Hua Xu

List of Publications by Year
in descending order

91 papers	7,943 citations	53660 45 h-index	48187 88 g-index
92 all docs	92 docs citations	92 times ranked	12210 citing authors

#	Article	IF	Citations
1	Can Graphene be used as a Substrate for Raman Enhancement?. Nano Letters, 2010, 10, 553-561.	4.5	914
2	Hierarchically porous carbon by activation of shiitake mushroom for capacitive energy storage. Carbon, 2015, 93, 315-324.	5.4	395
3	Growth of Largeâ€Area 2D MoS_{2(1â€x)}Se_{2x} Semiconductor Alloys. Advanced Materials, 2014, 26, 2648-2653.	11.1	347
4	20â€mmâ€Large Singleâ€Crystalline Formamidiniumâ€Perovskite Wafer for Mass Production of Integrated Photodetectors. Advanced Optical Materials, 2016, 4, 1829-1837.	3.6	316
5	High Responsivity and Gate Tunable Grapheneâ€MoS₂ Hybrid Phototransistor. Small, 2014, 10, 2300-2306.	5.2	301
6	Identifying the Crystalline Orientation of Black Phosphorus Using Angleâ€Resolved Polarized Raman Spectroscopy. Angewandte Chemie - International Edition, 2015, 54, 2366-2369.	7.2	284
7	2D Layered Materialâ€Based van der Waals Heterostructures for Optoelectronics. Advanced Functional Materials, 2018, 28, 1706587.	7.8	279
8	Optical Anisotropy of Black Phosphorus in the Visible Regime. Journal of the American Chemical Society, 2016, 138, 300-305.	6.6	273
9	Three-Dimensional Tubular MoS₂/PANI Hybrid Electrode for High Rate Performance Supercapacitor. ACS Applied Materials & Interfaces, 2015, 7, 28294-28302.	4.0	231
10	Growth of MoS_{2(1â€“x)}Se_{2x} (x = 0.41â€“1.00) Monolayer Alloys with Controlled Morphology by Physical Vapor Deposition. ACS Nano, 2015, 9, 7450-7455.	7.3	217
11	Multi-inch single-crystalline perovskite membrane for high-detectivity flexible photosensors. Nature Communications, 2018, 9, 5302.	5.8	212
12	Physical vapor deposition synthesis of two-dimensional orthorhombic SnS flakes with strong angle/temperature-dependent Raman responses. Nanoscale, 2016, 8, 2063-2070.	2.8	206
13	Effect of Graphene Fermi Level on the Raman Scattering Intensity of Molecules on Graphene. ACS Nano, 2011, 5, 5338-5344.	7.3	193
14	Activation of graphene aerogel with phosphoric acid for enhanced electrocapacitive performance. Carbon, 2015, 92, 1-10.	5.4	193
15	Targeting Activation of CO₂ and H₂ over Ruâ€Loaded Ultrathin Layered Double Hydroxides to Achieve Efficient Photothermal CO₂ Methanation in Flowâ€Type System. Advanced Energy Materials, 2017, 7, 1601657.	10.2	193
16	Telluriumâ€Assisted Epitaxial Growth of Largeâ€Area, Highly Crystalline ReS₂ Atomic Layers on Mica Substrate. Advanced Materials, 2016, 28, 5019-5024.	11.1	169
17	CMP Aerogels: Ultrahighâ€Surfaceâ€Area Carbonâ€Based Monolithic Materials with Superb Sorption Performance. Advanced Materials, 2014, 26, 8053-8058.	11.1	125
18	Investigating the Mechanism of Hysteresis Effect in Graphene Electrical Field Device Fabricated on SiO₂ Substrates using Raman Spectroscopy. Small, 2012, 8, 2833-2840.	5.2	120

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19	Controlled growth of large-area anisotropic ReS₂atomic layer and its photodetector application. Nanoscale, 2016, 8, 18956-18962.	2.8	114
20	Chemical Vapor Deposition Growth of Linked Carbon Monolayers with Acetylenic Scaffoldings on Silver Foil. Advanced Materials, 2017, 29, 1604665.	11.1	114
21	Highly Compressible Carbon Sponge Supercapacitor Electrode with Enhanced Performance by Growing Nickelâ€“Cobalt Sulfide Nanosheets. ACS Applied Materials & Interfaces, 2018, 10, 10087-10095.	4.0	111
22	Synthesis of Largeâ€Size 1Tâ€² ReS₂_xSe_{2(1â^’}_x₎ Alloy Monolayer with Tunable Bandgap and Carrier Type. Advanced Materials, 2017, 29, 1705015.	11.1	107
23	Î´-MnO₂/holey graphene hybrid fiber for all-solid-state supercapacitor. Journal of Materials Chemistry A, 2016, 4, 9088-9096.	5.2	101
24	Identifying the Crystalline Orientation of Black Phosphorus Using Angleâ€Resolved Polarized Raman Spectroscopy. Angewandte Chemie, 2015, 127, 2396-2399.	1.6	97
25	Nitrogenâ€Doped Carbon Nanotube Aerogels for Highâ€Performance ORR Catalysts. Small, 2015, 11, 3903-3908.	5.2	96
26	Formation process of holey graphene and its assembled binder-free film electrode with high volumetric capacitance. Electrochimica Acta, 2016, 187, 543-551.	2.6	94
27	Chemical Vapor Deposition Growth of High Crystallinity Sb₂Se₃ Nanowire with Strong Anisotropy for Nearâ€Infrared Photodetectors. Small, 2019, 15, e1805307.	5.2	93
28	CoNi₂S₄ Nanoparticle/Carbon Nanotube Sponge Cathode with Ultrahigh Capacitance for Highly Compressible Asymmetric Supercapacitor. Small, 2018, 14, e1800998.	5.2	87
29	Identifying spâ€“sp² carbon materials by Raman and infrared spectroscopies. Physical Chemistry Chemical Physics, 2014, 16, 11303-11309.	1.3	81
30	A self-powered grapheneâ€“MoS2 hybrid phototransistor with fast response rate and high onâ€“off ratio. Carbon, 2015, 92, 126-132.	5.4	80
31	Airâ€Stable 2D Cr₅Te₈ Nanosheets with Thicknessâ€Tunable Ferromagnetism. Advanced Materials, 2022, 34, e2107512.	11.1	77
32	Spotting the differences in two-dimensional materials â€“ the Raman scattering perspective. Chemical Society Reviews, 2018, 47, 3217-3240.	18.7	71
33	High-energy asymmetric electrochemical capacitors based on oxides functionalized hollow carbon fibers electrodes. Nano Energy, 2016, 30, 9-17.	8.2	70
34	Epitaxial growth of large-area and highly crystalline anisotropic ReSe2 atomic layer. Nano Research, 2017, 10, 2732-2742.	5.8	69
35	Extraordinarily high-rate capability of polyaniline nanorod arrays on graphene nanomesh. Journal of Power Sources, 2016, 304, 111-118.	4.0	68
36	Modulating the Chargeâ€Transfer Enhancement in GERS using an Electrical Field under Vacuum and an n/pâ€Doping Atmosphere. Small, 2011, 7, 2945-2952.	5.2	65

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37	2D Reâ€Based Transition Metal Chalcogenides: Progress, Challenges, and Opportunities. Advanced Science, 2020, 7, 2002320.	5.6	62
38	Electrostatic Functionalization and Passivation of Water-Exfoliated Few-Layer Black Phosphorus by Poly Dimethyldiallyl Ammonium Chloride and Its Ultrafast Laser Application. ACS Applied Materials & Interfaces, 2018, 10, 9679-9687.	4.0	57
39	Epitaxial Growth of Rectangle Shape MoS₂ with Highly Aligned Orientation on Twofold Symmetry aâ€Plane Sapphire. Small, 2020, 16, e2000596.	5.2	53
40	Diverse Atomically Sharp Interfaces and Linear Dichroism of 1T' ReS₂â€ReSe₂ Lateral pâ€“n Heterojunctions. Advanced Functional Materials, 2018, 28, 1804696.	7.8	50
41	Expanding the photoresponse range of TiO2 nanotube arrays by CdS/CdSe/ZnS quantum dots co-modification. Journal of Photochemistry and Photobiology A: Chemistry, 2011, 224, 25-30.	2.0	49
42	Metallic-Phase MoS₂ Nanopetals with Enhanced Electrocatalytic Activity for Hydrogen Evolution. ACS Sustainable Chemistry and Engineering, 2018, 6, 13435-13442.	3.2	48
43	Intercalation and delamination behavior of Ti₃C₂T_xand MnO₂/Ti₃C₂T_x/RGO flexible fibers with high volumetric capacitance. Journal of Materials Chemistry A, 2019, 7, 12582-12592.	5.2	48
44	Block poly(arylene ether sulfone) copolymers tethering aromatic side-chain quaternary ammonium as anion exchange membranes. Polymer Chemistry, 2018, 9, 699-711.	1.9	46
45	Nanoassembly Growth Model for Subdomain and Grain Boundary Formation in 1Tâ€² Layered ReS₂. Advanced Functional Materials, 2019, 29, 1906385.	7.8	45
46	Î´-MnO₂nanofiber/single-walled carbon nanotube hybrid film for all-solid-state flexible supercapacitors with high performance. Journal of Materials Chemistry A, 2017, 5, 19107-19115.	5.2	44
47	Spatially Confined Growth of Fullerene to Superâ€Long Crystalline Fibers in Supramolecular Gels for Highâ€Performance Photodetector. Advanced Materials, 2019, 31, e1808254.	11.1	42
48	Synthesis of 2Hâ€1Tâ€² WS₂â€ReS₂ Heterophase Structures with Atomically Sharp Interface via Hydrogenâ€Triggered Oneâ€Pot Growth. Advanced Functional Materials, 2020, 30, 1910169.	7.8	42
49	Polarization Sensitive Solarâ€Blind Ultraviolet Photodetectors Based on Ultrawide Bandgap KNb₃O₈ Nanobelt with Fringeâ€Like Atomic Lattice. Advanced Functional Materials, 2022, 32, .	7.8	41
50	Strong Band Bowing Effects and Distinctive Optoelectronic Properties of 2H and 1Tâ€² Phaseâ€Tunable Mo_xRe_{1â€“}_xS₂ Alloys. Advanced Functional Materials, 2020, 30, 2003264.	7.8	39
51	Solution Coating of Superior Largeâ€Area Flexible Perovskite Thin Films with Controlled Crystal Packing. Advanced Optical Materials, 2017, 5, 1700102.	3.6	34
52	Mn 3 O 4 nanocrystalline/graphene hybrid electrode with high capacitance. Electrochimica Acta, 2016, 188, 398-405.	2.6	33
53	Characteristics and applications of ecological soil substrate for rocky slope vegetation in cold and high-altitude areas. Science of the Total Environment, 2017, 609, 446-455.	3.9	33
54	Controllable growth of typeâ€II Dirac semimetal PtTe₂ atomic layer on Au substrate for sensitive room temperature terahertz photodetection. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 705-715.	8.5	33

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55	Fabrication of TiO2 nanotubes with extended periodical morphology by alternating-current anodization. Electrochemistry Communications, 2012, 17, 34-37.	2.3	32
56	Shell-Controlled Photoluminescence in CdSe/CNT Nanohybrids. Nanoscale Research Letters, 2009, 4, 1146-52.	3.1	30
57	Nb₂O₅ Nanoparticles Anchored on an N-Doped Graphene Hybrid Anode for a Sodium-Ion Capacitor with High Energy Density. ACS Omega, 2018, 3, 15943-15951.	1.6	30
58	Low-temperature growth of Three dimensional ReS2/ReO2 metal-semiconductor heterojunctions on Graphene/polyimide film for enhanced hydrogen evolution reaction. Applied Catalysis B: Environmental, 2020, 271, 118924.	10.8	28
59	Realizing the Intrinsic Anisotropic Growth of 1Tâ€² ReS₂ on Selected Au(101) Substrate toward Largeâ€Scale Single Crystal Fabrication. Advanced Functional Materials, 2021, 31, 2102138.	7.8	27
60	Substrate Engineering by Hexagonal Boron Nitride/SiO₂ for Hysteresisâ€Free Graphene FETs and Largeâ€Scale Graphene pâ€“n Junctions. Chemistry - an Asian Journal, 2013, 8, 2446-2452.	1.7	26
61	Highly flexible all-solid-state cable-type supercapacitors based on Cu/reduced graphene oxide/manganese dioxide fibers. RSC Advances, 2017, 7, 10092-10099.	1.7	25
62	Polyaniline Nanorods Grown on Hollow Carbon Fibers as Highâ€Performance Supercapacitor Electrodes. ChemElectroChem, 2016, 3, 1142-1149.	1.7	24
63	Preparation and formation process of Î±-MnS@MoS2 microcubes with hierarchical core/shell structure. Journal of Colloid and Interface Science, 2017, 507, 18-26.	5.0	24
64	Linear Dichroism and Nondestructive Crystalline Identification of Anisotropic Semimetal Fewâ€Layer MoTe₂. Small, 2019, 15, e1903159.	5.2	24
65	Fast Identification of the Crystallographic Orientation of Violet Phosphorus Nanoflakes with Preferred Inâ€Plane Cleavage Edge Orientation. Advanced Functional Materials, 2022, 32, .	7.8	24
66	Thermodynamics and Kinetics Synergetic Phase-Engineering of Chemical Vapor Deposition Grown Single Crystal MoTe₂ Nanosheets. Crystal Growth and Design, 2018, 18, 2844-2850.	1.4	22
67	Electrochemical Delamination of Ultralarge Fewâ€Layer Black Phosphorus with a Hydrogenâ€Free Intercalation Mechanism. Advanced Materials, 2021, 33, e2005815.	11.1	22
68	Investigation of black phosphorus as a nano-optical polarization element by polarized Raman spectroscopy. Nano Research, 2018, 11, 3154-3163.	5.8	19
69	Rational design and controllable preparation of holey MnO₂ nanosheets. Chemical Communications, 2017, 53, 2950-2953.	2.2	18
70	Fe₃O₄ nanoparticles as a saturable absorber for giant chirped pulse generation. Beilstein Journal of Nanotechnology, 2019, 10, 1065-1072.	1.5	18
71	2H/1Tâ€² phase WS2(1â^'x)Te2x alloys grown by chemical vapor deposition with tunable band structures. Applied Surface Science, 2020, 504, 144371.	3.1	18
72	Synthesis of Large-Area Uniform MoS₂â€“WS₂ Lateral Heterojunction Nanosheets for Photodetectors. ACS Applied Nano Materials, 2021, 4, 5522-5530.	2.4	17

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73	Dynamic Response of Underground Circular Lining Tunnels Subjected to Incident P Waves. Mathematical Problems in Engineering, 2014, 2014, 1-11.	0.6	15
74	Observation of Low-Frequency Combination and Overtone Raman Modes in Misoriented Graphene. Journal of Physical Chemistry C, 2014, 118, 3636-3643.	1.5	15
75	Doping modulated in-plane anisotropic Raman enhancement on layered ReS2. Nano Research, 2019, 12, 563-568.	5.8	15
76	Mesoporous-assembled MnO₂ with large specific surface area. Journal of Materials Chemistry A, 2015, 3, 14567-14572.	5.2	14
77	Seismic risk evaluation for a planning mountain tunnel using improved analytical hierarchy process based on extension theory. Journal of Mountain Science, 2020, 17, 244-260.	0.8	13
78	Atomic-Scale Studies of Overlapping Grain Boundaries between Parallel and Quasi-Parallel Grains in Low-Symmetry Monolayer ReS2. Matter, 2020, 3, 2108-2123.	5.0	11
79	Improving Harsh Environmental Stability of Fewâ€Layer Black Phosphorus by Local Charge Transfer. Advanced Functional Materials, 2022, 32, .	7.8	11
80	Semiconductors: Growth of Large-Area 2D MoS2(1-x) Se2x Semiconductor Alloys (Adv. Mater. 17/2014). Advanced Materials, 2014, 26, 2763-2763.	11.1	8
81	Cellular Architectureâ€Based Allâ€Polymer Flexible Thinâ€Film Photodetectors with High Performance and Stability in Harsh Environment. Advanced Materials Technologies, 2017, 2, 1700185.	3.0	7
82	Probing Atomicâ€Scale Fracture of Grain Boundaries in Lowâ€symmetry 2D Materials. Small, 2021, 17, e2102739.	5.2	7
83	Multiple 2D Phase Transformations in Monolayer Transition Metal Chalcogenides. Advanced Materials, 2022, 34, e2200643.	11.1	6
84	Atomic Layers: Tellurium-Assisted Epitaxial Growth of Large-Area, Highly Crystalline ReS2 Atomic Layers on Mica Substrate (Adv. Mater. 25/2016). Advanced Materials, 2016, 28, 5018-5018.	11.1	5
85	Photothermal Catalysis: Targeting Activation of CO₂ and H₂ over Ruâ€Loaded Ultrathin Layered Double Hydroxides to Achieve Efficient Photothermal CO₂ Methanation in Flowâ€Type System (Adv. Energy Mater. 5/2017). Advanced Energy Materials, 2017, 7, .	10.2	5
86	STEM imaging artifacts with three-fold astigmatism in monolayer transition metal dichalcogenides. Applied Physics Letters, 2020, 116, .	1.5	5
87	Insight into the Role of H₂ in WS₂ Growth by Chemical Vapor Deposition. ACS Applied Electronic Materials, 2021, 3, 5138-5146.	2.0	5
88	Deciphering the Intense Postgap Absorptions of Monolayer Transition Metal Dichalcogenides. ACS Nano, 2021, 15, 7783-7789.	7.3	4
89	2D MoTe₂: Linear Dichroism and Nondestructive Crystalline Identification of Anisotropic Semimetal Fewâ€Layer MoTe₂ (Small 44/2019). Small, 2019, 15, 1970239.	5.2	1
90	Evaluation of Ground Surface Pregrouting in a Mountain Tunnel Based on FAHP. Mathematical Problems in Engineering, 2019, 2019, 1-17.	0.6	1

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91	Grain Boundaries: Nanoassembly Growth Model for Subdomain and Grain Boundary Formation in 1Tâ€² Layered ReS₂ (Adv. Funct. Mater. 49/2019). Advanced Functional Materials, 2019, 29, 1970335.	7.8	1