

Kehao Zhang

List of Publications by Year in descending order

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38
papers

2,452
citations

331670

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315739

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all docs

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docs citations

40
times ranked

4703
citing authors

#	ARTICLE	IF	CITATIONS
1	2D materials advances: from large scale synthesis and controlled heterostructures to improved characterization techniques, defects and applications. 2D Materials, 2016, 3, 042001.	4.4	408
2	Manganese Doping of Monolayer MoS ₂ : The Substrate Is Critical. Nano Letters, 2015, 15, 6586-6591.	9.1	357
3	Vertical 2D/3D Semiconductor Heterostructures Based on Epitaxial Molybdenum Disulfide and Gallium Nitride. ACS Nano, 2016, 10, 3580-3588.	14.6	207
4	A roadmap for electronic grade 2D materials. 2D Materials, 2019, 6, 022001.	4.4	205
5	Realizing Large-Scale, Electronic-Grade Two-Dimensional Semiconductors. ACS Nano, 2018, 12, 965-975.	14.6	172
6	Freestanding van der Waals Heterostructures of Graphene and Transition Metal Dichalcogenides. ACS Nano, 2015, 9, 4882-4890.	14.6	157
7	Tuning the Electronic and Photonic Properties of Monolayer MoS ₂ via In Situ Rhenium Substitutional Doping. Advanced Functional Materials, 2018, 28, 1706950.	14.9	137
8	Defect passivation of transition metal dichalcogenides via a charge transfer van der Waals interface. Science Advances, 2017, 3, e1701661.	10.3	95
9	Quantum-Confined Electronic States Arising from the Moiré Pattern of MoS ₂ -WSe ₂ Heterobilayers. Nano Letters, 2018, 18, 1849-1855.	9.1	91
10	First principles kinetic Monte Carlo study on the growth patterns of WSe ₂ monolayer. 2D Materials, 2016, 3, 025029.	4.4	59
11	Considerations for Utilizing Sodium Chloride in Epitaxial Molybdenum Disulfide. ACS Applied Materials & Interfaces, 2018, 10, 40831-40837.	8.0	58
12	Multiscale framework for simulation-guided growth of 2D materials. Npj 2D Materials and Applications, 2018, 2, .	7.9	41
13	Large scale 2D/3D hybrids based on gallium nitride and transition metal dichalcogenides. Nanoscale, 2018, 10, 336-341.	5.6	38
14	Flat Bands and Mechanical Deformation Effects in the Moiré Superlattice of MoS ₂ -WSe ₂ Heterobilayers. ACS Nano, 2020, 14, 7564-7573.	14.6	38
15	Large-area synthesis of WSe ₂ from WO ₃ by selenium oxygen ion exchange. 2D Materials, 2015, 2, 014003.	4.4	37
16	Selective-area growth and controlled substrate coupling of transition metal dichalcogenides. 2D Materials, 2017, 4, 025083.	4.4	36
17	Doping of Two-Dimensional Semiconductors: A Rapid Review and Outlook. MRS Advances, 2019, 4, 2743-2757.	0.9	29
18	Properties of synthetic epitaxial graphene/molybdenum disulfide lateral heterostructures. Carbon, 2017, 125, 551-556.	10.3	27

#	ARTICLE	IF	CITATIONS
19	Structural and electrical analysis of epitaxial 2D/3D vertical heterojunctions of monolayer MoS ₂ on GaN. Applied Physics Letters, 2017, 111, .	3.3	27
20	Selective Chemical Response of Transition Metal Dichalcogenides and Metal Dichalcogenides in Ambient Conditions. ACS Applied Materials & Interfaces, 2017, 9, 29255-29264.	8.0	24
21	Deconvoluting the Photonic and Electronic Response of 2D Materials: The Case of MoS ₂ . Scientific Reports, 2017, 7, 16938.	3.3	23
22	Large-Area, Single-Layer Molybdenum Disulfide Synthesized at BEOL Compatible Temperature as Cu Diffusion Barrier. IEEE Electron Device Letters, 2018, 39, 873-876.	3.9	22
23	Van der Waals interfaces in epitaxial vertical metal/2D/3D semiconductor heterojunctions of monolayer MoS ₂ and GaN. 2D Materials, 2018, 5, 045016.	4.4	21
24	Tuning Transport and Chemical Sensitivity via Niobium Doping of Synthetic MoS ₂ . Advanced Materials Interfaces, 2020, 7, 2000856.	3.7	19
25	FeS _x -graphene heterostructures: Nanofabrication-compatible catalysts for ultra-sensitive electrochemical detection of hydrogen peroxide. Sensors and Actuators B: Chemical, 2019, 285, 631-638.	7.8	18
26	Formation of hexagonal boron nitride on graphene-covered copper surfaces. Journal of Materials Research, 2016, 31, 945-958.	2.6	17
27	Order of magnitude enhancement of monolayer MoS ₂ photoluminescence due to near-field energy influx from nanocrystal films. Scientific Reports, 2017, 7, 41967.	3.3	15
28	Light-Driven Permanent Charge Separation across a Hybrid Zero-Dimensional/Two-Dimensional Interface. Journal of Physical Chemistry C, 2020, 124, 8000-8007.	3.1	14
29	Photoluminescence of monolayer transition metal dichalcogenides integrated with VO ₂ . Journal of Physics Condensed Matter, 2016, 28, 504001.	1.8	10
30	Electric-Field-Assisted Directed Assembly of Transition Metal Dichalcogenide Monolayer Sheets. ACS Nano, 2016, 10, 5006-5014.	14.6	9
31	OD Nanocrystals as Light-Driven, Localized Charge Injection Sources for the Contactless Manipulation of Atomically Thin 2D Materials. Advanced Photonics Research, 2021, 2, 2000151.	3.6	9
32	Quality enhancement of low temperature metal organic chemical vapor deposited MoS ₂ : an experimental and computational investigation. Nanotechnology, 2019, 30, 395402.	2.6	6
33	Probing the origin of lateral heterogeneities in synthetic monolayer molybdenum disulfide. 2D Materials, 2019, 6, 025008.	4.4	6
34	Acquisition and analysis of scanning tunneling spectroscopy data on WSe ₂ monolayer. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	5
35	Stability of semiconducting transition metal dichalcogenides irradiated by soft X-rays and low energy electrons. Applied Physics Letters, 2017, 110, 173102.	3.3	4
36	Synthesis of two-dimensional materials for beyond graphene devices. Proceedings of SPIE, 2015, , .	0.8	1

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37	2D Materials: Tuning the Electronic and Photonic Properties of Monolayer MoS ₂ via In Situ Rhenium Substitutional Doping (Adv. Funct. Mater. 16/2018). Advanced Functional Materials, 2018, 28, 1870105.	14.9	1
38	Two-dimensional materials for low power and high frequency devices. Proceedings of SPIE, 2015, , .	0.8	0