

# Shuyuan Xiao

## List of Publications by Year in descending order

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84  
papers

3,586  
citations

117453

34  
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143772

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84  
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84  
docs citations

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times ranked

2041  
citing authors

#	ARTICLE	IF	CITATIONS
1	Active modulation of electromagnetically induced transparency analogue in terahertz hybrid metal-graphene metamaterials. <i>Carbon</i> , 2018, 126, 271-278.	5.4	382
2	Active metamaterials and metadevices: a review. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 503002.	1.3	261
3	Symmetry-protected bound states in the continuum supported by all-dielectric metasurfaces. <i>Physical Review A</i> , 2019, 100, .	1.0	205
4	Tunable light trapping and absorption enhancement with graphene ring arrays. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 26661-26669.	1.3	164
5	Controlling light absorption of graphene at critical coupling through magnetic dipole quasi-bound states in the continuum resonance. <i>Physical Review B</i> , 2020, 102, .	1.1	135
6	Strong interaction between graphene layer and Fano resonance in terahertz metamaterials. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 195101.	1.3	104
7	Tailoring the absorption bandwidth of graphene at critical coupling. <i>Physical Review B</i> , 2020, 102, .	1.1	85
8	Tunable Anisotropic Absorption in Hyperbolic Metamaterials Based on Black Phosphorous/Dielectric Multilayer Structures. <i>Journal of Lightwave Technology</i> , 2019, 37, 3290-3297.	2.7	76
9	Broadband wide-angle multilayer absorber based on a broadband omnidirectional optical Tamm state. <i>Optics Express</i> , 2021, 29, 23976.	1.7	75
10	Two-dimensional CdS/g-C <sub>6</sub> N <sub>6</sub> heterostructure used for visible light photocatalysis. <i>Applied Surface Science</i> , 2019, 471, 162-167.	3.1	72
11	Tunable ultra-high-efficiency light absorption of monolayer graphene using critical coupling with guided resonance. <i>Optics Express</i> , 2017, 25, 27028.	1.7	70
12	Tunable Graphene-based Plasmonic Perfect Metamaterial Absorber in the THz Region. <i>Micromachines</i> , 2019, 10, 194.	1.4	70
13	Dynamically tunable plasmon induced transparency in a graphene-based nanoribbon waveguide coupled with graphene rectangular resonators structure on sapphire substrate. <i>Optics Express</i> , 2015, 23, 31945.	1.7	66
14	Biaxial strain tunable photocatalytic properties of 2D ZnO/GeC heterostructure. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 015104.	1.3	65
15	Polarization-controlled dynamically switchable high-harmonic generation from all-dielectric metasurfaces governed by dual bound states in the continuum. <i>Physical Review B</i> , 2022, 105, .	1.1	65
16	A Tunable Plasmonic Refractive Index Sensor with Nanoring-Strip Graphene Arrays. <i>Sensors</i> , 2018, 18, 4489.	2.1	62
17	Tunable triple-band graphene refractive index sensor with good angle-polarization tolerance. <i>Optics Communications</i> , 2019, 436, 57-62.	1.0	60
18	Optical radiation manipulation of Si-Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> hybrid metasurfaces. <i>Optics Express</i> , 2020, 28, 9690.	1.7	59

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19	Plasmonic absorption characteristics based on dumbbell-shaped graphene metamaterial arrays. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2018, 103, 93-98.	1.3	56
20	Numerical investigation of a tunable metamaterial perfect absorber consisting of two-intersecting graphene nanoring arrays. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019, 383, 3030-3035.	0.9	56
21	Imaging Through a Fano-Resonant Dielectric Metasurface Governed by Quasi-bound States in the Continuum. <i>Physical Review Applied</i> , 2020, 14, .	1.5	53
22	Ultra-large omnidirectional photonic band gaps in one-dimensional ternary photonic crystals composed of plasma, dielectric and hyperbolic metamaterial. <i>Optical Materials</i> , 2021, 111, 110680.	1.7	53
23	Dual quasibound states in the continuum in compound grating waveguide structures for large positive and negative Goos-Hänchen shifts with perfect reflection. <i>Physical Review A</i> , 2021, 104, .	1.0	51
24	Dynamically controllable plasmon induced transparency based on hybrid metal-graphene metamaterials. <i>Scientific Reports</i> , 2017, 7, 13917.	1.6	49
25	Independently tunable dual-spectral electromagnetically induced transparency in a terahertz metal-graphene metamaterial. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 415105.	1.3	49
26	Binary island-shaped arrays with high-density hot spots for surface-enhanced Raman scattering substrates. <i>Nanoscale</i> , 2018, 10, 14220-14229.	2.8	48
27	Black phosphorus-based anisotropic absorption structure in the mid-infrared. <i>Optics Express</i> , 2019, 27, 27618.	1.7	48
28	Bandwidth-tunable near-infrared perfect absorption of graphene in a compound grating waveguide structure supporting quasi-bound states in the continuum. <i>Optics Express</i> , 2021, 29, 41975.	1.7	48
29	Plasmonic Absorption Enhancement in Elliptical Graphene Arrays. <i>Nanomaterials</i> , 2018, 8, 175.	1.9	47
30	Strain-Tunable Visible-Light-Responsive Photocatalytic Properties of Two-Dimensional CdS/g-C <sub>3</sub> N <sub>4</sub> : A Hybrid Density Functional Study. <i>Nanomaterials</i> , 2019, 9, 244.	1.9	46
31	Strong coupling between excitons and magnetic dipole quasi-bound states in the continuum in WS <sub>2</sub> -TiO <sub>2</sub> hybrid metasurfaces. <i>Optics Express</i> , 2021, 29, 18026.	1.7	44
32	Wide-angle polarization selectivity based on anomalous defect mode in photonic crystal containing hyperbolic metamaterials. <i>Optics Letters</i> , 2022, 47, 2153.	1.7	40
33	High Sensitivity Nanoplasmonic Sensor Based on Plasmon-Induced Transparency in a Graphene Nanoribbon Waveguide Coupled with Detuned Graphene Square-Nanoring Resonators. <i>Plasmonics</i> , 2017, 12, 1449-1455.	1.8	39
34	Approaching perfect absorption of monolayer molybdenum disulfide at visible wavelengths using critical coupling. <i>Nanotechnology</i> , 2018, 29, 335205.	1.3	37
35	Tunable absorption enhancement in periodic elliptical hollow graphene arrays. <i>Optical Materials Express</i> , 2019, 9, 706.	1.6	36
36	Hybrid density functional study on the photocatalytic properties of AlN/MoSe <sub>2</sub> , AlN/WS <sub>2</sub> , and AlN/WSe <sub>2</sub> heterostructures. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 025109.	1.3	35

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37	Active manipulation of electromagnetically induced transparency in a terahertz hybrid metamaterial. <i>Optics Communications</i> , 2018, 426, 629-634.	1.0	35
38	Tunable plasmonic resonance absorption characteristics in periodic H-shaped graphene arrays. <i>Superlattices and Microstructures</i> , 2018, 120, 427-435.	1.4	33
39	Synergistic plasmon resonance coupling and light capture in ordered nanoarrays as ultrasensitive and reproducible SERS substrates. <i>Nanoscale</i> , 2020, 12, 18056-18066.	2.8	33
40	Enhancing Goos-Hänchen shift based on magnetic dipole quasi-bound states in the continuum in all-dielectric metasurfaces. <i>Optics Express</i> , 2021, 29, 29541.	1.7	33
41	An Ultrasensitive and Multispectral Refractive Index Sensor Design Based on Quad-Supercell Metamaterials. <i>Plasmonics</i> , 2017, 12, 185-191.	1.8	30
42	Active Control of Near-Field Coupling in a Terahertz Metal-Graphene Metamaterial. <i>IEEE Photonics Technology Letters</i> , 2017, 29, 1998-2001.	1.3	30
43	Terahertz high-Q quasi-bound states in the continuum in laser-fabricated metallic double-slit arrays. <i>Optics Express</i> , 2021, 29, 24779.	1.7	27
44	Plasmonic absorption enhancement in graphene circular and elliptical disk arrays. <i>Materials Research Express</i> , 2019, 6, 045807.	0.8	22
45	2D Hexagonal Boron Nitride/Cadmium Sulfide Heterostructure as a Promising Water-Splitting Photocatalyst. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 1900431.	0.7	22
46	Tailoring anisotropic absorption in a borophene-based structure via critical coupling. <i>Optics Express</i> , 2021, 29, 8941.	1.7	22
47	Manipulating strong coupling between exciton and quasibound states in the continuum resonance. <i>Physical Review B</i> , 2022, 105, .	1.1	22
48	Tunable Photocatalytic Properties of GaN-Based Two-Dimensional Heterostructures. <i>Physica Status Solidi (B): Basic Research</i> , 2018, 255, 1800133.	0.7	21
49	Tailoring electromagnetic responses in a coupled-grating system with combined modulation of near-field and far-field couplings. <i>Physical Review B</i> , 2022, 105, .	1.1	21
50	Absorption enhancement in double-layer cross-shaped graphene arrays. <i>Materials Research Express</i> , 2018, 5, 015605.	0.8	20
51	Low-power, ultrafast, and dynamic all-optical tunable plasmon induced transparency in two stub resonators side-coupled with a plasmonic waveguide system. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 455107.	1.3	19
52	Five-Band Terahertz Perfect Absorber Based on Metal Layer-Coupled Dielectric Metamaterial. <i>Plasmonics</i> , 2019, 14, 1621-1628.	1.8	19
53	Methodology for High Purity Broadband Near-Unity THz Linear Polarization Converter and its Switching Characteristics. <i>IEEE Access</i> , 2020, 8, 46505-46517.	2.6	19
54	A Spectrally Tunable Plasmonic Photosensor with an Ultrathin Semiconductor Region. <i>Plasmonics</i> , 2018, 13, 897-902.	1.8	18

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55	Active control of electromagnetically induced transparency analog in all-dielectric metamaterials loaded with graphene. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 505105.	1.3	18
56	Engineering light absorption at critical coupling via bound states in the continuum. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, 1325.	0.9	17
57	Tunable anisotropic absorption in monolayer black phosphorus using critical coupling. <i>Applied Physics Express</i> , 2020, 13, 012010.	1.1	16
58	Hybrid Density Functional Study on the Photocatalytic Properties of Two-dimensional g-ZnO Based Heterostructures. <i>Nanomaterials</i> , 2018, 8, 374.	1.9	15
59	Tailoring slow light with a metal-graphene hybrid metasurface in the terahertz regime. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2019, 36, E48.	0.9	15
60	Tuning nonlinear second-harmonic generation in AlGaAs nanoantennas via chalcogenide phase-change material. <i>Physical Review B</i> , 2021, 104, .	1.1	14
61	Dynamically tunable electromagnetically induced transparency in a terahertz hybrid metamaterial. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2018, 104, 229-232.	1.3	12
62	Two dimensional ZnO/AlN composites used for photocatalytic water-splitting: a hybrid density functional study. <i>RSC Advances</i> , 2019, 9, 36234-36239.	1.7	12
63	Third- and Second-Harmonic Generation in All-Dielectric Nanostructures: A Mini Review. <i>Frontiers in Nanotechnology</i> , 2022, 4, .	2.4	12
64	Rotational design of BP/XY <sub>2</sub> (X=Mo, W; Y=S, Se) composites for overall photocatalytic water-splitting. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 465002.	0.7	10
65	Strong interaction between graphene and localized hot spots in all-dielectric metasurfaces. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 385102.	1.3	10
66	Gain-assisted critical coupling for enhanced optical absorption in graphene. <i>Nanotechnology</i> , 2021, 32, 205202.	1.3	10
67	Complete redshift photonic bandgap and dual-wavelength polarization selection in periodic multilayer structure containing hyperbolic metamaterial. <i>Optics Communications</i> , 2021, 495, 127117.	1.0	9
68	Tunable light trapping and absorption enhancement with graphene-based complementary metasurfaces. <i>Optical Materials Express</i> , 2019, 9, 1469.	1.6	9
69	Actively tunable slow light in a terahertz hybrid metal-graphene metamaterial. <i>Journal of Optics (United Kingdom)</i> , 2019, 21, 035101.	1.0	8
70	Entanglement in Mixed-Spin (1/2, 3/2) Heisenberg XXZ Model with Dzyaloshinskii-Moriya Interaction. <i>International Journal of Theoretical Physics</i> , 2016, 55, 875-885.	0.5	7
71	Influence of Dzyaloshinskii-Moriya interaction on measurement-induced disturbance in a mixed-spin Heisenberg XXZ model with an inhomogeneous magnetic field. <i>Physica B: Condensed Matter</i> , 2015, 477, 40-44.	1.3	5
72	Polarization and angular sensibility in the natural hyperbolic hexagonal boron nitride arrays. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 435104.	1.3	4

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73	2D CdO-Based Heterostructure as a Promising Visible Light Water-Splitting Photocatalyst. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 1900859.	0.8	4
74	Frequency-tunable wide-angle polarization selection with a graphene-based anisotropic epsilon-near-zero metamaterial. <i>Journal of Optics (United Kingdom)</i> , 2022, 24, 024004.	1.0	4
75	Five-body Moshinsky brackets. <i>Journal of Mathematical Physics</i> , 2015, 56, .	0.5	3
76	Effect of Dzyaloshinskii-Moriya Interaction on Thermal Quantum Correlation in a Two-Qubit Heisenberg XXZ Model with an Inhomogeneous External Magnetic Field. <i>Journal of Superconductivity and Novel Magnetism</i> , 2016, 29, 367-374.	0.8	3
77	Angular and Wavelength Simultaneous Selection in Transparent OPVs Based on Near-Infrared Bragg Reflector and Antireflection Coating. <i>IEEE Photonics Journal</i> , 2017, 9, 1-8.	1.0	3
78	Highly efficient asymmetric optical transmission by unbalanced excitation of surface evanescent waves in a single-layer dielectric gradient metasurface. <i>Applied Physics Express</i> , 2019, 12, 055010.	1.1	3
79	Independent bases on the spatial wavefunction of four-identical-particle systems. <i>Journal of Mathematical Physics</i> , 2013, 54, .	0.5	2
80	A Mathematica program for the calculation of five-body Moshinsky brackets. <i>Computer Physics Communications</i> , 2016, 203, 238-244.	3.0	2
81	Perfect absorption in free-standing GaAs nanocylinder arrays by degenerate critical coupling. <i>Optical Materials</i> , 2021, 121, 111558.	1.7	2
82	Tunable light trapping and absorption engineering with graphene in the infrared regime. , 2017, , .		0
83	Ultra-high-efficiency light absorption of monolayer graphene at telecommunication wavelengths by critical coupling. , 2017, , .		0
84	Tunable plasmonic resonance absorption characteristics and good angle polarization insensitive based on periodic H-shaped graphene arrays. , 2018, , .		0