Zhipei Sun

List of Publications by Year
in descending order

138 papers	17,080 citations	28274 55 h-index	13771 129 g-index
138 all docs	138 docs citations	138 times ranked	17825 citing authors

#	Article	IF	Citations
1	Probing Electronic States in Monolayer Semiconductors through Static and Transient Thirdâ€Harmonic Spectroscopies. Advanced Materials, 2022, 34, e2107104.	21.0	10
2	Enhanced terahertz emission from mushroom-shaped InAs nanowire network induced by linear and nonlinear optical effects. Nanotechnology, 2022, 33, 085207.	2.6	4
3	Quantum photonics with layered 2D materials. Nature Reviews Physics, 2022, 4, 219-236.	26.6	82
4	Spatially indirect intervalley excitons in bilayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">W</mml:mi><mml:msub><mml:mi>Se</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math Physical Review B, 2022, 105, .	3.2	11
5	Switchable Photoresponse Mechanisms Implemented in Single van der Waals Semiconductor/Metal Heterostructure. ACS Nano, 2022, 16, 568-576.	14.6	29
6	Interlayer exciton complexes in bilayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mn Physical Review B, 2022, 105, .	3.2	10
7	Phase-matching-induced near-chirp-free solitons in normal-dispersion fiber lasers. Light: Science and Applications, 2022, 11, 25.	16.6	39
8	Optical Modification of 2D Materials: Methods and Applications. Advanced Materials, 2022, 34, e2110152.	21.0	29
9	Controllable Growth of Graphene Photonic Crystal Fibers with Tunable Optical Nonlinearity. ACS Photonics, 2022, 9, 961-968.	6.6	7
10	Molybdenum Disulfide/Doubleâ€Wall Carbon Nanotube Mixedâ€Dimensional Heterostructures. Advanced Materials Interfaces, 2022, 9, .	3.7	6
11	Chip-integrated van der Waals PN heterojunction photodetector with low dark current and high responsivity. Light: Science and Applications, 2022, 11, 101.	16.6	57
12	Ultra-high harmonic mode-locking with a micro-fiber knot resonator and Lyot filter. Optics Express, 2022, 30, 14770.	3.4	1
13	Ultrasensitive Midâ€Infrared Biosensing in Aqueous Solutions with Graphene Plasmons. Advanced Materials, 2022, 34, e2110525.	21.0	20
14	Graphene charge-injection photodetectors. Nature Electronics, 2022, 5, 281-288.	26.0	70
15	Engineering the Dipole Orientation and Symmetry Breaking with Mixedâ€Dimensional Heterostructures. Advanced Science, 2022, 9, e2200082.	11.2	8
16	On-chip photonics and optoelectronics with a van der Waals material dielectric platform. Nanoscale, 2022, 14, 9459-9465.	5.6	4
17	Inducing Strong Lightâ€"Matter Coupling and Optical Anisotropy in Monolayer MoS₂ with High Refractive Index Nanowire. ACS Applied Materials & Interfaces, 2022, 14, 31140-31147.	8.0	4
18	Coherent modulation of chiral nonlinear optics with crystal symmetry. Light: Science and Applications, 2022, 11, .	16.6	18

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19	Dual-gated monoâ€“bilayer graphene junctions. Nanoscale Advances, 2021, 3, 399-406.	4.6	3
20	Scalable graphene electroâ€“optical modulators for all-fibre pulsed lasers. Nanoscale, 2021, 13, 9873-9880.	5.6	11
21	Luminescent Gold Nanoclusterâ€Methylcellulose Composite Optical Fibers with Low Attenuation Coefficient and High Photostability. Small, 2021, 17, e2005205.	10.0	25
22	Engineering symmetry breaking in 2D layered materials. Nature Reviews Physics, 2021, 3, 193-206.	26.6	135
23	Integrated photon-pair sources with nonlinear optics. Applied Physics Reviews, 2021, 8, .	11.3	43
24	Deterministic Modification of CVD Grown Monolayer MoS₂ with Optical Pulses. Advanced Materials Interfaces, 2021, 8, 2002119.	3.7	6
25	Giant enhancement of optical nonlinearity in two-dimensional materials by multiphoton-excitation resonance energy transfer from quantum dots. Nature Photonics, 2021, 15, 510-515.	31.4	50
26	Optical Modification of Monolayer MoS₂: Deterministic Modification of CVD Grown Monolayer MoS₂ with Optical Pulses (Adv. Mater. Interfaces 10/2021). Advanced Materials Interfaces, 2021, 8, 2170056.	3.7	0
27	Soliton metamorphosis dynamics in ultrafast fiber lasers. Physical Review A, 2021, 103, .	2.5	10
28	Broadband Plasmon-Enhanced Four-Wave Mixing in Monolayer MoS₂. Nano Letters, 2021, 21, 6321-6327.	9.1	20
29	Giant All-Optical Modulation of Second-Harmonic Generation Mediated by Dark Excitons. ACS Photonics, 2021, 8, 2320-2328.	6.6	11
30	Giant anisotropic photonics in the 1D van der Waals semiconductor fibrous red phosphorus. Nature Communications, 2021, 12, 4822.	12.8	32
31	Complete structural characterization of single carbon nanotubes by Rayleigh scattering circular dichroism. Nature Nanotechnology, 2021, 16, 1073-1078.	31.5	18
32	Enhancing Si₃N₄ Waveguide Nonlinearity with Heterogeneous Integration of Few-Layer WS₂. ACS Photonics, 2021, 8, 2713-2721.	6.6	20
33	Single-step chemical vapour deposition of anti-pyramid MoS₂/WS₂ vertical heterostructures. Nanoscale, 2021, 13, 4537-4542.	5.6	17
34	Ultrafast transient sub-bandgap absorption of monolayer MoS2. Light: Science and Applications, 2021, 10, 27.	16.6	32
35	Multilayer MoTe₂ Fieldâ€Effect Transistor at High Temperatures. Advanced Materials Interfaces, 2021, 8, 2100950.	3.7	14
36	Tuning of Emission Wavelength of CaS:Eu by Addition of Oxygen Using Atomic Layer Deposition. Materials, 2021, 14, 5966.	2.9	2

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37	Synchronized multi-wavelength soliton fiber laser via intracavity group delay modulation. Nature Communications, 2021, 12, 6712.	12.8	67
38	Tunable Quantum Tunneling through a Graphene/Bi₂Se₃ Heterointerface for the Hybrid Photodetection Mechanism. ACS Applied Materials & Interfaces, 2021, 13, 58927-58935.	8.0	10
39	Soliton Mode-Locked Large-Mode-Area Tm-Doped Fiber Oscillator. IEEE Photonics Technology Letters, 2020, 32, 117-120.	2.5	7
40	High performance complementary WS₂ devices with hybrid Gr/Ni contacts. Nanoscale, 2020, 12, 21280-21290.	5.6	27
41	Potential for sub-mm long erbium-doped composite silicon waveguide DFB lasers. Scientific Reports, 2020, 10, 10878.	3.3	4
42	A general ink formulation of 2D crystals for wafer-scale inkjet printing. Science Advances, 2020, 6, eaba5029.	10.3	89
43	2D materials as a new platform for photonic applications. Frontiers of Optoelectronics, 2020, 13, 89-90.	3.7	0
44	Observation of logarithmic Kohn anomaly in monolayer graphene. Physical Review B, 2020, 102, .	3.2	6
45	Optical fibres with embedded two-dimensional materials for ultrahigh nonlinearity. Nature Nanotechnology, 2020, 15, 987-991.	31.5	94
46	Difference frequency generation in monolayer MoS₂. Nanoscale, 2020, 12, 19638-19643.	5.6	14
47	Carboxyl graphene oxide mode-locked femtosecond fiber laser. Applied Physics Express, 2020, 13, 082001.	2.4	4
48	High-Power Femtosecond Pulse Generation From an All-Fiber Er-Doped Chirped Pulse Amplification System. IEEE Photonics Journal, 2020, 12, 1-8.	2.0	3
49	Electrical Control of Interband Resonant Nonlinear Optics in Monolayer MoS₂. ACS Nano, 2020, 14, 8442-8448.	14.6	34
50	Efficient Allâ€Optical Plasmonic Modulators with Atomically Thin Van Der Waals Heterostructures. Advanced Materials, 2020, 32, e1907105.	21.0	44
51	Precise control of the interlayer twist angle in large scale MoS2 homostructures. Nature Communications, 2020, 11, 2153.	12.8	142
52	Raman fingerprints and exciton-phonon coupling in 2D ternary layered semiconductor InSeBr. Applied Physics Letters, 2020, 116, 163105.	3.3	3
53	Graphene photonic crystal fibre with strong and tunable lightâ€“matter interaction. Nature Photonics, 2019, 13, 754-759.	31.4	127
54	Extreme nonlinear strong-field photoemission from carbon nanotubes. Nature Communications, 2019, 10, 4891.	12.8	16

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55	Activeâ€"passive Q-switched fiber laser based on graphene microfiber. Applied Physics B: Lasers and Optics, 2019, 125, 1.	2.2	5
56	Robust circular polarization of indirect Q-K transitions in bilayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>3</mml:mn><mml:mi>R</mml:mi><mml:mo>â^'</mml:m mathvariant="normal">W</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2019, 100, .	3.2	11
57	Lattice Dynamics, Phonon Chirality, and Spinâ€"Phonon Coupling in 2D Itinerant Ferromagnet Fe₃GeTe₂. Advanced Functional Materials, 2019, 29, 1904734.	14.9	70
58	Single-nanowire spectrometers. Science, 2019, 365, 1017-1020.	12.6	291
59	Ultra-high on-chip optical gain in erbium-based hybrid slot waveguides. Nature Communications, 2019, 10, 432.	12.8	100
60	High photoresponsivity and broadband photodetection with a band-engineered WSe₂/SnSe₂ heterostructure. Nanoscale, 2019, 11, 3240-3247.	5.6	84
61	Optical Amplification in Hollow-Core Negative-Curvature Fibers Doped with Perovskite CsPbBr3 Nanocrystals. Nanomaterials, 2019, 9, 868.	4.1	5
62	Single-photon sources with quantum dots in IIIâ€"V nanowires. Nanophotonics, 2019, 8, 747-769.	6.0	47
63	Strong and tunable interlayer coupling of infrared-active phonons to excitons in van der Waals heterostructures. Physical Review B, 2019, 99, .	3.2	17
64	Passively Mode-Locked Solid-State Laser With Absorption Tunable Graphene Saturable Absorber Mirror. Journal of Lightwave Technology, 2019, 37, 2927-2931.	4.6	16
65	Gas identification with graphene plasmons. Nature Communications, 2019, 10, 1131.	12.8	154
66	Giant Valley Coherence at Room Temperature in 3R WS ₂ with Broken Inversion Symmetry. Research, 2019, 2019, 6494565.	5.7	17
67	Vapourâ€"liquidâ€"solid growth of monolayer MoS2 nanoribbons. Nature Materials, 2018, 17, 535-542.	27.5	286
68	Inkjet Printed Largeâ€Area Flexible Fewâ€Layer Graphene Thermoelectrics. Advanced Functional Materials, 2018, 28, 1800480.	14.9	136
69	Nanomaterialâ€Based Plasmonâ€Enhanced Infrared Spectroscopy. Advanced Materials, 2018, 30, e1704896.	21.0	124
70	Wavelength and pulse duration tunable ultrafast fiber laser mode-locked with carbon nanotubes. Scientific Reports, 2018, 8, 2738.	3.3	57
71	Nonlinear Optics with 2D Layered Materials. Advanced Materials, 2018, 30, e1705963.	21.0	485
72	A MoSe₂/WSe₂ Heterojunctionâ€Based Photodetector at Telecommunication Wavelengths. Advanced Functional Materials, 2018, 28, 1804388.	14.9	95

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73	Optical harmonic generation in monolayer group-VI transition metal dichalcogenides. Physical Review B, 2018, 98, .	3.2	92
74	Ultrafast Lasers: Graphene Actively Mode-Locked Lasers (Adv. Funct. Mater. 28/2018). Advanced Functional Materials, 2018, 28, 1870194.	14.9	6
75	Graphene Actively Modeâ€Locked Lasers. Advanced Functional Materials, 2018, 28, 1801539.	14.9	39
76	Electrically tuned nonlinearity. Nature Photonics, 2018, 12, 383-385.	31.4	23
77	Flexible and Electrically Tunable Plasmons in Grapheneâ€“Mica Heterostructures. Advanced Science, 2018, 5, 1800175.	11.2	38
78	Grapheneâ€“MoS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml43" display="inline" overflow="scroll" altimg="si1.gif"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math>â€“metal hybrid structures for plasmonic biosensors. Optics Communications, 2018, 428, 233-239.	2.1	37
79	Nanowire networkâ€“based multifunctional all-optical logic gates. Science Advances, 2018, 4, eaar7954.	10.3	51
80	Photoresponse of Graphene-Gated Graphene-GaSe Heterojunction Devices. ACS Applied Nano Materials, 2018, 1, 3895-3902.	5.0	23
81	Measurement of complex optical susceptibility for individual carbon nanotubes by elliptically polarized light excitation. Nature Communications, 2018, 9, 3387.	12.8	18
82	Lowâ€Power Continuousâ€Wave Second Harmonic Generation in Semiconductor Nanowires. Laser and Photonics Reviews, 2018, 12, 1800126.	8.7	6
83	Nonlinear Optics: Nonlinear Optics with 2D Layered Materials (Adv. Mater. 24/2018). Advanced Materials, 2018, 30, 1870172.	21.0	8
84	Ultrafast all-fiber based cylindrical-vector beam laser. Applied Physics Letters, 2017, 110, .	3.3	69
85	Rapid and Large-Area Characterization of Exfoliated Black Phosphorus Using Third-Harmonic Generation Microscopy. Journal of Physical Chemistry Letters, 2017, 8, 1343-1350.	4.6	68
86	Graphene actively Q-switched lasers. 2D Materials, 2017, 4, 025095.	4.4	34
87	Photonâ€Pair Generation with a 100 nm Thick Carbon Nanotube Film. Advanced Materials, 2017, 29, 1605978.	21.0	28
88	Carbon Nanotubes as an Ultrafast Emitter with a Narrow Energy Spread at Optical Frequency. Advanced Materials, 2017, 29, 1701580.	21.0	37
89	New Approach for Thickness Determination of Solution-Deposited Graphene Thin Films. ACS Omega, 2017, 2, 2630-2638.	3.5	8
90	Large-area tungsten disulfide for ultrafast photonics. Nanoscale, 2017, 9, 1871-1877.	5.6	126

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91	Ultra-strong nonlinear optical processes and trigonal warping in MoS2 layers. Nature Communications, 2017, 8, 893.	12.8	177
92	Black phosphorus ink formulation for inkjet printing of optoelectronics and photonics. Nature Communications, 2017, 8, 278.	12.8	311
93	Carbon Nanotubes: Carbon Nanotubes as an Ultrafast Emitter with a Narrow Energy Spread at Optical Frequency (Adv. Mater. 30/2017). Advanced Materials, 2017, 29, .	21.0	4
94	Probing optical anisotropy of nanometer-thin van der waals microcrystals by near-field imaging. Nature Communications, 2017, 8, 1471.	12.8	74
95	Monitoring Local Strain Vector in Atomic-Layered MoSe₂ by Second-Harmonic Generation. Nano Letters, 2017, 17, 7539-7543.	9.1	128
96	Carbon Nanotubes: Photonâ€Pair Generation with a 100 nm Thick Carbon Nanotube Film (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10	21.0	2
97	Optical Waveplates Based on Birefringence of Anisotropic Two-Dimensional Layered Materials. ACS Photonics, 2017, 4, 3023-3030.	6.6	144
98	Rapid visualization of grain boundaries in monolayer MoS2 by multiphoton microscopy. Nature Communications, 2017, 8, 15714.	12.8	120
99	All-Optical Intensity Modulator by Polarization-Dependent Graphene-Microfiber Waveguide. IEEE Photonics Journal, 2017, 9, 1-8.	2.0	6
100	Measurement of Nanowire Optical Modes Using Cross-Polarization Microscopy. Scientific Reports, 2017, 7, 17790.	3.3	6
101	Transition-metal dichalcogenides heterostructure saturable absorbers for ultrafast photonics. Optics Letters, 2017, 42, 4279.	3.3	79
102	Large-area highly crystalline WSe_2 atomic layers for ultrafast pulsed lasers. Optics Express, 2017, 25, 30020.	3.4	59
103	Farâ€Field Spectroscopy and Nearâ€Field Optical Imaging of Coupled Plasmonâ€"Phonon Polaritons in 2D van der Waals Heterostructures. Advanced Materials, 2016, 28, 2931-2938.	21.0	77
104	Single-wall carbon nanotubes and graphene oxide-based saturable absorbers for low phase noise mode-locked fiber lasers. Scientific Reports, 2016, 6, 25266.	3.3	74
105	Optical modulators with 2D layered materials. Nature Photonics, 2016, 10, 227-238.	31.4	1,188
106	Black phosphorus polycarbonate polymer composite for pulsed fibre lasers. Applied Materials Today, 2016, 4, 17-23.	4.3	87
107	152 fs nanotube-mode-locked thulium-doped all-fiber laser. Scientific Reports, 2016, 6, 28885.	3.3	86
108	Far-field nanoscale infrared spectroscopy of vibrational fingerprints of molecules with graphene plasmons. Nature Communications, 2016, 7, 12334.	12.8	237

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109	Two-dimensional material-based saturable absorbers: towards compact visible-wavelength all-fiber pulsed lasers. Nanoscale, 2016, 8, 1066-1072.	5.6	246
110	Surface plasmon resonance for characterization of large-area atomic-layer graphene film. Optica, 2016, 3, 151.	9.3	80
111	Polarization and Thickness Dependent Absorption Properties of Black Phosphorus: New Saturable Absorber for Ultrafast Pulse Generation. Scientific Reports, 2015, 5, 15899.	3.3	268
112	Ultrafast Lasers Enabled by Graphene and Other 2D Materials. , 2015, , .		0
113	High-power graphene mode-locked Tm/Ho co-doped fiber laser with evanescent field interaction. Scientific Reports, 2015, 5, 16624.	3.3	92
114	Broadband laser polarization control with aligned carbon nanotubes. Nanoscale, 2015, 7, 11199-11205.	5.6	14
115	Pulse dynamics in carbon nanotube mode-locked fiber lasers near zero cavity dispersion. Optics Express, 2015, 23, 9947.	3.4	46
116	Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. Nanoscale, 2015, 7, 4598-4810.	5.6	2,452
117	High repetition rate Q-switched radially polarized laser with a graphene-based output coupler. Applied Physics Letters, 2014, 105, .	3.3	17
118	High-power diode-side-pumped Nd:YAG solid laser mode-locked by CVD graphene. Optics Communications, 2014, 315, 204-207.	2.1	10
119	Double-Wall Carbon Nanotubes for Wide-Band, Ultrafast Pulse Generation. ACS Nano, 2014, 8, 4836-4847.	14.6	66
120	Tuning the nonlinear optical absorption of reduced graphene oxide by chemical reduction. Optics Express, 2014, 22, 19375.	3.4	69
121	Solution processing of graphene, topological insulators and other 2d crystals for ultrafast photonics. Optical Materials Express, 2014, 4, 63.	3.0	187
122	Broadband Graphene Saturable Absorber for Pulsed Fiber Lasers at 1, 1.5, and 2 Î¼m. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 411-415.	2.9	133
123	15 GHz picosecond pulse generation from a monolithic waveguide laser with a graphene-film saturable output coupler. Optics Express, 2013, 21, 7943.	3.4	111
124	Nanotube and graphene saturable absorbers for fibre lasers. Nature Photonics, 2013, 7, 842-845.	31.4	695
125	Versatile multi-wavelength ultrafast fiber laser mode-locked by carbon nanotubes. Scientific Reports, 2013, 3, 2718.	3.3	280
126	Passively Mode-Locked Radially Polarized Nd-Doped Yttrium Aluminum Garnet Laser Based on Graphene-Based Saturable Absorber. Applied Physics Express, 2013, 6, 082701.	2.4	18

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127	Production and processing of graphene and 2d crystals. Materials Today, 2012, 15, 564-589.	14.2	866
128	Inkjet-Printed Graphene Electronics. ACS Nano, 2012, 6, 2992-3006.	14.6	1,018
129	Fibre sources in the deep ultraviolet. Nature Photonics, 2011, 5, 446-447.	31.4	17
130	A stable, wideband tunable, near transform-limited, graphene-mode-locked, ultrafast laser. Nano Research, 2010, 3, 653-660.	10.4	351
131	Ultrafast stretched-pulse fiber laser mode-locked by carbon nanotubes. Nano Research, 2010, 3, 404-411.	10.4	133
132	Graphene Mode-Locked Ultrafast Laser. ACS Nano, 2010, 4, 803-810.	14.6	1,795
133	Nanotubeâ€"Polymer Composites for Ultrafast Photonics. Advanced Materials, 2009, 21, 3874-3899.	21.0	778
134	Carbon Nanotube Polycarbonate Composites for Ultrafast Lasers. Advanced Materials, 2008, 20, 4040-4043.	21.0	148
135	Widely tunable picosecond optical parametric generation and amplification in BiB3O6. Optics Express, 2007, 15, 4139.	3.4	21
136	High-beam-quality, 5.1J, 108Hz diode-pumped Nd:YAG rod oscillatorâ€"amplifier laser system. Optics Communications, 2006, 266, 39-43.	2.1	17
137	Efficient improvement of laser beam quality by coherent combining in an improved Michelson cavity. Optics Letters, 2005, 30, 1485.	3.3	32
138	Configuration to improve second-harmonic-generation conversion efficiency. Applied Optics, 2004, 43, 1174.	2.1	1