

Cheng Han

List of Publications by Year in descending order

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44
papers

3,687
citations

218677

26
h-index

254184

43
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45
all docs

45
docs citations

45
times ranked

5910
citing authors

#	ARTICLE	IF	CITATIONS
1	Polymer Electrolyte Dielectrics Enable Efficient Exciton-Polaron Quenching in Organic Semiconductors for Photostable Organic Transistors. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 13584-13592.	8.0	13
2	Balancing the film strain of organic semiconductors for ultrastable organic transistors with a five-year lifetime. <i>Nature Communications</i> , 2022, 13, 1480.	12.8	26
3	Efficient energy transfer in organic light-emitting transistor with tunable wavelength. <i>Nano Research</i> , 2022, 15, 3647-3652.	10.4	5
4	Surface charge transfer doping for two-dimensional semiconductor-based electronic and optoelectronic devices. <i>Nano Research</i> , 2021, 14, 1682-1697.	10.4	72
5	Ohmic Contact Engineering for Two-Dimensional Materials. <i>Cell Reports Physical Science</i> , 2021, 2, 100298.	5.6	81
6	Controlling phase transition in WSe ₂ towards ideal n-type transistor. <i>Nano Research</i> , 2021, 14, 2703-2710.	10.4	13
7	Efficient photocatalytic hydrogen peroxide generation coupled with selective benzylamine oxidation over defective ZrS ₃ nanobelts. <i>Nature Communications</i> , 2021, 12, 2039.	12.8	90
8	Atomic-Scale Local Work Function Characterizations of Br Islands on Cu(111). <i>Journal of Physical Chemistry C</i> , 2021, 125, 7944-7949.	3.1	6
9	Band-tailored van der Waals heterostructure for multilevel memory and artificial synapse. <i>Information Materials</i> , 2021, 3, 917-928.	17.3	59
10	Atomic and Electronic Edge Structures of Monolayer Ceria on Pt(111). <i>Journal of Physical Chemistry C</i> , 2021, 125, 15599-15605.	3.1	0
11	Surface Functionalization of Black Phosphorus with a Highly Reducing Organoruthenium Complex: Interface Properties and Enhanced Photoresponsivity of Photodetectors. <i>Chemistry - A European Journal</i> , 2020, 26, 6576-6582.	3.3	4
12	Surface Functionalization of Black Phosphorus by Cu: Effective Electron Doping and Enhanced Photoresponse. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000701.	3.7	6
13	Stimulus-Enabled Artificial Synapses for Neuromorphic Perception: Progress and Perspectives. <i>Small</i> , 2020, 16, e2001504.	10.0	55
14	Facile p-Doping of Few-Layer MoTe ₂ by Controllable Surface Oxidation toward High-Performance Complementary Devices. <i>ACS Applied Electronic Materials</i> , 2020, 2, 920-926.	4.3	19
15	Non-covalent interaction controlled 2D organic semiconductor films: Molecular self-assembly, electronic and optical properties, and electronic devices. <i>Surface Science Reports</i> , 2020, 75, 100481.	7.2	24
16	Out-of-Plane Homojunction Enabled High Performance SnS ₂ Lateral Phototransistor. <i>Advanced Optical Materials</i> , 2020, 8, 1901971.	7.3	27
17	Van der Waals Heterostructures with Tunable Tunneling Behavior Enabled by MoO ₃ Surface Functionalization. <i>Advanced Optical Materials</i> , 2020, 8, 1901867.	7.3	11
18	Surface passivation of black phosphorus via van der Waals stacked PTCDA. <i>Applied Surface Science</i> , 2019, 496, 143688.	6.1	26

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19	Continuously Tuning Electronic Properties of Few-Layer Molybdenum Ditelluride with <i>in Situ</i> Aluminum Modification toward Ultrahigh Gain Complementary Inverters. ACS Nano, 2019, 13, 9464-9472.	14.6	36
20	Black phosphorus inverter devices enabled by in-situ aluminum surface modification. Nano Research, 2019, 12, 531-536.	10.4	33
21	Two-dimensional transition metal dichalcogenides: interface and defect engineering. Chemical Society Reviews, 2018, 47, 3100-3128.	38.1	604
22	Direct Observation of Semiconductor–Metal Phase Transition in Bilayer Tungsten Diselenide Induced by Potassium Surface Functionalization. ACS Nano, 2018, 12, 2070-2077.	14.6	44
23	Emergence of photoluminescence on bulk MoS ₂ by laser thinning and gold particle decoration. Nano Research, 2018, 11, 4574-4586.	10.4	30
24	2D Phosphorene: Epitaxial Growth and Interface Engineering for Electronic Devices (Adv. Mater. 47/2018). Advanced Materials, 2018, 30, 1870359.	21.0	5
25	2D Phosphorene: Epitaxial Growth and Interface Engineering for Electronic Devices. Advanced Materials, 2018, 30, e1802207.	21.0	58
26	Significantly enhanced optoelectronic performance of tungsten diselenide phototransistor via surface functionalization. Nano Research, 2017, 10, 1282-1291.	10.4	30
27	Oxygen induced strong mobility modulation in few-layer black phosphorus. 2D Materials, 2017, 4, 021007.	4.4	45
28	Growth of Quasi-Free-Standing Single-Layer Blue Phosphorus on Tellurium Monolayer Functionalized Au(111). ACS Nano, 2017, 11, 4943-4949.	14.6	109
29	Phosphorus Nanostripe Arrays on Cu(110): A Case Study to Understand the Substrate Effect on the Phosphorus thin Film Growth. Advanced Materials Interfaces, 2017, 4, 1601167.	3.7	18
30	Water-Catalyzed Oxidation of Few-Layer Black Phosphorous in a Dark Environment. Angewandte Chemie - International Edition, 2017, 56, 9131-9135.	13.8	141
31	Surface Functionalization of Black Phosphorus via Potassium toward High-Performance Complementary Devices. Nano Letters, 2017, 17, 4122-4129.	9.1	117
32	Reducing the Schottky barrier between few-layer MoTe ₂ and gold. 2D Materials, 2017, 4, 045016.	4.4	35
33	Water-Catalyzed Oxidation of Few-Layer Black Phosphorous in a Dark Environment. Angewandte Chemie, 2017, 129, 9259-9263.	2.0	16
34	Electronic Properties of a 1D Intrinsic/p-Doped Heterojunction in a 2D Transition Metal Dichalcogenide Semiconductor. ACS Nano, 2017, 11, 9128-9135.	14.6	58
35	Epitaxial Growth of Single Layer Blue Phosphorus: A New Phase of Two-Dimensional Phosphorus. Nano Letters, 2016, 16, 4903-4908.	9.1	609
36	Surface Transfer Doping-Induced, High-Performance Graphene/Silicon Schottky Junction-Based, Self-Powered Photodetector. Small, 2015, 11, 4829-4836.	10.0	103

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37	Surface transfer doping induced effective modulation on ambipolar characteristics of few-layer black phosphorus. <i>Nature Communications</i> , 2015, 6, 6485.	12.8	335
38	Colossal Ultraviolet Photoresponsivity of Few-Layer Black Phosphorus. <i>ACS Nano</i> , 2015, 9, 8070-8077.	14.6	204
39	Photocurrent Response in Multiwalled Carbon Nanotube Core–Molybdenum Disulfide Shell Heterostructures. <i>Journal of Physical Chemistry C</i> , 2015, 119, 24588-24596.	3.1	20
40	Electron-Doping-Enhanced Trion Formation in Monolayer Molybdenum Disulfide Functionalized with Cesium Carbonate. <i>ACS Nano</i> , 2014, 8, 5323-5329.	14.6	211
41	Gap States Assisted MoO ₃ Nanobelt Photodetector with Wide Spectrum Response. <i>Scientific Reports</i> , 2014, 4, 4891.	3.3	146
42	Growth of Millimeter-Size Single Crystal Graphene on Cu Foils by Circumfluence Chemical Vapor Deposition. <i>Scientific Reports</i> , 2014, 4, 4537.	3.3	98
43	Improving chemical vapor deposition graphene conductivity using molybdenum trioxide: An <i>in-situ</i> field effect transistor study. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	27
44	Growth of Millimeter-Size Single Crystal Graphene on Cu Foils by Circumfluence Chemical Vapor Deposition. , 0, .		1