Menghao Wu

List of Publications by Year
in descending order

70 papers	4,849 citations	126708 33 h-index	95083 68 g-index
74 all docs	74 docs citations	74 times ranked	4903 citing authors

#	Article	IF	Citations
1	Intrinsic Ferroelasticity and/or Multiferroicity in Two-Dimensional Phosphorene and Phosphorene Analogues. Nano Letters, 2016, 16, 3236-3241.	4.5	491
2	Monolayer MXenes: promising half-metals and spin gapless semiconductors. Nanoscale, 2016, 8, 8986-8994.	2.8	380
3	Salt-Templated Synthesis of 2D Metallic MoN and Other Nitrides. ACS Nano, 2017, 11, 2180-2186.	7.3	359
4	Binary Compound Bilayer and Multilayer with Vertical Polarizations: Two-Dimensional Ferroelectrics, Multiferroics, and Nanogenerators. ACS Nano, 2017, 11, 6382-6388.	7.3	301
5	Nine New Phosphorene Polymorphs with Non-Honeycomb Structures: A Much Extended Family. Nano Letters, 2015, 15, 3557-3562.	4.5	275
6	Bismuth Oxychalcogenides: A New Class of Ferroelectric/Ferroelastic Materials with Ultra High Mobility. Nano Letters, 2017, 17, 6309-6314.	4.5	208
7	Type-II Multiferroic Hf₂VC₂F₂ MXene Monolayer with High Transition Temperature. Journal of the American Chemical Society, 2018, 140, 9768-9773.	6.6	179
8	Functionalized Graphitic Carbon Nitride for Efficient Energy Storage. Journal of Physical Chemistry C, 2013, 117, 6055-6059.	1.5	171
9	Origin of Two-Dimensional Vertical Ferroelectricity in WTe₂ Bilayer and Multilayer. Journal of Physical Chemistry Letters, 2018, 9, 7160-7164.	2.1	168
10	Single-phase multiferroics: new materials, phenomena, and physics. National Science Review, 2019, 6, 653-668.	4.6	136
11	The rise of twoâ€dimensional van der Waals ferroelectrics. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2018, 8, e1365.	6.2	127
12	Chemically Functionalized Phosphorene: Two-Dimensional Multiferroics with Vertical Polarization and Mobile Magnetism. Journal of the American Chemical Society, 2017, 139, 11506-11512.	6.6	119
13	Exploration of Half Metallicity in Edge-Modified Graphene Nanoribbons. Journal of Physical Chemistry C, 2010, 114, 3937-3944.	1.5	105
14	Materials design of half-metallic graphene and graphene nanoribbons. Applied Physics Letters, 2009, 94, .	1.5	100
15	Hydroxyl-decorated graphene systems as candidates for organic metal-free ferroelectrics, multiferroics, and high-performance proton battery cathode materials. Physical Review B, 2013, 87, .	1.1	100
16	Ferroelectricity in Covalently functionalized Two-dimensional Materials: Integration of High-mobility Semiconductors and Nonvolatile Memory. Nano Letters, 2016, 16, 7309-7315.	4.5	99
17	Two-Dimensional van der Waals Ferroelectrics: Scientific and Technological Opportunities. ACS Nano, 2021, 15, 9229-9237.	7.3	93
18	Sliding ferroelectricity in 2D van der Waals materials: Related physics and future opportunities. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	83

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19	Planar Tetracoordinate Carbon Strips in Edge Decorated Graphene Nanoribbon. Journal of the American Chemical Society, 2010, 132, 5554-5555.	6.6	75
20	Edge-decorated graphene nanoribbons by scandium as hydrogen storage media. Nanoscale, 2012, 4, 915.	2.8	71
21	Two-Dimensional Metal-Free Organic Multiferroic Material for Design of Multifunctional Integrated Circuits. Journal of Physical Chemistry Letters, 2017, 8, 1973-1978.	2.1	64
22	Inorganic nanoribbons with unpassivated zigzag edges: Half metallicity and edge reconstruction. Nano Research, 2011, 4, 233-239.	5.8	62
23	Chemically decorated boron-nitride nanoribbons. Frontiers of Physics in China, 2009, 4, 367-372.	1.0	59
24	Design for a spin-Seebeck diode based on two-dimensional materials. Physical Review B, 2015, 92, .	1.1	59
25	Tunable Exciton Funnel Using MoirÃ© Superlattice in Twisted van der Waals Bilayer. Nano Letters, 2014, 14, 5350-5357.	4.5	55
26	Room-temperature multiferroicity and diversified magnetoelectric couplings in 2D materials. National Science Review, 2020, 7, 373-380.	4.6	50
27	Multiferroic Materials Based on Organic Transition-Metal Molecular Nanowires. Journal of the American Chemical Society, 2012, 134, 14423-14429.	6.6	49
28	Three-dimensional network model of carbon containing only sp2-carbon bonds and boron nitride analogues. Chemical Communications, 2011, 47, 4406.	2.2	45
29	Charge-injection induced magnetism and half metallicity in single-layer hexagonal group III/V (BN, BP,) Tj ETQq1 1 0.784314 rgBT /Overl	1.5	41
30	Conetronics in 2D metal-organic frameworks: double/half Dirac cones and quantum anomalous Hall effect. 2D Materials, 2017, 4, 015015.	2.0	41
31	Transition-metal-doped group-IV monochalcogenides: a combination of two-dimensional triferroics and diluted magnetic semiconductors. Nanotechnology, 2018, 29, 215703.	1.3	41
32	Design of Singleâ€Molecule Multiferroics for Efficient Ultrahighâ€Density Nonvolatile Memories. Advanced Science, 2019, 6, 1801572.	5.6	41
33	Patterned Hydrogenation of Graphene: Magnetic Quantum Dot Array. Journal of Physical Chemistry C, 2010, 114, 139-142.	1.5	35
34	Phase transitions and ferroelasticityâ€“multiferroicity in bulk and two-dimensional silver and copper monohalides. Nanoscale Horizons, 2019, 4, 1106-1112.	4.1	32
35	Sliding ferroelectricity in two-dimensional MoA₂N₄(A = Si or Ge) bilayers: high polarizations and MoirÃ© potentials. Journal of Materials Chemistry A, 2021, 9, 19659-19663.	5.2	32
36	High-temperature intrinsic quantum anomalous Hall effect in rare Earth monohalide. 2D Materials, 2017, 4, 021014.	2.0	28

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37	Origin of the anomalous magnetic behavior of the Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>13</mml:mn></mml:msub></mml:math><mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mo>+</mml:mo></mml:msup></mml:math>cluster. Physical Review B, 2012, 86, .	1.1	26
38	Temperature-controlled spin filter and spin valve based on Fe-doped monolayer MoS₂. Physical Chemistry Chemical Physics, 2016, 18, 6053-6058.	1.3	25
39	Strain-induced phase transition and giant piezoelectricity in monolayer tellurene. Nanoscale, 2020, 12, 167-172.	2.8	25
40	Monte Carlo simulation of size, random field and temperature dependences of exchange bias in a core/shell magnetic nanoparticle. Journal of Physics Condensed Matter, 2007, 19, 186202.	0.7	24
41	Tri-Wing Graphene Nano-Paddle-Wheel with a Single-File Metal Joint: Formation of Multi-Planar Tetracoordinated-Carbon (ptC) Strips. Journal of Physical Chemistry C, 2012, 116, 11378-11385.	1.5	24
42	High-<i>T</i>_C Two-Dimensional Ferroelectric CuCrS₂ Grown <i>via</i> Chemical Vapor Deposition. ACS Nano, 2022, 16, 8141-8149.	7.3	23
43	Unusual Magnetic Properties of Functionalized Graphene Nanoribbons. Journal of Physical Chemistry Letters, 2013, 4, 2482-2488.	2.1	22
44	Co-mixing hydrogen and methane may double the energy storage capacity. Journal of Materials Chemistry A, 2018, 6, 8916-8922.	5.2	22
45	Sodium bismuth dichalcogenides: candidates for ferroelectric high-mobility semiconductors for multifunctional applications. Physical Chemistry Chemical Physics, 2019, 21, 8553-8558.	1.3	21
46	2D Diluted Multiferroic Semiconductors upon Intercalation. Advanced Electronic Materials, 2019, 5, 1800960.	2.6	21
47	Ultrahigh-strain ferroelasticity in two-dimensional honeycomb monolayers: from covalent to metallic bonding. Science Bulletin, 2020, 65, 147-152.	4.3	21
48	Facile and Versatile Functionalization of Twoâ€Đimensional Carbon Nitrides by Design: Magnetism/Multiferroicity, Valleytronics, and Photovoltaics. Advanced Functional Materials, 2019, 29, 1905752.	7.8	19
49	A family of ionic supersalts with covalent-like directionality and unconventional multiferroicity. Nature Communications, 2021, 12, 1331.	5.8	19
50	Transition-metal-molecular sandwich nanowires as magnetic on/off switch. Applied Physics Letters, 2011, 99, .	1.5	18
51	Proton transfer ferroelectricity/multiferroicity in rutile oxyhydroxides. Nanoscale, 2018, 10, 9509-9515.	2.8	13
52	Room-Temperature Ferroelectricity in 2D Metalâ€"Telluriumâ€"Oxyhalide Cd₇Te₇Cl₈O₁₇ <i>via</i> Selenium-Induced Selective-Bonding Growth. ACS Nano, 2021, 15, 16525-16532.	7.3	12
53	Interference evidence for Rashba-type spin splitting on a semimetallic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>WT</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>surface. Physical Review B, 2016, 94, .	1.1	11
54	A multiferroic vanadium phosphide monolayer with ferromagnetic half-metallicity and topological Dirac states. Nanoscale Horizons, 2022, 7, 192-197.	4.1	11

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55	Edge decorated SiC nanoribbons with metal: Coexistence of planar tetracoordinate carbon and silicon. Chemical Physics Letters, 2013, 580, 78-81.	1.2	10
56	Unusual Ferroelectricity of Trans-Unitcell Ion-Displacement and Multiferroic Soliton in Sodium and Potassium Hydroxides. ACS Applied Materials & Interfaces, 2018, 10, 35361-35366.	4.0	10
57	Ultra-high piezoelectric coefficients and strain-sensitive Curie temperature in hydrogen-bonded systems. National Science Review, 2021, 8, nwaa203.	4.6	9
58	0D/1D organic ferroelectrics/multiferroics for ultrahigh density integration: Helical hydrogen-bonded chains, multi-mode switching, and proton synaptic transistors. Journal of Chemical Physics, 2021, 154, 044705.	1.2	9
59	Fullerene-based 0D ferroelectrics/multiferroics for ultrahigh-density and ultrafast nonvolatile memories. Physical Chemistry Chemical Physics, 2020, 22, 12039-12043.	1.3	7
60	Vertical ferroelectricity in two-dimensional mixed-valence tin sulfide system: Unprecedented piezoelectricity, efficient nanogenerator and facile control of morphotoropic phase transformations. Nano Energy, 2021, 83, 105786.	8.2	7
61	Frequency dispersion of hysteresis in core/shell magnetic nanoparticle: Monte Carlo simulation. Journal of Applied Physics, 2008, 103, 07B103.	1.1	6
62	Magnetic hollow cages with colossal moments. Journal of Chemical Physics, 2013, 139, 044301.	1.2	6
63	SbCl₄: An Exceptional Superhalogen as the Building Block of a Mixed Valence Supercrystal with Unconventional Ferroelectricity. Journal of Physical Chemistry Letters, 2022, 13, 1049-1056.	2.1	6
64	Giant magnetic moments of B and C doped cuboctahedral Mn13 clusters. Nanoscale, 2013, 5, 2114.	2.8	5
65	Low energy dissipation readout of single-molecule ferroelectronic states by a spin-Seebeck signal. Physical Review Research, 2020, 2, .	1.3	5
66	Interfacial triferroicity in monolayer chromium dihalide. Physical Review B, 2022, 105, .	1.1	5
67	Constructing Stable and Potentially High-Performance Hybrid Organic-Inorganic Perovskites with â€œUnstableâ€•Cations. Research, 2020, 2020, 1986576.	2.8	4
68	Research progress of two-dimensional interlayer-sliding ferroelectricity. Wuli Xuebao/Acta Physica Sinica, 2020, 69, 217707.	0.2	4
69	Various polymorphs of group IIIâ€“VI (GaSe, InSe, GaTe) monolayers with quasi-degenerate energies: facile phase transformations, high-strain plastic deformation, and ferroelastic switching. Materials Today Physics, 2020, 15, 100229.	2.9	4
70	Theoretical study of oxygen molecules adsorption on M3C12S12 (Mâ€¯=â€¯Co, Rh)â€”Class 2D metal â€“ organic frameworks. Chemical Physics Letters, 2019, 731, 136581.	1.2	0