

Weichun Huang

List of Publications by Year in descending order

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83
papers

6,051
citations

70961

41
h-index

71532

76
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83
all docs

83
docs citations

83
times ranked

4812
citing authors

#	ARTICLE	IF	CITATIONS
1	Characteristics, properties, synthesis and advanced applications of 2D graphdiyne versus graphene. <i>Materials Chemistry Frontiers</i> , 2022, 6, 528-552.	3.2	14
2	Nanoengineering of Tin Monosulfide (SnS)-Based Structures for Emerging Applications. <i>Small Science</i> , 2022, 2, .	5.8	40
3	DABCO as a practical catalyst for aromatic halogenation with N-halosuccinimides. <i>RSC Advances</i> , 2022, 12, 7115-7119.	1.7	10
4	Tin Oxide (SnO ₂) Nanoparticles: Facile Fabrication, Characterization, and Application in UV Photodetectors. <i>Nanomaterials</i> , 2022, 12, 632.	1.9	15
5	New insights to atherosclerosis management: Role of nanomaterials. <i>Applied Materials Today</i> , 2022, 27, 101466.	2.3	3
6	Functionalized hybridization of bismuth nanostructures for highly improved nanophotonics. <i>APL Materials</i> , 2022, 10, .	2.2	13
7	Broadband acoustic absorbing metamaterial via deep learning approach. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	23
8	MXene (Ti ₂ NTx): Synthesis, characteristics and application as a thermo-optical switcher for all-optical wavelength tuning laser. <i>Science China Materials</i> , 2021, 64, 259-265.	3.5	40
9	Emerging Mono-Elemental Bismuth Nanostructures: Controlled Synthesis and Their Versatile Applications. <i>Advanced Functional Materials</i> , 2021, 31, 2007584.	7.8	102
10	Two-dimensional semiconducting antimonene in nanophotonic applications – A review. <i>Chemical Engineering Journal</i> , 2021, 406, 126876.	6.6	38
11	Customized Three-Dimensional-Printed Orthopedic Close Contact Casts for the Treatment of Stable Ankle Fractures: Finite Element Analysis and a Pilot Study. <i>ACS Omega</i> , 2021, 6, 3418-3426.	1.6	11
12	Functional two-dimensional black phosphorus nanostructures towards next-generation devices. <i>Journal of Materials Chemistry A</i> , 2021, 9, 12433-12473.	5.2	73
13	Construction of super-hydrophobic PDMS@MOF@Cu mesh for reduced drag, anti-fouling and self-cleaning towards marine vehicle applications. <i>Chemical Engineering Journal</i> , 2021, 417, 129265.	6.6	56
14	3D MXene Sponge: Facile Synthesis, Excellent Hydrophobicity, and High Photothermal Efficiency for Waste Oil Collection and Purification. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 47302-47312.	4.0	67
15	2D materials for bone therapy. <i>Advanced Drug Delivery Reviews</i> , 2021, 178, 113970.	6.6	23
16	From phosphorus to phosphorene: Applications in disease theranostics. <i>Coordination Chemistry Reviews</i> , 2021, 446, 214110.	9.5	77
17	CdS@CdSe Core/Shell Quantum Dots for Highly Improved Self-Powered Photodetection Performance. <i>Inorganic Chemistry</i> , 2021, 60, 18608-18613.	1.9	28
18	Recent advances in two-dimensional-material-based sensing technology toward health and environmental monitoring applications. <i>Nanoscale</i> , 2020, 12, 3535-3559.	2.8	318

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19	Recent advances in solution-processed photodetectors based on inorganic and hybrid photo-active materials. <i>Nanoscale</i> , 2020, 12, 2201-2227.	2.8	71
20	Recent Advances of Spatial Self-Phase Modulation in 2D Materials and Passive Photonic Device Applications. <i>Small</i> , 2020, 16, e2002252.	5.2	35
21	Two-Dimensional Black Phosphorus Nanomaterials: Emerging Advances in Electrochemical Energy Storage Science. <i>Nano-Micro Letters</i> , 2020, 12, 179.	14.4	82
22	Recent Progress, Challenges, and Prospects in Two-Dimensional Photo-Catalyst Materials and Environmental Remediation. <i>Nano-Micro Letters</i> , 2020, 12, 167.	14.4	57
23	Recent Advances in Functional 2D MXene-Based Nanostructures for Next-Generation Devices. <i>Advanced Functional Materials</i> , 2020, 30, 2005223.	7.8	216
24	Aqueous Zinc-Tellurium Batteries with Ultraflat Discharge Plateau and High Volumetric Capacity. <i>Advanced Materials</i> , 2020, 32, e2001469.	11.1	104
25	Recent Advances in Semiconducting Monoelemental Selenium Nanostructures for Device Applications. <i>Advanced Functional Materials</i> , 2020, 30, 2003301.	7.8	93
26	A Nitrogen-Doped Graphene Quantum Dot Composites as On-Off Nanosensors for Sensitive Photo-Electrochemical Detection of Caffeic Acid. <i>Nanomaterials</i> , 2020, 10, 1972.	1.9	4
27	Ultrafast Relaxation Dynamics and Nonlinear Response of Few-Layer Niobium Carbide MXene. <i>Small Methods</i> , 2020, 4, 2000250.	4.6	84
28	Bismuthene quantum dots based optical modulator for MIR lasers at 2.14 μm . <i>Optical Materials</i> , 2020, 102, 109830.	1.7	22
29	Emerging 2D pnictogens for catalytic applications: status and challenges. <i>Journal of Materials Chemistry A</i> , 2020, 8, 12887-12927.	5.2	32
30	Photodetectors: Graphdiyne-Based Flexible Photodetectors with High Responsivity and Detectivity (<i>Adv. Mater.</i> 23/2020). <i>Advanced Materials</i> , 2020, 32, 2070175.	11.1	5
31	Facile liquid-phase exfoliated few-layer GeP nanosheets and their optoelectronic device applications. <i>Journal of Materials Chemistry C</i> , 2020, 8, 5547-5553.	2.7	24
32	Quantum confinement-induced enhanced nonlinearity and carrier lifetime modulation in two-dimensional tin sulfide. <i>Nanophotonics</i> , 2020, 9, 1963-1972.	2.9	22
33	Few-layer hexagonal bismuth telluride (Bi_2Te_3) nanoplates with high-performance UV-Vis photodetection. <i>Nanoscale Advances</i> , 2020, 2, 1333-1339.	2.2	33
34	1D@0D hybrid dimensional heterojunction-based photonics logical gate and isolator. <i>Applied Materials Today</i> , 2020, 19, 100589.	2.3	19
35	Synthesis and optoelectronics of mixed-dimensional Bi/Te binary heterostructures. <i>Nanoscale Horizons</i> , 2020, 5, 847-856.	4.1	28
36	Recent advances in doping engineering of black phosphorus. <i>Journal of Materials Chemistry A</i> , 2020, 8, 5421-5441.	5.2	93

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37	MXene/Polymer Membranes: Synthesis, Properties, and Emerging Applications. <i>Chemistry of Materials</i> , 2020, 32, 1703-1747.	3.2	429
38	Refractive Index Sensors Based on $\text{Ti}_3\text{C}_2\text{T}_x$ MXene Fibers. <i>ACS Applied Nano Materials</i> , 2020, 3, 303-311.	2.4	74
39	Emerging black phosphorus analogue nanomaterials for high-performance device applications. <i>Journal of Materials Chemistry C</i> , 2020, 8, 1172-1197.	2.7	54
40	All-Optical Control of Microfiber Knot Resonator Based on 2D Ti_2CT_x MXene. <i>Advanced Optical Materials</i> , 2020, 8, 1900977.	3.6	39
41	Photocarrier relaxation pathways in selenium quantum dots and their application in UV-Vis photodetection. <i>Nanoscale</i> , 2020, 12, 11232-11241.	2.8	23
42	Graphdiyne-Based Flexible Photodetectors with High Responsivity and Detectivity. <i>Advanced Materials</i> , 2020, 32, e2001082.	11.1	171
43	Passively Q-switched near-infrared lasers with bismuthene quantum dots as the saturable absorber. <i>Optics and Laser Technology</i> , 2020, 128, 106219.	2.2	23
44	Recent advances in real-time spectrum measurement of soliton dynamics by dispersive Fourier transformation. <i>Reports on Progress in Physics</i> , 2020, 83, 116401.	8.1	35
45	MXene-PVA thin film for efficient all-optical modulator and all-optical signal processing with high performances. <i>JPhys Photonics</i> , 2020, 2, 045004.	2.2	8
46	MXene-based high-performance all-optical modulators for actively Q-switched pulse generation. <i>Photonics Research</i> , 2020, 8, 1140.	3.4	30
47	MXene saturable absorber enabled hybrid mode-locking technology: a new routine of advancing femtosecond fiber lasers performance. <i>Nanophotonics</i> , 2020, 9, 2451-2458.	2.9	50
48	Highly stable MXene (V_2CT_x)-based harmonic pulse generation. <i>Nanophotonics</i> , 2020, 9, 2577-2585.	2.9	83
49	Two-Dimensional Borophene: Properties, Fabrication, and Promising Applications. <i>Research</i> , 2020, 2020, 2624617.	2.8	93
50	In situ preparation of a CsPbBr_3 /black phosphorus heterostructure with an optimized interface and photodetector application. <i>Nanoscale</i> , 2019, 11, 16852-16859.	2.8	55
51	Epitaxial Growth of Topological Insulators on Semiconductors ($\text{Bi}_2\text{Se}_3/\text{Te@Se}$) toward High-Performance Photodetectors. <i>Small Methods</i> , 2019, 3, 1900349.	4.6	45
52	Self-Healable Black Phosphorus Photodetectors. <i>Advanced Functional Materials</i> , 2019, 29, 1906610.	7.8	48
53	Van der Waals Integration of Bismuth Quantum Dots-Decorated Tellurium Nanotubes (Te@Bi) Heterojunctions and Plasma-Enhanced Optoelectronic Applications. <i>Small</i> , 2019, 15, e1903233.	5.2	45
54	A bismuthene-based multifunctional all-optical phase and intensity modulator enabled by photothermal effect. <i>Journal of Materials Chemistry C</i> , 2019, 7, 871-878.	2.7	67

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55	An All-Optical, Actively Q-Switched Fiber Laser by an Antimonene-Based Optical Modulator. <i>Laser and Photonics Reviews</i> , 2019, 13, 1800313.	4.4	122
56	Photodetectors: Enhanced Photodetection Properties of Tellurium@Selenium Roll-to-Roll Nanotube Heterojunctions (Small 23/2019). <i>Small</i> , 2019, 15, 1970125.	5.2	14
57	Unveiling the Stimulated Robust Carrier Lifetime of Surface-Bound Excitons and Their Photoresponse in InSe. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900171.	1.9	18
58	MXene Ti ₃ C ₂ T _x : A Promising Photothermal Conversion Material and Application in All-Optical Modulation and All-Optical Information Loading. <i>Advanced Optical Materials</i> , 2019, 7, 1900060.	3.6	115
59	Enhanced Photodetection Properties of Tellurium@Selenium Roll-to-Roll Nanotube Heterojunctions. <i>Small</i> , 2019, 15, e1900902.	5.2	120
60	Beta-lead oxide quantum dot (^β -PbO QD)/polystyrene (PS) composite films and their applications in ultrafast photonics. <i>Nanoscale</i> , 2019, 11, 6828-6837.	2.8	33
61	Kerr Nonlinearity in 2D Graphdiyne for Passive Photonic Diodes. <i>Advanced Materials</i> , 2019, 31, e1807981.	11.1	187
62	2D MXene-containing polymer electrolytes for all-solid-state lithium metal batteries. <i>Nanoscale Advances</i> , 2019, 1, 395-402.	2.2	117
63	2D Tellurium Based High-Performance All-Optical Nonlinear Photonic Devices. <i>Advanced Functional Materials</i> , 2019, 29, 1806346.	7.8	165
64	Two-dimensional non-layered selenium nanoflakes: facile fabrications and applications for self-powered photo-detector. <i>Nanotechnology</i> , 2019, 30, 114002.	1.3	161
65	Ultrathin GeSe Nanosheets: From Systematic Synthesis to Studies of Carrier Dynamics and Applications for a High-Performance UV-Vis Photodetector. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 4278-4287.	4.0	105
66	Nonlayered 2D Materials: Ultrathin 2D Nonlayered Tellurium Nanosheets: Facile Liquid-Phase Exfoliation, Characterization, and Photoresponse with High Performance and Enhanced Stability (Adv.) <i>TJ ETQq0 0 0.8 BT / Overlock 10 T</i>		
67	All-Optical Phosphorene Phase Modulator with Enhanced Stability Under Ambient Conditions. <i>Laser and Photonics Reviews</i> , 2018, 12, 1800016.	4.4	155
68	Ultrathin 2D Nonlayered Tellurium Nanosheets: Facile Liquid-Phase Exfoliation, Characterization, and Photoresponse with High Performance and Enhanced Stability. <i>Advanced Functional Materials</i> , 2018, 28, 1705833.	7.8	348
69	Facile fabrication and characterization of two-dimensional bismuth(III) sulfide nanosheets for high-performance photodetector applications under ambient conditions. <i>Nanoscale</i> , 2018, 10, 2404-2412.	2.8	166
70	Ultrasmall Bismuth Quantum Dots: Facile Liquid-Phase Exfoliation, Characterization, and Application in High-Performance UV-Vis Photodetector. <i>ACS Photonics</i> , 2018, 5, 621-629.	3.2	230
71	Two-dimensional beta-lead oxide quantum dots. <i>Nanoscale</i> , 2018, 10, 20540-20547.	2.8	49
72	Two-Dimensional Lead Monoxide: Facile Liquid Phase Exfoliation, Excellent Photoresponse Performance, and Theoretical Investigation. <i>ACS Photonics</i> , 2018, 5, 5055-5067.	3.2	47

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73	MXene-Based Nonlinear Optical Information Converter for All-Optical Modulator and Switcher. <i>Laser and Photonics Reviews</i> , 2018, 12, 1800215.	4.4	117
74	Perovskite CsPbX ₃ : A Promising Nonlinear Optical Material and Its Applications for Ambient All-Optical Switching with Enhanced Stability. <i>Advanced Optical Materials</i> , 2018, 6, 1800400.	3.6	90
75	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> , 2018, 6, 9582-9593.	2.7	153
76	Poly(butylene terephthalate)-b-poly(ethylene oxide) alternating multiblock copolymers: Synthesis and application in solid polymer electrolytes. <i>Polymer</i> , 2017, 128, 188-199.	1.8	25
77	A one pot facile synthesis of Poly(butylene terephthalate)-block-poly(tetramethylene oxide) alternative multiblock copolymers via PROP method. <i>Polymer</i> , 2016, 107, 29-36.	1.8	24
78	From ultratough artificial nacre to elastomer: Poly(n-butyl acrylate) grafted graphene oxide nanocomposites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2016, 88, 156-164.	3.8	19
79	Synergistic toughening of bioinspired artificial nacre by polystyrene grafted graphene oxide. <i>RSC Advances</i> , 2015, 5, 28085-28091.	1.7	17
80	One pot synthesis and characterization of novel poly(ether ester) multiblock copolymers containing poly(tetramethylene oxide) and poly(ethylene terephthalate). <i>Polymer Chemistry</i> , 2014, 5, 945-954.	1.9	25
81	Synthesis and characterization of well-defined poly(L-lactide) functionalized graphene oxide sheets with high grafting ratio prepared through click chemistry and supramolecular interactions. <i>Polymer</i> , 2014, 55, 4619-4626.	1.8	27
82	PBT-b-PEO-b-PBT triblock copolymers: Synthesis, characterization and double-crystalline properties. <i>Polymer</i> , 2013, 54, 6725-6731.	1.8	18
83	One Pot, One Feeding Step, Two-Stage Polymerization Synthesis and Characterization of (PTT- <i>b</i> -PTMO- <i>b</i> -PTT) _n Multiblock Copolymers. <i>Macromolecules</i> , 2013, 46, 7274-7281.	2.2	34