Xiangbin Cai

List of Publications by Year
in descending order

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52 papers	2,217 citations	279798 23 h-index	223800 46 g-index
53 all docs	53 docs citations	53 times ranked	2924 citing authors

#	Article	IF	Citations
1	Atomically Dispersed Pd on Nanodiamond/Graphene Hybrid for Selective Hydrogenation of Acetylene. Journal of the American Chemical Society, 2018, 140, 13142-13146.	13.7	342
2	Anchoring Cu1 species over nanodiamond-graphene for semi-hydrogenation of acetylene. Nature Communications, 2019, 10, 4431.	12.8	224
3	Tin-Assisted Fully Exposed Platinum Clusters Stabilized on Defect-Rich Graphene for Dehydrogenation Reaction. ACS Catalysis, 2019, 9, 5998-6005.	11.2	150
4	Regulating coordination number in atomically dispersed Pt species on defect-rich graphene for n-butane dehydrogenation reaction. Nature Communications, 2021, 12, 2664.	12.8	111
5	Reversible bidirectional bending of hydrogel-based bilayer actuators. Journal of Materials Chemistry B, 2017, 5, 2804-2812.	5.8	107
6	Isolation and Characterization of Few-Layer Manganese Thiophosphite. ACS Nano, 2017, 11, 11330-11336.	14.6	98
7	Twin Defect Derived Growth of Atomically Thin MoS₂ Dendrites. ACS Nano, 2018, 12, 635-643.	14.6	92
8	Intrinsic valley Hall transport in atomically thin MoS2. Nature Communications, 2019, 10, 611.	12.8	77
9	Few-Atom Pt Ensembles Enable Efficient Catalytic Cyclohexane Dehydrogenation for Hydrogen Production. Journal of the American Chemical Society, 2022, 144, 3535-3542.	13.7	72
10	Ti1â€“graphene single-atom material for improved energy level alignment in perovskite solar cells. Nature Energy, 2021, 6, 1154-1163.	39.5	72
11	Interaction effects and superconductivity signatures in twisted double-bilayer WSe₂. Nanoscale Horizons, 2020, 5, 1309-1316.	8.0	68
12	Normally-Off LPCVD-SiN<italic> _x </italic>/GaN MIS-FET With Crystalline Oxidation Interlayer. IEEE Electron Device Letters, 2017, 38, 929-932.	3.9	67
13	Two-Dimensional Antiferroelectricity in Nanostripe-Ordered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>In</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow> Physical Review Letters, 2020, 125, 047601.	7.8	58
14	Cooperative Sites in Fully Exposed Pd Clusters for Low-Temperature Direct Dehydrogenation Reaction. ACS Catalysis, 2021, 11, 11469-11477.	11.2	51
15	Tuning the selectivity of catalytic nitriles hydrogenation by structure regulation in atomically dispersed Pd catalysts. Nature Communications, 2021, 12, 6194.	12.8	51
16	Defect-rich graphene stabilized atomically dispersed Cu3 clusters with enhanced oxidase-like activity for antibacterial applications. Applied Catalysis B: Environmental, 2022, 301, 120826.	20.2	51
17	A Magnetically Separable Pd Singleâ€Atom Catalyst for Efficient Selective Hydrogenation of Phenylacetylene. Advanced Materials, 2022, 34, e2110455.	21.0	44
18	Singleâ€Crystalline Vanadium Dioxide Actuators. Advanced Functional Materials, 2019, 29, 1900527.	14.9	37

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19	Chemically specific termination control of oxide interfaces via layer-by-layer mean inner potential engineering. Nature Communications, 2018, 9, 2965.	12.8	34
20	Axial Modulation of Metalâ€“Insulator Phase Transition of VO₂ Nanowires by Graded Doping Engineering for Optically Readable Thermometers. Journal of Physical Chemistry C, 2017, 121, 24877-24885.	3.1	31
21	Phase management in single-crystalline vanadium dioxide beams. Nature Communications, 2021, 12, 4214.	12.8	31
22	Oxide Inhibitor-Assisted Growth of Single-Layer Molybdenum Dichalcogenides (MoX₂, X =) Tj ETQq0 0 0 rgBT /Overlock 10	14.6	30
23	Lattice Expansion in Optimally Doped Manganese Oxide: An Effective Structural Parameter for Enhanced Thermochemical Water Splitting. ACS Catalysis, 2019, 9, 9880-9890.	11.2	29
24	Antisintering Pd₁ Catalyst for Propane Direct Dehydrogenation with In Situ Active Sites Regeneration Ability. ACS Catalysis, 2022, 12, 2244-2252.	11.2	23
25	Insight into the Activity of Atomically Dispersed Cu Catalysts for Semihydrogenation of Acetylene: Impact of Coordination Environments. ACS Catalysis, 2022, 12, 48-57.	11.2	23
26	Controllable defect driven symmetry change and domain structure evolution in BiFeO₃with enhanced tetragonality. Nanoscale, 2019, 11, 8110-8118.	5.6	22
27	Multiple Regulation over Growth Direction, Band Structure, and Dimension of Monolayer WS₂ by a Quartz Substrate. Chemistry of Materials, 2020, 32, 2508-2517.	6.7	21
28	Strain engineering of epitaxial oxide heterostructures beyond substrate limitations. Matter, 2021, 4, 1323-1334.	10.0	21
29	Bridging the gap between atomically thin semiconductors and metal leads. Nature Communications, 2022, 13, 1777.	12.8	17
30	Atomic-scale identification of crystalline GaON nanophase for enhanced GaN MIS-FET channel. Applied Physics Letters, 2019, 114, .	3.3	16
31	Nanodiamondâ€Coreâ€Reinforced, Grapheneâ€Shellâ€Immobilized Platinum Nanoparticles as a Highly Active Catalyst for the Lowâ€Temperature Dehydrogenation of nâ€Butane. ChemCatChem, 2018, 10, 520-524.	3.7	15
32	Electron Energyâ€Loss Spectroscopy of Spatial Nonlocality and Quantum Tunneling Effects in the Bright and Dark Plasmon Modes of Gold Nanosphere Dimers. Advanced Quantum Technologies, 2018, 1, 1800016.	3.9	13
33	Boosting oxygen-reduction catalysis over mononuclear CuN2+2 moiety for rechargeable Zn-air battery. Chemical Engineering Journal, 2022, 430, 133105.	12.7	12
34	Gate-tunable strong-weak localization transition in few-layer black phosphorus. Nanotechnology, 2018, 29, 035204.	2.6	10
35	Revealing Atomic Structure and Oxidation States of Dopants in Charge-Ordered Nanoparticles for Migration-Promoted Oxygen-Exchange Capacity. Chemistry of Materials, 2019, 31, 5769-5777.	6.7	10
36	Free-Molecular-Flow Modulated Synthesis of Hexagonal Boron Nitride Monolayers. Crystal Growth and Design, 2019, 19, 7007-7014.	3.0	10

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37	Enhanced Gate Reliability in GaN MIS-FETs by Converting the GaN Channel into Crystalline Gallium Oxynitride. ACS Applied Electronic Materials, 2019, 1, 642-648.	4.3	10
38	Layer-dependent interface reconstruction and strain modulation in twisted WSe₂. Nanoscale, 2021, 13, 13624-13630.	5.6	8
39	Electronic and transport properties in Ruddlesden-Popper neodymium nickelates <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Nd</mml:mi><mml:mrow><mml:mi>n</mml:mi><mml:mo>,</mml:mo><mml:mi mathvariant="normal">O</mml:mi><mml:mrow><mml:mn>3</mml:mn><mml:mi>n</mml:mi><mml:mo>+</mml:mo><mml:mn>1</mml:mn>		