Hao Jin

List of Publications by Year
in descending order

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	Highly Efficient Visibleâ€Light Plasmonic Photocatalyst Ag@AgBr. Chemistry - A European Journal, 2009, 15, 1821-1824.	3.3	535
2	Ferromagnetism of undoped GaN mediated by through-bond spin polarization between nitrogen dangling bonds. Applied Physics Letters, 2009, 94, 162505.	3.3	112
3	Prediction of an extremely long exciton lifetime in a Janus-MoSTe monolayer. Nanoscale, 2018, 10, 19310-19315.	5.6	93
4	Photoexcitation Dynamics in Janus-MoSSe/WSe₂ Heterobilayers: Ab Initio Time-Domain Study. Journal of Physical Chemistry Letters, 2018, 9, 2797-2802.	4.6	89
5	PdSe₂: 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
6	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
7	GeSe@SnS: stacked Janus structures for overall water splitting. Journal of Materials Chemistry A, 2019, 7, 12060-12067.	10.3	66
8	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
9	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
10	Ohmic contact in monolayer InSe-metal interface. 2D Materials, 2017, 4, 025116.	4.4	60
11	MoSSe nanotube: a promising photocatalyst with an extremely long carrier lifetime. Journal of Materials Chemistry A, 2019, 7, 7885-7890.	10.3	52
12	Electronics and optoelectronics of lateral heterostructures within monolayer indium monochalcogenides. Journal of Materials Chemistry C, 2016, 4, 11253-11260.	5.5	49
13	Modified MXene: promising electrode materials for constructing Ohmic contacts with MoS₂for electronic device applications. Physical Chemistry Chemical Physics, 2018, 20, 16551-16557.	2.8	44
14	Investigation of Stacking Effects of Bilayer MoSSe on Photocatalytic Water Splitting. Journal of Physical Chemistry C, 2019, 123, 22570-22577.	3.1	41
15	Photoinduced pure spin-current in triangulene-based nano-devices. Carbon, 2018, 137, 1-5.	10.3	37
16	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
17	Discovery of Novel Two-Dimensional Photovoltaic Materials Accelerated by Machine Learning. Journal of Physical Chemistry Letters, 2020, 11, 3075-3081.	4.6	35
18	Giant anisotropic photogalvanic effect in a flexible AsSb monolayer with ultrahigh carrier mobility. Physical Chemistry Chemical Physics, 2017, 19, 27233-27239.	2.8	33

#	Article	IF	Citations
19	Data-Driven Systematic Search of Promising Photocatalysts for Water Splitting under Visible Light. Journal of Physical Chemistry Letters, 2019, 10, 5211-5218.	4.6	31
20	Unraveling the Mechanism of Photoinduced Charge-Transfer Process in Bilayer Heterojunction. ACS Applied Materials & Interfaces, 2018, 10, 25401-25408.	8.0	29
21	Stacking-Independent Ferromagnetism in Bilayer VI₃ with Half-Metallic Characteristic. Journal of Physical Chemistry Letters, 2020, 11, 2158-2164.	4.6	28
22	Emerging intrinsic magnetism in two-dimensional materials: theory and applications. 2D Materials, 2021, 8, 012005.	4.4	23
23	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
24	In-Plane Dual-Gated Spin-Valve Device Based on the Zigzag Graphene Nanoribbon. Physical Review Applied, 2020, 13, .	3.8	22
25	Recent progress of spintronics based on emerging 2D materials: CrI₃ and Xenes. Materials Research Express, 2019, 6, 122004.	1.6	21
26	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
27	Enhancement of photocatalytic activity of a two-dimensional GeH/graphene heterobilayer under visible light. RSC Advances, 2015, 5, 52264-52268.	3.6	18
28	An enhanced power factor via multilayer growth of Ag-doped skutterudite CoSb3 thin films. Inorganic Chemistry Frontiers, 2018, 5, 1409-1414.	6.0	15
29	Tuning the electronic and magnetic properties of InSe nanosheets by transition metal doping. Physical Chemistry Chemical Physics, 2018, 20, 7532-7537.	2.8	15
30	Asymmetrically flexoelectric gating effect of Janus transition-metal dichalcogenides and their sensor applications. Journal of Materials Chemistry C, 2020, 8, 11457-11467.	5.5	15
31	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
32	Effect of point defects on electronic and excitonic properties in Janus-MoSSe monolayer. Physical Review B, 2021, 104, .	3.2	14
33	Ultrafast H2 gas nanosensor for ppb-level H2 gas detection based on GaN honeycomb nanonetwork. Sensors and Actuators B: Chemical, 2021, 329, 129079.	7.8	12
34	Theoretical investigation on stability and electronic properties of Janus MoSSe nanotubes for optoelectronic applications. Optik, 2021, 227, 166105.	2.9	11
35	Accurate bandgap predictions of solids assisted by machine learning. Materials Today Communications, 2021, 29, 102932.	1.9	11
36	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

#	Article	IF	Citations
37	Tunable intrinsic spin Hall conductivity in bilayer PtTe2 by controlling the stacking mode. Physical Review B, 2021, 103, .	3.2	10
38	Promises of Main-Group Metal Chalcogenide-Based Broken-Gap van der Waals Heterojunctions for Tunneling Field Effect Transistors. ACS Applied Electronic Materials, 2021, 3, 898-904.	4.3	9
39	InSe Monolayer: Promising Cocatalyst of g-C₃N₄ for Water Splitting under Visible Light. ACS Applied Energy Materials, 0, , .	5.1	8
40	Optical, Electronic, and Contact Properties of Janus-MoSO/MoS₂ Heterojunction. Journal of Physical Chemistry C, 2020, 124, 15988-15994.	3.1	8
41	Structural, Elastic, and Electronic Properties of ReB₂: A First-Principles Calculation. Research Letters in Physics, 2008, 2008, 1-5.	0.2	7
42	Size dependence in two-dimensional lateral heterostructures of transition metal dichalcogenides. Journal of Materials Chemistry C, 2019, 7, 3837-3842.	5.5	7
43	Exciton manipulation in rippled transition metal dichalcogenides. Nanoscale, 2020, 12, 21124-21130.	5.6	7
44	Strain-gated nonlinear Hall effect in two-dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>MoSe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> van der Waals heterostructure. Physical Review B, 2021, 104, .	3.2	7
45	Unveiling the layer-dependent electronic properties in transition-metal dichalcogenide heterostructures assisted by machine learning. Nanoscale, 2022, 14, 2511-2520.	5.6	6
46	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
47	Toward barrier free contact to MoSe2/WSe2 heterojunctions using two-dimensional metal electrodes. Nanotechnology, 2019, 30, 015707.	2.6	5
48	Noncollinear frustrated antiferromagnetic Mn3P monolayer and its tunability via a spin degree of freedom. Journal of Materials Chemistry C, 2020, 8, 11369-11375.	5.5	3
49	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
50	Gate voltage controllable device based on black phosphorus/blue phosphorus heterostructure. Journal Physics D: Applied Physics, 2019, 52, 505111.	2.8	2
51	Propose two-dimensional Sb₂Te₂X (X = S, Se) with isotropic electron mobility and remarkable visible-light response. Physical Chemistry Chemical Physics, 2019, 21, 14904-14910.	2.8	2
52	Strain-gated infrared photodetector based on helical graphene nanoribbon. Physical Review Materials, 2019, 3, .	2.4	0