

# Jiamei Lin

## List of Publications by Citations

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443  
papers

34,188  
citations

97  
h-index

173  
g-index

468  
ext. papers

41,845  
ext. citations

10.2  
avg, IF

7.83  
L-index

#	Paper	IF	Citations
443	Atomic-Layer Graphene as a Saturable Absorber for Ultrafast Pulsed Lasers. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 3077-3083	15.6	1875
442	Broadband graphene polarizer. <i>Nature Photonics</i> , <b>2011</b> , 5, 411-415	33.9	806
441	Ultrasmall Black Phosphorus Quantum Dots: Synthesis and Use as Photothermal Agents. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 11526-30	16.4	745
440	Mechanically exfoliated black phosphorus as a new saturable absorber for both Q-switching and Mode-locking laser operation. <i>Optics Express</i> , <b>2015</b> , 23, 12823-33	3.3	734
439	From Black Phosphorus to Phosphorene: Basic Solvent Exfoliation, Evolution of Raman Scattering, and Applications to Ultrafast Photonics. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 6996-7002	15.6	725
438	Biodegradable black phosphorus-based nanospheres for in vivo photothermal cancer therapy. <i>Nature Communications</i> , <b>2016</b> , 7, 12967	17.4	659
437	Black Phosphorus Nanosheets as a Robust Delivery Platform for Cancer Theranostics. <i>Advanced Materials</i> , <b>2017</b> , 29, 1603276	24	546
436	Novel concept of the smart NIR-light-controlled drug release of black phosphorus nanostructure for cancer therapy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 501-506	11.5	518
435	Z-scan measurement of the nonlinear refractive index of graphene. <i>Optics Letters</i> , <b>2012</b> , 37, 1856-8	3	502
434	Broadband Nonlinear Photonics in Few-Layer MXene Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (T = F, O, or OH). <i>Laser and Photonics Reviews</i> , <b>2018</b> , 12, 1700229	8.3	438
433	Antimonene Quantum Dots: Synthesis and Application as Near-Infrared Photothermal Agents for Effective Cancer Therapy. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 11896-11900	16.4	391
432	Graphene Polymer Nanofiber Membrane for Ultrafast Photonics. <i>Advanced Functional Materials</i> , <b>2010</b> , 20, 782-791	15.6	382
431	Metal-Ion-Modified Black Phosphorus with Enhanced Stability and Transistor Performance. <i>Advanced Materials</i> , <b>2017</b> , 29, 1703811	24	353
430	Emerging two-dimensional monoelemental materials (Xenes) for biomedical applications. <i>Chemical Society Reviews</i> , <b>2019</b> , 48, 2891-2912	58.5	345
429	2D Black Phosphorus Based Biomedical Applications. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1808306	15.6	329
428	Microfiber-based few-layer black phosphorus saturable absorber for ultra-fast fiber laser. <i>Optics Express</i> , <b>2015</b> , 23, 20030-9	3.3	322
427	Monolayer graphene as a saturable absorber in a mode-locked laser. <i>Nano Research</i> , <b>2011</b> , 4, 297-307	10	322

426	Ultrasensitive detection of miRNA with an antimonene-based surface plasmon resonance sensor. <i>Nature Communications</i> , <b>2019</b> , 10, 28	17.4	309
425	Ultrathin 2D Nonlayered Tellurium Nanosheets: Facile Liquid-Phase Exfoliation, Characterization, and Photoresponse with High Performance and Enhanced Stability. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1705833	15.6	277
424	Omnipotent phosphorene: a next-generation, two-dimensional nanoplatfrom for multidisciplinary biomedical applications. <i>Chemical Society Reviews</i> , <b>2018</b> , 47, 5588-5601	58.5	274
423	Solvothermal Synthesis and Ultrafast Photonics of Black Phosphorus Quantum Dots. <i>Advanced Optical Materials</i> , <b>2016</b> , 4, 1223-1229	8.1	267
422	Few-layer Bismuthene: Sonochemical Exfoliation, Nonlinear Optics and Applications for Ultrafast Photonics with Enhanced Stability. <i>Laser and Photonics Reviews</i> , <b>2018</b> , 12, 1700221	8.3	265
421	Photonics and optoelectronics using nano-structured hybrid perovskite media and their optical cavities. <i>Physics Reports</i> , <b>2019</b> , 795, 1-51	27.7	262
420	Advances in nanomaterials for photodynamic therapy applications: Status and challenges. <i>Biomaterials</i> , <b>2020</b> , 237, 119827	15.6	262
419	Two-Dimensional Antimonene-Based Photonic Nanomedicine for Cancer Theranostics. <i>Advanced Materials</i> , <b>2018</b> , 30, e1802061	24	260
418	A Novel Top-Down Synthesis of Ultrathin 2D Boron Nanosheets for Multimodal Imaging-Guided Cancer Therapy. <i>Advanced Materials</i> , <b>2018</b> , 30, e1803031	24	254
417	Few-Layer Black Phosphorus Nanosheets as Electrocatalysts for Highly Efficient Oxygen Evolution Reaction. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700396	21.8	251
416	Recent advances in black phosphorus-based photonics, electronics, sensors and energy devices. <i>Materials Horizons</i> , <b>2017</b> , 4, 997-1019	14.4	250
415	Environmentally Robust Black Phosphorus Nanosheets in Solution: Application for Self-Powered Photodetector. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1606834	15.6	244
414	2D V-V Binary Materials: Status and Challenges. <i>Advanced Materials</i> , <b>2019</b> , 31, e1902352	24	236
413	Two-Dimensional CHNHPbI Perovskite Nanosheets for Ultrafast Pulsed Fiber Lasers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 12759-12765	9.5	231
412	Sub-200 fs soliton mode-locked fiber laser based on bismuthene saturable absorber. <i>Optics Express</i> , <b>2018</b> , 26, 22750-22760	3.3	229
411	Recent developments in emerging two-dimensional materials and their applications. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 387-440	7.1	227
410	Emerging Trends in Phosphorene Fabrication towards Next Generation Devices. <i>Advanced Science</i> , <b>2017</b> , 4, 1600305	13.6	224
409	Facile Synthesis of Black Phosphorus: an Efficient Electrocatalyst for the Oxygen Evolving Reaction. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 13849-13853	16.4	223

408	Black phosphorus as saturable absorber for the Q-switched Er:ZBLAN fiber laser at 2.8 $\mu\text{m}$ . <i>Optics Express</i> , <b>2015</b> , 23, 24713-8	3.3	222
407	Broadband Nonlinear Photoresponse of 2D TiS <sub>2</sub> for Ultrashort Pulse Generation and All-Optical Thresholding Devices. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1701166	8.1	217
406	Two-Dimensional MXene (TiC)-Integrated Cellulose Hydrogels: Toward Smart Three-Dimensional Network Nanoplatfoms Exhibiting Light-Induced Swelling and Bimodal Photothermal/Chemotherapy Anticancer Activity. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 27631-27643	9.5	217
405	Ultrathin MetalOrganic Framework: An Emerging Broadband Nonlinear Optical Material for Ultrafast Photonics. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1800561	8.1	214
404	Small gold nanorods laden macrophages for enhanced tumor coverage in photothermal therapy. <i>Biomaterials</i> , <b>2016</b> , 74, 144-54	15.6	209
403	Two-dimensional material-based saturable absorbers: towards compact visible-wavelength all-fiber pulsed lasers. <i>Nanoscale</i> , <b>2016</b> , 8, 1066-72	7.7	209
402	Broadband Nonlinear Optical Response in Few-Layer Antimonene and Antimonene Quantum Dots: A Promising Optical Kerr Media with Enhanced Stability. <i>Advanced Optical Materials</i> , <b>2017</b> , 5, 1700301	8.1	207
401	High-Performance Photo-Electrochemical Photodetector Based on Liquid-Exfoliated Few-Layered InSe Nanosheets with Enhanced Stability. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1705237	15.6	206
400	Photothermal cancer immunotherapy by erythrocyte membrane-coated black phosphorus formulation. <i>Journal of Controlled Release</i> , <b>2019</b> , 296, 150-161	11.7	205
399	Few-layer black phosphorus based saturable absorber mirror for pulsed solid-state lasers. <i>Optics Express</i> , <b>2015</b> , 23, 22643-8	3.3	203
398	Photonics and optoelectronics of two-dimensional materials beyond graphene. <i>Nanotechnology</i> , <b>2016</b> , 27, 462001	3.4	203
397	2D Layered Materials: Synthesis, Nonlinear Optical Properties, and Device Applications. <i>Laser and Photonics Reviews</i> , <b>2019</b> , 13, 1800327	8.3	203
396	Ultrasmall Black Phosphorus Quantum Dots: Synthesis and Use as Photothermal Agents. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 11688-11692	3.6	201
395	Many-Body Complexes in 2D Semiconductors. <i>Advanced Materials</i> , <b>2019</b> , 31, e1706945	24	199
394	TiL -Coordinated Black Phosphorus Quantum Dots as an Efficient Contrast Agent for In Vivo Photoacoustic Imaging of Cancer. <i>Small</i> , <b>2017</b> , 13, 1602896	11	198
393	MXene/Polymer Membranes: Synthesis, Properties, and Emerging Applications. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 1703-1747	9.6	197
392	Black phosphorus: a two-dimension saturable absorption material for mid-infrared Q-switched and mode-locked fiber lasers. <i>Scientific Reports</i> , <b>2016</b> , 6, 30361	4.9	197
391	Present perspectives of broadband photodetectors based on nanobelts, nanoribbons, nanosheets and the emerging 2D materials. <i>Nanoscale</i> , <b>2016</b> , 8, 6410-34	7.7	196

390	Microwave and optical saturable absorption in graphene. <i>Optics Express</i> , <b>2012</b> , 20, 23201-14	3.3	196
389	Robust SnO Nanoparticle-Impregnated Carbon Nanofibers with Outstanding Electrochemical Performance for Advanced Sodium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 8901-8905	16.4	195
388	Many-body Effect, Carrier Mobility, and Device Performance of Hexagonal Arsenene and Antimonene. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 2191-2201	9.6	194
387	MXene-Enabled Electrochemical Microfluidic Biosensor: Applications toward Multicomponent Continuous Monitoring in Whole Blood. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1807326	15.6	194
386	Black Phosphorus Polymer Composites for Pulsed Lasers. <i>Advanced Optical Materials</i> , <b>2015</b> , 3, 1447-1453	8.1	192
385	Biocompatible and biodegradable inorganic nanostructures for nanomedicine: Silicon and black phosphorus. <i>Nano Today</i> , <b>2019</b> , 25, 135-155	17.9	189
384	Flexible Transparent Electronic Gas Sensors. <i>Small</i> , <b>2016</b> , 12, 3748-56	11	189
383	Emerging 2D materials beyond graphene for ultrashort pulse generation in fiber lasers. <i>Nanoscale</i> , <b>2019</b> , 11, 2577-2593	7.7	187
382	Flexible Transparent Films Based on Nanocomposite Networks of Polyaniline and Carbon Nanotubes for High-Performance Gas Sensing. <i>Small</i> , <b>2015</b> , 11, 5409-15	11	186
381	Graphene oxide/black phosphorus nanoflake aerogels with robust thermo-stability and significantly enhanced photothermal properties in air. <i>Nanoscale</i> , <b>2017</b> , 9, 8096-8101	7.7	183
380	Ultrasmall Bismuth Quantum Dots: Facile Liquid-Phase Exfoliation, Characterization, and Application in High-Performance UV-vis Photodetector. <i>ACS Photonics</i> , <b>2018</b> , 5, 621-629	6.3	175
379	Plant cell-surface GIPC sphingolipids sense salt to trigger Ca influx. <i>Nature</i> , <b>2019</b> , 572, 341-346	50.4	174
378	Graphene/Bi <sub>2</sub> Te <sub>3</sub> Heterostructure as Saturable Absorber for Short Pulse Generation. <i>ACS Photonics</i> , <b>2015</b> , 2, 832-841	6.3	174
377	Metabolizable Ultrathin Bi <sub>2</sub> Se <sub>3</sub> Nanosheets in Imaging-Guided Photothermal Therapy. <i>Small</i> , <b>2016</b> , 12, 4136-45	11	168
376	Vector soliton fiber laser passively mode locked by few layer black phosphorus-based optical saturable absorber. <i>Optics Express</i> , <b>2016</b> , 24, 25933-25942	3.3	163
375	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. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1700985	8.1	162
374	Recent advances in two-dimensional-material-based sensing technology toward health and environmental monitoring applications. <i>Nanoscale</i> , <b>2020</b> , 12, 3535-3559	7.7	155
373	Black Phosphorus Based All-Optical-Signal-Processing: Toward High Performances and Enhanced Stability. <i>ACS Photonics</i> , <b>2017</b> , 4, 1466-1476	6.3	152

372	Short-Chain Ligand-Passivated Stable CsPbI <sub>3</sub> Quantum Dot for All-Inorganic Perovskite Solar Cells. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1900991	15.6	149
371	Conceptually Novel Black Phosphorus/Cellulose Hydrogels as Promising Photothermal Agents for Effective Cancer Therapy. <i>Advanced Healthcare Materials</i> , <b>2018</b> , 7, e1701510	10.1	139
370	2D Nonlayered Selenium Nanosheets: Facile Synthesis, Photoluminescence, and Ultrafast Photonics. <i>Advanced Optical Materials</i> , <b>2017</b> , 5, 1700884	8.1	139
369	Highly Efficient and Air-Stable Infrared Photodetector Based on 2D Layered Graphene-Black Phosphorus Heterostructure. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 36137-36145	9.5	138
368	Kerr Nonlinearity in 2D Graphdiyne for Passive Photonic Diodes. <i>Advanced Materials</i> , <b>2019</b> , 31, e1807981	12.4	136
367	New Strategy for Polysulfide Protection Based on Atomic Layer Deposition of TiO <sub>2</sub> onto Ferroelectric-Encapsulated Cathode: Toward Ultrastable Free-Standing Room Temperature Sodium Sulfur Batteries. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1705537	15.6	134
366	A black/red phosphorus hybrid as an electrode material for high-performance Li-ion batteries and supercapacitors. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 6581-6588	13	132
365	Critical coupling with graphene-based hyperbolic metamaterials. <i>Scientific Reports</i> , <b>2014</b> , 4, 5483	4.9	129
364	All-Optical Switching of Two Continuous Waves in Few Layer Bismuthene Based on Spatial Cross-Phase Modulation. <i>ACS Photonics</i> , <b>2017</b> , 4, 2852-2861	6.3	128
363	Simultaneous voltammetric determination of acetaminophen and isoniazid using MXene modified screen-printed electrode. <i>Biosensors and Bioelectronics</i> , <b>2019</b> , 130, 315-321	11.8	128
362	Photonics and Optoelectronics of 2D Metal-Halide Perovskites. <i>Small</i> , <b>2018</b> , 14, e1800682	11	128
361	Self-Standing Polypyrrole/Black Phosphorus Laminated Film: Promising Electrode for Flexible Supercapacitor with Enhanced Capacitance and Cycling Stability. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 3538-3548	9.5	127
360	Healable, Transparent, Room-Temperature Electronic Sensors Based on Carbon Nanotube Network-Coated Polyelectrolyte Multilayers. <i>Small</i> , <b>2015</b> , 11, 5807-13	11	126
359	Fluorinated Phosphorene: Electrochemical Synthesis, Atomistic Fluorination, and Enhanced Stability. <i>Small</i> , <b>2017</b> , 13, 1702739	11	123
358	2D Tellurium Based High-Performance All-Optical Nonlinear Photonic Devices. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1806346	15.6	122
357	Size-dependent nonlinear optical properties of black phosphorus nanosheets and their applications in ultrafast photonics. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 3007-3013	7.1	121
356	All-Optical Phosphorene Phase Modulator with Enhanced Stability Under Ambient Conditions. <i>Laser and Photonics Reviews</i> , <b>2018</b> , 12, 1800016	8.3	118
355	Vector dissipative solitons in graphene mode locked fiber lasers. <i>Optics Communications</i> , <b>2010</b> , 283, 3334-3338	11.8	118

354	Strong Depletion in Hybrid Perovskite p-n Junctions Induced by Local Electronic Doping. <i>Advanced Materials</i> , <b>2018</b> , 30, e1705792	24	113
353	Black-phosphorus-analogue tin monosulfide: an emerging optoelectronic two-dimensional material for high-performance photodetection with improved stability under ambient/harsh conditions. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 9582-9593	7.1	112
352	Vector multi-soliton operation and interaction in a graphene mode-locked fiber laser. <i>Optics Express</i> , <b>2013</b> , 21, 10010-8	3.3	110
351	Few-Layer Phosphorene-Decorated Microfiber for All-Optical Thresholding and Optical Modulation. <i>Advanced Optical Materials</i> , <b>2017</b> , 5, 1700026	8.1	106
350	Black phosphorus quantum dot based novel siRNA delivery systems in human pluripotent teratoma PA-1 cells. <i>Journal of Materials Chemistry B</i> , <b>2017</b> , 5, 5433-5440	7.3	103
349	Polarization rotation vector solitons in a graphene mode-locked fiber laser. <i>Optics Express</i> , <b>2012</b> , 20, 27283-9	3.3	100
348	Recent Progress of Two-Dimensional Thermoelectric Materials. <i>Nano-Micro Letters</i> , <b>2020</b> , 12, 36	19.5	98
347	ROS-Mediated Selective Killing Effect of Black Phosphorus: Mechanistic Understanding and Its Guidance for Safe Biomedical Applications. <i>Nano Letters</i> , <b>2020</b> , 20, 3943-3955	11.5	97
346	2 th passively Q-switched laser based on black phosphorus. <i>Optical Materials Express</i> , <b>2016</b> , 6, 2374	2.6	97
345	Biocompatible Two-Dimensional Titanium Nanosheets for Multimodal Imaging-Guided Cancer Theranostics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 22129-22140	9.5	96
344	Ultrathin 2D Transition Metal Carbides for Ultrafast Pulsed Fiber Lasers. <i>ACS Photonics</i> , <b>2018</b> , 5, 1808-1866		96
343	Skymion dynamics in a frustrated ferromagnetic film and current-induced helicity locking-unlocking transition. <i>Nature Communications</i> , <b>2017</b> , 8, 1717	17.4	95
342	Few-layer selenium-doped black phosphorus: synthesis, nonlinear optical properties and ultrafast photonics applications. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 6129-6135	7.1	93
341	Stabilization of Black Phosphorous Quantum Dots in PMMA Nanofiber Film and Broadband Nonlinear Optics and Ultrafast Photonics Application. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1702437	15.6	93
340	Nanoscale Parallel Circuitry Based on Interpenetrating Conductive Assembly for Flexible and High-Power Zinc Ion Battery. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1901336	15.6	92
339	High Efficiency Mesoscopic Solar Cells Using CsPbI Perovskite Quantum Dots Enabled by Chemical Interface Engineering. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 3775-3783	16.4	92
338	An All-Optical, Actively Q-Switched Fiber Laser by an Antimonene-Based Optical Modulator. <i>Laser and Photonics Reviews</i> , <b>2019</b> , 13, 1800313	8.3	91
337	MXene-Based Nonlinear Optical Information Converter for All-Optical Modulator and Switcher. <i>Laser and Photonics Reviews</i> , <b>2018</b> , 12, 1800215	8.3	91



336	Fundamental and harmonic mode-locking at 2.1 $\mu\text{m}$ with black phosphorus saturable absorber. <i>Optics Express</i> , <b>2017</b> , 25, 16916-16921	3.3	84
335	Recent progress in ultrafast lasers based on 2D materials as a saturable absorber. <i>Applied Physics Reviews</i> , <b>2019</b> , 6, 041304	17.3	82
334	Insights from nanotechnology in COVID-19 treatment. <i>Nano Today</i> , <b>2021</b> , 36, 101019	17.9	82
333	A flexible transparent colorimetric wrist strap sensor. <i>Nanoscale</i> , <b>2017</b> , 9, 869-874	7.7	81
332	Schottky Barriers in Bilayer Phosphorene Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 12694-12705	9.5	81
331	THz photonics in two dimensional materials and metamaterials: properties, devices and prospects. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 1291-1306	7.1	81
330	Solar-Inspired Water Purification Based on Emerging 2D Materials: Status and Challenges. <i>Solar Rrl</i> , <b>2020</b> , 4, 1900400	7.1	81
329	Graphdiyne-Based Flexible Photodetectors with High Responsivity and Detectivity. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001082	24	80
328	Field-Induced n-Doping of Black Phosphorus for CMOS Compatible 2D Logic Electronics with High Electron Mobility. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1702211	15.6	80
327	Nonlinear Few-Layer Antimonene-Based All-Optical Signal Processing: Ultrafast Optical Switching and High-Speed Wavelength Conversion. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1701287	8.1	79
326	Chiral Perovskites: Promising Materials toward Next-Generation Optoelectronics. <i>Small</i> , <b>2019</b> , 15, e1902237		79
325	Topological Insulator Solution Filled in Photonic Crystal Fiber for Passive Mode-Locked Fiber Laser. <i>IEEE Photonics Technology Letters</i> , <b>2015</b> , 27, 264-267	2.2	79
324	Dual-wavelength Q-switched Er:SrF <sub>2</sub> laser with a black phosphorus absorber in the mid-infrared region. <i>Optics Express</i> , <b>2016</b> , 24, 30289-30295	3.3	79
323	Antimonene Quantum Dots: Synthesis and Application as Near-Infrared Photothermal Agents for Effective Cancer Therapy. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 12058-12062	3.6	78
322	Recent Advances in Functional 2D MXene-Based Nanostructures for Next-Generation Devices. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2005223	15.6	78
321	Few-Layer Topological Insulator for All-Optical Signal Processing Using the Nonlinear Kerr Effect. <i>Advanced Optical Materials</i> , <b>2015</b> , 3, 1769-1778	8.1	76
320	Facile Synthesis of Black Phosphorus: an Efficient Electrocatalyst for the Oxygen Evolving Reaction. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 14053-14057	3.6	76
319	MXene Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> : A Promising Photothermal Conversion Material and Application in All-Optical Modulation and All-Optical Information Loading. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1900060	8.1	75



318	Broadband ultrafast nonlinear optical response of few-layers graphene: toward the mid-infrared regime. <i>Photonics Research</i> , <b>2015</b> , 3, 214	6	74
317	Black phosphorus nanosheets for rapid microRNA detection. <i>Nanoscale</i> , <b>2018</b> , 10, 5060-5064	7.7	74
316	On-Nanowire Axial Heterojunction Design for High-Performance Photodetectors. <i>ACS Nano</i> , <b>2016</b> , 10, 8474-81	16.7	73
315	Two-dimensional tellurium-polymer membrane for ultrafast photonics. <i>Nanoscale</i> , <b>2019</b> , 11, 6235-6242	7.7	71
314	Recent advances in emerging Janus two-dimensional materials: from fundamental physics to device applications. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 8813-8830	13	70
313	Recent Advances in Emerging 2D Material-Based Gas Sensors: Potential in Disease Diagnosis. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1901329	4.6	69
312	Recent Developments in Stability and Passivation Techniques of Phosphorene toward Next-Generation Device Applications. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1903419	15.6	69
311	MZI-Based All-Optical Modulator Using MXene Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (T = F, O, or OH) Deposited Microfiber. <i>Advanced Materials Technologies</i> , <b>2019</b> , 4, 1800532	6.8	69
310	Mid-Infrared Photonics Using 2D Materials: Status and Challenges. <i>Laser and Photonics Reviews</i> , <b>2020</b> , 14, 1900098	8.3	68
309	Black phosphorus-based photothermal therapy with aCD47-mediated immune checkpoint blockade for enhanced cancer immunotherapy. <i>Light: Science and Applications</i> , <b>2020</b> , 9, 161	16.7	68
308	Polydopamine-functionalized black phosphorus quantum dots for cancer theranostics. <i>Applied Materials Today</i> , <b>2019</b> , 15, 297-304	6.6	67
307	Perovskite CsPbX <sub>3</sub> : A Promising Nonlinear Optical Material and Its Applications for Ambient All-Optical Switching with Enhanced Stability. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1800400	8.1	67
306	Monolayer tellurene metal contacts. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 6153-6163	7.1	67
305	Layered Oxide Cathodes Promoted by Structure Modulation Technology for Sodium-Ion Batteries. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2001334	15.6	66
304	Mechano-Based Transductive Sensing for Wearable Healthcare. <i>Small</i> , <b>2018</b> , 14, e1702933	11	66
303	Electrical Contacts in Monolayer Arsenene Devices. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 29273-29286	9.5	66
302	Nonlinear Few-Layer MXene-Assisted All-Optical Wavelength Conversion at Telecommunication Band. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1801777	8.1	64
301	Memristive devices based on emerging two-dimensional materials beyond graphene. <i>Nanoscale</i> , <b>2019</b> , 11, 12413-12435	7.7	64

300	Black Phosphorous/Indium Selenide Photoconductive Detector for Visible and Near-Infrared Light with High Sensitivity. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1900020	8.1	64
299	Reassembly of Zr-Labeled Cancer Cell Membranes into Multicompartment Membrane-Derived Liposomes for PET-Trackable Tumor-Targeted Theranostics. <i>Advanced Materials</i> , <b>2018</b> , 30, e1704934	24	63
298	Black phosphorus: A novel nanoplatfrom with potential in the field of bio-photonic nanomedicine. <i>Journal of Innovative Optical Health Sciences</i> , <b>2018</b> , 11, 1830003	1.2	63
297	Eradication of tumor growth by delivering novel photothermal selenium-coated tellurium nanoheterojunctions. <i>Science Advances</i> , <b>2020</b> , 6, eaay6825	14.3	62
296	Ultrathin GeSe Nanosheets: From Systematic Synthesis to Studies of Carrier Dynamics and Applications for a High-Performance UV-Vis Photodetector. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 4278-4287	9.5	61
295	Two-Dimensional Tellurium: Progress, Challenges, and Prospects. <i>Nano-Micro Letters</i> , <b>2020</b> , 12, 99	19.5	61
294	2D Material Chemistry: Graphdiyne-based Biochemical Sensing. <i>Chemical Research in Chinese Universities</i> , <b>2020</b> , 36, 622-630	2.2	60
293	Current status and prospects of memristors based on novel 2D materials. <i>Materials Horizons</i> , <b>2020</b> , 7, 1495-1518	14.4	59
292	Hetero-MXenes: Theory, Synthesis, and Emerging Applications. <i>Advanced Materials</i> , <b>2021</b> , 33, e2004129	24	58
291	Enhanced Photodetection Properties of Tellurium@Selenium Roll-to-Roll Nanotube Heterojunctions. <i>Small</i> , <b>2019</b> , 15, e1900902	11	57
290	Epitaxial nucleation and lateral growth of high-crystalline black phosphorus films on silicon. <i>Nature Communications</i> , <b>2020</b> , 11, 1330	17.4	56
289	Graphdiyne-Polymer Nanocomposite as a Broadband and Robust Saturable Absorber for Ultrafast Photonics. <i>Laser and Photonics Reviews</i> , <b>2020</b> , 14, 1900367	8.3	56
288	Switchable dual-wavelength Q-switched fiber laser using multilayer black phosphorus as a saturable absorber. <i>Photonics Research</i> , <b>2018</b> , 6, 198	6	56
287	Tuning of Interlayer Coupling in Large-Area Graphene/WSe2 van der Waals Heterostructure via Ion Irradiation: Optical Evidences and Photonic Applications. <i>ACS Photonics</i> , <b>2017</b> , 4, 1531-1538	6.3	55
286	Monolayer Bismuthene-Metal Contacts: A Theoretical Study. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 23128-23140	9.5	55
285	Graphene/phosphorene nano-heterojunction: facile synthesis, nonlinear optics, and ultrafast photonics applications with enhanced performance. <i>Photonics Research</i> , <b>2017</b> , 5, 662	6	55
284	Pulsed Lasers Employing Solution-Processed Plasmonic Cu <sub>3</sub> -x P Colloidal Nanocrystals. <i>Advanced Materials</i> , <b>2016</b> , 28, 3535-42	24	55
283	2D GeP as a Novel Broadband Nonlinear Optical Material for Ultrafast Photonics. <i>Laser and Photonics Reviews</i> , <b>2019</b> , 13, 1900123	8.3	53

282	A bismuthene-based multifunctional all-optical phase and intensity modulator enabled by photothermal effect. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 871-878	7.1	52
281	Inkjet-printed MXene micro-scale devices for integrated broadband ultrafast photonics. <i>Npj 2D Materials and Applications</i> , <b>2019</b> , 3,	8.8	51
280	Black phosphorus-based van der Waals heterostructures for mid-infrared light-emission applications. <i>Light: Science and Applications</i> , <b>2020</b> , 9, 114	16.7	51
279	Improved transfer quality of CVD-grown graphene by ultrasonic processing of target substrates: applications for ultra-fast laser photonics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 10288-93	9.5	51
278	2D Materials-Based Quantum Dots: Gateway Towards Next-Generation Optical Devices. <i>Advanced Optical Materials</i> , <b>2017</b> , 5, 1700257	8.1	51
277	Tunable Broadband Nonlinear Optical Properties of Black Phosphorus Quantum Dots for Femtosecond Laser Pulses. <i>Materials</i> , <b>2017</b> , 10,	3.5	51
276	Broadband photodetectors based on 2D group IVA metal chalcogenides semiconductors. <i>Applied Materials Today</i> , <b>2019</b> , 15, 115-138	6.6	50
275	Porphyry Palladium hydride MOF nanoparticles for tumor-targeting photoacoustic imaging-guided hydrogenothermal cancer therapy. <i>Nanoscale Horizons</i> , <b>2019</b> , 4, 1185-1193	10.8	50
274	Bismuth telluride topological insulator nanosheet saturable absorbers for q-switched mode-locked Tm:ZBLAN waveguide lasers. <i>Annalen Der Physik</i> , <b>2016</b> , 528, 543-550	2.6	49
273	High-Speed and High-Responsivity Hybrid Silicon/Black-Phosphorus Waveguide Photodetectors at 2 μm. <i>Laser and Photonics Reviews</i> , <b>2019</b> , 13, 1900032	8.3	48
272	Band Structure Engineering in 2D Materials for Optoelectronic Applications. <i>Advanced Materials Technologies</i> , <b>2018</b> , 3, 1800072	6.8	48
271	Ultrafast Relaxation Dynamics and Nonlinear Response of Few-Layer Niobium Carbide MXene. <i>Small Methods</i> , <b>2020</b> , 4, 2000250	12.8	47
270	Recent Progress in 2D Material-Based Saturable Absorbers for All Solid-State Pulsed Bulk Lasers. <i>Laser and Photonics Reviews</i> , <b>2020</b> , 14, 1900240	8.3	47
269	A Broadband Optical Modulator Based on a Graphene Hybrid Plasmonic Waveguide. <i>Journal of Lightwave Technology</i> , <b>2016</b> , 34, 4948-4953	4	47
268	In-plane anisotropic electronics based on low-symmetry 2D materials: progress and prospects. <i>Nanoscale Advances</i> , <b>2020</b> , 2, 109-139	5.1	46
267	An antimonene/Cp*Rh(phen)Cl/black phosphorus hybrid nanosheet-based Z-scheme artificial photosynthesis for enhanced photo/bio-catalytic CO <sub>2</sub> reduction. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 323-333	13	46
266	Black phosphorus: a two-dimensional reductant for in situ nanofabrication. <i>Npj 2D Materials and Applications</i> , <b>2017</b> , 1,	8.8	44
265	Recent advances in solution-processed photodetectors based on inorganic and hybrid photo-active materials. <i>Nanoscale</i> , <b>2020</b> , 12, 2201-2227	7.7	44

264	Enhanced gas sensing properties of V <sub>2</sub> O <sub>5</sub> nanowires decorated with SnO <sub>2</sub> nanoparticles to ethanol at room temperature. <i>RSC Advances</i> , <b>2015</b> , 5, 41050-41058	3.7	43
263	Two-Dimensional Borophene: Properties, Fabrication, and Promising Applications. <i>Research</i> , <b>2020</b> , 2020, 2624617	7.8	42
262	Ultraeffective Cancer Therapy with an Antimonene-Based X-Ray Radiosensitizer. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1906010	15.6	41
261	MXenes: Synthesis, Optical Properties, and Applications in Ultrafast Photonics. <i>Small</i> , <b>2021</b> , 17, e20060541	4.1	41
260	Ferroelectric-Driven Exciton and Trion Modulation in Monolayer Molybdenum and Tungsten Diselenides. <i>ACS Nano</i> , <b>2019</b> , 13, 5335-5343	16.7	40
259	(Q)-Switched Mode-Locked Nd:YVO <sub>4</sub> Laser by Topological Insulator Bi <sub>2</sub> Te <sub>3</sub> Saturable Absorber. <i>IEEE Photonics Technology Letters</i> , <b>2014</b> , 26, 1912-1915	2.2	40
258	Carbon-based nanozymes for biomedical applications. <i>Nano Research</i> , <b>2021</b> , 14, 570-583	10	40
257	2D group-VA fluorinated antimonene: synthesis and saturable absorption. <i>Nanoscale</i> , <b>2019</b> , 11, 1762-1769	7.7	39
256	EpCAM aptamer-functionalized polydopamine-coated mesoporous silica nanoparticles loaded with DM1 for targeted therapy in colorectal cancer. <i>International Journal of Nanomedicine</i> , <b>2017</b> , 12, 6239-6257	7.7	39
255	An overview of the optical properties and applications of black phosphorus. <i>Nanoscale</i> , <b>2020</b> , 12, 3513-3534	3.4	39
254	Graphdiyne as a Promising Mid-Infrared Nonlinear Optical Material for Ultrafast Photonics. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 2000067	8.1	38
253	Recent advances in doping engineering of black phosphorus. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 5421-5441	13	38
252	Recent Advances in Strain-Induced Piezoelectric and Piezoresistive Effect-Engineered 2D Semiconductors for Adaptive Electronics and Optoelectronics. <i>Nano-Micro Letters</i> , <b>2020</b> , 12, 106	19.5	37
251	Niobium Carbide MXenes with Broad-Band Nonlinear Optical Response and Ultrafast Carrier Dynamics. <i>ACS Nano</i> , <b>2020</b> , 14, 10492-10502	16.7	37
250	Graphene-Bi <sub>2</sub> Te <sub>3</sub> Heterostructure as Broadband Saturable Absorber for Ultra-Short Pulse Generation in Er-Doped and Yb-Doped Fiber Lasers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2017</b> , 23, 195-199	3.8	36
249	A self-powered photodetector based on two-dimensional boron nanosheets. <i>Nanoscale</i> , <b>2020</b> , 12, 5313-5323	3.23	36
248	Refractive Index Sensors Based on Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Fibers. <i>ACS Applied Nano Materials</i> , <b>2020</b> , 3, 303-311	5.6	36
247	Robust SnO <sub>2</sub> Nanoparticle-Impregnated Carbon Nanofibers with Outstanding Electrochemical Performance for Advanced Sodium-Ion Batteries. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 9039-9043	3.6	36

246	Plasma-Assisted Sulfur Doping of LiMn <sub>2</sub> O <sub>4</sub> for High-Performance Lithium-Ion Batteries. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 28776-28782	3.8	36
245	Recent advance in near-infrared/ultrasound-sensitive 2D-nanomaterials for cancer therapeutics. <i>Science China Materials</i> , <b>2020</b> , 63, 2397-2428	7.1	36
244	A fully inkjet-printed transparent humidity sensor based on a TiC/Ag hybrid for touchless sensing of finger motion. <i>Nanoscale</i> , <b>2019</b> , 11, 21522-21531	7.7	36
243	Q-switched waveguide laser based on two-dimensional semiconducting materials: tungsten disulfide and black phosphorous. <i>Optics Express</i> , <b>2016</b> , 24, 2858-66	3.3	35
242	Recent Progress, Challenges, and Prospects in Two-Dimensional Photo-Catalyst Materials and Environmental Remediation. <i>Nano-Micro Letters</i> , <b>2020</b> , 12, 167	19.5	35
241	Microfiber-Based Highly Nonlinear Topological Insulator Photonic Device for the Formation of Versatile Multi-Soliton Patterns in a Fiber Laser. <i>Journal of Lightwave Technology</i> , <b>2015</b> , 33, 2056-2061	4	34
240	Two-Dimensional Black Phosphorus Nanomaterials: Emerging Advances in Electrochemical Energy Storage Science. <i>Nano-Micro Letters</i> , <b>2020</b> , 12, 179	19.5	34
239	Tactile Chemomechanical Transduction Based on an Elastic Microstructured Array to Enhance the Sensitivity of Portable Biosensors. <i>Advanced Materials</i> , <b>2019</b> , 31, e1803883	24	34
238	Few-Layer Antimonene Nanosheet: A Metal-Free Bifunctional Electrocatalyst for Effective Water Splitting. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 4774-4781	6.1	33
237	Black phosphorus saturable absorber for a diode-pumped passively Q-switched Er:CaF <sub>2</sub> mid-infrared laser. <i>Optics Communications</i> , <b>2018</b> , 406, 158-162	2	33
236	Brain-targeted delivery shuttled by black phosphorus nanostructure to treat Parkinson's disease. <i>Biomaterials</i> , <b>2020</b> , 260, 120339	15.6	33
235	2D Nanomaterials for Tissue Engineering and Regenerative Nanomedicines: Recent Advances and Future Challenges. <i>Advanced Healthcare Materials</i> , <b>2021</b> , 10, e2001743	10.1	33
234	In Situ Surface Protection for Enhancing Stability and Performance of LiNi <sub>0.5</sub> Mn <sub>0.3</sub> Co <sub>0.2</sub> O <sub>2</sub> at 4.8 V: The Working Mechanisms <b>2020</b> , 2, 280-290		32
233	Recent advances in two-dimensional ferromagnetism: materials synthesis, physical properties and device applications. <i>Nanoscale</i> , <b>2020</b> , 12, 2309-2327	7.7	32
232	Self-Healable Black Phosphorus Photodetectors. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1906610	15.6	31
231	Two-Dimensional Lead Monoxide: Facile Liquid Phase Exfoliation, Excellent Photoresponse Performance, and Theoretical Investigation. <i>ACS Photonics</i> , <b>2018</b> , 5, 5055-5067	6.3	31
230	Robust Above-Room-Temperature Ferromagnetism in Few-Layer Antimonene Triggered by Nonmagnetic Adatoms. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1808746	15.6	30
229	UV-Visible Photodetector Based on I-type Heterostructure of ZnO-QDs/Monolayer MoS <sub>2</sub> . <i>Nanoscale Research Letters</i> , <b>2019</b> , 14, 364	5	30

228	Emerging two-dimensional noncarbon nanomaterials for flexible lithium-ion batteries: opportunities and challenges. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 25227-25246	13	30
227	Two Dimensional $\text{E}_n\text{Se}$ with Layer-Dependent Properties: Band Alignment, Work Function and Optical Properties. <i>Nanomaterials</i> , <b>2019</b> , 9,	5.4	30
226	Liquefaction of water on the surface of anisotropic two-dimensional atomic layered black phosphorus. <i>Nature Communications</i> , <b>2019</b> , 10, 4062	17.4	29
225	Xenes as an Emerging 2D Monoelemental Family: Fundamental Electrochemistry and Energy Applications. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2002885	15.6	29
224	Giant local circular dichroism within an asymmetric plasmonic nanoparticle trimer. <i>Scientific Reports</i> , <b>2015</b> , 5, 8207	4.9	29
223	Inorganic 2D Luminescent Materials: Structure, Luminescence Modulation, and Applications. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 1900978	8.1	29
222	Boosting Lithium Storage in Free-Standing Black Phosphorus Anode via Multifunction of Nanocellulose. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 31628-31636	9.5	28
221	Emerging black phosphorus analogue nanomaterials for high-performance device applications. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 1172-1197	7.1	28
220	Van der Waals Integration of Bismuth Quantum Dots-Decorated Tellurium Nanotubes (Te@Bi) Heterojunctions and Plasma-Enhanced Optoelectronic Applications. <i>Small</i> , <b>2019</b> , 15, e1903233	11	27
219	Present advances and perspectives of broadband photo-detectors based on emerging 2D-Xenes beyond graphene. <i>Nano Research</i> , <b>2020</b> , 13, 891-918	10	27
218	Broadband Nonlinear Optical Response of InSe Nanosheets for the Pulse Generation From 1 to 2 $\mu\text{m}$ . <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 48281-48289	9.5	27
217	Organosilicon modification to enhance the stability of black phosphorus nanosheets under ambient conditions. <i>Journal of Materials Chemistry B</i> , <b>2018</b> , 6, 4065-4070	7.3	27
216	Bladder drug mirabegron exacerbates atherosclerosis through activation of brown fat-mediated lipolysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 10937-10942	11.5	26
215	Recent advances in black phosphorus/carbon hybrid composites: from improved stability to applications. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 4647-4676	13	26
214	Stability of Perovskite Light Sources: Status and Challenges. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 1902018	11	26
213	2D Crystal-Based Fibers: Status and Challenges. <i>Small</i> , <b>2019</b> , 15, e1902691	11	26
212	Epitaxial Growth of Topological Insulators on Semiconductors (Bi <sub>2</sub> Se <sub>3</sub> /Te@Se) toward High-Performance Photodetectors. <i>Small Methods</i> , <b>2019</b> , 3, 1900349	12.8	26
211	Metamaterial and nanomaterial electromagnetic wave absorbers: structures, properties and applications. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 12768-12794	7.1	25



210	Black Phosphorus Quantum Dots as an Efficient Saturable Absorber for Bound Soliton Operation in an Erbium Doped Fiber Laser. <i>IEEE Photonics Journal</i> , <b>2016</b> , 8, 1-10	1.8	25
209	Engineering Lateral Heterojunction of Selenium-Coated Tellurium Nanomaterials toward Highly Efficient Solar Desalination. <i>Advanced Science</i> , <b>2019</b> , 6, 1900531	13.6	25
208	Electronic and Optical Properties of Two-Dimensional Tellurene: From First-Principles Calculations. <i>Nanomaterials</i> , <b>2019</b> , 9,	5.4	25
207	Recent advances in photodynamic therapy based on emerging two-dimensional layered nanomaterials. <i>Nano Research</i> , <b>2020</b> , 13, 1485-1508	10	24
206	Highly stable MXene (V <sub>2</sub> CT <sub>x</sub> )-based harmonic pulse generation. <i>Nanophotonics</i> , <b>2020</b> , 9, 2577-2585	6.3	24
205	Tellurene Nanoflake-Based NO Sensors with Superior Sensitivity and a Sub-Parts-per-Billion Detection Limit. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 47704-47713	9.5	24
204	Single frequency fiber laser based on an ultrathin metal-organic framework. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 4662-4666	7.1	24
203	Nonlinear Photonics Using Low-Dimensional Metal-Halide Perovskites: Recent Advances and Future Challenges. <i>Advanced Materials</i> , <b>2021</b> , 33, e2004446	24	24
202	Epsilon-near-zero medium for optical switches in a monolithic waveguide chip at 1.9 $\mu$ m. <i>Nanophotonics</i> , <b>2018</b> , 7, 1835-1843	6.3	24
201	Manipulating Charge and Energy Transfer between 2D Atomic Layers via Heterostructure Engineering. <i>Nano Letters</i> , <b>2020</b> , 20, 5359-5366	11.5	23
200	Defect Engineering in Few-Layer Phosphorene. <i>Small</i> , <b>2018</b> , 14, e1704556	11	23
199	Polarization domain wall pulses in a microfiber-based topological insulator fiber laser. <i>Scientific Reports</i> , <b>2016</b> , 6, 29128	4.9	23
198	Dual targeting delivery of miR-328 by functionalized mesoporous silica nanoparticles for colorectal cancer therapy. <i>Nanomedicine</i> , <b>2018</b> , 13, 1753-1772	5.6	23
197	Chemistry, Functionalization, and Applications of Recent Monoelemental Two-Dimensional Materials and Their Heterostructures. <i>Chemical Reviews</i> , <b>2021</b> ,	68.1	23
196	Subwavelength-Polarized Quasi-Two-Dimensional Perovskite Single-Mode Nanolaser. <i>ACS Nano</i> , <b>2021</b> , 15, 6900-6908	16.7	23
195	NIR-II Responsive Inorganic 2D Nanomaterials for Cancer Photothermal Therapy: Recent Advances and Future Challenges. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2101625	15.6	23
194	Low-Charge-Carrier-Scattering Three-Dimensional MnO <sub>2</sub> /MnO <sub>2</sub> Networks for Ultra-High-Rate Asymmetrical Supercapacitors. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 1051-1059	6.1	23
193	Graphene Heterostructure Integrated Optical Fiber Bragg Grating for Light Motion Tracking and Ultrabroadband Photodetection from 400 nm to 10.768 $\mu$ m. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1807274	15.6	22



192	Anisotropic Plasmonic Nanostructure Induced Polarization Photoresponse for MoS <sub>2</sub> -Based Photodetector. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 7, 1902179	4.6	22
191	A Robust 2D Photo-Electrochemical Detector Based on NiPS <sub>3</sub> Flakes. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1900726	6.4	22
190	Plasma-enhanced low-temperature solid-state synthesis of spinel LiMn <sub>2</sub> O <sub>4</sub> with superior performance for lithium-ion batteries. <i>Green Chemistry</i> , <b>2016</b> , 18, 662-666	10	21
189	Site-Selective Bi <sub>2</sub> Te <sub>3</sub> BeTe <sub>2</sub> Heterostructure as a Broadband Saturable Absorber for Ultrafast Photonics. <i>Laser and Photonics Reviews</i> , <b>2020</b> , 14, 1900409	8.3	21
188	Halogenated Antimonene: One-Step Synthesis, Structural Simulation, Tunable Electronic and Photoresponse Property. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1905857	15.6	21
187	Sensing Applications of Atomically Thin Group IV Carbon Siblings Xenes: Progress, Challenges, and Prospects. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2005957	15.6	21
186	Few-layer hexagonal bismuth telluride (Bi <sub>2</sub> Te <sub>3</sub> ) nanoplates with high-performance UV-Vis photodetection. <i>Nanoscale Advances</i> , <b>2020</b> , 2, 1333-1339	5.1	20
185	All-Optical Control of Microfiber Knot Resonator Based on 2D Ti <sub>2</sub> CT <sub>x</sub> MXene. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 1900977	8.1	20
184	Pulse duration dependent nonlinear optical response in black phosphorus dispersions. <i>Optics Communications</i> , <b>2018</b> , 406, 244-248	2	20
183	Ultra-Small 2D PbS Nanoplatelets: Liquid-Phase Exfoliation and Emerging Applications for Photo-Electrochemical Photodetectors. <i>Small</i> , <b>2021</b> , 17, e2005913	11	20
182	Solution-gated transistors of two-dimensional materials for chemical and biological sensors: status and challenges. <i>Nanoscale</i> , <b>2020</b> , 12, 11364-11394	7.7	19
181	MXene Photonic Devices for Near-Infrared to Mid-Infrared Ultrashort Pulse Generation. <i>ACS Applied Nano Materials</i> , <b>2020</b> , 3, 3513-3522	5.6	19
180	Two-dimensional porous coordination polymers and nano-composites for electrocatalysis and electrically conductive applications. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 14356-14383	13	19
179	Dynamically Tuning the Up-conversion Luminescence of Er(3+)/Yb(3+) Co-doped Sodium Niobate Nano-crystals through Magnetic Field. <i>Scientific Reports</i> , <b>2016</b> , 6, 31327	4.9	19
178	Recent Advances in Oxidation Stable Chemistry of Two-Dimensional MXenes. <i>Advanced Materials</i> , <b>2021</b> , e2107554	24	19
177	Optoelectronic Gas Sensor Based on Few-Layered InSe Nanosheets for NO Detection with Ultrahigh Antihumidity Ability. <i>Analytical Chemistry</i> , <b>2020</b> , 92, 11277-11287	7.8	19
176	Photodynamic immunotherapy of cancers based on nanotechnology: recent advances and future challenges. <i>Journal of Nanobiotechnology</i> , <b>2021</b> , 19, 160	9.4	19
175	Novel Two-Dimensional Carbon-Chromium Nitride-Based Composite as an Electrocatalyst for Oxygen Reduction Reaction. <i>Frontiers in Chemistry</i> , <b>2019</b> , 7, 738	5	19

174	Fe-doped mayenite electride composite with 2D reduced Graphene Oxide: As a non-platinum based, highly durable electrocatalyst for Oxygen Reduction Reaction. <i>Scientific Reports</i> , <b>2019</b> , 9, 19809	4.9	19
173	Booming development and present advances of two dimensional MXenes for photodetectors. <i>Chemical Engineering Journal</i> , <b>2021</b> , 403, 126336	14.7	19
172	Recent Progresses in Integrated Nanoplasmonic Devices Based on Propagating Surface Plasmon Polaritons. <i>Plasmonics</i> , <b>2015</b> , 10, 1841-1852	2.4	18
171	Synthesis Techniques, Optoelectronic Properties, and Broadband Photodetection of Thin-Film Black Phosphorus. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 2000045	8.1	18
170	Wideband saturable absorption in metal-organic frameworks (MOFs) for mode-locking Er- and Tm-doped fiber lasers. <i>Nanoscale</i> , <b>2020</b> , 12, 4586-4590	7.7	18
169	Harmonic mode-locking and wavelength-tunable Q-switching operation in the grapheneBi <sub>2</sub> Te <sub>3</sub> heterostructure saturable absorber-based fiber laser. <i>Optical Engineering</i> , <b>2016</b> , 55, 081314	1.1	18
168	2D van der Waals heterostructures: processing, optical properties and applications in ultrafast photonics. <i>Materials Horizons</i> , <b>2020</b> , 7, 2903-2921	14.4	18
167	Two-Dimensional Black Arsenic Phosphorus for Ultrafast Photonics in Near- and Mid-Infrared Regimes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 46509-46518	9.5	18
166	Recent Advances in Twisted Structures of Flatland Materials and Crafting MoiréSuperlattices. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2000878	15.6	18
165	Recent Advances in Semiconducting Monoelemental Selenium Nanostructures for Device Applications. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2003301	15.6	18
164	2D III-Nitride Materials: Properties, Growth, and Applications. <i>Advanced Materials</i> , <b>2021</b> , 33, e2006761	24	18
163	Short-pulsed Raman fiber laser and its dynamics. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2021</b> , 64, 1	3.6	18
162	Graphene/MoS <sub>2</sub> /Graphene Vertical Heterostructure-Based Broadband Photodetector with High Performance. <i>Advanced Materials Interfaces</i> , <b>2021</b> , 8, 2001730	4.6	18
161	Tuning magnetoresistance in molybdenum disulphide and graphene using a molecular spin transition. <i>Nature Communications</i> , <b>2017</b> , 8, 677	17.4	17
160	Spontaneously Regenerative Tough Hydrogels. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 10956-10957	16.4	17
159	Emerging 2D pnictogens for catalytic applications: status and challenges. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 12887-12927	13	17
158	Synthesis of Ultrathin Composition Graded Doped Lateral WSe/WS Heterostructures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 34204-34212	9.5	17
157	BN as a Saturable Absorber for a Passively Mode-Locked 2 µm Solid-State Laser. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2019</b> , 13, 1800482	2.5	17

156	Transition Metal Dichalcogenides for Sensing and Oncotherapy: Status, Challenges, and Perspective. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2004408	15.6	17
155	Emerging Mono-Elemental Bismuth Nanostructures: Controlled Synthesis and Their Versatile Applications. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2007584	15.6	17
154	PbSe Nanocrystals Produced by Facile Liquid Phase Exfoliation for Efficient UV-Vis Photodetectors. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2010401	15.6	17
153	Deep-Learning-Enabled MXene-Based Artificial Throat: Toward Sound Detection and Speech Recognition. <i>Advanced Materials Technologies</i> , <b>2020</b> , 5, 2000262	6.8	16
152	Low-dimensional saturable absorbers for ultrafast photonics in solid-state bulk lasers: status and prospects. <i>Nanophotonics</i> , <b>2020</b> , 9, 2603-2639	6.3	16
151	Facile Synthesis of Mayenite Electride Nanoparticles Encapsulated in Graphitic Shells Like Carbon Nano Onions: Non-noble-metal Electrocatalysts for Oxygen Reduction Reaction (ORR). <i>Frontiers in Chemistry</i> , <b>2019</b> , 7, 934	5	16
150	A Regioselectively Oxidized 2D Bi/BiOx Lateral Nano-Heterostructure for Hypoxic Photodynamic Therapy. <i>Advanced Materials</i> , <b>2021</b> , e2102562	24	16
149	Recent advances in 0D nanostructure-functionalized low-dimensional nanomaterials for chemiresistive gas sensors. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 7272-7299	7.1	15
148	Stable Single-Longitudinal-Mode Fiber Ring Laser Using Topological Insulator-Based Saturable Absorber. <i>Journal of Lightwave Technology</i> , <b>2014</b> , 32, 4438-4444	4	15
147	Emetine-Loaded Black Phosphorus Hydrogel Sensitizes Tumor to Photothermal Therapy through Inhibition of Stress Granule Formation. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2003891	15.6	15
146	Tailoring nonlinear optical properties of Bi <sub>2</sub> Se <sub>3</sub> through ion irradiation. <i>Scientific Reports</i> , <b>2016</b> , 6, 21799	4.9	15
145	Fascinating MXene nanomaterials: emerging opportunities in the biomedical field. <i>Biomaterials Science</i> , <b>2021</b> , 9, 5437-5471	7.4	15
144	Surface Coordination of Black Phosphorus with Modified Cisplatin. <i>Bioconjugate Chemistry</i> , <b>2019</b> , 30, 1658-1664	6.3	14
143	Unveiling the Stimulated Robust Carrier Lifetime of Surface-Bound Excitons and Their Photoresponse in InSe. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1900171	4.6	14
142	Fano Resonance in Artificial Photonic Molecules. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 1902153	8.1	14
141	Tailoring polarization and magnetization of absorbing terahertz metamaterials using a cut-wire sandwich structure. <i>Beilstein Journal of Nanotechnology</i> , <b>2018</b> , 9, 1437-1447	3	14
140	Enhancing the saturable absorption and carrier dynamics of graphene with plasmonic nanowires. <i>Physica Status Solidi (B): Basic Research</i> , <b>2015</b> , 252, 2159-2166	1.3	14
139	Bismuth quantum dots as an optical saturable absorber for a 1.3 $\mu\text{m}$ Q-switched solid-state laser. <i>Applied Optics</i> , <b>2019</b> , 58, 1621-1625	1.7	14

138	Recent development and advances in Photodetectors based on two-dimensional topological insulators. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 15526-15574	7.1	14
137	Smart Acid-Activatable Self-Assembly of Black Phosphorous as Photosensitizer to Overcome Poor Tumor Retention in Photothermal Therapy. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2003338	15.6	14
136	Recent advances in multiphoton microscopy combined with nanomaterials in the field of disease evolution and clinical applications to liver cancer. <i>Nanoscale</i> , <b>2019</b> , 11, 19619-19635	7.7	14
135	Carbon coated to improve the electrochemical properties of LiMn <sub>2</sub> O <sub>4</sub> cathode material synthesized by the novel acetone hydrothermal method. <i>Applied Physics A: Materials Science and Processing</i> , <b>2015</b> , 119, 1069-1074	2.6	13
134	All-Optical Modulator Using MXene Inkjet-Printed Microring Resonator. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2020</b> , 26, 1-6	3.8	13
133	2D Materials Enabled Next-Generation Integrated Optoelectronics: from Fabrication to Applications. <i>Advanced Science</i> , <b>2021</b> , 8, e2003834	13.6	13
132	Repression of Interlayer Recombination by Graphene Generates a Sensitive Nanostructured 2D vdW Heterostructure Based Photodetector. <i>Advanced Science</i> , <b>2021</b> , 8, e2100503	13.6	13
131	High-performance polarization-sensitive photodetectors on two-dimensional -InSe.. <i>National Science Review</i> , <b>2022</b> , 9, nwab098	10.8	13
130	Facile Synthesis of 2D Tin Selenide for Near- and Mid-Infrared Ultrafast Photonics Applications. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 1902183	8.1	13
129	Electrochemical Analysis for Enhancing Interface Layer of Spinel LiNiMnO Using p-Toluenesulfonyl Isocyanate as Electrolyte Additive. <i>Frontiers in Chemistry</i> , <b>2019</b> , 7, 591	5	12
128	Electrospun porous Fe <sub>2</sub> O <sub>3</sub> nanotubes as counter electrodes for dye-sensitized solar cells. <i>International Journal of Energy Research</i> , <b>2019</b> , 43, 5355-5366	4.5	12
127	Semiconducting quantum dots: Modification and applications in biomedical science. <i>Science China Materials</i> , <b>2020</b> , 63, 1631-1650	7.1	12
126	A separator modified by high efficiency oxygen plasma for lithium ion batteries with superior performance. <i>RSC Advances</i> , <b>2015</b> , 5, 92995-93001	3.7	12
125	Highly Efficient Silicon Photonic Microheater Based on Black Arsenic Phosphorus. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 1901526	8.1	12
124	A self-encapsulated broadband phototransistor based on a hybrid of graphene and black phosphorus nanosheets. <i>Nanoscale Advances</i> , <b>2020</b> , 2, 1059-1065	5.1	12
123	Developments and Perspectives on Robust Nano- and Microstructured Binder-Free Electrodes for Bifunctional Water Electrolysis and Beyond. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 200409	21.8	12
122	Optical vortex fiber laser based on modulation of transverse modes in two mode fiber. <i>APL Photonics</i> , <b>2019</b> , 4, 060801	5.2	11
121	Plasma-assisted highly efficient synthesis of Li(Ni <sub>1/3</sub> Co <sub>1/3</sub> Mn <sub>1/3</sub> )O <sub>2</sub> cathode materials with superior performance for Li-ion batteries. <i>RSC Advances</i> , <b>2015</b> , 5, 75145-75148	3.7	11

120	Recent progress in high-performance photo-detectors enabled by the pulsed laser deposition technology. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 4988-5014	7.1	11
119	High-performance monolayer MoS <sub>2</sub> photodetector enabled by oxide stress liner using scalable chemical vapor growth method. <i>Nanophotonics</i> , <b>2020</b> , 9, 1981-1991	6.3	11
118	Recent Advances of Spatial Self-Phase Modulation in 2D Materials and Passive Photonic Device Applications. <i>Small</i> , <b>2020</b> , 16, e2002252	11	11
117	Defect Engineering in Ultrathin SnSe Nanosheets for High-Performance Optoelectronic Applications. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 33226-33236	9.5	11
116	MXene (Ti <sub>2</sub> NT <sub>x</sub> ): Synthesis, characteristics and application as a thermo-optical switcher for all-optical wavelength tuning laser. <i>Science China Materials</i> , <b>2021</b> , 64, 259-265	7.1	11
115	Valley manipulation in monolayer transition metal dichalcogenides and their hybrid systems: status and challenges. <i>Reports on Progress in Physics</i> , <b>2021</b> , 84, 026401	14.4	11
114	Facile liquid-phase exfoliated few-layer GeP nanosheets and their optoelectronic device applications. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 5547-5553	7.1	10
113	Phosphorene-assisted silicon photonic modulator with fast response time. <i>Nanophotonics</i> , <b>2020</b> , 9, 197361-197379	10	10
112	One-Pot Hydrothermal Synthesis of LiMn <sub>2</sub> O <sub>4</sub> Cathode Material with Excellent High-Rate and Cycling Properties. <i>Journal of Electronic Materials</i> , <b>2016</b> , 45, 4350-4356	1.9	10
111	2D Materials for Nonlinear Photonics and Electro-Optical Applications. <i>Advanced Materials Interfaces</i> , <b>2021</b> , 8, 2100367	4.6	10
110	Black Phosphorus/Polymers: Status and Challenges. <i>Advanced Materials</i> , <b>2021</b> , 33, e2100113	24	10
109	Recent advances on TMDCs for medical diagnosis. <i>Biomaterials</i> , <b>2021</b> , 269, 120471	15.6	10
108	Black Phosphorus: Black Phosphorus Nanosheets as a Robust Delivery Platform for Cancer Theranostics (Adv. Mater. 1/2017). <i>Advanced Materials</i> , <b>2017</b> , 29,	24	9
107	Flexible Li[LiNiCoMn]O/Carbon Nanotubes/Nanofibrillated Celluloses Composite Electrode for High-Performance Lithium-Ion Battery. <i>Frontiers in Chemistry</i> , <b>2019</b> , 7, 555	5	9
106	Highly Efficient Super-Continuum Generation on an Epsilon-Near-Zero Surface. <i>ACS Omega</i> , <b>2020</b> , 5, 24583-24649	9.3	9
105	Infrared response in photocatalytic polymeric carbon nitride for water splitting via an upconversion mechanism. <i>Communications Materials</i> , <b>2020</b> , 1,	6	9
104	Artificial Carbon Graphdiyne: Status and Challenges in Nonlinear Photonic and Optoelectronic Applications. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 49281-49296	9.5	9
103	Nano-bio interfaces effect of two-dimensional nanomaterials and their applications in cancer immunotherapy.. <i>Acta Pharmaceutica Sinica B</i> , <b>2021</b> , 11, 3447-3464	15.5	9

102	Recent progress, challenges, and prospects in emerging group-VIA Xenes: synthesis, properties and novel applications. <i>Nanoscale</i> , <b>2021</b> , 13, 510-552	7.7	9
101	Additive-mediated intercalation and surface modification of MXenes.. <i>Chemical Society Reviews</i> , <b>2022</b> ,	58.5	9
100	Photodetectors: Enhanced Photodetection Properties of Tellurium@Selenium Roll-to-Roll Nanotube Heterojunctions (Small 23/2019). <i>Small</i> , <b>2019</b> , 15, 1970125	11	8
99	A carob-inspired nanoscale design of yolk-shell Si@void@TiO-CNF composite as anode material for high-performance lithium-ion batteries. <i>Dalton Transactions</i> , <b>2019</b> , 48, 6846-6852	4.3	8
98	Quantum confinement-induced enhanced nonlinearity and carrier lifetime modulation in two-dimensional tin sulfide. <i>Nanophotonics</i> , <b>2020</b> , 9, 1963-1972	6.3	8
97	Gold-patterned microarray chips for ultrasensitive surface-enhanced Raman scattering detection of ultratrace samples. <i>Journal of Raman Spectroscopy</i> , <b>2019</b> , 50, 26-33	2.3	8
96	Black phosphorus as a versatile nanoplatform: From unique properties to biomedical applications. <i>Journal of Innovative Optical Health Sciences</i> , <b>2020</b> , 13, 2030008	1.2	8
95	Recent Advances in 2D Layered Phosphorous Compounds.. <i>Small Methods</i> , <b>2021</b> , 5, e2001068	12.8	8
94	2D-ultrathin MXene/DOXjade platform for iron chelation chemo-photothermal therapy.. <i>Bioactive Materials</i> , <b>2022</b> , 14, 76-85	16.7	8
93	A Facile Approach for Elemental-Doped Carbon Quantum Dots and Their Application for Efficient Photodetectors. <i>Small</i> , <b>2021</b> , e2105683	11	7
92	A few-layer InSe-based sensitivity-enhanced photothermal fiber sensor. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 132-138	7.1	7
91	Recent Advance of Tellurium for Biomedical Applications. <i>Chemical Research in Chinese Universities</i> , <b>2020</b> , 36, 551-559	2.2	7
90	Band structure tuning of $\beta$ -MoO by tin intercalation for ultrafast photonic applications. <i>Nanoscale</i> , <b>2020</b> , 12, 23140-23149	7.7	7
89	Smart nano-micro platforms for ophthalmological applications: The state-of-the-art and future perspectives. <i>Biomaterials</i> , <b>2021</b> , 270, 120682	15.6	7
88	Two-dimensional selenium and its composites for device applications. <i>Nano Research</i> , 1	10	7
87	Novel synthesis, properties and applications of emerging group VA two-dimensional monoelemental materials (2D-Xenes). <i>Materials Chemistry Frontiers</i> , <b>2021</b> , 5, 6333-6391	7.8	7
86	MXene and black phosphorus based 2D nanomaterials in bioimaging and biosensing: progress and perspectives. <i>Journal of Materials Chemistry B</i> , <b>2021</b> , 9, 5195-5220	7.3	7
85	Evolutional carrier mobility and power factor of two-dimensional tin telluride due to quantum size effects. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 4181-4191	7.1	6



84	Characterization of Dark Soliton Sidebands in All-Normal-Dispersion Fiber Lasers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2018</b> , 24, 1-7	3.8	6
83	Quantum Dots: Solvothermal Synthesis and Ultrafast Photonics of Black Phosphorus Quantum Dots (Advanced Optical Materials 8/2016). <i>Advanced Optical Materials</i> , <b>2016</b> , 4, 1222-1222	8.1	6
82	Pulsed Lasers: Black Phosphorus Polymer Composites for Pulsed Lasers (Advanced Optical Materials 10/2015). <i>Advanced Optical Materials</i> , <b>2015</b> , 3, 1446-1446	8.1	6
81	Optical Properties of Few-Layer TiCN MXene: From Experimental Observations to Theoretical Calculations.. <i>ACS Nano</i> , <b>2022</b> ,	16.7	6
80	Advances in photonics of recently developed Xenes. <i>Nanophotonics</i> , <b>2020</b> , 9, 1621-1649	6.3	6
79	Recent advances in real-time spectrum measurement of soliton dynamics by dispersive Fourier transformation. <i>Reports on Progress in Physics</i> , <b>2020</b> , 83, 116401	14.4	6
78	Magnetic black phosphorus microbubbles for targeted tumor theranostics. <i>Nanophotonics</i> , <b>2021</b> , 10, 3339-3358	6.3	6
77	Ultrafast Surface Plasmon Resonance Imaging Sensor via the High-Precision Four-Parameter-Based Spectral Curve Readjusting Method. <i>Analytical Chemistry</i> , <b>2021</b> , 93, 828-833	7.8	6
76	Berlin Green Framework-Based Gas Sensor for Room-Temperature and High-Selectivity Detection of Ammonia. <i>Nano-Micro Letters</i> , <b>2021</b> , 13, 63	19.5	6
75	Navigating recent advances in monoelemental materials (Xenes)-fundamental to biomedical applications. <i>Progress in Solid State Chemistry</i> , <b>2021</b> , 63, 100326	8	6
74	Recent Progress on Metal-Based Nanomaterials: Fabrications, Optical Properties, and Applications in Ultrafast Photonics. <i>Advanced Functional Materials</i> , 2107363	15.6	6
73	Spontaneously Regenerative Tough Hydrogels. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 11067-11071	3.6	5
72	Control of dissipative rogue waves in nonlinear cavity optics: Optical injection and time-delayed feedback. <i>Chaos</i> , <b>2020</b> , 30, 053103	3.3	5
71	Engineering Mono-Chalcogen Nanomaterials for Omnipotent Anticancer Applications: Progress and Challenges. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e2000273	10.1	5
70	A nano-lateral heterojunction of selenium-coated tellurium for infrared-band soliton fiber lasers. <i>Nanoscale</i> , <b>2020</b> , 12, 15252-15260	7.7	5
69	Multifunctional VIV binary heterostructure-based self-powered pH-sensitive photo-detector. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 5991-6000	7.1	5
68	Chiral Perovskite: Chiral Perovskites: Promising Materials toward Next-Generation Optoelectronics (Small 39/2019). <i>Small</i> , <b>2019</b> , 15, 1970209	11	5
67	Surface Nonlinear Optics on Centrosymmetric Dirac Nodal-Line Semimetal ZrSiS. <i>Advanced Materials</i> , <b>2020</b> , 32, e1904498	24	5



66	Synergistic Photothermal and Chemical Therapy by Smart Dual-Functional Graphdiyne Nanosheets for Treatment of Parkinson's Disease. <i>Advanced Therapeutics</i> , <b>2021</b> , 4, 2100082	4.9	5
65	Quantum tunneling in two-dimensional van der Waals heterostructures and devices. <i>Science China Materials</i> , <b>2021</b> , 64, 2359-2387	7.1	5
64	Dual-wavelength dissipative solitons in an anomalous-dispersion-cavity fiber laser. <i>Nanophotonics</i> , <b>2019</b> , 9, 2361-2366	6.3	5
63	Non-Isothermal Crystallization Kinetics of Polyamide 6/h-Boron Nitride Composites. <i>Journal of Macromolecular Science - Physics</i> , <b>2017</b> , 56, 170-177	1.4	4
62	Quantum Dots: Broadband Nonlinear Optical Response in Few-Layer Antimonene and Antimonene Quantum Dots: A Promising Optical Kerr Media with Enhanced Stability (Advanced Optical Materials 17/2017). <i>Advanced Optical Materials</i> , <b>2017</b> , 5,	8.1	4
61	Phosphorene: From Black Phosphorus to Phosphorene: Basic Solvent Exfoliation, Evolution of Raman Scattering, and Applications to Ultrafast Photonics (Adv. Funct. Mater. 45/2015). <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 7100-7100	15.6	4
60	Facile sonochemical-assisted synthesis of orthorhombic phase black phosphorus/rGO hybrids for effective photothermal therapy. <i>Nanophotonics</i> , <b>2020</b> , 9, 3023-3034	6.3	4
59	2D GeP-based photonic device for near-infrared and mid-infrared ultrafast photonics. <i>Nanophotonics</i> , <b>2020</b> , 9, 3645-3654	6.3	4
58	Strategic Design of Intelligent-Responsive Nanogel Carriers for Cancer Therapy. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 54621-54647	9.5	4
57	Point and complex defects in monolayer PdSe <sub>2</sub> : Evolution of electronic structure and emergence of magnetism. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	4
56	Two-dimensional monoelemental germanene nanosheets: facile preparation and optoelectronic applications. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 16318-16325	7.1	4
55	Fiber all-optical light control with low-dimensional materials (LDMs): thermo-optic effect and saturable absorption. <i>Nanoscale Advances</i> , <b>2019</b> , 1, 4190-4206	5.1	4
54	Halogen Functionalization in the 2D Material Flatland: Strategies, Properties, and Applications. <i>Small</i> , <b>2021</b> , 17, e2005640	11	4
53	Low-Dimensional Black Phosphorus in Sensor Applications: Advances and Challenges. <i>Advanced Functional Materials</i> , 2106484	15.6	4
52	A Fully Integrated Flexible Tunable Chemical Sensor Based on Gold-Modified Indium Selenide Nanosheets. <i>ACS Sensors</i> , <b>2022</b> ,	9.2	4
51	Black Phosphorous Photodetectors: Black Phosphorous/Indium Selenide Photoconductive Detector for Visible and Near-Infrared Light with High Sensitivity (Advanced Optical Materials 12/2019). <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1970047	8.1	3
50	Nonlayered 2D Materials: Ultrathin 2D Nonlayered Tellurium Nanosheets: Facile Liquid-Phase Exfoliation, Characterization, and Photoresponse with High Performance and Enhanced Stability (Adv. Funct. Mater. 16/2018). <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1870107	15.6	3
49	All-Optical Signal Processing: Few-Layer Topological Insulator for All-Optical Signal Processing Using the Nonlinear Kerr Effect (Advanced Optical Materials 12/2015). <i>Advanced Optical Materials</i> , <b>2015</b> , 3, 1768-1768	8.1	3

48	Recent development in graphdiyne and its derivative materials for novel biomedical applications. <i>Journal of Materials Chemistry B</i> , <b>2021</b> , 9, 9461-9484	7.3	3
47	Broadband, High-Sensitivity Graphene Photodetector Based on Ferroelectric Polarization of Lithium Niobate. <i>Advanced Optical Materials</i> , <b>2021</b> , 9, 2100245	8.1	3
46	Controlled Generation of Bright or Dark Solitons in a Fiber Laser by Intracavity Nonlinear Absorber. <i>IEEE Photonics Journal</i> , <b>2016</b> , 8, 1-12	1.8	3
45	Nanostructured metal nitrides for photocatalysts. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 5323-5342	7.1	3
44	Cancer Theranostics: Two-Dimensional Antimonene-Based Photonic Nanomedicine for Cancer Theranostics (Adv. Mater. 38/2018). <i>Advanced Materials</i> , <b>2018</b> , 30, 1870283	24	3
43	Cancer Theranostics: A Novel Top-Down Synthesis of Ultrathin 2D Boron Nanosheets for Multimodal Imaging-Guided Cancer Therapy (Adv. Mater. 36/2018). <i>Advanced Materials</i> , <b>2018</b> , 30, 1870284	24	3
42	Water-Dispersible CsPbBr Perovskite Nanocrystals with Ultra-Stability and its Application in Electrochemical CO Reduction. <i>Nano-Micro Letters</i> , <b>2021</b> , 13, 172	19.5	3
41	2D materials for bone therapy. <i>Advanced Drug Delivery Reviews</i> , <b>2021</b> , 178, 113970	18.5	3
40	Tailoring the ultrafast and nonlinear photonics of MXenes through elemental replacement. <i>Nanoscale</i> , <b>2021</b> , 13, 15891-15898	7.7	3
39	Photodetectors: Environmentally Robust Black Phosphorus Nanosheets in Solution: Application for Self-Powered Photodetector (Adv. Funct. Mater. 18/2017). <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 15564	15.6	2
38	Photodetectors: Graphdiyne-Based Flexible Photodetectors with High Responsivity and Detectivity (Adv. Mater. 23/2020). <i>Advanced Materials</i> , <b>2020</b> , 32, 2070175	24	2
37	Artificial visual memory device based on a photo-memorizing composite and one-step manufacturing. <i>Materials Horizons</i> , <b>2020</b> , 7, 1597-1604	14.4	2
36	Spin-dependent k.p Hamiltonian of black phosphorene based on L <sub>w</sub> partitioning method. <i>Journal of Applied Physics</i> , <b>2018</b> , 124, 035702	2.5	2
35	Characteristics, properties, synthesis and advanced applications of 2D graphdiyne versus graphene. <i>Materials Chemistry Frontiers</i> ,	7.8	2
34	Tunable engineering of photo- and electro-induced carrier dynamics in perovskite photoelectronic devices. <i>Science China Materials</i> , 1	7.1	2
33	Ferri-chiral compounds with potentially switchable Dresselhaus spin splitting. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	2
32	All-Optical Modulation Technology Based on 2D Layered Materials.. <i>Micromachines</i> , <b>2022</b> , 13,	3.3	2
31	Two-Dimensional Gold Halides: Novel Semiconductors with Giant Spin-Orbit Splitting and Tunable Optoelectronic Properties. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 9759-9765	6.4	2

30	An Insightful Picture of Nonlinear Photonics in 2D Materials and their Applications: Recent Advances and Future Prospects. <i>Advanced Optical Materials</i> , <b>2021</b> , 9, 2001671	8.1	2
29	Photothermal Therapy: Metabolizable Ultrathin Bi <sub>2</sub> Se <sub>3</sub> Nanosheets in Imaging-Guided Photothermal Therapy (Small 30/2016). <i>Small</i> , <b>2016</b> , 12, 4158-4158	11	2
28	Graphdiyne nanosheets as a platform for accurate copper(ii) ion detection click chemistry and fluorescence resonance energy transfer.. <i>RSC Advances</i> , <b>2021</b> , 11, 5320-5324	3.7	2
27	pH-responsive black phosphorus quantum dots for tumor-targeted photodynamic therapy. <i>Photodiagnosis and Photodynamic Therapy</i> , <b>2021</b> , 35, 102429	3.5	2
26	A Highly Sensitive CRISPR-Empowered Surface Plasmon Resonance Sensor for Diagnosis of Inherited Diseases with Femtomolar-Level Real-Time Quantification.. <i>Advanced Science</i> , <b>2022</b> , e2105231 <sup>13.6</sup>	13.6	2
25	Recent Advances in SnSe Nanostructures beyond Thermoelectricity. <i>Advanced Functional Materials</i> , <b>2020</b> , 10, 2200546	11.6	2
24	Optical Modulation: Few-Layer Phosphorene-Decorated Microfiber for All-Optical Thresholding and Optical Modulation (Advanced Optical Materials 9/2017). <i>Advanced Optical Materials</i> , <b>2017</b> , 5,	8.1	1
23	Superior electrochemical properties of Li(Ni <sub>1/3</sub> Co <sub>1/3</sub> Mn <sub>1/3</sub> )O <sub>2</sub> /C synthesized by the precursor solid-phase method. <i>Applied Physics A: Materials Science and Processing</i> , <b>2015</b> , 121, 23-28	2.6	1
22	Quantum Dots: Stabilization of Black Phosphorous Quantum Dots in PMMA Nanofiber Film and Broadband Nonlinear Optics and Ultrafast Photonics Application (Adv. Funct. Mater. 32/2017). <i>Advanced Functional Materials</i> , <b>2017</b> , 27,	15.6	1
21	Innenrücktitelbild: Ultrasmall Black Phosphorus Quantum Dots: Synthesis and Use as Photothermal Agents (Angew. Chem. 39/2015). <i>Angewandte Chemie</i> , <b>2015</b> , 127, 11745-11745	3.6	1
20	Photodetectors Based on MoS <sub>2</sub> /MAPbBr <sub>3</sub> Van der Waals Heterojunction. <i>IEEE Electron Device Letters</i> , <b>2022</b> , 1-1	4.4	1
19	2D Xenos: from fundamentals to applications. <i>Nanophotonics</i> , <b>2020</b> , 9, 1555-1556	6.3	1
18	Nanomaterials for neurodegenerative diseases: Molecular mechanisms guided design and applications. <i>Nano Research</i> , 1	10	1
17	Dynamic behaviors of multiple-soliton pulsation in an L-band passively mode-locked fiber laser with anomalous dispersion. <i>Chaos</i> , <b>2021</b> , 31, 063122	3.3	1
16	Broadband and ultrafast all-optical switching based on transition metal carbide. <i>Nanophotonics</i> , <b>2021</b> , 10, 2617-2623	6.3	1
15	Autologous tumor antigens and boron nanosheet-based nanovaccines for enhanced photo-immunotherapy against immune desert tumors. <i>Nanophotonics</i> , <b>2021</b> , 10, 2519-2535	6.3	1
14	Frontiers in Electronic and Optoelectronic Devices Based on 2D Materials. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2100444	6.4	1
13	Quantum Dots: Fluorination-Enhanced Ambient Stability and Electronic Tolerance of Black Phosphorus Quantum Dots (Adv. Sci. 9/2018). <i>Advanced Science</i> , <b>2018</b> , 5, 1870055	13.6	1

12	2D Ferromagnetism: Robust Above-Room-Temperature Ferromagnetism in Few-Layer Antimonene Triggered by Nonmagnetic Adatoms (Adv. Funct. Mater. 15/2019). <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1970099	15.6	o
11	Vanadium Disulfide Nanosheets Synthesized by Facile Liquid-Phase Exfoliation for Ammonia Detection with High Selectivity. <i>Advanced Electronic Materials</i> , <b>2021</b> , 10, 2100567	6.4	o
10	MXenes: MXenes: Synthesis, Optical Properties, and Applications in Ultrafast Photonics (Small 11/2021). <i>Small</i> , <b>2021</b> , 17, 2170048	11	o
9	Current advances in the imaging of atherosclerotic vulnerable plaque using nanoparticles.. <i>Materials Today Bio</i> , <b>2022</b> , 14, 100236	9.9	o
8	An Assessment of MXenes through Scanning Probe Microscopy.. <i>Small Methods</i> , <b>2022</b> , e2101599	12.8	o
7	Mini-Generator Based on Self-Propelled Vertical Motion of a Functionally Cooperating Device Driven by H <sup>-</sup> -Forming Reaction. <i>Chemistry - an Asian Journal</i> , <b>2019</b> , 14, 2465-2471	4.5	
6	Pulsed Lasers: Pulsed Lasers Employing Solution-Processed Plasmonic Cu <sub>3</sub> P Colloidal Nanocrystals (Adv. Mater. 18/2016). <i>Advanced Materials</i> , <b>2016</b> , 28, 3604-3604	24	
5	Titelbild: Robust SnO <sub>2</sub> Nanoparticle-Impregnated Carbon Nanofibers with Outstanding Electrochemical Performance for Advanced Sodium-Ion Batteries (Angew. Chem. 29/2018). <i>Angewandte Chemie</i> , <b>2018</b> , 130, 8919-8919	3.6	
4	Innentitelbild: Antimonene Quantum Dots: Synthesis and Application as Near-Infrared Photothermal Agents for Effective Cancer Therapy (Angew. Chem. 39/2017). <i>Angewandte Chemie</i> , <b>2017</b> , 129, 11816-11816	3.6	
3	Recent Progress on Metal-Based Nanomaterials: Fabrications, Optical Properties, and Applications in Ultrafast Photonics (Adv. Funct. Mater. 49/2021). <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2170364	15.6	
2	Tailored negative/positive photoresponse of BP via doping. <i>Nanotechnology</i> , <b>2021</b> , 32, 185201	3.4	
1	A Facile Approach for Elemental-Doped Carbon Quantum Dots and Their Application for Efficient Photodetectors (Small 52/2021). <i>Small</i> , <b>2021</b> , 17, 2170272	11	