Carrier Generation and Extraction. <i>Advanced Functional Materials</i> , 2018 , 28, 1800383	15.6	35
111	Biomimetic optical directional microphone with structurally coupled diaphragms. <i>Applied Physics Letters</i> , 2008 , 93, 243902	3.4	33
110	Microfluidic droplet grating for reconfigurable optical diffraction. <i>Optics Letters</i> , 2010 , 35, 1890-2	3	32
109	Optical and mechanical models for a variable optical attenuator using a micromirror drawbridge. <i>Journal of Micromechanics and Microengineering</i> , 2003 , 13, 400-411	2	32
108	Optofluidic tunable lenses using laser-induced thermal gradient. <i>Lab on A Chip</i> , 2016 , 16, 104-11	7.2	30
107	High-frequency ultrasonic transducer based on lead-free BSZT piezoceramics. <i>Ultrasonics</i> , 2011 , 51, 811-4.5	4.5	30
106	Precise Sorting of Gold Nanoparticles in a Flowing System. <i>ACS Photonics</i> , 2016 , 3, 2497-2504	6.3	29
105	Tunable laser using micromachined grating with continuous wavelength tuning. <i>Applied Physics Letters</i> , 2004 , 85, 3684-3686	3.4	29
104	A comparative study of preparation methods of nanoporous TiO ₂ films for microfluidic photocatalysis. <i>Microelectronic Engineering</i> , 2011 , 88, 2797-2799	2.5	27
103	Continuous artificial synthesis of glucose precursor using enzyme-immobilized microfluidic reactors. <i>Nature Communications</i> , 2019 , 10, 4049	17.4	26
102	Resonant Optical Tunneling Effect: Recent Progress in Modeling and Applications. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2013 , 19, 9000310-9000310	3.8	26

101	An optical crossconnect (OXC) using drawbridge micromirrors. <i>Sensors and Actuators A: Physical</i> , 2002 , 97-98, 227-238	3.9	26
100	A novel integrated micromachined tunable laser using polysilicon 3-D mirror. <i>IEEE Photonics Technology Letters</i> , 2001 , 13, 427-429	2.2	26
99	. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2019 , 9, 209-214	3.4	25
98	Enhanced Photocatalytic Activity of WS Film by Laser Drilling to Produce Porous WS/WO Heterostructure. <i>Scientific Reports</i> , 2017 , 7, 3125	4.9	25
97	Miniature surface-mountable Fabry-Perot pressure sensor constructed with a 45 degrees angled fiber. <i>Optics Letters</i> , 2010 , 35, 1701-3	3	25
96	Tunable self-imaging effect using hybrid optofluidic waveguides. <i>Lab on A Chip</i> , 2015 , 15, 4398-403	7.2	24
95	Microfluidic reactors for visible-light photocatalytic water purification assisted with thermolysis. <i>Biomicrofluidics</i> , 2014 , 8, 054122	3.2	24
94	Synthesis of reduced graphene oxide/EBi2Mo3O12 @ EBi2O3 heterojunctions by organic electrolytes assisted UV-excited method. <i>Chemical Engineering Journal</i> , 2014 , 257, 309-316	14.7	22
93	Continuous wavelength tuning in micromachined Littrow external-cavity lasers. <i>IEEE Journal of Quantum Electronics</i> , 2005 , 41, 187-197	2	22
92	Measuring the Charge of a Single Dielectric Nanoparticle Using a High-Q Optical Microresonator. <i>Physical Review Applied</i> , 2016 , 6,	4.3	21
91	Plasmonic Black Absorbers for Enhanced Photocurrent of Visible-Light Photocatalysis. <i>Advanced Optical Materials</i> , 2017 , 5, 1600399	8.1	20
90	Tunable transformation optical waveguide bends in liquid. <i>Optica</i> , 2017 , 4, 839	8.6	20
89	Review on optofluidic microreactors for artificial photosynthesis. <i>Beilstein Journal of Nanotechnology</i> , 2018 , 9, 30-41	3	20
88	TiO2 nanosheet array thin film for self-cleaning coating. <i>RSC Advances</i> , 2015 , 5, 9861-9864	3.7	19
87	Microfluidic chip-based one-step fabrication of an artificial photosystem I for photocatalytic cofactor regeneration. <i>RSC Advances</i> , 2016 , 6, 101974-101980	3.7	19
86	Pure angular momentum generator using a ring resonator. <i>Optics Express</i> , 2010 , 18, 21651-62	3.3	19
85	Phase modulation with micromachined resonant mirrors for low-coherence fiber-tip pressure sensors. <i>Optics Express</i> , 2009 , 17, 23965-74	3.3	19
84	Optofluidic UV-Vis spectrophotometer for online monitoring of photocatalytic reactions. <i>Scientific Reports</i> , 2016 , 6, 28928	4.9	18

83	Tunable Visible Cloaking Using Liquid Diffusion. <i>Laser and Photonics Reviews</i> , 2017 , 11, 1700066	8.3	18
82	Multifunctional optical MEMS sensor platform with heterogeneous fiber optic Fabry-Pérot sensors for wireless sensor networks. <i>Sensors and Actuators A: Physical</i> , 2012 , 188, 471-480	3.9	18
81	Micromachined wavelength tunable laser with an extended feedback model. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2002 , 8, 73-79	3.8	18
80	Hot Electron Tunneling of Metal-Insulator-Insulator Nanostuctures for Efficient Hydrogen Production. <i>Angewandte Chemie</i> , 2019 , 131, 18458-18462	3.6	17
79	Clam-inspired nanoparticle immobilization method using adhesive tape as microchip substrate. <i>Sensors and Actuators B: Chemical</i> , 2016 , 222, 106-111	8.5	17
78	Single-/multi-mode tunable lasers using MEMS mirror and grating. <i>Sensors and Actuators A: Physical</i> , 2003 , 108, 49-54	3.9	17
77	Optofluidic Tunable Lenses for In-Plane Light Manipulation. <i>Micromachines</i> , 2018 , 9,	3.3	16
76	Meta-microwindmill structure with multiple absorption peaks for the detection of ketamine and amphetamine type stimulants in terahertz domain. <i>Optical Materials Express</i> , 2014 , 4, 1876	2.6	16
75	Optofluidic refractometer using resonant optical tunneling effect. <i>Biomicrofluidics</i> , 2010 , 4, 43008	3.2	16
74	A micromachined tunable coupled-cavity laser for wide tuning range and high spectral purity. <i>Optics Express</i> , 2008 , 16, 16670-9	3.3	16
73	A micromachined optical double well for thermo-optic switching via resonant tunneling effect. <i>Applied Physics Letters</i> , 2008 , 92, 251101	3.4	16
72	Biomimetic microchannels of planar reactors for optimized photocatalytic efficiency of water purification. <i>Biomicrofluidics</i> , 2016 , 10, 014123	3.2	16
71	Micromachined optical well structure for thermo-optic switching. <i>Applied Physics Letters</i> , 2007 , 91, 261106	3.4	15
70	Tunable visual color filter using microfluidic grating. <i>Biomicrofluidics</i> , 2010 , 4, 43013	3.2	14
69	Retro-Axial VOA Using Parabolic Mirror Pair. <i>IEEE Photonics Technology Letters</i> , 2007 , 19, 692-694	2.2	14
68	High photoelectrochemical activity and stability of Au-WS ₂ /silicon heterojunction photocathode. <i>Solar Energy Materials and Solar Cells</i> , 2018 , 174, 300-306	6.4	13
67	Polysilicon micromachined fiber-optical attenuator for DWDM applications. <i>Sensors and Actuators A: Physical</i> , 2003 , 108, 28-35	3.9	13
66	Determination of refractive index for single living cell using integrated biochip		13

65	Microfluidics-Based Plasmonic Biosensing System Based on Patterned Plasmonic Nanostructure Arrays. <i>Micromachines</i> , 2021 , 12,	3.3	13
64	Dual Mach-Zehnder Interferometer Based on Side-Hole Fiber for High-Sensitivity Refractive Index Sensing. <i>IEEE Photonics Journal</i> , 2019 , 11, 1-13	1.8	12
63	Dielectrophoresis-actuated in-plane optofluidic lens with tunability of focal length from negative to positive. <i>Optics Express</i> , 2018 , 26, 6532-6541	3.3	12
62	Surface Plasmon Resonance Sensor Based on an Angled Optical Fiber. <i>IEEE Sensors Journal</i> , 2014 , 14, 3229-3235	4	12
61	Asymmetric Tuning Schemes of MEMS Dual-Shutter VOA. <i>Journal of Lightwave Technology</i> , 2008 , 26, 569-579	4	12
60	Theoretical Analysis of an Optical Accelerometer Based on Resonant Optical Tunneling Effect. <i>Sensors</i> , 2017 , 17,	3.8	11
59	Aberration-free aspherical in-plane tunable liquid lenses by regulating local curvatures. <i>Lab on A Chip</i> , 2020 , 20, 995-1001	7.2	10
58	Photoelectrocatalytic microreactor for seawater decontamination with negligible chlorine generation. <i>Microsystem Technologies</i> , 2017 , 23, 4495-4500	1.7	10
57	Thermal-Optic Switch by Total Internal Reflection of Micromachined Silicon Prism. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2007 , 13, 348-358	3.8	10
56	A Real Pivot Structure for MEMS Tunable Lasers. <i>Journal of Microelectromechanical Systems</i> , 2007 , 16, 269-278	2.5	10
55	Electric-Field-Mediated Electron Tunneling of Supramolecular Naphthalimide Nanostructures for Biomimetic H ₂ Production. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 1235-1243	16.4	10
54	Fiber-Tip Polymer Microcantilever for Fast and Highly Sensitive Hydrogen Measurement. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 33163-33172	9.5	9
53	Rapid Screening of Graphitic Carbon Nitrides for Photocatalytic Cofactor Regeneration Using a Drop Reactor. <i>Micromachines</i> , 2017 , 8, 175	3.3	9
52	Broadband efficient light absorbing in the visible regime by a metamaterial array. <i>Annalen Der Physik</i> , 2014 , 526, 112-117	2.6	9
51	Liquid refractive index sensors using resonant optical tunneling effect for ultra-high sensitivity. <i>Sensors and Actuators A: Physical</i> , 2011 , 169, 347-351	3.9	9
50	A miniature tunable coupled-cavity laser constructed by micromachining technology. <i>Applied Physics Letters</i> , 2008 , 92, 031105	3.4	9
49	Enhancing plasmonic hot-carrier generation by strong coupling of multiple resonant modes. <i>Nanoscale</i> , 2021 , 13, 2792-2800	7.7	9
48	Quantitative investigation of plasmonic hot-electron injection by KPFM. <i>Applied Surface Science</i> , 2019 , 492, 644-650	6.7	8

47	Highly Sensitive Cell Concentration Detection by Resonant Optical Tunneling Effect. <i>Journal of Lightwave Technology</i> , 2019 , 37, 2800-2806	4	8
46	Light switching via thermo-optic effect of micromachined silicon prism. <i>Applied Physics Letters</i> , 2006 , 88, 243501	3.4	8
45	Vibration measurement with a micromachined mirror in a very-short external cavity laser. <i>Sensors and Actuators A: Physical</i> , 2004 , 116, 232-240	3.9	8
44	Dielectrophoresis-actuated liquid lenses with dual air/liquid interfaces tuned from biconcave to biconvex. <i>Lab on A Chip</i> , 2018 , 18, 3849-3854	7.2	8
43	Exact step-coupling theory for mode-coupling behavior in geometrical variation photonic crystal waveguides. <i>Physical Review B</i> , 2009 , 80,	3.3	7
42	Modeling of the optical torsion micromirror 1999 , 3899, 109		7
41	Microfluidic Reactors for Plasmonic Photocatalysis Using Gold Nanoparticles. <i>Micromachines</i> , 2019 , 10,	3.3	7
40	One-pot synthesis of CuO/C@H-TiO nanocomposites with enhanced visible-light photocatalytic activity.. <i>RSC Advances</i> , 2019 , 9, 41540-41548	3.7	7
39	Microfluidic flow direction control using continuous-wave laser. <i>Sensors and Actuators A: Physical</i> , 2012 , 188, 329-334	3.9	6
38	Integrated micromachined tunable lasers for all optical network (AON) applications. <i>Sensors and Actuators A: Physical</i> , 2002 , 97-98, 54-60	3.9	6
37	A monolithically integrated photonic MEMS subsystem for optical network applications. <i>Optics Communications</i> , 2005 , 249, 579-586	2	6
36	Miniaturized injection-locked laser using microelectromechanical systems technology. <i>Applied Physics Letters</i> , 2005 , 87, 101101	3.4	6
35	Enhancement of photo-electrochemical reactions in MAPbI ₃ /Au. <i>Materials Today Energy</i> , 2018 , 9, 303-310		6
34	Lensed Water-Core Teflon-Amorphous Fluoroplastics Optical Fiber. <i>Journal of Lightwave Technology</i> , 2014 , 32, 1538-1542	4	5
33	Hierarchic random nanosphere model for broadband solar energy absorbers. <i>Optical Materials Express</i> , 2015 , 5, 2777	2.6	5
32	Narrow-Linewidth Tunable Lasers With Retro-Reflective External Cavity. <i>IEEE Photonics Technology Letters</i> , 2012 , 24, 1591-1593	2.2	5
31	New near-field and far-field attenuation models for free-space variable optical attenuators. <i>Journal of Lightwave Technology</i> , 2003 , 21, 3417-3426	4	5
30	Optical and quantum models of resonant optical tunneling effect. <i>Optics Communications</i> , 2018 , 428, 191-199	2	4

29	Understanding fly-ear inspired directional microphones 2009 ,		4
28	Time-variant 1D photonic crystals using flowing microdroplets. <i>Optics Express</i> , 2012 , 20, 24330-41	3.3	4
27	Tunable dual-wavelength laser constructed by silicon micromachining. <i>Applied Physics Letters</i> , 2008 , 92, 051113	3.4	4
26	Ultrafast polarization bio-imaging based on coherent detection and time-stretch techniques. <i>Biomedical Optics Express</i> , 2018 , 9, 6556-6568	3.5	4
25	Planar polarization-routing optical cross-connects using nematic liquid crystal waveguides. <i>Optics Express</i> , 2018 , 26, 402-418	3.3	3
24	UV-curable liquid-core fiber lenses with controllable focal length. <i>Optics Express</i> , 2013 , 21, 5505-10	3.3	3
23	Self-Latched Micromachined Mechanism With Large Displacement Ratio. <i>Journal of Microelectromechanical Systems</i> , 2006 , 15, 1576-1585	2.5	3
22	MEMS widely tunable lasers for WDM system applications 2002 ,		3
21	Photocatalytic ozonation for sea water decontamination. <i>Journal of Water Process Engineering</i> , 2020 , 37, 101501	6.7	3
20	Parity-time symmetry based on resonant optical tunneling effect for biosensing. <i>Optics Communications</i> , 2020 , 475, 125815	2	2
19	Tunable Visible Cloaking Using Liquid Diffusion (Laser Photonics Rev. 11(6)/2017). <i>Laser and Photonics Reviews</i> , 2017 , 11, 1770062	8.3	2
18	Finite element simulation and theoretical analysis of fiber-optical switches. <i>Sensors and Actuators A: Physical</i> , 2002 , 96, 167-178	3.9	2
17	Variable Optical Delay Line Using Discrete Harmonic Oscillation in Waveguide Lattices. <i>Journal of Lightwave Technology</i> , 2015 , 33, 5095-5102	4	1
16	Enhancement of the volume refractive index sensing by ROTE and its application on cancer and normal cells discrimination. <i>Sensors and Actuators A: Physical</i> , 2020 , 313, 112177	3.9	1
15	Photocatalytic microreactors for water purification: Selective control of oxidation pathways 2013 ,		1
14	Controllable parabolic lensed liquid-core optical fiber by using electrostatic force. <i>Optics Express</i> , 2014 , 22, 20948-53	3.3	1
13	Laser-actuated micro-valves and micro-pumps 2011 ,		1
12	Electrically controlled polarization rotator using nematic liquid crystal. <i>Optics Express</i> , 2018 , 26, 32317-32323	3.3	1

11	Co-Ni Basic Carbonate Nanowire/Carbon Nanotube Network With High Electrochemical Capacitive Performance via Electrochemical Conversion. <i>Frontiers in Chemistry</i> , 2021 , 9, 655025	5	1
10	Electrically generated optical waveguide in a lithium-niobate thin film. <i>Optics Express</i> , 2020 , 28, 29895-29903	3.3	1
9	Au/CQDs-TiO ₂ composite nanorod array film with simple preparation route and enhanced visible light response. <i>Micro and Nano Letters</i> , 2021 , 16, 132-141	0.9	1
8	Electric-Field-Mediated Electron Tunneling of Supramolecular Naphthalimide Nanostructures for Biomimetic H ₂ Production. <i>Angewandte Chemie</i> , 2021 , 133, 1255-1263	3.6	1
7	Enhanced solar water splitting using plasmon-induced resonance energy transfer and unidirectional charge carrier transport. <i>Optics Express</i> , 2021 , 29, 34810-34825	3.3	1
6	. <i>IEEE Photonics Journal</i> , 2018 , 10, 1-17	1.8	0
5	Discretely tunable micromachined injection-locked lasers. <i>Journal of Micromechanics and Microengineering</i> , 2010 , 20, 085018	2	0
4	PPy enhanced Fe, W Co-doped Co ₃ O ₄ free-standing electrode for highly-efficient oxygen evolution reaction. <i>Journal of Applied Electrochemistry</i> , 2018 , 48, 1189-1195	2.6	0
3	Temperature Tolerance Electric Cell-Substrate Impedance Sensing for Joint Assessment of Cell Viability and Vitality. <i>ACS Sensors</i> , 2021 , 6, 3640-3649	9.2	0
2	An integrated microfluidic chip with 40 MHz lead-free transducer for fluid analysis. <i>Review of Scientific Instruments</i> , 2011 , 82, 024903	1.7	
1	4x4 MEMS optical cross-connections (OXCs) 2000 , 4230, 174		