Feng Zhang

List of Publications by Citations

259 papers	27,631 citations	91 h-index	162 g-index
272 ext. papers	33,166 ext. citations	9.8 avg, IF	7.58 L-index

#	Paper	IF	Citations
259	Atomic-Layer Graphene as a Saturable Absorber for Ultrafast Pulsed Lasers. *Advanced Functional Materials*, **2009**, 19, 3077-3083	15.6	1875
258	Ultrasmall Black Phosphorus Quantum Dots: Synthesis and Use as Photothermal Agents. *Angewandte Chemie - International Edition*, **2015**, 54, 11526-30	16.4	745
257	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
256	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
255	Biodegradable black phosphorus-based nanospheres for in vivo photothermal cancer therapy. *Nature Communications*, **2016**, 7, 12967	17.4	659
254	Black Phosphorus Nanosheets as a Robust Delivery Platform for Cancer Theranostics. *Advanced Materials*, **2017**, 29, 1603276	24	546
253	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
252	Ultra-short pulse generation by a topological insulator based saturable absorber. *Applied Physics Letters*, **2012**, 101, 211106	3.4	469
251	Broadband Nonlinear Photonics in Few-Layer MXene Ti3C2Tx (T = F, O, or OH). *Laser and Photonics Reviews*, **2018**, 12, 1700229	8.3	438
250	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
249	Large energy soliton erbium-doped fiber laser with a graphene-polymer composite mode locker. *Applied Physics Letters*, **2009**, 95, 141103	3.4	386
248	Wavelength-tunable picosecond soliton fiber laser with Topological Insulator: Bi2Se3 as a mode locker. *Optics Express*, **2012**, 20, 27888-95	3.3	355
247	Metal-Ion-Modified Black Phosphorus with Enhanced Stability and Transistor Performance. *Advanced Materials*, **2017**, 29, 1703811	24	353
246	Emerging two-dimensional monoelemental materials (Xenes) for biomedical applications. *Chemical Society Reviews*, **2019**, 48, 2891-2912	58.5	345
245	2D Black Phosphorus□Based Biomedical Applications. *Advanced Functional Materials*, **2019**, 29, 1808306	15.6	329
244	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
243	Microfiber-based few-layer black phosphorus saturable absorber for ultra-fast fiber laser. *Optics Express*, **2015**, 23, 20030-9	3.3	322

242	Ultrasensitive detection of miRNA with an antimonene-based surface plasmon resonance sensor. *Nature Communications*, **2019**, 10, 28	17.4	309
241	Femtosecond pulse erbium-doped fiber laser by a few-layer MoS(2) saturable absorber. *Optics Letters*, **2014**, 39, 4591-4	3	296
240	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
239	Omnipotent phosphorene: a next-generation, two-dimensional nanoplatform for multidisciplinary biomedical applications. *Chemical Society Reviews*, **2018**, 47, 5588-5601	58.5	274
238	Solvothermal Synthesis and Ultrafast Photonics of Black Phosphorus Quantum Dots. *Advanced Optical Materials*, **2016**, 4, 1223-1229	8.1	267
237	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
236	Photonics and optoelectronics using nano-structured hybrid perovskite media and their optical cavities. *Physics Reports*, **2019**, 795, 1-51	27.7	262
235	Two-Dimensional Antimonene-Based Photonic Nanomedicine for Cancer Theranostics. *Advanced Materials*, **2018**, 30, e1802061	24	260
234	A Novel Top-Down Synthesis of Ultrathin 2D Boron Nanosheets for Multimodal Imaging-Guided Cancer Therapy. *Advanced Materials*, **2018**, 30, e1803031	24	254
233	Recent advances in black phosphorus-based photonics, electronics, sensors and energy devices. *Materials Horizons*, **2017**, 4, 997-1019	14.4	250
232	Environmentally Robust Black Phosphorus Nanosheets in Solution: Application for Self-Powered Photodetector. *Advanced Functional Materials*, **2017**, 27, 1606834	15.6	244
231	2D V-V Binary Materials: Status and Challenges. *Advanced Materials*, **2019**, 31, e1902352	24	236
230	Two-Dimensional CHNHPbI Perovskite Nanosheets for Ultrafast Pulsed Fiber Lasers. *ACS Applied Materials & Interfaces*, **2017**, 9, 12759-12765	9.5	231
229	Third order nonlinear optical property of Bi□Se□ *Optics Express*, **2013**, 21, 2072-82	3.3	231
228	Sub-200 fs soliton mode-locked fiber laser based on bismuthene saturable absorber. *Optics Express*, **2018**, 26, 22750-22760	3.3	229
227	Emerging Trends in Phosphorene Fabrication towards Next Generation Devices. *Advanced Science*, **2017**, 4, 1600305	13.6	224
226	Black phosphorus as saturable absorber for the Q-switched Er:ZBLAN fiber laser at 2.8 □m. *Optics Express*, **2015**, 23, 24713-8	3.3	222
225	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

224	Broadband Nonlinear Photoresponse of 2D TiS2 for Ultrashort Pulse Generation and All-Optical Thresholding Devices. *Advanced Optical Materials*, **2018**, 6, 1701166	8.1	217
223	Ultrathin Metal–Organic Framework: An Emerging Broadband Nonlinear Optical Material for Ultrafast Photonics. *Advanced Optical Materials*, **2018**, 6, 1800561	8.1	214
222	Broadband Nonlinear Optical Response in Few-Layer Antimonene and Antimonene Quantum Dots: A Promising Optical Kerr Media with Enhanced Stability. *Advanced Optical Materials*, **2017**, 5, 1700301	8.1	207
221	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
220	Photothermal cancer immunotherapy by erythrocyte membrane-coated black phosphorus formulation. *Journal of Controlled Release*, **2019**, 296, 150-161	11.7	205
219	Few-layer black phosphorus based saturable absorber mirror for pulsed solid-state lasers. *Optics Express*, **2015**, 23, 22643-8	3.3	203
218	2D Layered Materials: Synthesis, Nonlinear Optical Properties, and Device Applications. *Laser and Photonics Reviews*, **2019**, 13, 1800327	8.3	203
217	Many-Body Complexes in 2D Semiconductors. *Advanced Materials*, **2019**, 31, e1706945	24	199
216	MXene/Polymer Membranes: Synthesis, Properties, and Emerging Applications. *Chemistry of Materials*, **2020**, 32, 1703-1747	9.6	197
215	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
214	Many-body Effect, Carrier Mobility, and Device Performance of Hexagonal Arsenene and Antimonene. *Chemistry of Materials*, **2017**, 29, 2191-2201	9.6	194
213	Emerging combination strategies with phototherapy in cancer nanomedicine. *Chemical Society Reviews*, **2020**, 49, 8065-8087	58.5	193
212	Black Phosphorus–Polymer Composites for Pulsed Lasers. *Advanced Optical Materials*, **2015**, 3, 1447-1453	8.1	192
211	Biocompatible and biodegradable inorganic nanostructures for nanomedicine: Silicon and black phosphorus. *Nano Today*, **2019**, 25, 135-155	17.9	189
210	Flexible Transparent Electronic Gas Sensors. *Small*, **2016**, 12, 3748-56	11	189
209	Emerging 2D materials beyond graphene for ultrashort pulse generation in fiber lasers. *Nanoscale*, **2019**, 11, 2577-2593	7.7	187
208	Flexible Transparent Films Based on Nanocomposite Networks of Polyaniline and Carbon Nanotubes for High-Performance Gas Sensing. *Small*, **2015**, 11, 5409-15	11	186
207	Topological insulator as an optical modulator for pulsed solid-state lasers. *Laser and Photonics Reviews*, **2013**, 7, L77-L83	8.3	185

206	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
205	Ultrasmall Bismuth Quantum Dots: Facile Liquid-Phase Exfoliation, Characterization, and Application in High-Performance UV□Vis Photodetector. *ACS Photonics*, **2018**, 5, 621-629	6.3	175
204	Ultrafast fiber lasers mode-locked by two-dimensional materials: review and prospect. *Photonics Research*, **2020**, 8, 78	6	173
203	2D Black Phosphorus Saturable Absorbers for Ultrafast Photonics. *Advanced Optical Materials*, **2019**, 7, 1800224	8.1	172
202	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
201	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
200	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
199	Black Phosphorus Based All-Optical-Signal-Processing: Toward High Performances and Enhanced Stability. *ACS Photonics*, **2017**, 4, 1466-1476	6.3	152
198	Recent progress in black phosphorus and black-phosphorus-analogue materials: properties, synthesis and applications. *Nanoscale*, **2019**, 11, 14491-14527	7.7	149
197	Broadband and enhanced nonlinear optical response of MoS2/graphene nanocomposites for ultrafast photonics applications. *Scientific Reports*, **2015**, 5, 16372	4.9	147
196	2D Nonlayered Selenium Nanosheets: Facile Synthesis, Photoluminescence, and Ultrafast Photonics. *Advanced Optical Materials*, **2017**, 5, 1700884	8.1	139
195	Kerr Nonlinearity in 2D Graphdiyne for Passive Photonic Diodes. *Advanced Materials*, **2019**, 31, e1807981	24	136
194	Black phosphorus as broadband saturable absorber for pulsed lasers from 1□m to 2.7□m wavelength. *Laser Physics Letters*, **2016**, 13, 045801	1.5	134
193	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
192	Critical coupling with graphene-based hyperbolic metamaterials. *Scientific Reports*, **2014**, 4, 5483	4.9	129
191	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
190	Photonics and Optoelectronics of 2D Metal-Halide Perovskites. *Small*, **2018**, 14, e1800682	11	128
189	Few-layer bismuthene for ultrashort pulse generation in a dissipative system based on an evanescent field. *Nanoscale*, **2018**, 10, 17617-17622	7.7	127

188	Healable, Transparent, Room-Temperature Electronic Sensors Based on Carbon Nanotube Network-Coated Polyelectrolyte Multilayers. *Small*, **2015**, 11, 5807-13	11	126
187	Order-disorder transition in a two-dimensional boron-carbon-nitride alloy. *Nature Communications*, **2013**, 4, 2681	17.4	125
186	Fluorinated Phosphorene: Electrochemical Synthesis, Atomistic Fluorination, and Enhanced Stability. *Small*, **2017**, 13, 1702739	11	123
185	2D Tellurium Based High-Performance All-Optical Nonlinear Photonic Devices. *Advanced Functional Materials*, **2019**, 29, 1806346	15.6	122
184	Size-dependent nonlinear optical properties of black phosphorus nanosheets and their applications in ultrafast photonics. *Journal of Materials Chemistry C*, **2017**, 5, 3007-3013	7.1	121
183	All-Optical Phosphorene Phase Modulator with Enhanced Stability Under Ambient Conditions. *Laser and Photonics Reviews*, **2018**, 12, 1800016	8.3	118
182	Topological Insulator: $hbox{Bi}_{2}hbox{Te}_{3}$ Saturable Absorber for the Passive Q-Switching Operation of an in-Band Pumped 1645-nm Er:YAG Ceramic Laser. *IEEE Photonics Journal*, **2013**, 5, 1500707-1500707	1.8	118
181	Black phosphorus analogue tin sulfide nanosheets: synthesis and application as near-infrared photothermal agents and drug delivery platforms for cancer therapy. *Journal of Materials Chemistry B*, **2018**, 6, 4747-4755	7.3	116
180	Facile fabrication and characterization of two-dimensional bismuth(iii) sulfide nanosheets for high-performance photodetector applications under ambient conditions. *Nanoscale*, **2018**, 10, 2404-2412	7.7	112
179	Black-phosphorus-analogue tin monosulfide: an emerging optoelectronic two-dimensional material for high-performance photodetection with improved stability under ambient/harsh conditions. *Journal of Materials Chemistry C*, **2018**, 6, 9582-9593	7.1	112
178	Few-Layer Phosphorene-Decorated Microfiber for All-Optical Thresholding and Optical Modulation. *Advanced Optical Materials*, **2017**, 5, 1700026	8.1	106
177	Self-Powered Photodetectors Based on 2D Materials. *Advanced Optical Materials*, **2020**, 8, 1900765	8.1	105
176	Polarization rotation vector solitons in a graphene mode-locked fiber laser. *Optics Express*, **2012**, 20, 27283-9	3.3	100
175	Two-dimensional non-layered selenium nanoflakes: facile fabrications and applications for self-powered photo-detector. *Nanotechnology*, **2019**, 30, 114002	3.4	100
174	2 Ħm passively Q-switched laser based on black phosphorus. *Optical Materials Express*, **2016**, 6, 2374	2.6	97
173	Biocompatible Two-Dimensional Titanium Nanosheets for Multimodal Imaging-Guided Cancer Theranostics. *ACS Applied Materials & Interfaces*, **2019**, 11, 22129-22140	9.5	96
172	Ultrathin 2D Transition Metal Carbides for Ultrafast Pulsed Fiber Lasers. *ACS Photonics*, **2018**, 5, 1808-1816	6.5	96
171	Few-layer selenium-doped black phosphorus: synthesis, nonlinear optical properties and ultrafast photonics applications. *Journal of Materials Chemistry C*, **2017**, 5, 6129-6135	7.1	93

170	Stabilization of Black Phosphorous Quantum Dots in PMMA Nanofiber Film and Broadband Nonlinear Optics and Ultrafast Photonics Application. *Advanced Functional Materials*, **2017**, 27, 1702437	15.6	93
169	High Efficiency Mesoscopic Solar Cells Using CsPbI Perovskite Quantum Dots Enabled by Chemical Interface Engineering. *Journal of the American Chemical Society*, **2020**, 142, 3775-3783	16.4	92
168	An All-Optical, Actively Q-Switched Fiber Laser by an Antimonene-Based Optical Modulator. *Laser and Photonics Reviews*, **2019**, 13, 1800313	8.3	91
167	MXene-Based Nonlinear Optical Information Converter for All-Optical Modulator and Switcher. *Laser and Photonics Reviews*, **2018**, 12, 1800215	8.3	91
166	2D Material Optoelectronics for Information Functional Device Applications: Status and Challenges. *Advanced Science*, **2020**, 7, 2000058	13.6	84
165	Fundamental and harmonic mode-locking at 2.1 Ìm with black phosphorus saturable absorber. *Optics Express*, **2017**, 25, 16916-16921	3.3	84
164	Recent progress in ultrafast lasers based on 2D materials as a saturable absorber. *Applied Physics Reviews*, **2019**, 6, 041304	17.3	82
163	Solar-Inspired Water Purification Based on Emerging 2D Materials: Status and Challenges. *Solar Rrl*, **2020**, 4, 1900400	7.1	81
162	Graphdiyne-Based Flexible Photodetectors with High Responsivity and Detectivity. *Advanced Materials*, **2020**, 32, e2001082	24	80
161	Nonlinear Few-Layer Antimonene-Based All-Optical Signal Processing: Ultrafast Optical Switching and High-Speed Wavelength Conversion. *Advanced Optical Materials*, **2018**, 6, 1701287	8.1	79
160	Topological Insulator Solution Filled in Photonic Crystal Fiber for Passive Mode-Locked Fiber Laser. *IEEE Photonics Technology Letters*, **2015**, 27, 264-267	2.2	79
159	Dual-wavelength Q-switched Er:SrF2 laser with a black phosphorus absorber in the mid-infrared region. *Optics Express*, **2016**, 24, 30289-30295	3.3	79
158	Recent Advances in Functional 2D MXene-Based Nanostructures for Next-Generation Devices. *Advanced Functional Materials*, **2020**, 30, 2005223	15.6	78
157	Few-Layer Topological Insulator for All-Optical Signal Processing Using the Nonlinear Kerr Effect. *Advanced Optical Materials*, **2015**, 3, 1769-1778	8.1	76
156	MXene Ti3C2Tx: A Promising Photothermal Conversion Material and Application in All-Optical Modulation and All-Optical Information Loading. *Advanced Optical Materials*, **2019**, 7, 1900060	8.1	75
155	Two-dimensional tellurium-polymer membrane for ultrafast photonics. *Nanoscale*, **2019**, 11, 6235-6242	7.7	71
154	Two-dimensional bismuth nanosheets as prospective photo-detector with tunable optoelectronic performance. *Nanotechnology*, **2018**, 29, 235201	3.4	71
153	Recent advances in emerging Janus two-dimensional materials: from fundamental physics to device applications. *Journal of Materials Chemistry A*, **2020**, 8, 8813-8830	13	70

152	MXene Ti3C2T x absorber for a 1.06 □h passively Q-switched ceramic laser. *Laser Physics Letters*, **2018**, 15, 085805	1.5	70
151	Recent Developments in Stability and Passivation Techniques of Phosphorene toward Next-Generation Device Applications. *Advanced Functional Materials*, **2019**, 29, 1903419	15.6	69
150	MZI-Based All-Optical Modulator Using MXene Ti3C2Tx (T = F, O, or OH) Deposited Microfiber. *Advanced Materials Technologies*, **2019**, 4, 1800532	6.8	69
149	Mid-Infrared Photonics Using 2D Materials: Status and Challenges. *Laser and Photonics Reviews*, **2020**, 14, 1900098	8.3	68
148	Black phosphorus-based photothermal therapy with aCD47-mediated immune checkpoint blockade for enhanced cancer immunotherapy. *Light: Science and Applications*, **2020**, 9, 161	16.7	68
147	Polydopamine-functionalized black phosphorus quantum dots for cancer theranostics. *Applied Materials Today*, **2019**, 15, 297-304	6.6	67
146	Perovskite CsPbX3: A Promising Nonlinear Optical Material and Its Applications for Ambient All-Optical Switching with Enhanced Stability. *Advanced Optical Materials*, **2018**, 6, 1800400	8.1	67
145	Monolayer tellurene□metal contacts. *Journal of Materials Chemistry C*, **2018**, 6, 6153-6163	7.1	67
144	Applications of Few-Layer NbC MXene: Narrow-Band Photodetectors and Femtosecond Mode-Locked Fiber Lasers. *ACS Nano*, **2021**, 15, 954-965	16.7	65
143	Nonlinear Few-Layer MXene-Assisted All-Optical Wavelength Conversion at Telecommunication Band. *Advanced Optical Materials*, **2019**, 7, 1801777	8.1	64
142	Black phosphorus: A novel nanoplatform with potential in the field of bio-photonic nanomedicine. *Journal of Innovative Optical Health Sciences*, **2018**, 11, 1830003	1.2	63
141	Hetero-MXenes: Theory, Synthesis, and Emerging Applications. *Advanced Materials*, **2021**, 33, e2004129	24	58
140	Enhanced Photodetection Properties of Tellurium@Selenium Roll-to-Roll Nanotube Heterojunctions. *Small*, **2019**, 15, e1900902	11	57
139	A solid-state passively Q-switched Tm,Gd:CaF2laser with a Ti3C2TxMXene absorber near 2□m. *Laser Physics Letters*, **2019**, 16, 015803	1.5	57
138	Graphdiyne-Polymer Nanocomposite as a Broadband and Robust Saturable Absorber for Ultrafast Photonics. *Laser and Photonics Reviews*, **2020**, 14, 1900367	8.3	56
137	Tuning of Interlayer Coupling in Large-Area Graphene/WSe2 van der Waals Heterostructure via Ion Irradiation: Optical Evidences and Photonic Applications. *ACS Photonics*, **2017**, 4, 1531-1538	6.3	55
136	Monolayer Bismuthene-Metal Contacts: A Theoretical Study. *ACS Applied Materials & Interfaces* , **2017**, 9, 23128-23140	9.5	55
135	Bismuth nanosheets as a Q-switcher for a mid-infrared erbium-doped SrF2 laser. *Photonics Research* , **2018**, 6, 762	6	54

134	2D GeP as a Novel Broadband Nonlinear Optical Material for Ultrafast Photonics. *Laser and Photonics Reviews*, **2019**, 13, 1900123	8.3	53
133	A bismuthene-based multifunctional all-optical phase and intensity modulator enabled by photothermal effect. *Journal of Materials Chemistry C*, **2019**, 7, 871-878	7.1	52
132	2D Materials-Based Quantum Dots: Gateway Towards Next-Generation Optical Devices. *Advanced Optical Materials*, **2017**, 5, 1700257	8.1	51
131	Structures, properties and application of 2D monoelemental materials (Xenes) as graphene analogues under defect engineering. *Nano Today*, **2020**, 35, 100906	17.9	51
130	Broadband photodetectors based on 2D group IVA metal chalcogenides semiconductors. *Applied Materials Today*, **2019**, 15, 115-138	6.6	50
129	High-Speed and High-Responsivity Hybrid Silicon/Black-Phosphorus Waveguide Photodetectors at 2 μm. *Laser and Photonics Reviews*, **2019**, 13, 1900032	8.3	48
128	Ultrafast Relaxation Dynamics and Nonlinear Response of Few-Layer Niobium Carbide MXene. *Small Methods*, **2020**, 4, 2000250	12.8	47
127	Recent Progress in 2D Material-Based Saturable Absorbers for All Solid-State Pulsed Bulk Lasers. *Laser and Photonics Reviews*, **2020**, 14, 1900240	8.3	47
126	Fully photon modulated heterostructure for neuromorphic computing. *Nano Energy*, **2019**, 65, 104000	17.1	45
125	Recent advances in solution-processed photodetectors based on inorganic and hybrid photo-active materials. *Nanoscale*, **2020**, 12, 2201-2227	7.7	44
124	Ultraeffective Cancer Therapy with an Antimonene-Based X-Ray Radiosensitizer. *Advanced Functional Materials*, **2020**, 30, 1906010	15.6	41
123	MXenes: Synthesis, Optical Properties, and Applications in Ultrafast Photonics. *Small*, **2021**, 17, e2006054	11	41
122	(Q) -Switched Mode-Locked Nd:YVO4 Laser by Topological Insulator Bi2Te3 Saturable Absorber. *IEEE Photonics Technology Letters*, **2014**, 26, 1912-1915	2.2	40
121	Broadband third order nonlinear optical responses of bismuth telluride nanosheets. *Optical Materials Express*, **2016**, 6, 2244	2.6	40
120	2D group-VA fluorinated antimonene: synthesis and saturable absorption. *Nanoscale*, **2019**, 11, 1762-1769	7.7	39
119	In situ preparation of a CsPbBr/black phosphorus heterostructure with an optimized interface and photodetector application. *Nanoscale*, **2019**, 11, 16852-16859	7.7	39
118	Engineering ultrafast charge transfer in a bismuthene/perovskite nanohybrid. *Nanoscale*, **2019**, 11, 2637-2643	7.7	38
117	Niobium Carbide MXenes with Broad-Band Nonlinear Optical Response and Ultrafast Carrier Dynamics. *ACS Nano*, **2020**, 14, 10492-10502	16.7	37

116	Two-dimensional nanomaterial-based plasmonic sensing applications: Advances and challenges. *Coordination Chemistry Reviews*, **2020**, 410, 213218	23.2	36
115	Synthesis, properties and novel electrocatalytic applications of the 2D-borophene Xenes. *Progress in Solid State Chemistry*, **2020**, 59, 100283	8	35
114	Recent Progress, Challenges, and Prospects in Two-Dimensional Photo-Catalyst Materials and Environmental Remediation. *Nano-Micro Letters*, **2020**, 12, 167	19.5	35
113	Mode locked Nd3+ and Gd3+ co-doped calcium fluoride crystal laser at dual gain lines. *Optics and Laser Technology*, **2018**, 100, 294-297	4.2	35
112	Broadband Nonlinear Photonics in Few-Layer MXene Ti3C2Tx (T = F, O, or OH) (Laser Photonics Rev. 12(2)/2018). *Laser and Photonics Reviews*, **2018**, 12, 1870013	8.3	34
111	Two-dimensional beta-lead oxide quantum dots. *Nanoscale*, **2018**, 10, 20540-20547	7.7	34
110	Few-Layer Antimonene Nanosheet: A Metal-Free Bifunctional Electrocatalyst for Effective Water Splitting. *ACS Applied Energy Materials*, **2019**, 2, 4774-4781	6.1	33
109	Black phosphorus saturable absorber for a diode-pumped passively Q-switched Er:CaF2 mid-infrared laser. *Optics Communications*, **2018**, 406, 158-162	2	33
108	Brain-targeted delivery shuttled by black phosphorus nanostructure to treat Parkinson□s disease. *Biomaterials*, **2020**, 260, 120339	15.6	33
107	2D Nanomaterials for Tissue Engineering and Regenerative Nanomedicines: Recent Advances and Future Challenges. *Advanced Healthcare Materials*, **2021**, 10, e2001743	10.1	33
106	Recent advances in anisotropic two-dimensional materials and device applications. *Nano Research*, **2021**, 14, 897-919	10	32
105	Self-Healable Black Phosphorus Photodetectors. *Advanced Functional Materials*, **2019**, 29, 1906610	15.6	31
104	MXene Ti 3 C 2 T x saturable absorber for pulsed laser at 1.3 □m. *Chinese Physics B*, **2018**, 27, 094214	1.2	29
103	Emerging black phosphorus analogue nanomaterials for high-performance device applications. *Journal of Materials Chemistry C*, **2020**, 8, 1172-1197	7.1	28
102	Van der Waals Integration of Bismuth Quantum Dots-Decorated Tellurium Nanotubes (Te@Bi) Heterojunctions and Plasma-Enhanced Optoelectronic Applications. *Small*, **2019**, 15, e1903233	11	27
101	Present advances and perspectives of broadband photo-detectors based on emerging 2D-Xenes beyond graphene. *Nano Research*, **2020**, 13, 891-918	10	27
100	Generation, optimization, and application of ultrashort femtosecond pulse in mode-locked fiber lasers. *Progress in Quantum Electronics*, **2020**, 71, 100264	9.1	27
99	Large-energy, narrow-bandwidth laser pulse at 1645 nm in a diode-pumped Er:YAG solid-state laser passively Q-switched by a monolayer graphene saturable absorber. *Applied Optics*, **2014**, 53, 254-8	1.7	27

98	MXene saturable absorber enabled hybrid mode-locking technology: a new routine of advancing femtosecond fiber lasers performance. *Nanophotonics*, **2020**, 9, 2451-2458	6.3	27
97	Zero-Dimensional MXene-Based Optical Devices for Ultrafast and Ultranarrow Photonics Applications. *Advanced Science*, **2020**, 7, 2002209	13.6	27
96	Broadband Nonlinear Optical Response of InSe Nanosheets for the Pulse Generation From 1 to 2 □m. *ACS Applied Materials & Interfaces*, **2019**, 11, 48281-48289	9.5	27
95	Stability of Perovskite Light Sources: Status and Challenges. *Advanced Optical Materials*, **2020**, 8, 1902012	8.1	26
94	NiPS nanoflakes: a nonlinear optical material for ultrafast photonics. *Nanoscale*, **2019**, 11, 14383-14391	7.7	26
93	Epitaxial Growth of Topological Insulators on Semiconductors (Bi2Se3/Te@Se) toward High-Performance Photodetectors. *Small Methods*, **2019**, 3, 1900349	12.8	26
92	MXene: two dimensional inorganic compounds, for generation of bound state soliton pulses in nonlinear optical system. *Nanophotonics*, **2020**, 9, 2505-2513	6.3	26
91	Black Phosphorus Quantum Dots as an Efficient Saturable Absorber for Bound Soliton Operation in an Erbium Doped Fiber Laser. *IEEE Photonics Journal*, **2016**, 8, 1-10	1.8	25
90	Recent advances in photodynamic therapy based on emerging two-dimensional layered nanomaterials. *Nano Research*, **2020**, 13, 1485-1508	10	24
89	Highly stable MXene (V2CTx)-based harmonic pulse generation. *Nanophotonics*, **2020**, 9, 2577-2585	6.3	24
88	The visible nonlinear optical properties and passively Q-switched laser application of a layered PtSe material. *Nanoscale*, **2020**, 12, 1061-1066	7.7	24
87	Nonlinear Photonics Using Low-Dimensional Metal-Halide Perovskites: Recent Advances and Future Challenges. *Advanced Materials*, **2021**, 33, e2004446	24	24
86	Polarization domain wall pulses in a microfiber-based topological insulator fiber laser. *Scientific Reports*, **2016**, 6, 29128	4.9	23
85	Dual-wavelength continuous-wave and passively Q-switched Nd,Y:SrF2 ceramic laser. *Optical Engineering*, **2016**, 55, 106114	1.1	23
84	Chemistry, Functionalization, and Applications of Recent Monoelemental Two-Dimensional Materials and Their Heterostructures. *Chemical Reviews*, **2021**,	68.1	23
83	Wideband tunable passively Q-switched fiber laser at 28 □m using a broadband carbon nanotube saturable absorber. *Photonics Research*, **2019**, 7, 14	6	23
82	Status and Outlook of Metal□norganic Semiconductor□Metal Photodetectors. *Laser and Photonics Reviews*, **2021**, 15, 2000401	8.3	23
81	Two-Dimensional Materials for Integrated Photonics: Recent Advances and Future Challenges. *Small Science*, **2021**, 1, 2000053		23

80	Site-Selective Bi2Te3/GeTe2 Heterostructure as a Broadband Saturable Absorber for Ultrafast Photonics. *Laser and Photonics Reviews*, **2020**, 14, 1900409	8.3	21
79	Halogenated Antimonene: One-Step Synthesis, Structural Simulation, Tunable Electronic and Photoresponse Property. *Advanced Functional Materials*, **2019**, 29, 1905857	15.6	21
78	Sensing Applications of Atomically Thin Group IV Carbon Siblings Xenes: Progress, Challenges, and Prospects. *Advanced Functional Materials*, **2021**, 31, 2005957	15.6	21
77	Beta-lead oxide quantum dot (β-PbO QD)/polystyrene (PS) composite films and their applications in ultrafast photonics. *Nanoscale*, **2019**, 11, 6828-6837	7.7	20
76	Few-layer hexagonal bismuth telluride (Bi2Te3) nanoplates with high-performance UV-Vis photodetection. *Nanoscale Advances*, **2020**, 2, 1333-1339	5.1	20
75	Advancing Applications of Black Phosphorus and BP-Analog Materials in Photo/Electrocatalysis through Structure Engineering and Surface Modulation. *Advanced Science*, **2020**, 7, 2001431	13.6	20
74	Ultra-Small 2D PbS Nanoplatelets: Liquid-Phase Exfoliation and Emerging Applications for Photo-Electrochemical Photodetectors. *Small*, **2021**, 17, e2005913	11	20
73	Continuous-wave and mode-locked operation of a diode-pumped Nd,La:CaF_2 laser. *Optical Materials Express*, **2015**, 5, 1972	2.6	19
72	Two-dimensional porous coordination polymers and nano-composites for electrocatalysis and electrically conductive applications. *Journal of Materials Chemistry A*, **2020**, 8, 14356-14383	13	19
71	Black phosphorus quantum dot based all-optical signal processing: ultrafast optical switching and wavelength converting. *Nanotechnology*, **2019**, 30, 415202	3.4	19
70	Recent investigations on nonlinear absorption properties of carbon nanotubes. *Nanophotonics*, **2020**, 9, 761-781	6.3	19
69	Janus nanoparticles for cellular delivery chemotherapy: Recent advances and challenges. *Coordination Chemistry Reviews*, **2020**, 422, 213467	23.2	19
68	Photodynamic immunotherapy of cancers based on nanotechnology: recent advances and future challenges. *Journal of Nanobiotechnology*, **2021**, 19, 160	9.4	19
67	Booming development and present advances of two dimensional MXenes for photodetectors. *Chemical Engineering Journal*, **2021**, 403, 126336	14.7	19
66	Synthesis Techniques, Optoelectronic Properties, and Broadband Photodetection of Thin-Film Black Phosphorus. *Advanced Optical Materials*, **2020**, 8, 2000045	8.1	18
65	2D van der Waals heterostructures: processing, optical properties and applications in ultrafast photonics. *Materials Horizons*, **2020**, 7, 2903-2921	14.4	18
64	Two-Dimensional Black Arsenic Phosphorus for Ultrafast Photonics in Near- and Mid-Infrared Regimes. *ACS Applied Materials & Interfaces*, **2020**, 12, 46509-46518	9.5	18
63	Revival of Zeolite-Templated Nanocarbon Materials: Recent Advances in Energy Storage and Conversion. *Advanced Science*, **2020**, 7, 2001335	13.6	18

62	Recent Advances in Semiconducting Monoelemental Selenium Nanostructures for Device Applications. *Advanced Functional Materials*, **2020**, 30, 2003301	15.6	18
61	Phase Transitions and Water Splitting Applications of 2D Transition Metal Dichalcogenides and Metal Phosphorous Trichalcogenides. *Advanced Science*, **2021**, 8, 2002284	13.6	18
60	Prodrug-Loaded Zirconium Carbide Nanosheets as a Novel Biophotonic Nanoplatform for Effective Treatment of Cancer. *Advanced Science*, **2020**, 7, 2001191	13.6	17
59	Emerging 2D pnictogens for catalytic applications: status and challenges. *Journal of Materials Chemistry A*, **2020**, 8, 12887-12927	13	17
58	Synthesis and optoelectronics of mixed-dimensional Bi/Te binary heterostructures. *Nanoscale Horizons*, **2020**, 5, 847-856	10.8	17
57	Emerging Mono-Elemental Bismuth Nanostructures: Controlled Synthesis and Their Versatile Applications. *Advanced Functional Materials*, **2021**, 31, 2007584	15.6	17
56	PbSe Nanocrystals Produced by Facile Liquid Phase Exfoliation for Efficient UV□Vis Photodetectors. *Advanced Functional Materials*, **2021**, 31, 2010401	15.6	17
55	Low-dimensional saturable absorbers for ultrafast photonics in solid-state bulk lasers: status and prospects. *Nanophotonics*, **2020**, 9, 2603-2639	6.3	16
54	All-optical signal processing in few-layer bismuthene coated microfiber: towards applications in optical fiber systems. *Optics Express*, **2019**, 27, 16798-16811	3.3	15
53	Ti3C2Tx MXene Quantum Dots with Enhanced Stability for Ultrafast Photonics. *ACS Applied Nano Materials*, **2020**, 3, 11850-11860	5.6	15
52	Ultrasensitive detection of microRNA using a bismuthene-enabled fluorescence quenching biosensor. *Chemical Communications*, **2020**, 56, 7041-7044	5.8	14
51	Bismuth quantum dots as an optical saturable absorber for a 1.3 □m Q-switched solid-state laser. *Applied Optics*, **2019**, 58, 1621-1625	1.7	14
50	Recent development and advances in Photodetectors based on two-dimensional topological insulators. *Journal of Materials Chemistry C*, **2020**, 8, 15526-15574	7.1	14
49	Recent advances in multiphoton microscopy combined with nanomaterials in the field of disease evolution and clinical applications to liver cancer. *Nanoscale*, **2019**, 11, 19619-19635	7.7	14
48	Tunable Nd, La:SrF 2 laser and passively Q-switched operation based on gold nanobipyramids saturable absorber. *Chinese Physics B*, **2017**, 26, 024205	1.2	13
47	2D Materials Enabled Next-Generation Integrated Optoelectronics: from Fabrication to Applications. *Advanced Science*, **2021**, 8, e2003834	13.6	13
46	Dual-wavelength mode-locked operation on a novel Nd^3+,Gd^3+:SrF_2 crystal laser. *Optical Materials Express*, **2016**, 6, 1513	2.6	13
45	Passively Q-switched operation of in-band pumped Ho:YLF based on Ti3C2Tx MXene. *Infrared Physics and Technology*, **2019**, 103, 103076	2.7	13

44	The chemistry of colloidal semiconductor nanocrystals: From metal-chalcogenides to emerging perovskite. *Coordination Chemistry Reviews*, **2020**, 418, 213333	23.2	11
43	Passively Q-switched near-infrared lasers with bismuthene quantum dots as the saturable absorber. *Optics and Laser Technology*, **2020**, 128, 106219	4.2	11
42	Phosphorene-assisted silicon photonic modulator with fast response time. *Nanophotonics*, **2020**, 9, 1973-1979	6.3	10
41	Sub-hundred nanosecond pulse generation from a black phosphorus Q-switched Er-doped fiber laser. *Optics Express*, **2020**, 28, 4708-4716	3.3	10
40	Tunable Yb:CaF2-SrF2 laser and femtosecond mode-locked performance based on semiconductor saturable absorber mirrors. *Applied Optics*, **2016**, 55, 8359-8362	0.2	10
39	Recent Advances in Hybridization, Doping, and Functionalization of 2D Xenes. *Advanced Functional Materials*, **2021**, 31, 2005471	15.6	10
38	Black Phosphorus: Black Phosphorus Nanosheets as a Robust Delivery Platform for Cancer Theranostics (Adv. Mater. 1/2017). *Advanced Materials*, **2017**, 29,	24	9
37	Photocarrier relaxation pathways in selenium quantum dots and their application in UV-Vis photodetection. *Nanoscale*, **2020**, 12, 11232-11241	7.7	9
36	Ultrafast pulse lasers based on two-dimensinal nanomaterials. *Wuli Xuebao/Acta Physica Sinica*, **2019**, 68, 188101	0.6	9
35	Recent advances of low-dimensional materials in Mid- and Far-infrared photonics. *Applied Materials Today*, **2020**, 21, 100800	6.6	9
34	NiS2 as a broadband saturable absorber for ultrafast pulse lasers. *Optics and Laser Technology*, **2020**, 132, 106492	4.2	9
33	Bismuthene quantum dots based optical modulator for MIR lasers at 2□m. *Optical Materials*, **2020**, 102, 109830	3.3	8
32	Quantum confinement-induced enhanced nonlinearity and carrier lifetime modulation in two-dimensional tin sulfide. *Nanophotonics*, **2020**, 9, 1963-1972	6.3	8
31	Efficient continuous-wave and 739 fs mode-locked laser on a novel Nd3+, La3+co-doped SrF2disordered crystal. *Laser Physics Letters*, **2016**, 13, 095802	1.5	8
30	Optical-intensity modulators with PbTe thermoelectric nanopowders for ultrafast photonics. *Applied Materials Today*, **2022**, 28, 101546	6.6	8
29	Broadband nonlinear optical response in GeSe nanoplates and its applications in all-optical diode. *Nanophotonics*, **2020**, 9, 2007-2015	6.3	7
28	Passive mode-locking operation of a diode-pumped Tm:YAG laser with a MoS2 saturable absorber. *Optics and Laser Technology*, **2020**, 124, 105986	4.2	7
27	Smart nano-micro platforms for ophthalmological applications: The state-of-the-art and future perspectives. *Biomaterials*, **2021**, 270, 120682	15.6	7

26	The emerging ferroic orderings in two dimensions. *Science China Information Sciences*, **2019**, 62, 1	3.4	7
25	Advances in photonics of recently developed Xenes. *Nanophotonics*, **2020**, 9, 1621-1649	6.3	6
24	Recent advances in real-time spectrum measurement of soliton dynamics by dispersive Fourier transformation. *Reports on Progress in Physics*, **2020**, 83, 116401	14.4	6
23	Magnetic black phosphorus microbubbles for targeted tumor theranostics. *Nanophotonics*, **2021**, 10, 3339-3358	6.3	6
22	Berlin Green Framework-Based Gas Sensor for Room-Temperature and High-Selectivity Detection of Ammonia. *Nano-Micro Letters*, **2021**, 13, 63	19.5	6
21	A nano-lateral heterojunction of selenium-coated tellurium for infrared-band soliton fiber lasers. *Nanoscale*, **2020**, 12, 15252-15260	7.7	5
20	Recent progress and strategies in photodetectors based on 2D inorganic/organic heterostructures. *2D Materials*, **2021**, 8, 012001	5.9	5
19	Tellurium@Selenium core-shell hetero-junction: Facile synthesis, nonlinear optics, and ultrafast photonics applications towards mid-infrared regime. *Applied Materials Today*, **2020**, 20, 100657	6.6	5
18	Narrow-bandgap materials for optoelectronics applications. *Frontiers of Physics*, **2022**, 17, 1	3.7	5
17	Ultrafast photonics applications of emerging 2D-Xenes beyond graphene. *Nanophotonics*, **2022**, 11, 1261-1284	6.3	5
16	Continuous-wave and Q-switched Nd:BGSO lasers based on bismuth nanosheets absorber. *Applied Optics*, **2019**, 58, 6545-6548	1.7	4
15	Facile sonochemical-assisted synthesis of orthorhombic phase black phosphorus/rGO hybrids for effective photothermal therapy. *Nanophotonics*, **2020**, 9, 3023-3034	6.3	4
14	The codopant assisted tunable photoluminescence and highly efficient CW lasers in Nd3+:SrF2 crystal. *Journal of Luminescence*, **2020**, 219, 116911	3.8	4
13	Boron quantum dots all-optical modulator based on efficient photothermal effect. *Opto-Electronic Advances*, **2021**, 4, 200032-200032	6.5	4
12	All-Optical Active Q-Switching: An All-Optical, Actively Q-Switched Fiber Laser by an Antimonene-Based Optical Modulator (Laser Photonics Rev. 13(4)/2019). *Laser and Photonics Reviews*, **2019**, 13, 1970020	8.3	3
11	Highly efficient continuous-wave laser operation of LD-pumped Nd,Gd:CaF2and Nd,Y:CaF2crystals. *Laser Physics Letters*, **2018**, 15, 055802	1.5	3
10	Water-Dispersible CsPbBr Perovskite Nanocrystals with Ultra-Stability and its Application in Electrochemical CO Reduction. *Nano-Micro Letters*, **2021**, 13, 172	19.5	3
9	2D materials for bone therapy. *Advanced Drug Delivery Reviews*, **2021**, 178, 113970	18.5	3

8	Tunable engineering of photo- and electro-induced carrier dynamics in perovskite photoelectronic devices. *Science China Materials*,1	7.1	2
7	An Insightful Picture of Nonlinear Photonics in 2D Materials and their Applications: Recent Advances and Future Prospects. *Advanced Optical Materials*, **2021**, 9, 2001671	8.1	2
6	Low-dimensional nanomaterials enabled autoimmune disease treatments: Recent advances, strategies, and future challenges. *Coordination Chemistry Reviews*, **2021**, 432, 213697	23.2	2
5	Performance analysis of photo-electrochemical photodetector based on liquid-phase exfoliation few-layered graphdiyne nanosheets. *Nanophotonics*, **2021**, 10, 2833-2845	6.3	2
4	Recent Advances and Challenges in Ultrafast Photonics Enabled by Metal Nanomaterials. *Advanced Optical Materials*,2200443	8.1	2
3	Material-based engineering of bacteria for cancer diagnosis and therapy. *Applied Materials Today*, **2021**, 25, 101212	6.6	1
2	Broadband and ultrafast all-optical switching based on transition metal carbide. *Nanophotonics*, **2021**, 10, 2617-2623	6.3	1
1	Recent advances and challenges on dark solitons in fiber lasers. *Optics and Laser Technology*, **2022**, 152, 108116	4.2	1