

Hao Jin

List of Publications by Year in descending order

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52
papers

1,983
citations

304743

22
h-index

243625

44
g-index

52
all docs

52
docs citations

52
times ranked

2535
citing authors

#	ARTICLE	IF	CITATIONS
1	Unveiling the layer-dependent electronic properties in transition-metal dichalcogenide heterostructures assisted by machine learning. <i>Nanoscale</i> , 2022, 14, 2511-2520.	5.6	6
2	Ultrafast H ₂ gas nanosensor for ppb-level H ₂ gas detection based on GaN honeycomb nanonetwork. <i>Sensors and Actuators B: Chemical</i> , 2021, 329, 129079.	7.8	12
3	Promises of Main-Group Metal Chalcogenide-Based Broken-Gap van der Waals Heterojunctions for Tunneling Field Effect Transistors. <i>ACS Applied Electronic Materials</i> , 2021, 3, 898-904.	4.3	9
4	Theoretical investigation on stability and electronic properties of Janus MoSSe nanotubes for optoelectronic applications. <i>Optik</i> , 2021, 227, 166105.	2.9	11
5	Tunable intrinsic spin Hall conductivity in bilayer PtTe ₂ by controlling the stacking mode. <i>Physical Review B</i> , 2021, 103, .	3.2	10
6	Effect of point defects on electronic and excitonic properties in Janus-MoSSe monolayer. <i>Physical Review B</i> , 2021, 104, .	3.2	14
7	Emerging intrinsic magnetism in two-dimensional materials: theory and applications. <i>2D Materials</i> , 2021, 8, 012005.	4.4	23
8	Accurate bandgap predictions of solids assisted by machine learning. <i>Materials Today Communications</i> , 2021, 29, 102932.	1.9	11
9	Strain-gated nonlinear Hall effect in two-dimensional MoSe_2 van der Waals heterostructure. <i>Physical Review B</i> , 2021, 104, .	3.2	14
10	Asymmetrically flexoelectric gating effect of Janus transition-metal dichalcogenides and their sensor applications. <i>Journal of Materials Chemistry C</i> , 2020, 8, 11457-11467.	5.5	15
11	Noncollinear frustrated antiferromagnetic Mn ₃ P monolayer and its tunability via a spin degree of freedom. <i>Journal of Materials Chemistry C</i> , 2020, 8, 11369-11375.	5.5	3
12	Exciton manipulation in rippled transition metal dichalcogenides. <i>Nanoscale</i> , 2020, 12, 21124-21130.	5.6	7
13	Optical, Electronic, and Contact Properties of Janus-MoSO ₂ /MoS ₂ Heterojunction. <i>Journal of Physical Chemistry C</i> , 2020, 124, 15988-15994.	3.1	8
14	Stacking-Independent Ferromagnetism in Bilayer V ₂ Cr ₃ with Half-Metallic Characteristic. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 2158-2164.	4.6	28
15	Discovery of Novel Two-Dimensional Photovoltaic Materials Accelerated by Machine Learning. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3075-3081.	4.6	35
16	In-Plane Dual-Gated Spin-Valve Device Based on the Zigzag Graphene Nanoribbon. <i>Physical Review Applied</i> , 2020, 13, .	3.8	22
17	Investigation of Stacking Effects of Bilayer MoSSe on Photocatalytic Water Splitting. <i>Journal of Physical Chemistry C</i> , 2019, 123, 22570-22577.	3.1	41
18	Data-Driven Systematic Search of Promising Photocatalysts for Water Splitting under Visible Light. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 5211-5218.	4.6	31

#	ARTICLE	IF	CITATIONS
19	Gate voltage controllable device based on black phosphorus/blue phosphorus heterostructure. Journal Physics D: Applied Physics, 2019, 52, 505111.	2.8	2
20	Propose two-dimensional Sb ₂ Te ₂ X (X = S, Se) with isotropic electron mobility and remarkable visible-light response. Physical Chemistry Chemical Physics, 2019, 21, 14904-14910.	2.8	2
21	GeSe@SnS: stacked Janus structures for overall water splitting. Journal of Materials Chemistry A, 2019, 7, 12060-12067.	10.3	66
22	Robust type-II band alignment in Janus-MoSSe bilayer with extremely long carrier lifetime induced by the intrinsic electric field. Physical Review B, 2019, 99, .	3.2	63
23	First principles research on the dynamic conductance and transient current of black phosphorus transistor. Journal Physics D: Applied Physics, 2019, 52, 165303.	2.8	5
24	MoSSe nanotube: a promising photocatalyst with an extremely long carrier lifetime. Journal of Materials Chemistry A, 2019, 7, 7885-7890.	10.3	52
25	Size dependence in two-dimensional lateral heterostructures of transition metal dichalcogenides. Journal of Materials Chemistry C, 2019, 7, 3837-3842.	5.5	7
26	Recent progress of spintronics based on emerging 2D materials: CrI ₃ and Xenes. Materials Research Express, 2019, 6, 122004.	1.6	21
27	PdSe ₂ : Flexible Two-Dimensional Transition Metal Dichalcogenides Monolayer for Water Splitting Photocatalyst with Extremely Low Recombination Rate. ACS Applied Energy Materials, 2019, 2, 513-520.	5.1	84
28	Toward barrier free contact to MoSe ₂ /WSe ₂ heterojunctions using two-dimensional metal electrodes. Nanotechnology, 2019, 30, 015707.	2.6	5
29	Strain-gated infrared photodetector based on helical graphene nanoribbon. Physical Review Materials, 2019, 3, .	2.4	0
30	An enhanced power factor via multilayer growth of Ag-doped skutterudite CoSb ₃ thin films. Inorganic Chemistry Frontiers, 2018, 5, 1409-1414.	6.0	15
31	Designing lateral spintronic devices with giant tunnel magnetoresistance and perfect spin injection efficiency based on transition metal dichalcogenides. Physical Chemistry Chemical Physics, 2018, 20, 10286-10291.	2.8	22
32	Tuning the electronic and magnetic properties of InSe nanosheets by transition metal doping. Physical Chemistry Chemical Physics, 2018, 20, 7532-7537.	2.8	15
33	Photoinduced pure spin-current in triangulene-based nano-devices. Carbon, 2018, 137, 1-5.	10.3	37
34	First-principles simulations of binding energies of alloying elements to the ferrite-austenite interface in iron. Journal of Applied Physics, 2018, 123, .	2.5	19
35	Modified MXene: promising electrode materials for constructing Ohmic contacts with MoS ₂ for electronic device applications. Physical Chemistry Chemical Physics, 2018, 20, 16551-16557.	2.8	44
36	Photoexcitation Dynamics in Janus-MoSSe/WSe ₂ Heterobilayers: Ab Initio Time-Domain Study. Journal of Physical Chemistry Letters, 2018, 9, 2797-2802.	4.6	89

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37	Unraveling the Mechanism of Photoinduced Charge-Transfer Process in Bilayer Heterojunction. ACS Applied Materials & Interfaces, 2018, 10, 25401-25408.	8.0	29
38	Prediction of an extremely long exciton lifetime in a Janus-MoSTe monolayer. Nanoscale, 2018, 10, 19310-19315.	5.6	93
39	Observation of intrinsic dark exciton in Janus-MoSSe heterosturcture induced by intrinsic electric field. Journal of Physics Condensed Matter, 2018, 30, 395001.	1.8	14
40	Engineering the electronic and optoelectronic properties of InX (X = S, Se, Te) monolayers via strain. Physical Chemistry Chemical Physics, 2017, 19, 4855-4860.	2.8	71
41	First-principles study on the electronic and transport properties of periodically nitrogen-doped graphene and carbon nanotube superlattices. Frontiers of Physics, 2017, 12, 1.	5.0	10
42	Ohmic contact in monolayer InSe-metal interface. 2D Materials, 2017, 4, 025116.	4.4	60
43	Design of new photovoltaic systems based on two-dimensional group-IV monochalcogenides for high performance solar cells. Journal of Materials Chemistry A, 2017, 5, 24145-24152.	10.3	64
44	Giant anisotropic photogalvanic effect in a flexible AsSb monolayer with ultrahigh carrier mobility. Physical Chemistry Chemical Physics, 2017, 19, 27233-27239.	2.8	33
45	Electronics and optoelectronics of lateral heterostructures within monolayer indium monochalcogenides. Journal of Materials Chemistry C, 2016, 4, 11253-11260.	5.5	49
46	Design of Advanced Photocatalysis System by Adatom Decoration in 2D Nanosheets of Group-IV and IIIâ€V Binary Compounds. Scientific Reports, 2016, 6, 23104.	3.3	37
47	Enhancement of photocatalytic activity of a two-dimensional GeH/graphene heterobilayer under visible light. RSC Advances, 2015, 5, 52264-52268.	3.6	18
48	Highly Efficient Visibleâ€Light Plasmonic Photocatalyst Ag@AgBr. Chemistry - A European Journal, 2009, 15, 1821-1824.	3.3	535
49	Ferromagnetism of undoped GaN mediated by through-bond spin polarization between nitrogen dangling bonds. Applied Physics Letters, 2009, 94, 162505.	3.3	112
50	Structural, Elastic, and Electronic Properties of ReB ₂ : A First-Principles Calculation. Research Letters in Physics, 2008, 2008, 1-5.	0.2	7
51	First principles studies for formation mechanism and properties of ethylene molecule adsorbing on diamond (100) surface. Journal of Chemical Physics, 2008, 128, 114710.	3.0	2
52	InSe Monolayer: Promising Cocatalyst of g-C ₃ N ₄ for Water Splitting under Visible Light. ACS Applied Energy Materials, 0, , .	5.1	8