Cheng Han

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/4713711/publications.pdf

Version: 2024-02-01

44	3,687	218677	254184
papers	citations	26 h-index	43 g-index

45	45	45	5910
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Epitaxial Growth of Single Layer Blue Phosphorus: A New Phase of Two-Dimensional Phosphorus. Nano Letters, 2016, 16, 4903-4908.	9.1	609
2	Two-dimensional transition metal dichalcogenides: interface and defect engineering. Chemical Society Reviews, 2018, 47, 3100-3128.	38.1	604
3	Surface transfer doping induced effective modulation on ambipolar characteristics of few-layer black phosphorus. Nature Communications, 2015, 6, 6485.	12.8	335
4	Electron-Doping-Enhanced Trion Formation in Monolayer Molybdenum Disulfide Functionalized with Cesium Carbonate. ACS Nano, 2014, 8, 5323-5329.	14.6	211
5	Colossal Ultraviolet Photoresponsivity of Few-Layer Black Phosphorus. ACS Nano, 2015, 9, 8070-8077.	14.6	204
6	Gap States Assisted MoO3 Nanobelt Photodetector with Wide Spectrum Response. Scientific Reports, 2014, 4, 4891.	3.3	146
7	Waterâ€Catalyzed Oxidation of Fewâ€Layer Black Phosphorous in a Dark Environment. Angewandte Chemie - International Edition, 2017, 56, 9131-9135.	13.8	141
8	Surface Functionalization of Black Phosphorus via Potassium toward High-Performance Complementary Devices. Nano Letters, 2017, 17, 4122-4129.	9.1	117
9	Growth of Quasi-Free-Standing Single-Layer Blue Phosphorus on Tellurium Monolayer Functionalized Au(111). ACS Nano, 2017, 11, 4943-4949.	14.6	109
10	Surface Transfer Dopingâ€Induced, Highâ€Performance Graphene/Silicon Schottky Junctionâ€Based, Selfâ€Powered Photodetector. Small, 2015, 11, 4829-4836.	10.0	103
11	Growth of Millimeter-Size Single Crystal Graphene on Cu Foils by Circumfluence Chemical Vapor Deposition. Scientific Reports, 2014, 4, 4537.	3.3	98
12	Efficient photocatalytic hydrogen peroxide generation coupled with selective benzylamine oxidation over defective ZrS3 nanobelts. Nature Communications, 2021, 12, 2039.	12.8	90
13	Ohmic Contact Engineering for Two-Dimensional Materials. Cell Reports Physical Science, 2021, 2, 100298.	5.6	81
14	Surface charge transfer doping for two-dimensional semiconductor-based electronic and optoelectronic devices. Nano Research, 2021, 14, 1682-1697.	10.4	72
15	Bandâ€tailored van der Waals heterostructure for multilevel memory and artificial synapse. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 917-928.	17.3	59
16	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
17	2D Phosphorene: Epitaxial Growth and Interface Engineering for Electronic Devices. Advanced Materials, 2018, 30, e1802207.	21.0	58
18	Stimuliâ€Enabled Artificial Synapses for Neuromorphic Perception: Progress and Perspectives. Small, 2020, 16, e2001504.	10.0	55

#	Article	IF	Citations
19	Oxygen induced strong mobility modulation in few-layer black phosphorus. 2D Materials, 2017, 4, 021007.	4.4	45
20	Direct Observation of Semiconductorâ€“Metal Phase Transition in Bilayer Tungsten Diselenide Induced by Potassium Surface Functionalization. ACS Nano, 2018, 12, 2070-2077.	14.6	44
21	Continuously Tuning Electronic Properties of Few-Layer Molybdenum Ditelluride with in Situ Aluminum Modification toward Ultrahigh Gain Complementary Inverters. ACS Nano, 2019, 13, 9464-9472.	14.6	36
22	Reducing the Schottky barrier between few-layer MoTe ₂ and gold. 2D Materials, 2017, 4, 045016.	4.4	35
23	Black phosphorus inverter devices enabled by in-situ aluminum surface modification. Nano Research, 2019, 12, 531-536.	10.4	33
24	Significantly enhanced optoelectronic performance of tungsten diselenide phototransistor via surface functionalization. Nano Research, 2017, 10, 1282-1291.	10.4	30
25	Emergence of photoluminescence on bulk MoS2 by laser thinning and gold particle decoration. Nano Research, 2018, 11, 4574-4586.	10.4	30
26	Improving chemical vapor deposition graphene conductivity using molybdenum trioxide: An in-situ field effect transistor study. Applied Physics Letters, 2013, 103, .	3.3	27
27	Outâ€ofâ€Plane Homojunction Enabled High Performance SnS₂ Lateral Phototransistor. Advanced Optical Materials, 2020, 8, 1901971.	7.3	27
28	Surface passivation of black phosphorus via van der Waals stacked PTCDA. Applied Surface Science, 2019, 496, 143688.	6.1	26
29	Balancing the film strain of organic semiconductors for ultrastable organic transistors with a five-year lifetime. Nature Communications, 2022, 13, 1480.	12.8	26
30	Non-covalent interaction controlled 2D organic semiconductor films: Molecular self-assembly, electronic and optical properties, and electronic devices. Surface Science Reports, 2020, 75, 100481.	7.2	24
31	Photocurrent Response in Multiwalled Carbon Nanotube Coreâ€“Molybdenum Disulfide Shell Heterostructures. Journal of Physical Chemistry C, 2015, 119, 24588-24596.	3.1	20
32	Facile p-Doping of Few-Layer MoTe₂ by Controllable Surface Oxidation toward High-Performance Complementary Devices. ACS Applied Electronic Materials, 2020, 2, 920-926.	4.3	19
33	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
34	Waterâ€Catalyzed Oxidation of Fewâ€Layer Black Phosphorous in a Dark Environment. Angewandte Chemie, 2017, 129, 9259-9263.	2.0	16
35	Controlling phase transition in WSe2 towards ideal n-type transistor. Nano Research, 2021, 14, 2703-2710.	10.4	13
36	Polymer Electrolyte Dielectrics Enable Efficient Exciton-Polaron Quenching in Organic Semiconductors for Photostable Organic Transistors. ACS Applied Materials & Interfaces, 2022, 14, 13584-13592.	8.0	13

#	Article	IF	Citations
37	Van der Waals Heterostructures with Tunable Tunneling Behavior Enabled by MoO₃ Surface Functionalization. Advanced Optical Materials, 2020, 8, 1901867.	7.3	11
38	Surface Functionalization of Black Phosphorus by Cu: Effective Electron Doping and Enhanced Photoresponse. Advanced Materials Interfaces, 2020, 7, 2000701.	3.7	6
39	Atomic-Scale Local Work Function Characterizations of Br Islands on Cu(111). Journal of Physical Chemistry C, 2021, 125, 7944-7949.	3.1	6
40	2D Phosphorene: 2D Phosphorene: Epitaxial Growth and Interface Engineering for Electronic Devices (Adv. Mater. 47/2018). Advanced Materials, 2018, 30, 1870359.	21.0	5
41	Efficient energy transfer in organic light-emitting transistor with tunable wavelength. Nano Research, 2022, 15, 3647-3652.	10.4	5
42	Surface Functionalization of Black Phosphorus with a Highly Reducing Organoruthenium Complex: Interface Properties and Enhanced Photoresponsivity of Photodetectors. Chemistry - A European Journal, 2020, 26, 6576-6582.	3.3	4
43	Growth of Millimeter-Size Single Crystal Graphene on Cu Foils by Circumfluence Chemical Vapor Deposition. , 0, .		1
44	Atomic and Electronic Edge Structures of Monolayer Ceria on Pt(111). Journal of Physical Chemistry C, 2021, 125, 15599-15605.	3.1	0