Han Zhang

List of Publications by Citations

968 papers	60,386 citations	128 h-index	210 g-index
1,032 ext. papers	74,268 ext. citations	8.4 avg, IF	8.42 L-index

#	Paper	IF	Citations
968	Atomic-Layer Graphene as a Saturable Absorber for Ultrafast Pulsed Lasers. *Advanced Functional Materials*, **2009**, 19, 3077-3083	15.6	1875
967	Destructive extraction of phospholipids from Escherichia coli membranes by graphene nanosheets. *Nature Nanotechnology*, **2013**, 8, 594-601	28.7	1008
966	Molybdenum disulfide (MoS) as a broadband saturable absorber for ultra-fast photonics. *Optics Express*, **2014**, 22, 7249-60	3.3	846
965	Broadband graphene polarizer. *Nature Photonics*, **2011**, 5, 411-415	33.9	806
964	Ultrasmall Black Phosphorus Quantum Dots: Synthesis and Use as Photothermal Agents. *Angewandte Chemie - International Edition*, **2015**, 54, 11526-30	16.4	745
963	Mechanically exfoliated black phosphorus as a new saturable absorber for both Q-switching and Mode-locking laser operation. *Optics Express*, **2015**, 23, 12823-33	3.3	734
962	From Black Phosphorus to Phosphorene: Basic Solvent Exfoliation, Evolution of Raman Scattering, and Applications to Ultrafast Photonics. *Advanced Functional Materials*, **2015**, 25, 6996-7002	15.6	725
961	Biodegradable black phosphorus-based nanospheres for in vivo photothermal cancer therapy. *Nature Communications*, **2016**, 7, 12967	17.4	659
960	High yield exfoliation of two-dimensional chalcogenides using sodium naphthalenide. *Nature Communications*, **2014**, 5, 2995	17.4	556
959	Black Phosphorus Nanosheets as a Robust Delivery Platform for Cancer Theranostics. *Advanced Materials*, **2017**, 29, 1603276	24	546
958	Broadband nonlinear optical response in multi-layer black phosphorus: an emerging infrared and mid-infrared optical material. *Optics Express*, **2015**, 23, 11183-94	3.3	541
957	Novel concept of the smart NIR-light-controlled drug release of black phosphorus nanostructure for cancer therapy. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 501-506	11.5	518
956	Z-scan measurement of the nonlinear refractive index of graphene. *Optics Letters*, **2012**, 37, 1856-8	3	502
955	Ultra-short pulse generation by a topological insulator based saturable absorber. *Applied Physics Letters*, **2012**, 101, 211106	3.4	469
954	Large energy mode locking of an erbium-doped fiber laser with atomic layer graphene. *Optics Express*, **2009**, 17, 17630-5	3.3	447
953	Broadband Nonlinear Photonics in Few-Layer MXene Ti3C2Tx (T = F, O, or OH). *Laser and Photonics Reviews*, **2018**, 12, 1700229	8.3	438
952	Graphene mode locked, wavelength-tunable, dissipative soliton fiber laser. *Applied Physics Letters*, **2010**, 96, 111112	3.4	402

951	Antimonene Quantum Dots: Synthesis and Application as Near-Infrared Photothermal Agents for Effective Cancer Therapy. *Angewandte Chemie - International Edition*, **2017**, 56, 11896-11900	16.4	391
950	Large energy soliton erbium-doped fiber laser with a graphene-polymer composite mode locker. *Applied Physics Letters*, **2009**, 95, 141103	3.4	386
949	GraphenePolymer Nanofiber Membrane for Ultrafast Photonics. *Advanced Functional Materials*, **2010**, 20, 782-791	15.6	382
948	Wavelength-tunable picosecond soliton fiber laser with Topological Insulator: Bi2Se3 as a mode locker. *Optics Express*, **2012**, 20, 27888-95	3.3	355
947	Metal-Ion-Modified Black Phosphorus with Enhanced Stability and Transistor Performance. *Advanced Materials*, **2017**, 29, 1703811	24	353
946	2 GHz passively harmonic mode-locked fiber laser by a microfiber-based topological insulator saturable absorber. *Optics Letters*, **2013**, 38, 5212-5	3	347
945	Emerging two-dimensional monoelemental materials (Xenes) for biomedical applications. *Chemical Society Reviews*, **2019**, 48, 2891-2912	58.5	345
944	2D Black PhosphorusBased Biomedical Applications. *Advanced Functional Materials*, **2019**, 29, 1808306	15.6	329
943	Ytterbium-doped fiber laser passively mode locked by few-layer Molybdenum Disulfide (MoS2) saturable absorber functioned with evanescent field interaction. *Scientific Reports*, **2014**, 4, 6346	4.9	323
942	Microfiber-based few-layer black phosphorus saturable absorber for ultra-fast fiber laser. *Optics Express*, **2015**, 23, 20030-9	3.3	322
941	Monolayer graphene as a saturable absorber in a mode-locked laser. *Nano Research*, **2011**, 4, 297-307	10	322
940	Two-dimensional MXenes: From morphological to optical, electric, and magnetic properties and applications. *Physics Reports*, **2020**, 848, 1-58	27.7	321
939	Ultrasensitive detection of miRNA with an antimonene-based surface plasmon resonance sensor. *Nature Communications*, **2019**, 10, 28	17.4	309
938	Femtosecond pulse erbium-doped fiber laser by a few-layer MoS(2) saturable absorber. *Optics Letters*, **2014**, 39, 4591-4	3	296
937	Ultrathin 2D Nonlayered Tellurium Nanosheets: Facile Liquid-Phase Exfoliation, Characterization, and Photoresponse with High Performance and Enhanced Stability. *Advanced Functional Materials*, **2018**, 28, 1705833	15.6	277
936	Omnipotent phosphorene: a next-generation, two-dimensional nanoplatform for multidisciplinary biomedical applications. *Chemical Society Reviews*, **2018**, 47, 5588-5601	58.5	274
935	Flexible Organic Electronics in Biology: Materials and Devices. *Advanced Materials*, **2015**, 27, 7493-527	24	272
934	Solvothermal Synthesis and Ultrafast Photonics of Black Phosphorus Quantum Dots. *Advanced Optical Materials*, **2016**, 4, 1223-1229	8.1	267

933	Few-layer Bismuthene: Sonochemical Exfoliation, Nonlinear Optics and Applications for Ultrafast Photonics with Enhanced Stability. *Laser and Photonics Reviews*, **2018**, 12, 1700221	8.3	265
932	High-Efficiency "Working-in-Tandem" Nitrogen Photofixation Achieved by Assembling Plasmonic Gold Nanocrystals on Ultrathin Titania Nanosheets. *Journal of the American Chemical Society*, **2018**, 140, 8497-8508	16.4	265
931	Photonics and optoelectronics using nano-structured hybrid perovskite media and their optical cavities. *Physics Reports*, **2019**, 795, 1-51	27.7	262
930	Advances in nanomaterials for photodynamic therapy applications: Status and challenges. *Biomaterials*, **2020**, 237, 119827	15.6	262
929	Two-Dimensional Antimonene-Based Photonic Nanomedicine for Cancer Theranostics. *Advanced Materials*, **2018**, 30, e1802061	24	260
928	A Novel Top-Down Synthesis of Ultrathin 2D Boron Nanosheets for Multimodal Imaging-Guided Cancer Therapy. *Advanced Materials*, **2018**, 30, e1803031	24	254
927	Few-Layer Black Phosphorus Nanosheets as Electrocatalysts for Highly Efficient Oxygen Evolution Reaction. *Advanced Energy Materials*, **2017**, 7, 1700396	21.8	251
926	Recent advances in black phosphorus-based photonics, electronics, sensors and energy devices. *Materials Horizons*, **2017**, 4, 997-1019	14.4	250
925	Environmentally Robust Black Phosphorus Nanosheets in Solution: Application for Self-Powered Photodetector. *Advanced Functional Materials*, **2017**, 27, 1606834	15.6	244
924	2D V-V Binary Materials: Status and Challenges. *Advanced Materials*, **2019**, 31, e1902352	24	236
923	Dissipative soliton resonance in an all-normal-dispersion erbium-doped fiber laser. *Optics Express*, **2009**, 17, 5580-4	3.3	235
922	Two-Dimensional CHNHPbI Perovskite Nanosheets for Ultrafast Pulsed Fiber Lasers. *ACS Applied Materials & Interfaces*, **2017**, 9, 12759-12765	9.5	231
921	Third order nonlinear optical property of Bi□Se□*Optics Express*, **2013**, 21, 2072-82	3.3	231
920	Sub-200 fs soliton mode-locked fiber laser based on bismuthene saturable absorber. *Optics Express*, **2018**, 26, 22750-22760	3.3	229
919	Recent developments in emerging two-dimensional materials and their applications. *Journal of Materials Chemistry C*, **2020**, 8, 387-440	7.1	227
918	Black phosphorus ink formulation for inkjet printing of optoelectronics and photonics. *Nature Communications*, **2017**, 8, 278	17.4	225
917	Emerging Trends in Phosphorene Fabrication towards Next Generation Devices. *Advanced Science*, **2017**, 4, 1600305	13.6	224
916	Facile Synthesis of Black Phosphorus: an Efficient Electrocatalyst for the Oxygen Evolving Reaction. *Angewandte Chemie - International Edition*, **2016**, 55, 13849-13853	16.4	223

915	Black phosphorus as saturable absorber for the Q-switched Er:ZBLAN fiber laser at 2.8 μm. *Optics Express*, **2015**, 23, 24713-8	3.3	222
914	Few-layer antimonene decorated microfiber: ultra-short pulse generation and all-optical thresholding with enhanced long term stability. *2D Materials*, **2017**, 4, 045010	5.9	222
913	Broadband Nonlinear Photoresponse of 2D TiS2 for Ultrashort Pulse Generation and All-Optical Thresholding Devices. *Advanced Optical Materials*, **2018**, 6, 1701166	8.1	217
912	Two-Dimensional MXene (TiC)-Integrated Cellulose Hydrogels: Toward Smart Three-Dimensional Network Nanoplatforms Exhibiting Light-Induced Swelling and Bimodal Photothermal/Chemotherapy Anticancer Activity. *ACS Applied Materials & Interfaces*, **2018**, 10, 27631-27643	9.5	217
911	Flexible organic electrochemical transistors for highly selective enzyme biosensors and used for saliva testing. *Advanced Materials*, **2015**, 27, 676-81	24	216
910	Ultrathin Metal□Organic Framework: An Emerging Broadband Nonlinear Optical Material for Ultrafast Photonics. *Advanced Optical Materials*, **2018**, 6, 1800561	8.1	214
909	Femtosecond pulse generation from a topological insulator mode-locked fiber laser. *Optics Express*, **2014**, 22, 6868-73	3.3	211
908	Solution processed MoS2-PVA composite for sub-bandgap mode-locking of a wideband tunable ultrafast Er:fiber laser. *Nano Research*, **2015**, 8, 1522-1534	10	210
907	Small gold nanorods laden macrophages for enhanced tumor coverage in photothermal therapy. *Biomaterials*, **2016**, 74, 144-54	15.6	209
906	Highly Efficient Circularly Polarized Electroluminescence from Aggregation-Induced Emission Luminogens with Amplified Chirality and Delayed Fluorescence. *Advanced Functional Materials*, **2018**, 28, 1800051	15.6	209
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903	High-Performance Photo-Electrochemical Photodetector Based on Liquid-Exfoliated Few-Layered InSe Nanosheets with Enhanced Stability. *Advanced Functional Materials*, **2018**, 28, 1705237	15.6	206
902	Photothermal cancer immunotherapy by erythrocyte membrane-coated black phosphorus formulation. *Journal of Controlled Release*, **2019**, 296, 150-161	11.7	205
901	Few-layer black phosphorus based saturable absorber mirror for pulsed solid-state lasers. *Optics Express*, **2015**, 23, 22643-8	3.3	203
900	Photonics and optoelectronics of two-dimensional materials beyond graphene. *Nanotechnology*, **2016**, 27, 462001	3.4	203
899	2D Layered Materials: Synthesis, Nonlinear Optical Properties, and Device Applications. *Laser and Photonics Reviews*, **2019**, 13, 1800327	8.3	203
898	Ultrasmall Black Phosphorus Quantum Dots: Synthesis and Use as Photothermal Agents. *Angewandte Chemie*, **2015**, 127, 11688-11692	3.6	201

897	Compact graphene mode-locked wavelength-tunable erbium-doped fiber lasers: from all anomalous dispersion to all normal dispersion. *Laser Physics Letters*, **2010**, 7, 591-596	1.5	201
896	Many-Body Complexes in 2D Semiconductors. *Advanced Materials*, **2019**, 31, e1706945	24	199
895	TiL -Coordinated Black Phosphorus Quantum Dots as an Efficient Contrast Agent for In Vivo Photoacoustic Imaging of Cancer. *Small*, **2017**, 13, 1602896	11	198
894	MXene/Polymer Membranes: Synthesis, Properties, and Emerging Applications. *Chemistry of Materials*, **2020**, 32, 1703-1747	9.6	197
893	Black phosphorus: a two-dimension saturable absorption material for mid-infrared Q-switched and mode-locked fiber lasers. *Scientific Reports*, **2016**, 6, 30361	4.9	197
892	Present perspectives of broadband photodetectors based on nanobelts, nanoribbons, nanosheets and the emerging 2D materials. *Nanoscale*, **2016**, 8, 6410-34	7.7	196
891	Microwave and optical saturable absorption in graphene. *Optics Express*, **2012**, 20, 23201-14	3.3	196
890	Recent progress of study on optical solitons in fiber lasers. *Applied Physics Reviews*, **2019**, 6, 021313	17.3	195
889	Robust SnO Nanoparticle-Impregnated Carbon Nanofibers with Outstanding Electrochemical Performance for Advanced Sodium-Ion Batteries. *Angewandte Chemie - International Edition*, **2018**, 57, 8901-8905	16.4	195
888	Many-body Effect, Carrier Mobility, and Device Performance of Hexagonal Arsenene and Antimonene. *Chemistry of Materials*, **2017**, 29, 2191-2201	9.6	194
887	MXene-Enabled Electrochemical Microfluidic Biosensor: Applications toward Multicomponent Continuous Monitoring in Whole Blood. *Advanced Functional Materials*, **2019**, 29, 1807326	15.6	194
886	Emerging combination strategies with phototherapy in cancer nanomedicine. *Chemical Society Reviews*, **2020**, 49, 8065-8087	58.5	193
885	Black PhosphorusPolymer Composites for Pulsed Lasers. *Advanced Optical Materials*, **2015**, 3, 1447-1453	8.1	192
884	Biocompatible and biodegradable inorganic nanostructures for nanomedicine: Silicon and black phosphorus. *Nano Today*, **2019**, 25, 135-155	17.9	189
883	Flexible Transparent Electronic Gas Sensors. *Small*, **2016**, 12, 3748-56	11	189
882	Emerging 2D materials beyond graphene for ultrashort pulse generation in fiber lasers. *Nanoscale*, **2019**, 11, 2577-2593	7.7	187
881	Dissipative soliton operation of an ytterbium-doped fiber laser mode locked with atomic multilayer graphene. *Optics Letters*, **2010**, 35, 3622-4	3	187
880	Flexible Transparent Films Based on Nanocomposite Networks of Polyaniline and Carbon Nanotubes for High-Performance Gas Sensing. *Small*, **2015**, 11, 5409-15	11	186

879	Topological insulator as an optical modulator for pulsed solid-state lasers. *Laser and Photonics Reviews*, **2013**, 7, L77-L83	8.3	185
878	Graphene oxide/black phosphorus nanoflake aerogels with robust thermo-stability and significantly enhanced photothermal properties in air. *Nanoscale*, **2017**, 9, 8096-8101	7.7	183
877	Observation of high-order polarization-locked vector solitons in a fiber laser. *Physical Review Letters*, **2008**, 101, 153904	7.4	183
876	Multi-wavelength dissipative soliton operation of an erbium-doped fiber laser. *Optics Express*, **2009**, 17, 12692-7	3.3	176
875	High sensitivity and good selectivity of ultralong MoO3 nanobelts for trimethylamine gas. *Sensors and Actuators B: Chemical*, **2016**, 226, 478-485	8.5	175
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873	Plant cell-surface GIPC sphingolipids sense salt to trigger Ca influx. *Nature*, **2019**, 572, 341-346	50.4	174
872	Graphene□Bi2Te3 Heterostructure as Saturable Absorber for Short Pulse Generation. *ACS Photonics*, **2015**, 2, 832-841	6.3	174
871	Ultrafast fiber lasers mode-locked by two-dimensional materials: review and prospect. *Photonics Research*, **2020**, 8, 78	6	173
870	2D Black Phosphorus Saturable Absorbers for Ultrafast Photonics. *Advanced Optical Materials*, **2019**, 7, 1800224	8.1	172
869	Large Energy, Wavelength Widely Tunable, Topological Insulator Q-Switched Erbium-Doped Fiber Laser. *IEEE Journal of Selected Topics in Quantum Electronics*, **2014**, 20, 315-322	3.8	171
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866	Metabolizable Ultrathin Bi2 Se3 Nanosheets in Imaging-Guided Photothermal Therapy. *Small*, **2016**, 12, 4136-45	11	168
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864	Vector soliton fiber laser passively mode locked by few layer black phosphorus-based optical saturable absorber. *Optics Express*, **2016**, 24, 25933-25942	3.3	163
863	Electrochemical analysis graphite/electrolyte interface in lithium-ion batteries: p-Toluenesulfonyl isocyanate as electrolyte additive. *Nano Energy*, **2017**, 34, 131-140	17.1	162
862	Few-Layer Tin Sulfide: A Promising Black-Phosphorus-Analogue 2D Material with Exceptionally Large Nonlinear Optical Response, High Stability, and Applications in All-Optical Switching and Wavelength Conversion. *Advanced Optical Materials*, **2018**, 6, 1700985	8.1	162

861	Improved fracture toughness and integrated damage sensing capability by spray coated CNTs on carbon fibre prepreg. *Composites Part A: Applied Science and Manufacturing*, **2015**, 70, 102-110	8.4	158
860	Recent advances in two-dimensional-material-based sensing technology toward health and environmental monitoring applications. *Nanoscale*, **2020**, 12, 3535-3559	7.7	155
859	Black Phosphorus Based All-Optical-Signal-Processing: Toward High Performances and Enhanced Stability. *ACS Photonics*, **2017**, 4, 1466-1476	6.3	152
858	Short-Chain Ligand-Passivated Stable CsPbI3 Quantum Dot for All-Inorganic Perovskite Solar Cells. *Advanced Functional Materials*, **2019**, 29, 1900991	15.6	149
857	Recent progress in black phosphorus and black-phosphorus-analogue materials: properties, synthesis and applications. *Nanoscale*, **2019**, 11, 14491-14527	7.7	149
856	Broadband and enhanced nonlinear optical response of MoS2/graphene nanocomposites for ultrafast photonics applications. *Scientific Reports*, **2015**, 5, 16372	4.9	147
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854	Microfiber-based few-layer MoS2 saturable absorber for 2.5 GHz passively harmonic mode-locked fiber laser. *Optics Express*, **2014**, 22, 22841-6	3.3	140
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852	2D Nonlayered Selenium Nanosheets: Facile Synthesis, Photoluminescence, and Ultrafast Photonics. *Advanced Optical Materials*, **2017**, 5, 1700884	8.1	139
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850	Kerr Nonlinearity in 2D Graphdiyne for Passive Photonic Diodes. *Advanced Materials*, **2019**, 31, e1807981	24	136
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847	Black phosphorus as broadband saturable absorber for pulsed lasers from 1 μm to 2.7 μm wavelength. *Laser Physics Letters*, **2016**, 13, 045801	1.5	134
846	A black/red phosphorus hybrid as an electrode material for high-performance Li-ion batteries and supercapacitors. *Journal of Materials Chemistry A*, **2017**, 5, 6581-6588	13	132
845	3-μm Mid-infrared pulse generation using topological insulator as the saturable absorber. *Optics Letters*, **2015**, 40, 3659-62	3	132
844	Self-Assembled Topological Insulator: Bi$_{2}$Se$_{3}$ Membrane as a Passive Q-Switcher in an Erbium-Doped Fiber Laser. *Journal of Lightwave Technology*, **2013**, 31, 2857-2863	4	132

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840	All-Optical Switching of Two Continuous Waves in Few Layer Bismuthene Based on Spatial Cross-Phase Modulation. *ACS Photonics*, **2017**, 4, 2852-2861	6.3	128
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828	2D Tellurium Based High-Performance All-Optical Nonlinear Photonic Devices. *Advanced Functional Materials*, **2019**, 29, 1806346	15.6	122
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822	All-Optical Phosphorene Phase Modulator with Enhanced Stability Under Ambient Conditions. *Laser and Photonics Reviews*, **2018**, 12, 1800016	8.3	118
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818	Surface Nanopore Engineering of 2D MXenes for Targeted and Synergistic Multitherapies of Hepatocellular Carcinoma. *Advanced Materials*, **2018**, 30, e1706981	24	118
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815	Hybrid metamaterial switching for manipulating chirality based on VO2 phase transition. *Scientific Reports*, **2016**, 6, 23186	4.9	116
814	Strong Depletion in Hybrid Perovskite p-n Junctions Induced by Local Electronic Doping. *Advanced Materials*, **2018**, 30, e1705792	24	113
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