Yalong Jiao

List of Publications by Year in descending order

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48 papers	2,925 citations	218677 26 h-index	214800 47 g-index
48 all docs	48 docs citations	48 times ranked	5049 citing authors

#	Article	IF	Citations
1	A perfect match between borophene and aluminium in the AlB₃ heterostructure with covalent Alâ€“B bonds, multiple Dirac points and a high Fermi velocity. Chemical Science, 2022, 13, 1016-1022.	7.4	5
2	Two-dimensional tetragonal and hexagonal lattices of transition metal carbides MC (M = Ti, Zr, Hf): Observation of two nodal loops and strong light-harvesting ability. Applied Physics Letters, 2022, 120, .	3.3	2
3	First-principles prediction of polar half-metallicity and out-of-plane piezoelectricity in two-dimensional quintuple layered cobalt selenide. Journal of Materials Chemistry C, 2021, 9, 12046-12050.	5.5	11
4	Half-Auxeticity and Anisotropic Transport in Pd Decorated Two-Dimensional Boron Sheets. Nano Letters, 2021, 21, 2356-2362.	9.1	29
5	Predicting MnB6 monolayer with room temperature ferromagnetism and high magnetic anisotropy. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 134, 114930.	2.7	6
6	Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>RhB</mml:mi><mml:mn>4</mml:mn></mml:msub></mm : Half-auxeticity and almost ideal spin-orbit Dirac point semimetal. Physical Review B, 2021, 104, .	3.2	7
7	Polymorphism of low dimensional boron nanomaterials driven by electrostatic gating: a computational discovery. Nanoscale, 2020, 12, 10543-10549.	5.6	5
8	Room temperature ferromagnetism and antiferromagnetism in two-dimensional iron arsenides. Nanoscale, 2019, 11, 16508-16514.	5.6	18
9	2D boron dichalcogenides from the substitution of Mo with ionic B₂ pair in MoX₂ (X = S, Se and Te): high stability, large excitonic effect and high charge carrier mobility. Journal of Materials Chemistry C, 2019, 7, 1651-1658.	5.5	17
10	Two-dimensional nodal-loop half-metal in monolayer MnN. Physical Review Materials, 2019, 3, .	2.4	55
11	Versatile two-dimensional silicon diphosphide (SiP₂) for photocatalytic water splitting. Nanoscale, 2018, 10, 6369-6374.	5.6	51
12	Anti-fouling graphene-based membranes for effective water desalination. Nature Communications, 2018, 9, 683.	12.8	197
13	Predicting Two-Dimensional C₃B/C₃N van der Waals pâ€“n Heterojunction with Strong Interlayer Electron Coupling and Enhanced Photocurrent. Journal of Physical Chemistry Letters, 2018, 9, 858-862.	4.6	74
14	Predicting multiple Dirac-cones and ultrahigh Fermi velocity in perovskiteR3Ì„cphase LaCuO₃. Journal of Materials Chemistry C, 2018, 6, 6132-6137.	5.5	21
15	First principles study of trirutile magnesium bismuth oxide: Ideal bandgap for photovoltaics, strain-mediated band-inversion and semiconductor-to-semimetal transition. Computational Materials Science, 2018, 149, 158-161.	3.0	9
16	Ab initio study of two-dimensional PdPS as an ideal light harvester and promising catalyst for hydrogen evolution reaction. Materials Today Energy, 2018, 7, 136-140.	4.7	24
17	Two-Dimensional Titanium Carbonitride Mxene for High-Performance Sodium Ion Batteries. ACS Applied Nano Materials, 2018, 1, 6854-6863.	5.0	71
18	Free-radical gases on two-dimensional transition-metal disulfides (XS₂, X = Mo/W): robust half-metallicity for efficient nitrogen oxide sensors. Beilstein Journal of Nanotechnology, 2018, 9, 1641-1646.	2.8	8

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19	Rhombohedral Lanthanum Manganite: A New Class of Dirac Half-Metal with Promising Potential in Spintronics. ACS Applied Materials & Interfaces, 2018, 10, 36088-36093.	8.0	43
20	An Unusual Red Carbon Nitride to Boost the Photoelectrochemical Performance of Wide Bandgap Photoanodes. Advanced Functional Materials, 2018, 28, 1805698.	14.9	94
21	Predicting New Two-Dimensional Pd₃(PS₄)₂ as an Efficient Photocatalyst for Water Splitting. Journal of Physical Chemistry C, 2018, 122, 21927-21932.	3.1	26
22	Computational exploration of two-dimensional silicon diarsenide and germanium arsenide for photovoltaic applications. Beilstein Journal of Nanotechnology, 2018, 9, 1247-1253.	2.8	14
23	Strong Coupling of MoS₂ Nanosheets and Nitrogenâ€Doped Graphene for Highâ€Performance Pseudocapacitance Lithium Storage. Small, 2018, 14, e1704410.	10.0	89
24	Growth of MoS₂ Nanoflowers with Expanded Interlayer Distance onto Nâ€Doped Graphene for Reversible Lithium Storage. ChemElectroChem, 2018, 5, 2263-2270.	3.4	24
25	Strain Mediated Bandgap Reduction, Light Spectrum Broadening, and Carrier Mobility Enhancement of Methylammonium Lead/Tin Iodide Perovskites. Particle and Particle Systems Characterization, 2017, 34, 1600288.	2.3	13
26	Predicting a graphene-like WB4 nanosheet with a double Dirac cone, an ultra-high Fermi velocity and significant gap opening by spinâ€“orbit coupling. Physical Chemistry Chemical Physics, 2017, 19, 5449-5453.	2.8	40
27	Two-dimensional GeP₃ as a high capacity electrode material for Li-ion batteries. Physical Chemistry Chemical Physics, 2017, 19, 25886-25890.	2.8	81
28	First-Principles Prediction of Spin-Polarized Multiple Dirac Rings in Manganese Fluoride. Physical Review Letters, 2017, 119, 016403.	7.8	84
29	Versatile two-dimensional stanene-based membrane for hydrogen purification. International Journal of Hydrogen Energy, 2017, 42, 5577-5583.	7.1	13
30	Graphene-like Two-Dimensional Ionic Boron with Double Dirac Cones at Ambient Condition. Nano Letters, 2016, 16, 3022-3028.	9.1	222
31	Substantial Band-Gap Tuning and a Strain-Controlled Semiconductor to Gapless/Band-Inverted Semimetal Transition in Rutile Lead/Stannic Dioxide. ACS Applied Materials & Interfaces, 2016, 8, 25667-25673.	8.0	18
32	Twoâ€Dimensional Boron Hydride Sheets: High Stability, Massless Dirac Fermions, and Excellent Mechanical Properties. Angewandte Chemie, 2016, 128, 10448-10451.	2.0	94
33	Twoâ€Dimensional Boron Hydride Sheets: High Stability, Massless Dirac Fermions, and Excellent Mechanical Properties. Angewandte Chemie - International Edition, 2016, 55, 10292-10295.	13.8	100
34	Anomalous Enhancement of Mechanical Properties in the Ammonia Adsorbed Defective Graphene. Scientific Reports, 2016, 6, 33810.	3.3	3
35	Organicâ€“inorganic bismuth (III)-based material: A lead-free, air-stable and solution-processable light-absorber beyond organolead perovskites. Nano Research, 2016, 9, 692-702.	10.4	351
36	Predicting Single-Layer Technetium Dichalcogenides (TcX₂, X = S, Se) with Promising Applications in Photovoltaics and Photocatalysis. ACS Applied Materials & Interfaces, 2016, 8, 5385-5392.	8.0	100

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37	Predicting a new phase (Tâ€²â€²) of two-dimensional transition metal di-chalcogenides and strain-controlled topological phase transition. Nanoscale, 2016, 8, 4969-4975.	5.6	50
38	Single Layer Bismuth Iodide: Computational Exploration of Structural, Electrical, Mechanical and Optical Properties. Scientific Reports, 2015, 5, 17558.	3.3	67
39	Calculations of helium separation via uniform pores of stanene-based membranes. Beilstein Journal of Nanotechnology, 2015, 6, 2470-2476.	2.8	9
40	Charge Mediated Semiconducting-to-Metallic Phase Transition in Molybdenum Disulfide Monolayer and Hydrogen Evolution Reaction in New 1Tâ€² Phase. Journal of Physical Chemistry C, 2015, 119, 13124-13128.	3.1	295
41	Modelling CO 2 adsorption and separation on experimentally-realized B 40 fullerene. Computational Materials Science, 2015, 108, 38-41.	3.0	40
42	Versatile Single-Layer Sodium Phosphidostannate(II): Strain-Tunable Electronic Structure, Excellent Mechanical Flexibility, and an Ideal Gap for Photovoltaics. Journal of Physical Chemistry Letters, 2015, 6, 2682-2687.	4.6	60
43	Graphene-covered perovskites: an effective strategy to enhance light absorption and resist moisture degradation. RSC Advances, 2015, 5, 82346-82350.	3.6	43
44	Metal-free graphitic carbon nitride as mechano-catalyst for hydrogen evolution reaction. Journal of Catalysis, 2015, 332, 149-155.	6.2	127
45	Carbon nanodot decorated graphitic carbon nitride: new insights into the enhanced photocatalytic water splitting from ab initio studies. Physical Chemistry Chemical Physics, 2015, 17, 31140-31144.	2.8	105
46	Nanosheets Co₃O₄ Interleaved with Graphene for Highly Efficient Oxygen Reduction. ACS Applied Materials & Interfaces, 2015, 7, 21373-21380.	8.0	96
47	Electron dynamics triggered by double attosecond pulses: Simulations based on time-dependent density functional theory. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 95-99.	2.1	5
48	Understanding the roles of carbon in carbon/g-C3N4 based photocatalysts for H2 evolution. Nano Research, 0, , 1.	10.4	9