

# Sanshui Xiao

## List of Publications by Year in descending order

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147  
papers

4,321  
citations

117571

34  
h-index

123376

61  
g-index

149  
all docs

149  
docs citations

149  
times ranked

4722  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced Light-Matter Interactions in Graphene-Covered Gold Nanovoid Arrays. Nano Letters, 2013, 13, 4690-4696.	4.5	204
2	Effective Electro-Optical Modulation with High Extinction Ratio by a Graphene-Silicon Microring Resonator. Nano Letters, 2015, 15, 4393-4400.	4.5	196
3	Electromagnetically induced transparency in metamaterials at near-infrared frequency. Optics Express, 2010, 18, 17187.	1.7	168
4	Resonator channel drop filters in a plasmon-polaritons metal. Optics Express, 2006, 14, 2932.	1.7	161
5	Liquid-infiltrated photonic crystals: enhanced light-matter interactions for lab-on-a-chip applications. Microfluidics and Nanofluidics, 2008, 4, 117-127.	1.0	153
6	Slow-light-enhanced energy efficiency for graphene microheaters on silicon photonic crystal waveguides. Nature Communications, 2017, 8, 14411.	5.8	153
7	Graphene-plasmon polaritons: From fundamental properties to potential applications. Frontiers of Physics, 2016, 11, 1.	2.4	147
8	Slow-light enhancement of Beer-Lambert-Bouguer absorption. Applied Physics Letters, 2007, 90, 141108.	1.5	126
9	Bends and splitters in graphene nanoribbon waveguides. Optics Express, 2013, 21, 3486.	1.7	123
10	Ultra-compact integrated graphene plasmonic photodetector with bandwidth above 110 GHz. Nanophotonics, 2020, 9, 317-325.	2.9	113
11	Plasmon-Phonon Coupling in Large-Area Graphene Dot and Antidot Arrays Fabricated by Nanosphere Lithography. Nano Letters, 2014, 14, 2907-2913.	4.5	111
12	Experimental observation of plasmons in a graphene monolayer resting on a two-dimensional subwavelength silicon grating. Applied Physics Letters, 2013, 102, .	1.5	109
13	Influence of the surface termination to the point imaging by a photonic crystal slab with negative refraction. Applied Physics Letters, 2004, 85, 4269.	1.5	98
14	Efficient electro-optic modulation in low-loss graphene-plasmonic slot waveguides. Nanoscale, 2017, 9, 15576-15581.	2.8	94
15	Recent advances and prospects of persistent luminescent materials as inner secondary self-luminous light source for photocatalytic applications. Chemical Engineering Journal, 2021, 403, 126099.	6.6	84
16	Single-Crystalline Gold Nanodisks on WS <sub>2</sub> Mono- and Multilayers for Strong Coupling at Room Temperature. ACS Photonics, 2019, 6, 994-1001.	3.2	80
17	Broadband, wide-angle and tunable terahertz absorber based on cross-shaped graphene arrays. Applied Optics, 2017, 56, 5458.	2.1	73
18	Plasmon-exciton polaritons in two-dimensional semiconductor/metal interfaces. Physical Review B, 2018, 97, .	1.1	67

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19	Nonlocal response in plasmonic waveguiding with extreme light confinement. <i>Nanophotonics</i> , 2013, 2, 161-166.	2.9	63
20	Arbitrarily thin metamaterial structure for perfect absorption and giant magnification. <i>Optics Express</i> , 2011, 19, 11114.	1.7	60
21	Enhanced absorption of graphene in the visible region by use of plasmonic nanostructures. <i>Journal of Optics (United Kingdom)</i> , 2013, 15, 055003.	1.0	60
22	Limits of slow light in photonic crystals. <i>Physical Review B</i> , 2008, 78, .	1.1	59
23	Strong Light-Matter Interactions Enabled by Polaritons in Atomically Thin Materials. <i>Advanced Optical Materials</i> , 2020, 8, 1901473.	3.6	56
24	Plasmon resonances of Ag capped Si nanopillars fabricated using mask-less lithography. <i>Optics Express</i> , 2015, 23, 12965.	1.7	52
25	Controlled generation of luminescent centers in hexagonal boron nitride by irradiation engineering. <i>Science Advances</i> , 2021, 7, .	4.7	51
26	Nearly zero transmission through periodically modulated ultrathin metal films. <i>Applied Physics Letters</i> , 2010, 97, 071116.	1.5	50
27	Surface-plasmon-polariton-induced suppressed transmission through ultrathin metal disk arrays. <i>Optics Letters</i> , 2011, 36, 37.	1.7	50
28	Coupling between plane waves and Bloch waves in photonic crystals with negative refraction. <i>Physical Review B</i> , 2005, 71, .	1.1	49
29	Surface-enhanced Raman spectroscopy: nonlocal limitations. <i>Optics Letters</i> , 2012, 37, 2538.	1.7	48
30	Tuning the Bi <sup>3+</sup> -photoemission color over the entire visible region by manipulating secondary cations modulation in the ScV <sub>x</sub> P <sub>1-x</sub> O <sub>4</sub> :Bi <sup>3+</sup> (0 ≤ x ≤ 1) solid solution. <i>Journal of Materials Chemistry C</i> , 2019, 7, 9865-9877.	2.7	48
31	Planar refraction and lensing of highly confined polaritons in anisotropic media. <i>Nature Communications</i> , 2021, 12, 4325.	5.8	48
32	Surface Plasmon Wave Adapter Designed with Transformation Optics. <i>ACS Nano</i> , 2011, 5, 4359-4364.	7.3	46
33	Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Quantum Dots with Enhanced Stability for Ultrafast Photonics. <i>ACS Applied Nano Materials</i> , 2020, 3, 11850-11860.	2.4	38
34	2D materials integrated with metallic nanostructures: fundamentals and optoelectronic applications. <i>Nanophotonics</i> , 2020, 9, 1877-1900.	2.9	36
35	A Novel Directional Coupler Utilizing a Left-Handed Material. <i>IEEE Photonics Technology Letters</i> , 2004, 16, 171-173.	1.3	35
36	Tunable optical delay line based on integrated grating-assisted contradirectional couplers. <i>Photonics Research</i> , 2018, 6, 880.	3.4	35

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37	Study of transmission properties for waveguide bends by use of a circular photonic crystal. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2005, 340, 474-479.	0.9	34
38	Hybridized Plasmons in 2D Nanoslits: From Graphene to Anisotropic 2D Materials. <i>ACS Photonics</i> , 2017, 4, 3045-3054.	3.2	33
39	Temperature stabilization of optofluidic photonic crystal cavities. <i>Applied Physics Letters</i> , 2009, 94, 231114.	1.5	32
40	A stretch-tunable plasmonic structure with a polarization-dependent response. <i>Optics Express</i> , 2012, 20, 5237.	1.7	32
41	Double-layer graphene on photonic crystal waveguide electro-absorption modulator with 12 GHz bandwidth. <i>Nanophotonics</i> , 2020, 9, 2377-2385.	2.9	32
42	Stability and quality factor of a one-dimensional subwavelength cavity resonator containing a left-handed material. <i>Physical Review B</i> , 2004, 69, .	1.1	31
43	Tunable terahertz broadband absorber based on a composite structure of graphene multilayer and silicon strip array. <i>Optics Communications</i> , 2019, 431, 199-202.	1.0	31
44	Ultrathin silicon solar cells with enhanced photocurrents assisted by plasmonic nanostructures. <i>Journal of Nanophotonics</i> , 2012, 6, 061503.	0.4	29
45	Large absolute band gaps in two-dimensional photonic crystals formed by large dielectric pixels. <i>Physical Review B</i> , 2002, 66, .	1.1	28
46	Optical filter based on two-dimensional photonic crystal surface-mode cavity in amorphous silicon-on-silica structure. <i>Applied Physics Letters</i> , 2007, 90, 041108.	1.5	28
47	Experimental demonstration of graphene plasmons working close to the near-infrared window. <i>Optics Letters</i> , 2016, 41, 5345.	1.7	28
48	Equivalent conductivity method: straightforward analytical solution for metasurface-based structures. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 385106.	1.3	27
49	A plane-wave expansion method based on the effective medium theory for calculating the band structure of a two-dimensional photonic crystal. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2003, 313, 132-138.	0.9	26
50	Enhanced transmission of transverse electric waves through periodic arrays of structured subwavelength apertures. <i>Optics Express</i> , 2010, 18, 6040.	1.7	26
51	Graphene Plasmons in Triangular Wedges and Grooves. <i>ACS Photonics</i> , 2016, 3, 2176-2183.	3.2	26
52	Photonic integration in k-space: Enhancing the performance of photonic crystal dye lasers. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	25
53	Surface-mode microcavity. <i>Applied Physics Letters</i> , 2005, 87, 111102.	1.5	24
54	A finite-difference eigenvalue algorithm for calculating the band structure of a photonic crystal. <i>Computer Physics Communications</i> , 2002, 143, 213-221.	3.0	23

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55	Resonant-tunnelling-assisted crossing for subwavelength plasmonic slot waveguides. Optics Express, 2008, 16, 14997.	1.7	22
56	Thin film Ag superlens towards lab-on-a-chip integration. Optics Express, 2009, 17, 22543.	1.7	21
57	Group index limitations in slow-light photonic crystals. Photonics and Nanostructures - Fundamentals and Applications, 2010, 8, 56-61.	1.0	21
58	Metamaterial localized resonance sensors: prospects and limitations. Optics Express, 2010, 18, 25075.	1.7	21
59	Nanofocusing in a tapered graphene plasmonic waveguide. Journal of Optics (United Kingdom), 2015, 17, 065002.	1.0	20
60	Hybridization-induced dual-band tunable graphene metamaterials for sensing. Optical Materials Express, 2019, 9, 35.	1.6	20
61	Proposal of highly sensitive optofluidic sensors based on dispersive photonic crystal waveguides. Journal of Optics, 2007, 9, S463-S467.	1.5	19
62	Spoof surface plasmon polaritons based notch filter for ultra-wideband microwave waveguide. Optics Communications, 2016, 374, 13-17.	1.0	19
63	Localized plasmons in bilayer graphene nanodisks. Physical Review B, 2016, 93, .	1.1	19
64	Broadband one-way propagation and rainbow trapping of terahertz radiations. Optics Express, 2019, 27, 10659.	1.7	19
65	Broadband Antireflection and Light Extraction Enhancement in Fluorescent SiC with Nanodome Structures. Scientific Reports, 2014, 4, 4662.	1.6	18
66	Broadband enhancement of spontaneous emission in a photonic-plasmonic structure. Optics Letters, 2012, 37, 2037.	1.7	17
67	Slow-light enhanced absorption in a hollow-core fiber. Optics Express, 2010, 18, 14270.	1.7	16
68	Ultrathin 90-degree sharp bends for spoof surface plasmon polaritons. Optics Express, 2015, 23, 19074.	1.7	16
69	Highly dispersive photonic band-gap-edge optofluidic biosensors. Journal of the European Optical Society-Rapid Publications, 2006, 1, .	0.9	15
70	Optical microcavities based on surface modes in two-dimensional photonic crystals and silicon-on-insulator photonic crystals. Journal of the Optical Society of America B: Optical Physics, 2007, 24, 1225.	0.9	15
71	Magnetoplasmons in monolayer black phosphorus structures. Optics Letters, 2019, 44, 554.	1.7	15
72	A new finite-difference time-domain method for photonic crystals consisting of nearly-free-electron metals. Journal of Physics A, 2001, 34, 9713-9721.	1.6	14

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73	High-Q microcavities realized in a circular photonic crystal slab. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2005, 3, 134-138.	1.0	14
74	Tunable THz perfect absorber with two absorption peaks based on graphene microribbons. <i>Micro and Nano Letters</i> , 2018, 13, 631-635.	0.6	14
75	Nanostructure design for surface-enhanced Raman spectroscopy -- prospects and limits. <i>Journal of the European Optical Society-Rapid Publications</i> , 0, 3, .	0.9	13
76	Broadband light-extraction enhanced by arrays of whispering gallery resonators. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	13
77	Plasmonic nanostructures: local versus nonlocal response. <i>Proceedings of SPIE</i> , 2010, , .	0.8	12
78	Enhanced Plasmonic Light Absorption for Silicon Schottky-Barrier Photodetectors. <i>Plasmonics</i> , 2013, 8, 1059-1064.	1.8	12
79	Enhanced transmission through arrays of subwavelength holes in gold films coated by a finite dielectric layer. <i>Journal of the European Optical Society-Rapid Publications</i> , 2007, 2, .	0.9	11
80	Optical reconfiguration and polarization control in semi-continuous gold films close to the percolation threshold. <i>Nanoscale</i> , 2017, 9, 12014-12024.	2.8	11
81	Mesoscopic magnetism in dielectric photonic crystal meta materials: topology and inhomogeneous broadening. <i>Journal of the European Optical Society-Rapid Publications</i> , 2006, 1, .	0.9	10
82	Absorption enhancement in graphene with an efficient resonator. <i>Optical and Quantum Electronics</i> , 2017, 49, 1.	1.5	10
83	Trapping a magnetic rainbow by using a one-way magnetostatic-like mode. <i>Optical Materials Express</i> , 2019, 9, 4399.	1.6	10
84	Slow-light enhanced absorption for bio-chemical sensing applications: potential of low-contrast lossy materials. <i>Journal of the European Optical Society-Rapid Publications</i> , 0, 3, .	0.9	9
85	Material Limitations on the Detection Limit in Refractometry. <i>Sensors</i> , 2009, 9, 8382-8390.	2.1	9
86	Extended verification of scaling behavior in split-ring resonators. <i>Optics Communications</i> , 2011, 284, 799-801.	1.0	9
87	Evaporation of Water Droplets on "Lock-and-Key" Structures with Nanoscale Features. <i>Langmuir</i> , 2012, 28, 9201-9205.	1.6	9
88	Fast and large-area fabrication of plasmonic reflection color filters by achromatic Talbot lithography. <i>Optics Letters</i> , 2019, 44, 1031.	1.7	9
89	Realization of broadband truly rainbow trapping in gradient-index metamaterials. <i>Optics Express</i> , 2022, 30, 3941.	1.7	9
90	Theoretical study of the transmission properties of a metallic film with surface corrugations. <i>Journal of Optics</i> , 2007, 9, 348-351.	1.5	8

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91	Metal-loaded graphene surface plasmon waveguides working in the terahertz regime. Optics Communications, 2015, 355, 602-606.	1.0	8
92	Unidirectional-propagating surface magnetoplasmon based on remanence and its application for subwavelength isolators. Optical Materials Express, 2019, 9, 2415.	1.6	8
93	FDTD method for computing the off-plane band structure in a two-dimensional photonic crystal consisting of nearly free-electron metals. Physica B: Condensed Matter, 2002, 324, 403-408.	1.3	7
94	Liquid-infiltrated photonic crystals: Ohmic dissipation and broadening of modes. Journal of the European Optical Society-Rapid Publications, 2006, 1, .	0.9	7
95	High-efficiency tunable T-shaped beam splitter based on one-way waveguide. Journal of Optics (United Kingdom), 2020, 22, 025003.	1.0	6
96	Efficient Thermal Tuning Employing Metallic Microheater With Slow-Light Effect. IEEE Photonics Technology Letters, 2018, 30, 1151-1154.	1.3	6
97	Magnetic field assisted beam-scanning leaky-wave antenna utilizing one-way waveguide. Scientific Reports, 2019, 9, 16777.	1.6	6
98	Ultra-subwavelength focusing and giant magnetic-field enhancement in a low-loss one-way waveguide based on remanence. Journal of Optics (United Kingdom), 2020, 22, 025003.	1.0	6
99	Trapping and releasing bidirectional rainbow at terahertz frequencies. Optics Communications, 2020, 473, 125999.	1.0	6
100	Design of terahertz reconfigurable devices by locally controlling topological phases of square gyro-electric rod arrays. Optical Materials Express, 2019, 9, 544.	1.6	6
101	Quantitative near-field characterization of surface plasmon polaritons on monocrystalline gold platelets. Optics Express, 2022, 30, 11181.	1.7	6
102	Analysis of channel-dropping tunnelling processes in photonic crystals with multiple vertical multi-mode cavities. Journal of Physics A, 2000, 33, 7761-7771.	1.6	5
103	Coupled-resonator optical waveguides: Q-factor influence on slow-light propagation and the maximal group delay. Journal of the European Optical Society-Rapid Publications, 0, 5, .	0.9	5
104	Negative refraction in two-dimensional photonic crystals. Applied Physics A: Materials Science and Processing, 2005, 80, 1231-1236.	1.1	4
105	Slow-light enhanced optical detection in liquid-infiltrated photonic crystals. Optical and Quantum Electronics, 2007, 39, 903-911.	1.5	4
106	Nanoplasmonics beyond Ohm's law. , 2012, , .		4
107	Geometrical and fluidic tuning of periodically modulated thin metal films. Photonics and Nanostructures - Fundamentals and Applications, 2012, 10, 177-182.	1.0	4
108	Graphene-based THz modulator analysed by equivalent circuit model. Micro and Nano Letters, 2016, 11, 439-442.	0.6	4

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109	Anderson Localized Plasmon in Graphene with Random Tensile Strain Distribution. <i>Advanced Science</i> , 2019, 6, 1801974.	5.6	4
110	Polaritons in Two-Dimensional Parabolic Waveguides. <i>ACS Photonics</i> , 2021, 8, 1840-1846.	3.2	4
111	Broadband energy squeezing and tunneling based on unidirectional modes. <i>Optical Materials Express</i> , 2021, 11, 2975.	1.6	4
112	Waveguide-based optofluidics. <i>Proceedings of SPIE</i> , 2010, , .	0.8	3
113	Plasmon resonance optical tuning based on photosensitive composite structures. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2014, 31, 360.	0.9	3
114	Mechanically scanned leaky-wave antenna based on a topological one-way waveguide. <i>Frontiers of Physics</i> , 2020, 15, 1.	2.4	3
115	Realization of tunable index-near-zero modes in nonreciprocal magneto-optical heterostructures. <i>Optics Express</i> , 2022, 30, 27259.	1.7	3
116	Doppler effects in a left-handed material: A first-principles theoretical study. <i>Microwave and Optical Technology Letters</i> , 2005, 47, 76-79.	0.9	2
117	Broadband antireflection nanodome structures on SiC substrate. , 2013, , .		2
118	Silicon Photonic Polarization Multiplexing Sensor with Both Large Range and High Resolution. <i>Sensors</i> , 2020, 20, 5870.	2.1	2
119	Luminescence in external dopant-free scandium-phosphorus vanadate solid solution: a spectroscopic and theoretical investigation. <i>Materials Advances</i> , 2020, 1, 2467-2482.	2.6	2
120	Experimental demonstration of 2D photonic crystal surface cavity in amorphous silicon on silica structure. , 2007, , .		1
121	Liquid-infiltrated photonic crystals for lab-on-a-chip applications. <i>Proceedings of SPIE</i> , 2007, , .	0.8	1
122	Nanoimprinted polymer photonic crystal dye lasers. , 2010, , .		1
123	Graphene nanophotonics: From fundamentals to applications. , 2016, , .		1
124	Negative refraction in semiconductor photonic crystals. , 2005, , .		0
125	Optical microcavity based on zero-group-velocity surface modes in photonic crystals. , 2005, , .		0
126	Channel drop filters realized in a surface plasmon-polaritons metal. , 2006, , .		0



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127	Guided plasmon polaritons for triangular metallic waveguides. , 2008, , .		0
128	Effect of loss on slow-light enhanced absorption in liquid-infiltrated photonic crystals. , 2008, , .		0
129	Low-loss intersection of subwavelength plasmonic slot waveguides. Proceedings of SPIE, 2008, , .	0.8	0
130	Thermo-Optic Stabilization of Optofluidic Photonic Crystal Resonators. , 2009, , .		0
131	Reply to "Comment on "Stability and quality factor of a one-dimensional subwavelength cavity resonator containing a left-handed material" <sup>TM</sup> <sup>TM</sup> " <sup>TM</sup> . Physical Review B, 2009, 79, .	1.1	0
132	Experimental investigation of Fang's Ag superlens suitable for integration. , 2009, , .		0
133	Geometrical tuning of nanoscale split-ring resonators. , 2010, , .		0
134	Antenna-assisted enhanced transmission through subwavelength nanoholes. , 2010, , .		0
135	Capacitance tuning of nanoscale split-ring resonators. Proceedings of SPIE, 2010, , .	0.8	0
136	Quenched transmission of light through ultrathin metal films. Proceedings of SPIE, 2011, , .	0.8	0
137	Enhanced light absorption in an ultrathin silicon solar cell utilizing plasmonic nanostructures. Proceedings of SPIE, 2012, , .	0.8	0
138	Active resonance tuning of stretchable plasmonic structures. , 2012, , .		0
139	Propagation and excitation of graphene plasmon polaritons. , 2013, , .		0
140	Excitation of plasmon modes in a graphene monolayer supported on a 2D subwavelength silicon grating. , 2013, , .		0
141	Phase study of the generated surface plasmon waves in light transmission through a subwavelength aperture. Journal of Nanophotonics, 2014, 8, 083094.	0.4	0
142	Advances on integrated microwave photonics. , 2017, , .		0
143	High-performance Silicon/Graphene Photodetector Employing Double Slot Structure. , 2021, , .		0
144	Enhancement of Polymer Dye Lasers by Multifunctional Photonic Crystal Lattice. , 2009, , .		0

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145	Plasmonic Nanostructures: Tailoring Light-matter Interaction. , 2012, , .		0
146	Advances on silicon-based integrated microwave photonics. , 2018, , .		0
147	Large Modulation Depth Photonic Crystal Waveguide Electro-Absorption Modulator. , 2019, , .		0