

Tian Jiang

List of Publications by Year in descending order

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127
papers

3,764
citations

117453

34
h-index

161609

54
g-index

128
all docs

128
docs citations

128
times ranked

4600
citing authors

#	ARTICLE	IF	CITATIONS
1	Temperature-dependent excitonic photoluminescence excited by two-photon absorption in perovskite CsPbBr ₃ quantum dots. <i>Optics Letters</i> , 2016, 41, 3821.	1.7	246
2	Ultrafast fiber lasers mode-locked by two-dimensional materials: review and prospect. <i>Photonics Research</i> , 2020, 8, 78.	3.4	242
3	Z-scan measurement of the nonlinear refractive index of monolayer WS ₂ . <i>Optics Express</i> , 2015, 23, 15616.	1.7	118
4	Soliton mode-locked fiber laser based on topological insulator Bi ₂ Te ₃ nanosheets at 2.14 μm. <i>Photonics Research</i> , 2015, 3, 72.	3.4	117
5	Characterization of nonlinear properties of black phosphorus nanoplatelets with femtosecond pulsed Z-scan measurements. <i>Optics Letters</i> , 2015, 40, 3480.	1.7	110
6	Thulium/holmium-doped fiber laser passively mode locked by black phosphorus nanoplatelets-based saturable absorber. <i>Applied Optics</i> , 2015, 54, 10290.	2.1	96
7	Molecular Beam Epitaxy-Grown SnSe in the Rocksalt Structure: An Artificial Topological Crystalline Insulator Material. <i>Advanced Materials</i> , 2015, 27, 4150-4154.	11.1	83
8	Nanosecond passively Q-switched thulium/holmium-doped fiber laser based on black phosphorus nanoplatelets. <i>Optical Materials Express</i> , 2016, 6, 603.	1.6	78
9	Anisotropic Nonlinear Optical Properties of a SnSe Flake and a Novel Perspective for the Application of All-Optical Switching. <i>Advanced Optical Materials</i> , 2019, 7, 1900631.	3.6	74
10	Bolometric Effect in Bi ₂ O ₂ Se Photodetectors. <i>Small</i> , 2019, 15, e1904482.	5.2	68
11	Observation of Ultrafast Exciton-Exciton Annihilation in CsPbBr ₃ Quantum Dots. <i>Advanced Optical Materials</i> , 2016, 4, 1993-1997.	3.6	64
12	Realizing an Epitaxial Decorated Stanene with an Insulating Bandgap. <i>Advanced Functional Materials</i> , 2018, 28, 1802723.	7.8	63
13	Hybrid/Integrated Silicon Photonics Based on 2D Materials in Optical Communication Nanosystems. <i>Laser and Photonics Reviews</i> , 2020, 14, 2000239.	4.4	63
14	Ultrafast interfacial energy transfer and interlayer excitons in the monolayer WS ₂ /CsPbBr ₃ quantum dot heterostructure. <i>Nanoscale</i> , 2018, 10, 1650-1659.	2.8	61
15	Ultrafast terahertz transmission/group delay switching in photoactive WSe ₂ -functionalized metaphotonic devices. <i>Nano Energy</i> , 2020, 68, 104280.	8.2	61
16	Uniform Gold-Nanoparticle-Decorated {001}-Faceted Anatase TiO ₂ Nanosheets for Enhanced Solar-Light Photocatalytic Reactions. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 36907-36916.	4.0	59
17	Thickness-dependent nonlinear optical properties of CsPbBr ₃ perovskite nanosheets. <i>Optics Letters</i> , 2017, 42, 3371.	1.7	59
18	Ultrafast Carrier Transfer Promoted by Interlayer Coulomb Coupling in 2D/3D Perovskite Heterostructures. <i>Laser and Photonics Reviews</i> , 2018, 12, 1800128.	4.4	59

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19	Determining the Optimized Interlayer Separation Distance in Vertical Stacked 2D WS ₂ :hBN:MoS ₂ Heterostructures for Exciton Energy Transfer. <i>Small</i> , 2018, 14, e1703727.	5.2	54
20	Ultrafast saturable absorption of MoS ₂ nanosheets under different pulse-width excitation conditions. <i>Optics Letters</i> , 2018, 43, 243.	1.7	54
21	Routing valley exciton emission of a WS ₂ monolayer via delocalized Bloch modes of in-plane inversion-symmetry-broken photonic crystal slabs. <i>Light: Science and Applications</i> , 2020, 9, 148.	7.7	54
22	All-optical modulation with 2D layered materials: status and prospects. <i>Nanophotonics</i> , 2020, 9, 2107-2124.	2.9	51
23	Controlled Layer-by-Layer Oxidation of MoTe ₂ via O ₃ Exposure. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 30045-30050.	4.0	49
24	Broadband High-Responsivity Photodetectors Based on Large-Scale Topological Crystalline Insulator SnTe Ultrathin Film Grown by Molecular Beam Epitaxy. <i>Advanced Optical Materials</i> , 2017, 5, 1600727.	3.6	48
25	Large range modification of exciton species in monolayer WS ₂ . <i>Applied Optics</i> , 2016, 55, 6251.	2.1	42
26	Distinctive Interfacial Charge Behavior and Versatile Photoresponse Performance in Isotropic/Anisotropic WS ₂ /ReS ₂ Heterojunctions. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 53475-53483.	4.0	42
27	Nonlinear absorption and temperature-dependent fluorescence of perovskite FAPbBr ₃ nanocrystal. <i>Optics Letters</i> , 2018, 43, 122.	1.7	41
28	Optically controlled terahertz modulator by liquid-exfoliated multilayer WS ₂ nanosheets. <i>Optics Express</i> , 2017, 25, 16364.	1.7	38
29	Ultrafast Terahertz Frequency and Phase Tuning by All-Optical Molecularization of Metasurfaces. <i>Advanced Optical Materials</i> , 2019, 7, 1901050.	3.6	38
30	Ultrafast all-optical terahertz modulation based on an inverse-designed metasurface. <i>Photonics Research</i> , 2021, 9, 1099.	3.4	38
31	Bi ₂ Se ₃ -Functionalized Metasurfaces for Ultrafast All-Optical Switching and Efficient Modulation of Terahertz Waves. <i>ACS Photonics</i> , 2021, 8, 771-780.	3.2	38
32	Broadband ultrafast nonlinear absorption and ultra-long exciton relaxation time of black phosphorus quantum dots. <i>Optics Express</i> , 2017, 25, 7507.	1.7	37
33	Ultrasensitive polarization-dependent terahertz modulation in hybrid perovskites plasmon-induced transparency devices. <i>Photonics Research</i> , 2019, 7, 994.	3.4	37
34	Enhancing exciton binding energy and photoluminescence of formamidinium lead bromide by reducing its dimensions to 2D nanoplates for producing efficient light emitting diodes. <i>Nanoscale</i> , 2018, 10, 20611-20617.	2.8	36
35	Tunable Infrared Emissivity in Multilayer Graphene by Ionic Liquid Intercalation. <i>Nanomaterials</i> , 2019, 9, 1096.	1.9	36
36	Acoustic phonon recycling for photocarrier generation in graphene-WS ₂ heterostructures. <i>Nature Communications</i> , 2020, 11, 3876.	5.8	36

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37	Exploiting deep learning network in optical chirality tuning and manipulation of diffractive chiral metamaterials. <i>Nanophotonics</i> , 2020, 9, 2945-2956.	2.9	36
38	Saturated absorption of different layered Bi ₂ Se ₃ films in the resonance zone. <i>Photonics Research</i> , 2018, 6, C8.	3.4	35
39	Low-latency deep-reinforcement learning algorithm for ultrafast fiber lasers. <i>Photonics Research</i> , 2021, 9, 1493.	3.4	35
40	Broadband ultrafast photovoltaic detectors based on large-scale topological insulator Sb ₂ Te ₃ /STO heterostructures. <i>Nanoscale</i> , 2017, 9, 9325-9332.	2.8	34
41	Pump-Color Selective Control of Ultrafast All-Optical Switching Dynamics in Metaphotonic Devices. <i>Advanced Science</i> , 2020, 7, 2000799.	5.6	34
42	All-Inorganic Quantum Dot Light-Emitting Diodes with Suppressed Luminance Quenching Enabled by Chloride Passivated Tungsten Phosphate Hole Transport Layers. <i>Small</i> , 2021, 17, e2100030.	5.2	33
43	Photo-induced excitonic structure renormalization and broadband absorption in monolayer tungsten disulphide. <i>Optics Express</i> , 2018, 26, 859.	1.7	32
44	Near-Infrared Photoelectric Properties of Multilayer Bi ₂ O ₂ Se Nanofilms. <i>Nanoscale Research Letters</i> , 2019, 14, 371.	3.1	31
45	Ultrafast Frequency Shift of Electromagnetically Induced Transparency in Terahertz Metaphotonic Devices. <i>Laser and Photonics Reviews</i> , 2020, 14, 1900338.	4.4	31
46	Enhanced Terahertz Radiation by Efficient Spin-to-Charge Conversion in Rashba-Mediated Dirac Surface States. <i>Nano Letters</i> , 2021, 21, 60-67.	4.5	31
47	Giant photoluminescence enhancement in monolayer WS ₂ by energy transfer from CsPbBr ₃ quantum dots. <i>Optical Materials Express</i> , 2017, 7, 1327.	1.6	30
48	Layer-dependent dielectric permittivity of topological insulator Bi ₂ Se ₃ thin films. <i>Applied Surface Science</i> , 2020, 509, 144822.	3.1	29
49	Optical circular dichroism engineering in chiral metamaterials utilizing a deep learning network. <i>Optics Letters</i> , 2020, 45, 1403.	1.7	28
50	Ultrahigh-brightness, spectrally-flat, short-wave infrared supercontinuum source for long-range atmospheric applications. <i>Optics Express</i> , 2016, 24, 20010.	1.7	27
51	Sub-100 fs all-fiber broadband electro-optic optical frequency comb at 1.5-μm. <i>Optics Express</i> , 2020, 28, 34761.	1.7	27
52	A polarized nonlinear optical response in a topological insulator Bi ₂ Se ₃ -Au nanoantenna hybrid-structure for all-optical switching. <i>Nanoscale</i> , 2019, 11, 14598-14606.	2.8	26
53	Controlling Photoluminescence Enhancement and Energy Transfer in WS ₂ :hBN Vertical Stacks by Precise Interlayer Distances. <i>Small</i> , 2020, 16, e1905985.	5.2	26
54	Giant nonlinear absorption and excited carrier dynamics of black phosphorus few-layer nanosheets in broadband spectra. <i>Applied Optics</i> , 2016, 55, 10307.	2.1	25

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55	Fabrication of a reversible SnS ₂ /RGO nanocomposite for high performance lithium storage. RSC Advances, 2016, 6, 32414-32421.	1.7	24
56	Thickness-dependent carrier and phonon dynamics of topological insulator Bi ₂ Te ₃ thin films. Optics Express, 2017, 25, 14635.	1.7	24
57	Spatiotemporal Terahertz Metasurfaces for Ultrafast All-Optical Switching with Electrically-Triggered Bistability. Laser and Photonics Reviews, 2021, 15, 2000456.	4.4	24
58	Interacting plexcitons for designed ultrafast optical nonlinearity in a monolayer semiconductor. Light: Science and Applications, 2022, 11, 94.	7.7	24
59	Controllable all-optical modulation speed in hybrid silicon-germanium devices utilizing the electromagnetically induced transparency effect. Nanophotonics, 2020, 9, 2797-2807.	2.9	23
60	All-fiber thulium/holmium-doped mode-locked laser by tungsten disulfide saturable absorber. Laser Physics, 2017, 27, 015102.	0.6	22
61	Electron-phonon coupling in topological insulator Bi ₂ Se ₃ thin films with different substrates. Chinese Optics Letters, 2019, 17, 020005.	1.3	22
62	Spatiotemporal Lineshape Tailoring in BIC-Mediated Reconfigurable Metamaterials. Advanced Functional Materials, 2022, 32, .	7.8	20
63	Ultrafast Response of a Hybrid Device Based on Strongly Coupled Monolayer WS ₂ and Photonic Crystals: The Effect of Photoinduced Coulombic Screening. Laser and Photonics Reviews, 2020, 14, 1900419.	4.4	18
64	Bifunctional Spatiotemporal Metasurfaces for Incident Angle-Tunable and Ultrafast Optically Switchable Electromagnetically Induced Transparency. Small, 2021, 17, 2006489.	5.2	18
65	Sensitive SERS detection at the single-particle level based on nanometer-separated mushroom-shaped plasmonic dimers. Nanotechnology, 2018, 29, 105301.	1.3	17
66	Tunable photoluminescence of bilayer MoS ₂ via interlayer twist. Optical Materials, 2019, 94, 213-216.	1.7	17
67	Dimensional Crossover and Topological Nature of the Thin Films of a Three-Dimensional Topological Insulator by Band Gap Engineering. Nano Letters, 2019, 19, 4627-4633.	4.5	16
68	Helicity-dependent THz emission induced by ultrafast spin photocurrent in nodal-line semimetal candidate Mg ₃ Bi ₂ . Opto-Electronic Advances, 2020, 3, 20002301-20002315.	6.4	16
69	Visualized charge transfer processes in monolayer composition-graded WS ₂ /Se ₂ (1 \times 1) lateral heterojunctions via ultrafast microscopy mapping. Optics Express, 2018, 26, 15867.	1.7	15
70	Experimental Evidence of Topological Surface States in Mg ₃ Bi ₂ Films Grown by Molecular Beam Epitaxy*. Chinese Physics Letters, 2019, 36, 117303.	1.3	15
71	Polarization-tunable nonlinear absorption patterns from saturated absorption to reverse saturated absorption in anisotropic GeS flake and an application of all-optical switching. Science China Materials, 2020, 63, 1489-1502.	3.5	15
72	FPGA Implementation of an Improved OMP for Compressive Sensing Reconstruction. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2021, 29, 259-272.	2.1	14

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73	Ultrafast exciton transfer in perovskite CsPbBr ₃ quantum dots and topological insulator Bi ₂ Se ₃ film heterostructure. Nanotechnology, 2019, 30, 325702.	1.3	13
74	Quantum Transport Signatures of a Close Candidate for a Type II Nodal-Line Semimetal. Journal of Physical Chemistry Letters, 2020, 11, 6475-6481.	2.1	13
75	Thickness-Independent Energy Dissipation in Graphene Electronics. ACS Applied Materials & Interfaces, 2020, 12, 17706-17712.	4.0	13
76	Photoluminescence enhancement and ultrafast relaxation dynamics in a low-dimensional heterostructure: effect of plasmon-exciton coupling. Optics Letters, 2018, 43, 6093.	1.7	13
77	Ultrafast nonlinear absorption enhancement of monolayer MoS ₂ with plasmonic Au nanoantennas. Optics Letters, 2019, 44, 3198.	1.7	13
78	Multidimensional engineered metasurface for ultrafast terahertz switching at frequency-agile channels. Nanophotonics, 2022, 11, 1367-1378.	2.9	13
79	Light-Driven Spintronic Heterostructures for Coded Terahertz Emission. ACS Nano, 2022, 16, 8294-8300.	7.3	13
80	Self-starting all-fiber PM Er: laser mode locked by a biased nonlinear amplifying loop mirror*. Chinese Physics B, 2019, 28, 124203.	0.7	12
81	Polarization-Dependent and Wavelength-Tunable Optical Limiting and Transparency of Multilayer Selenium-Doped Black Phosphorus. Advanced Optical Materials, 2021, 9, .	3.6	12
82	Terahertz Generation via Picosecond Spin-to-Charge Conversion in MnMn_3Mn Heterojunction. Physical Review Applied, 2021, 16, .	1.5	12
83	A 200 MHz Compact Environmentally-Stable Mode-Locked Figure-9 Fiber Laser. IEEE Photonics Journal, 2021, 13, 1-5.	1.0	12
84	Expedited circular dichroism prediction and engineering in two-dimensional diffractive chiral metamaterials leveraging a powerful model-agnostic data enhancement algorithm. Nanophotonics, 2021, 10, 1155-1168.	2.9	12
85	Ultraefficient Terahertz Emission Mediated by Shift-Current Photovoltaic Effect in Layered Gallium Telluride. ACS Nano, 2021, 15, 17565-17572.	7.3	12
86	In-plane anisotropy in twisted bilayer graphene probed by Raman spectroscopy. Nanotechnology, 2019, 30, 435702.	1.3	11
87	Hyperspectral open set classification with unknown classes rejection towards deep networks. International Journal of Remote Sensing, 2020, 41, 6355-6383.	1.3	11
88	Anisotropic Temporal Metasurfaces for Tunable Ultrafast Photoactive Switching Dynamics. Laser and Photonics Reviews, 2021, 15, 2100244.	4.4	11
89	Z-scan measurement of nonlinear optical properties of BiOCl nanosheets. Applied Optics, 2015, 54, 6592.	2.1	10
90	All-Fiber Bidirectional Mode-Locked Ultrafast Fiber Laser at $2\hat{\lambda}/4$. IEEE Photonics Journal, 2019, 11, 1-8.	1.0	10

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91	Enhanced directional emission of monolayer tungsten disulfide (WS_2) with robust linear polarization via one-dimensional photonic crystal (PhC) slab. <i>Nanophotonics</i> , 2020, 9, 4337-4345.	2.9	10
92	Title is missing!. <i>Chinese Optics Letters</i> , 2019, 17, 071403.	1.3	10
93	Dielectric properties of a $CsPbBr_3$ quantum dot solution in the terahertz region. <i>Applied Optics</i> , 2017, 56, 2878.	2.1	9
94	Inversion Symmetry Breaking in Lithium Intercalated Graphitic Materials. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 28561-28567.	4.0	9
95	Embedded real-time infrared and visible image fusion for UAV surveillance. <i>Journal of Real-Time Image Processing</i> , 2021, 18, 2331-2345.	2.2	9
96	Visualizing Hot-Carrier Expansion and Cascaded Transport in WS_2 by Ultrafast Transient Absorption Microscopy. <i>Advanced Science</i> , 2022, 9, e2105746.	5.6	9
97	Deep-Learning-Based Active Hyperspectral Imaging Classification Method Illuminated by the Supercontinuum Laser. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 3088.	1.3	7
98	Achieving efficient inverse design of low-dimensional heterostructures based on a vigorous scalable multi-task learning network. <i>Optics Express</i> , 2021, 29, 19727.	1.7	7
99	Growth mechanism and atomic structure of group-IIA compound-promoted CVD-synthesized monolayer transition metal dichalcogenides. <i>Nanoscale</i> , 2021, 13, 13030-13041.	2.8	7
100	Nonreciprocal Transport in a Bilayer of $MnBi_2Te_4$ and Pt. <i>Nano Letters</i> , 2022, 22, 1366-1373.	4.5	7
101	Topological phase transition in Sb-doped $Mg_{1-x}Mn_x$ monocrystalline thin films. <i>Physical Review B</i> , 2021, 103, .	1.0	6
102	Tunable nonlinear optical responses of few-layer graphene through lithium intercalation. <i>Nanophotonics</i> , 2021, 10, 2661-2669.	2.9	6
103	A free-running dual-comb spectrometer with intelligent temporal alignment algorithm. <i>Optics and Laser Technology</i> , 2021, 141, 107175.	2.2	6
104	Structural Evolution of Atomically Thin TM_2MoTe_2 Alloyed in Chalcogen Atmosphere. <i>Small Structures</i> , 2022, 3, .	6.9	6
105	Modification of degenerative photoluminescence in aged monolayer WS_2 by PC_61BM surface processing. <i>Applied Optics</i> , 2017, 56, 890.	2.1	5
106	Accelerated image factorization based on improved NMF algorithm. <i>Journal of Real-Time Image Processing</i> , 2018, 15, 93-105.	2.2	5
107	Terahertz Metamaterials: Ultrafast Terahertz Frequency and Phase Tuning by All-Optical Molecularization of Metasurfaces (<i>Advanced Optical Materials</i> 22/2019). <i>Advanced Optical Materials</i> , 2019, 7, 1970084.	3.6	5
108	Nonlinear Nanophotonics With 2D Transition Metal Dichalcogenides. , 2019, , 305-318.		5

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109	Valley depolarization in downconversion and upconversion emission of monolayer WS ₂ at room temperature. Nanophotonics, 2020, 9, 4809-4818.	2.9	5
110	All-optical dynamic tuning of local excitonic emission of monolayer MoS ₂ by integration with Ge ₂ Sb ₂ Te ₅ . Nanophotonics, 2020, 9, 2351-2359.	2.9	4
111	Electro-photo modulation of the fermi level in WSe ₂ /graphene van der Waals heterojunction. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 88, 279-283.	1.3	3
112	Hyperspectral Image Super-Resolution Based on Spatial Group Sparsity Regularization Unmixing. Applied Sciences (Switzerland), 2020, 10, 5583.	1.3	3
113	Giant Photoluminescence Enhancement and Carrier Dynamics in MoS ₂ Bilayers with Anomalous Interlayer Coupling. Nanomaterials, 2021, 11, 1994.	1.9	3
114	Neuromorphology in-sensor computing architecture based on an optical Fourier transform. Optics Letters, 2021, 46, 5501.	1.7	3
115	Graphene-Based Tunable Coloration Film through Intercalation. ACS Photonics, 2021, 8, 3599-3606.	3.2	3
116	Raman and Photoluminescence Spectroscopy of Laser Irradiated Sites of Fused Silica: Comparison between Bulk and Surface Damage. , 2016, , .		2
117	Joint spectral-spatial hyperspectral classification based on transfer learning (SSTL) from red-green-blue (RGB) images. International Journal of Remote Sensing, 2021, 42, 4023-4041.	1.3	2
118	BER evaluation in a multi-channel graphene-silicon photonic crystal hybrid interconnect: a study of fast- and slow-light effects. Optics Express, 2020, 28, 17286.	1.7	2
119	Polarization-dependent nonlinear optical response in GeSe ₂ . Wuli Xuebao/Acta Physica Sinica, 2020, 69, 184212.	0.2	2
120	Photodetectors: Broadband High-Responsivity Photodetectors Based on Large-Scale Topological Crystalline Insulator SnTe Ultrathin Film Grown by Molecular Beam Epitaxy (Advanced Optical) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 297		0
121	GPU Parallel Implementation for Real-Time Feature Extraction of Hyperspectral Images. Applied Sciences (Switzerland), 2020, 10, 6680.	1.3	1
122	Distance-based hyperspectral open-set classification of deep neural networks. Remote Sensing Letters, 2021, 12, 636-644.	0.6	1
123	The output of photovoltaic detector irradiated by spectral unrelated laser. , 2011, , .		0
124	Performance of Bi-Directional Mode-Locked Fiber Laser at 2 μ m. , 2019, , .		0
125	Conformal Self-Assembly of Nanospheres for Light-Enhanced Airtightness Monitoring and Room-Temperature Gas Sensing. Nanomaterials, 2021, 11, 1829.	1.9	0
126	Reconfigurable linear-phase response spectral shaping filter. , 2019, , .		0

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127	Reconfigurable high-order radio frequency filters based on a wide-bandwidth optical frequency comb. , 2021, , .		0