

Jun Wang

List of Publications by Year in descending order

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109
papers

7,784
citations

76196

40
h-index

49773

87
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109
all docs

109
docs citations

109
times ranked

7653
citing authors

#	ARTICLE	IF	CITATIONS
1	Liquid exfoliation of solvent-stabilized few-layer black phosphorus for applications beyond electronics. <i>Nature Communications</i> , 2015, 6, 8563.	5.8	921
2	Ultrafast Saturable Absorption of Two-Dimensional MoS ₂ Nanosheets. <i>ACS Nano</i> , 2013, 7, 9260-9267.	7.3	905
3	Broadband Nonlinear Optical Response of Graphene Dispersions. <i>Advanced Materials</i> , 2009, 21, 2430-2435.	11.1	486
4	WS ₂ as a saturable absorber for ultrafast photonic applications of mode-locked and Q-switched lasers. <i>Optics Express</i> , 2015, 23, 11453.	1.7	338
5	Broadband ultrafast nonlinear absorption and nonlinear refraction of layered molybdenum dichalcogenide semiconductors. <i>Nanoscale</i> , 2014, 6, 10530-10535.	2.8	328
6	Direct Observation of Degenerate Two-Photon Absorption and Its Saturation in WS ₂ and MoS ₂ Monolayer and Few-Layer Films. <i>ACS Nano</i> , 2015, 9, 7142-7150.	7.3	322
7	Graphene oxide covalently functionalized with zinc phthalocyanine for broadband optical limiting. <i>Carbon</i> , 2011, 49, 1900-1905.	5.4	255
8	Optical Limiting and Theoretical Modelling of Layered Transition Metal Dichalcogenide Nanosheets. <i>Scientific Reports</i> , 2015, 5, 14646.	1.6	236
9	Ultrafast Nonlinear Excitation Dynamics of Black Phosphorus Nanosheets from Visible to Mid-Infrared. <i>ACS Nano</i> , 2016, 10, 6923-6932.	7.3	231
10	Carbon nanotubes and nanotube composites for nonlinear optical devices. <i>Journal of Materials Chemistry</i> , 2009, 19, 7425.	6.7	217
11	Bilayered Hybrid Perovskite Ferroelectric with Giant Two-Photon Absorption. <i>Journal of the American Chemical Society</i> , 2018, 140, 6806-6809.	6.6	185
12	Inorganic and hybrid nanostructures for optical limiting. <i>Journal of Optics</i> , 2009, 11, 024001.	1.5	178
13	Giant two-photon absorption in monolayer MoS ₂ . <i>Laser and Photonics Reviews</i> , 2015, 9, 427-434.	4.4	161
14	High-performance mode-locked and Q-switched fiber lasers based on novel 2D materials of topological insulators, transition metal dichalcogenides and black phosphorus: review and perspective (invited). <i>Optics Communications</i> , 2018, 406, 214-229.	1.0	139
15	Graphene and its derivatives for laser protection. <i>Progress in Materials Science</i> , 2016, 84, 118-157.	16.0	128
16	463-MHz fundamental mode-locked fiber laser based on few-layer MoS ₂ saturable absorber. <i>Optics Letters</i> , 2015, 40, 1374.	1.7	116
17	All-optical phase shifter and switch near 1550nm using tungsten disulfide (WS ₂) deposited tapered fiber. <i>Optics Express</i> , 2017, 25, 17639.	1.7	107
18	Nonlinear Absorption Induced Transparency and Optical Limiting of Black Phosphorus Nanosheets. <i>ACS Photonics</i> , 2017, 4, 3063-3070.	3.2	92

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19	Dispersion of nonlinear refractive index in layered WS ₂ and WSe ₂ semiconductor films induced by two-photon absorption. <i>Optics Letters</i> , 2016, 41, 3936.	1.7	86
20	Tunable effective nonlinear refractive index of graphene dispersions during the distortion of spatial self-phase modulation. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	84
21	Saturation of Two-Photon Absorption in Layered Transition Metal Dichalcogenides: Experiment and Theory. <i>ACS Photonics</i> , 2018, 5, 1558-1565.	3.2	79
22	Tin diselenide as a new saturable absorber for generation of laser pulses at 1 μ m. <i>Optics Express</i> , 2017, 25, 6132.	1.7	69
23	Bacterially synthesized tellurium nanostructures for broadband ultrafast nonlinear optical applications. <i>Nature Communications</i> , 2019, 10, 3985.	5.8	68
24	Exfoliation of Stable 2D Black Phosphorus for Device Fabrication. <i>Chemistry of Materials</i> , 2017, 29, 6445-6456.	3.2	66
25	Saturable absorption behavior of free-standing graphene polymer composite films over broad wavelength and time ranges. <i>Optics Express</i> , 2015, 23, 559.	1.7	65
26	Nonlinear Optical Signatures of the Transition from Semiconductor to Semimetal in PtSe ₂ . <i>Laser and Photonics Reviews</i> , 2019, 13, 1900052.	4.4	64
27	Ultrafast Carrier Dynamics and Bandgap Renormalization in Layered PtSe ₂ . <i>Small</i> , 2019, 15, e1902728.	5.2	60
28	Facile fabrication of wafer-scale MoS ₂ neat films with enhanced third-order nonlinear optical performance. <i>Nanoscale</i> , 2015, 7, 2978-2986.	2.8	58
29	Q-switching of waveguide lasers based on graphene/WS ₂ van der Waals heterostructure. <i>Photonics Research</i> , 2017, 5, 406.	3.4	58
30	Giant Nonlinear Optical Response in 2D Perovskite Heterostructures. <i>Advanced Optical Materials</i> , 2019, 7, 1900398.	3.6	58
31	88 GHz Q-switched mode-locked waveguide lasers modulated by PtSe ₂ saturable absorber. <i>Optics Express</i> , 2019, 27, 8727.	1.7	58
32	MoS ₂ /Carbon Nanotube Core-Shell Nanocomposites for Enhanced Nonlinear Optical Performance. <i>Chemistry - A European Journal</i> , 2017, 23, 3321-3327.	1.7	57
33	Donor-acceptor type blends composed of black phosphorus and C ₆₀ for solid-state optical limiters. <i>Chemical Communications</i> , 2018, 54, 366-369.	2.2	51
34	Tailoring the nonlinear optical performance of two-dimensional MoS ₂ nanofilms via defect engineering. <i>Nanoscale</i> , 2018, 10, 17924-17932.	2.8	50
35	Regulation of the luminescence mechanism of two-dimensional tin halide perovskites. <i>Nature Communications</i> , 2022, 13, 60.	5.8	48
36	Slow and fast absorption saturation of black phosphorus: experiment and modelling. <i>Nanoscale</i> , 2016, 8, 17374-17382.	2.8	46

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37	Hydrothermal synthesis of two-dimensional MoS ₂ and its applications. Tungsten, 2019, 1, 59-79.	2.0	45
38	Invited Article: Mode-locked waveguide lasers modulated by rhenium diselenide as a new saturable absorber. APL Photonics, 2018, 3, .	3.0	44
39	Control of Optical Limiting of Carbon Nanotube Dispersions by Changing Solvent Parameters. Journal of Physical Chemistry C, 2010, 114, 6148-6156.	1.5	42
40	The Role of Chloride Incorporation in Lead-Free 2D Perovskite (BA) ₂ SnI ₄ : Morphology, Photoluminescence, Phase Transition, and Charge Transport. Advanced Science, 2019, 6, 1802019.	5.6	42
41	Lithium Niobate Crystal with Embedded Au Nanoparticles: A New Saturable Absorber for Efficient Mode-Locking of Ultrafast Laser Pulses at 1 Åµm. Advanced Optical Materials, 2018, 6, 1800357.	3.6	41
42	Direct synthesis of large-scale hierarchical MoS ₂ films nanostructured with orthogonally oriented vertically and horizontally aligned layers. Nanoscale, 2016, 8, 431-439.	2.8	39
43	Ultrafast Nonlinear Optical Properties of a Graphene Saturable Mirror in the 2 ¼m Wavelength Region. Laser and Photonics Reviews, 2017, 11, 1700166.	4.4	38
44	Surface-State Assisted Carrier Recombination and Optical Nonlinearities in Bulk to 2D Nonlayered PtS. ACS Nano, 2019, 13, 13390-13402.	7.3	37
45	Covalent Modification of MoS ₂ with Poly(<i>N</i> -vinylcarbazole) for Solid-State Broadband Optical Limiters. Chemistry - A European Journal, 2016, 22, 4500-4507.	1.7	35
46	Lattice reconstruction of La-incorporated CsPbI ₂ Br with suppressed phase transition for air-processed all-inorganic perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 3351-3358.	2.7	35
47	Optically Induced Transparency and Extinction in Dispersed MoS ₂ , MoSe ₂ , and Graphene Nanosheets. Advanced Optical Materials, 2017, 5, 1700543.	3.6	34
48	Nonlinear optical performance of few-layer molybdenum diselenide as a slow-saturable absorber. Photonics Research, 2018, 6, 674.	3.4	34
49	Enhanced two-photon absorption and two-photon luminescence in monolayer MoS ₂ and WS ₂ by defect repairing. Optics Express, 2019, 27, 13744.	1.7	33
50	Direct observation of interlayer coherent acoustic phonon dynamics in bilayer and few-layer PtSe ₂ . Photonics Research, 2019, 7, 1416.	3.4	33
51	Giant Enhancement of Nonlinear Optical Response in Nd:YAG Single Crystals by Embedded Silver Nanoparticles. ACS Omega, 2017, 2, 1279-1286.	1.6	32
52	Passively Q-Switched Laser at 1.3 ¼m With Few-Layered MoS ₂ Saturable Absorber. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 71-75.	1.9	30
53	Fabrication and nonlinear optical characterization of fluorinated zinc phthalocyanine covalently modified black phosphorus/PMMA films using the nanosecond Z-scan technique. Journal of Materials Chemistry C, 2019, 7, 10789-10794.	2.7	30
54	Fused Silica with Embedded 2D-Like Ag Nanoparticle Monolayer: Tunable Saturable Absorbers by Interparticle Spacing Manipulation. Laser and Photonics Reviews, 2020, 14, 1900302.	4.4	30

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55	MoS ₂ nanosheets covalently functionalized with polyacrylonitrile: synthesis and broadband laser protection performance. <i>Journal of Materials Chemistry C</i> , 2017, 5, 11920-11926.	2.7	28
56	Liquid Exfoliation of Two-Dimensional PbI ₂ Nanosheets for Ultrafast Photonics. <i>ACS Photonics</i> , 2019, 6, 1051-1057.	3.2	28
57	Perfluorinated gallium phthalocyanine axially grafted black phosphorus nanosheets for optical limiting. <i>Journal of Materials Chemistry C</i> , 2020, 8, 10197-10203.	2.7	28
58	Enhanced nonlinear optical response of graphene by silver-based nanoparticle modification for pulsed lasing. <i>Optical Materials Express</i> , 2018, 8, 1368.	1.6	27
59	Monolithic waveguide laser mode-locked by embedded Ag nanoparticles operating at 1 μ m. <i>Nanophotonics</i> , 2019, 8, 859-868.	2.9	26
60	Defect-Enhanced Exciton-Exciton Annihilation in Monolayer Transition Metal Dichalcogenides at High Exciton Densities. <i>ACS Photonics</i> , 2021, 8, 2770-2780.	3.2	26
61	Nonlinear Absorption Response Correlated to Embedded Ag Nanoparticles in BGO Single Crystal: From Two-Photon to Three-Photon Absorption. <i>Scientific Reports</i> , 2018, 8, 1977.	1.6	23
62	Thickness-Dependent Ultrafast Photocarrier Dynamics in Selenizing Platinum Thin Films. <i>Journal of Physical Chemistry C</i> , 2020, 124, 10719-10726.	1.5	23
63	Tailoring optical nonlinearities of LiNbO ₃ crystals by plasmonic silver nanoparticles for broadband saturable absorbers. <i>Optics Express</i> , 2018, 26, 31276.	1.7	23
64	Vertical Heterostructure of SnS-MoS ₂ Synthesized by Sulfur-Preloaded Chemical Vapor Deposition. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 7423-7431.	4.0	22
65	Layer-modulated two-photon absorption in MoS ₂ : probing the shift of the excitonic dark state and band-edge. <i>Photonics Research</i> , 2019, 7, 762.	3.4	22
66	Ether-linked porphyrin covalent organic framework with broadband optical switch. <i>IScience</i> , 2021, 24, 102526.	1.9	21
67	Broadband λ^3 -graphyne saturable absorber for Q-switched solid-state laser. <i>Applied Physics Express</i> , 2019, 12, 122006.	1.1	18
68	Auger-type process in ultrathin ReS ₂ . <i>Optical Materials Express</i> , 2020, 10, 1092.	1.6	17
69	Broadband saturable absorption and exciton-exciton annihilation in MoSe ₂ composite thin films. <i>Optical Materials Express</i> , 2019, 9, 483.	1.6	17
70	Broadband Nonlinear Photoresponse and Ultrafast Carrier Dynamics of 2D PdSe ₂ . <i>Advanced Optical Materials</i> , 2022, 10, 2101963.	3.6	17
71	Anisotropic luminescence and third-order electric susceptibility of Mg-doped gallium oxide under the half-bandgap edge. <i>Optics Express</i> , 2021, 29, 18587.	1.7	16
72	Copper Nanoparticles Embedded in Lithium Tantalate Crystals for Multi-GHz Lasers. <i>ACS Applied Nano Materials</i> , 2019, 2, 5871-5877.	2.4	15

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73	Plasmonic Ag nanoparticles embedded in lithium tantalate crystal for ultrafast laser generation. <i>Nanotechnology</i> , 2019, 30, 334001.	1.3	14
74	Photonic-crystal-based broadband graphene saturable absorber. <i>Optics Letters</i> , 2019, 44, 4785.	1.7	14
75	86-...GHz Q-switched mode-locked waveguide lasing based on LiNbO ₃ crystal embedded Cu nanoparticles. <i>Optical Materials Express</i> , 2019, 9, 3808.	1.6	14
76	Nonlinear Optical Properties and Ultrafast Carrier Dynamics of 2D Indium Selenide Nanosheets. <i>Advanced Optical Materials</i> , 2021, 9, 2101432.	3.6	14
77	Optical limiting properties of a nonlinear multilayer Fabry-Perot resonator containing niobium pentoxide as nonlinear medium. <i>Optics Letters</i> , 2014, 39, 4847.	1.7	13
78	Machine Learning Analysis of Raman Spectra of MoS ₂ . <i>Nanomaterials</i> , 2020, 10, 2223.	1.9	13
79	MXene-Based Broadband Ultrafast Nonlinear Activator for Optical Computing. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	12
80	Donor-acceptor type black phosphorus nanosheets covalently functionalized with a conjugated polymer for laser protection. <i>Polymer Chemistry</i> , 2019, 10, 6003-6009.	1.9	11
81	Electrochemical synthesis of annealing-free and highly stable black-phase CsPbI ₃ perovskite. <i>Chemical Communications</i> , 2021, 57, 8981-8984.	2.2	11
82	Two-dimensional \hat{I}^3 -graphyne for ultrafast nonlinear optical applications. <i>Optical Materials Express</i> , 2020, 10, 293.	1.6	11
83	Enhanced optical limiting properties of composite films consisting of hyperbranched phthalocyanine and polyphenylsulfone with high linear transmittance. <i>Synthetic Metals</i> , 2020, 265, 116405.	2.1	10
84	Visible nonlinear optical properties of tellurium and application as saturable absorber. <i>Optics and Laser Technology</i> , 2021, 137, 106817.	2.2	9
85	Ultrafast electron transfer dynamics in Ag/TiO ₂ nanocomposite for tailoring of optical nonlinearity. <i>Applied Surface Science</i> , 2021, 539, 148258.	3.1	8
86	Anisotropic Raman scattering and intense broadband second-harmonic generation in tellurium nanosheets. <i>Optics Letters</i> , 2021, 46, 1812.	1.7	8
87	Femtosecond-scale all-optical switching in oxyfluorogallate glass induced by nonlinear multiphoton absorption. <i>RSC Advances</i> , 2021, 11, 32446-32453.	1.7	8
88	Vertical Stacking of Copper Sulfide Nanoparticles and Molybdenum Sulfide Nanosheets for Enhanced Nonlinear Absorption. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 35835-35844.	4.0	7
89	Two-dimensional tellurium saturable absorber for ultrafast solid-state laser. <i>Chinese Optics Letters</i> , 2021, 19, 031401.	1.3	7
90	Ultrafast nonlinear optical response of molybdenum nano-film in wide wavelength range. <i>Optical Materials</i> , 2019, 95, 109244.	1.7	6

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91	Organic Small Molecule Covalently Functionalized Molybdenum Disulfide Hybrid Material for Optical Limiting. Bulletin of the Chemical Society of Japan, 2020, 93, 26-31.	2.0	6
92	Plasmonic core-shell nano-heterostructures with temperature-dependent optical nonlinearity. Nanoscale, 2020, 12, 22995-23002.	2.8	6
93	Q-switched mode-locked Nd:GGG waveguide laser with tin disulfide as saturable absorber. Optical Materials, 2020, 100, 109702.	1.7	6
94	Near-Infrared All-Optical Switching Based on Nano/Micro Optical Structures in YVO ₄ Matrix: Embedded Plasmonic Nanoparticles and Laser-Written Waveguides. Advanced Photonics Research, 2021, 2, 2000064.	1.7	6
95	Facile synthesis of aqueous silver nanoparticles and silver/molybdenum disulfide nanocomposites and investigation of their nonlinear optical properties. Tungsten, 2021, 3, 482-491.	2.0	6
96	WS ₂ based 523-MHz mode-locked erbium-doped fiber laser for microwave photonic application. Optical Materials Express, 2019, 9, 4688.	1.6	6
97	Microscopic optical nonlinearities and transient carrier dynamics in indium selenide nanosheet. Optics Express, 2022, 30, 17967.	1.7	6
98	Tellurium as the saturable absorber for the passively Q-switched laser at 134 Åµm. Applied Optics, 2020, 59, 2892.	0.9	5
99	Competition between stimulated Brillouin scattering and two-photon absorption in dispersed boron nitride. Optics Express, 2019, 27, 11029.	1.7	4
100	Two-photon absorption towards pulse modulation in mechanically exfoliated and CVD monolayer cascaded MoS ₂ structures. Chinese Optics Letters, 2019, 17, 081901.	1.3	4
101	Effects on the emission discrepancy between two-dimensional Sn-based and Pb-based perovskites. Chinese Optics Letters, 2022, 20, 021602.	1.3	4
102	Regulating the Auger Recombination Process in Two-Dimensional Sn-Based Halide Perovskites. ACS Photonics, 2022, 9, 1627-1637.	3.2	4
103	Ultrafast Saturable Absorbers: Fused Silica with Embedded 2D-Like Ag Nanoparticle Monolayer: Tunable Saturable Absorbers by Interparticle Spacing Manipulation (Laser Photonics Rev. 14(2)/2020). Laser and Photonics Reviews, 2020, 14, 2070014.	4.4	3
104	Nonlinear optical fullerene and graphene-based polymeric 1D photonic crystals: perspectives for slow and fast optical bistability. Journal of the Optical Society of America B: Optical Physics, 2021, 38, C198.	0.9	2
105	Q-switched mode-locked laser generation by Au nanoparticles embedded in LiTaO ₃ crystals. Optical Materials, 2021, 122, 111714.	1.7	2
106	Nonlinear Optical Response and Ultrafast Carrier Dynamics in Single-Crystalline Sb Nanosheets with van der Waals Epitaxy. Journal of Physical Chemistry C, 2021, 125, 19866-19873.	1.5	1
107	Atomic Defect Induced Saturable Absorption of Hexagonal Boron Nitride in Near Infrared Band for Ultrafast Lasing Applications. Nanomaterials, 2021, 11, 3203.	1.9	1
108	Exciton-Like and Mid-Gap Absorption Dynamics of PtS in Resonant and Transparent Regions. Laser and Photonics Reviews, 2022, 16, .	4.4	1

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109	2D materials in nonlinear optics. , 2021, , 347-385.		0