

Wenguang Zhu

List of Publications by Year in descending order

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71102

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docs citations

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times ranked

9818
citing authors

#	ARTICLE	IF	CITATIONS
19	Orthogonal Electric Control of the Out-of-Plane Field-Effect in 2D Ferroelectric In_2Se_3 . <i>Advanced Electronic Materials</i> , 2020, 6, 2000061.	5.1	56
20	Long-range behavior of a nonlocal correlation-energy density functional based on the random-phase approximation. <i>Physical Review B</i> , 2020, 101, .	3.2	1
21	Ferroelectric control of single-molecule magnetism in 2D limit. <i>Science Bulletin</i> , 2020, 65, 1252-1259.	9.0	33
22	Harmonizing the Electronic Structures of the Adsorbate and Catalysts for Efficient CO_2 Reduction. <i>Nano Letters</i> , 2019, 19, 6547-6553.	9.1	88
23	Band-Offset Degradation in van der Waals Heterojunctions. <i>Physical Review Applied</i> , 2019, 12, .	3.8	15
24	Multistep nucleation and growth mechanisms of organic crystals from amorphous solid states. <i>Nature Communications</i> , 2019, 10, 3872.	12.8	57
25	Antimonene: Van der Waals Heteroepitaxial Growth of Monolayer Sb in a Puckered Honeycomb Structure (<i>Adv. Mater.</i> 5/2019). <i>Advanced Materials</i> , 2019, 31, 1970035.	21.0	5
26	Atomic-Scale Observation of Reversible Thermally Driven Phase Transformation in 2D In_2Se_3 . <i>ACS Nano</i> , 2019, 13, 8004-8011.	14.6	57
27	Ferroelectrics: Nonvolatile Ferroelectric Memory Effect in Ultrathin In_2Se_3 (<i>Adv. Funct. Mater.</i>) $T_j \text{ ETQq1 } 10.784314 \text{ rgBT / Over}$	14.9	14
28	Nonvolatile Ferroelectric Memory Effect in Ultrathin In_2Se_3 . <i>Advanced Functional Materials</i> , 2019, 29, 1808606.	14.9	137
29	Van der Waals Heteroepitaxial Growth of Monolayer Sb in a Puckered Honeycomb Structure. <i>Advanced Materials</i> , 2019, 31, e1806130.	21.0	75
30	Microscopic investigation of $\text{Bi}_{2-x}\text{Sb}_x\text{Te}_{3-y}\text{Se}_y$ systems: On the origin of a robust intrinsic topological insulator. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 128, 251-257.	4.0	15
31	Intercorrelated In-Plane and Out-of-Plane Ferroelectricity in Ultrathin Two-Dimensional Layered Semiconductor In_2Se_3 . <i>Nano Letters</i> , 2018, 18, 1253-1258.	9.1	509
32	Surface-adsorbed ions on TiO_2 nanosheets for selective photocatalytic CO_2 reduction. <i>Nano Research</i> , 2018, 11, 3362-3370.	10.4	44
33	Room-temperature ferroelectricity and a switchable diode effect in two-dimensional In_2Se_3 thin layers. <i>Nanoscale</i> , 2018, 10, 14885-14892.	5.6	173
34	Nickel Doping in Atomically Thin Tin Disulfide Nanosheets Enables Highly Efficient CO_2 Reduction. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 10954-10958.	13.8	186
35	Nickel Doping in Atomically Thin Tin Disulfide Nanosheets Enables Highly Efficient CO_2 Reduction. <i>Angewandte Chemie</i> , 2018, 130, 11120-11124.	2.0	42
36	Highly Efficient and Exceptionally Durable CO_2 Photoreduction to Methanol over Freestanding Defective Single-Unit-Cell Bismuth Vanadate Layers. <i>Journal of the American Chemical Society</i> , 2017, 139, 3438-3445.	13.7	508

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37	Phase-Defined van der Waals Schottky Junctions with Significantly Enhanced Thermoelectric Properties. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2887-2894.	4.6	30
38	Prediction of intrinsic two-dimensional ferroelectrics in In ₂ Se ₃ and other III ₂ -VI ₃ van der Waals materials. <i>Nature Communications</i> , 2017, 8, 14956.	12.8	830
39	Theoretical Design of Robust Ferromagnetism and Bipolar Semiconductivity in Graphene-Based Nanoroads. <i>Journal of Physical Chemistry C</i> , 2017, 121, 24824-24830.	3.1	5
40	Generation and the role of dislocations in single-crystalline phase-change In ₂ Se ₃ nanowires under electrical pulses. <i>Nanotechnology</i> , 2016, 27, 335704.	2.6	4
41	Superior Electrical Conductivity in Hydrogenated Layered Ternary Chalcogenide Nanosheets for Flexible All-Solid-State Supercapacitors. <i>Angewandte Chemie</i> , 2016, 128, 5827-5832.	2.0	18
42	Interface Engineering in Two-Dimensional Heterostructures: Towards an Advanced Catalyst for Ullmann Couplings. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 1704-1709.	13.8	65
43	Superior Electrical Conductivity in Hydrogenated Layered Ternary Chalcogenide Nanosheets for Flexible All-Solid-State Supercapacitors. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 5733-5738.	13.8	76
44	High pressure \hat{I}^3 -to- \hat{I}^2 phase transition in bulk and nanocrystalline In ₂ Se ₃ . <i>High Pressure Research</i> , 2016, 36, 549-556.	1.2	4
45	High-Temperature Quantum Anomalous Hall Effect in In_2Se_3 Topological Insulators. <i>Physical Review Letters</i> , 2016, 117, 056804.	7.8	71
46	Interface Engineering in Two-Dimensional Heterostructures: Towards an Advanced Catalyst for Ullmann Couplings. <i>Angewandte Chemie</i> , 2016, 128, 1736-1741.	2.0	1
47	Tuning the Nanofriction Between Two Graphene Layers by External Electric Fields: A Density Functional Theory Study. <i>Tribology Letters</i> , 2016, 61, 1.	2.6	15
48	Substrate Facet Effect on the Growth of Monolayer MoS ₂ on Au Foils. <i>ACS Nano</i> , 2015, 9, 4017-4025.	14.6	97
49	Energetics and Atomic Structures of Cu ₂ Te Overlayers on CdTe(111). <i>Journal of Physical Chemistry C</i> , 2015, 119, 4843-4847.	3.1	1
50	Atomistic mechanisms for bilayer growth of graphene on metal substrates. <i>Physical Review B</i> , 2015, 91, .	3.2	33
51	Influence of quantum well states on the formation of Au-Pb alloy in ultra-thin Pb films. <i>Surface Science</i> , 2015, 632, 174-179.	1.9	5
52	Correlation effects in (111) bilayers of perovskite transition-metal oxides. <i>Physical Review B</i> , 2014, 89, .	3.2	63
53	Tuning the Electronic and Chemical Properties of Monolayer MoS ₂ Adsorbed on Transition Metal Substrates. <i>Nano Letters</i> , 2013, 13, 509-514.	9.1	262
54	Electrical tuning of valley magnetic moment through symmetry control in bilayer MoS ₂ . <i>Nature Physics</i> , 2013, 9, 149-153.	16.7	540

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55	Drastically enhanced H ₂ flux through asymmetric quantum Pd films. Physical Review B, 2012, 85, .	3.2	0
56	In situ growth and density-functional-theory study of polarity-dependent homo-epitaxial ZnO microwires. CrystEngComm, 2012, 14, 355-358.	2.6	4
57	Strain tuning of topological band order in cubic semiconductors. Physical Review B, 2012, 85, .	3.2	44
58	Suppression of Grain Boundaries in Graphene Growth on Superstructured Mn-Cu(111) Surface. Physical Review Letters, 2012, 109, 265507.	7.8	36
59	Atomic scale control of catalytic process in oxidation of Pb thin films. Surface Science, 2012, 606, 450-455.	1.9	0
60	Tailoring Magnetic Doping in the Topological Insulator Bi_2Se_3 . Physical Review Letters, 2012, 109, 266405.	7.8	136
61	Intrinsic spin Hall effect in monolayers of group-VI dichalcogenides: A first-principles study. Physical Review B, 2012, 86, .	3.2	213
62	Quantum oscillation of Rashba spin splitting in topological insulator Bi_2Se_3 induced by the quantum size effects of Pb adlayers. Physical Review B, 2012, 86, .	3.2	19
63	Local fields in conductor surface electromigration: A first-principles study in the low-bias ballistic limit. Physical Review B, 2012, 85, .	3.2	10
64	CO Oxidation Facilitated by Robust Surface States on Au-Covered Topological Insulators. Physical Review Letters, 2011, 107, 056804.	7.8	128
65	Formation of Graphene π -n Superlattices on Pb Quantum Wedged Islands. ACS Nano, 2011, 5, 3707-3713.	14.6	9
66	Interface engineering of quantum Hall effects in digital transition metal oxide heterostructures. Nature Communications, 2011, 2, 596.	12.8	395
67	Possible interaction-driven topological phases in (111) bilayers of LaNiO_3 . Physical Review B, 2011, 84, .	3.2	139
68	Terminating Surface Electromigration at the Source. Physical Review Letters, 2011, 106, 156404.	7.8	15
69	Communication: Stable carbon nanoarches in the initial stages of epitaxial growth of graphene on Cu(111). Journal of Chemical Physics, 2011, 134, 171105.	3.0	80
70	Contrasting Behavior of Carbon Nucleation in the Initial Stages of Graphene Epitaxial Growth on Stepped Metal Surfaces. Physical Review Letters, 2010, 104, 186101.	7.8	194
71	Half-Heusler Compounds as a New Class of Three-Dimensional Topological Insulators. Physical Review Letters, 2010, 105, 096404.	7.8	306
72	Kinetic Monte Carlo simulations of nanocolumn formation in two-component epitaxial growth. Applied Physics Letters, 2010, 96, 071913.	3.3	11

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73	Adsorbate-induced restructuring of Pb mesas grown on vicinal Si(111) in the quantum regime. Physical Review B, 2009, 80, .	3.2	8
74	Fabrication and characterization of brookite-rich, visible light-active TiO ₂ films for water splitting. Applied Catalysis B: Environmental, 2009, 93, 90-95.	20.2	54
75	Optimization of Mn doping in group-IV-based dilute magnetic semiconductors by electronic codopants. Physical Review B, 2009, 79, .	3.2	39
76	Band Gap Narrowing of Titanium Oxide Semiconductors by Noncompensated Anion-Cation Codoping for Enhanced Visible-Light Photoactivity. Physical Review Letters, 2009, 103, 226401.	7.8	347
77	Electronic Nature of Step-Edge Barriers against Adatom Descent on Transition-Metal Surfaces. Physical Review Letters, 2008, 101, 216101.	7.8	27
78	Hydrogen-induced magnetization and tunable hydrogen storage in graphitic structures. Physical Review B, 2008, 77, .	3.2	33
79	Dopant-Assisted Concentration Enhancement of Substitutional Mn in Si and Ge. Physical Review Letters, 2008, 100, 027205.	7.8	48
80	Initial interactions between water molecules and Ti-adsorbed carbon nanotubes. Applied Physics Letters, 2007, 91, 161906.	3.3	11
81	Schottky barrier formation at a carbon nanotube-metal junction. Applied Physics Letters, 2006, 89, 243107.	3.3	41
82	The Nature of Contact between Pd Leads and Semiconducting Carbon Nanotubes. Nano Letters, 2006, 6, 1415-1419.	9.1	48
83	Electronic structure of Pd-covered (10,0) carbon nanotube. Physica Status Solidi (B): Basic Research, 2006, 243, 2164-2169.	1.5	6
84	Initial Stages of Ti Growth on Diamond (100) Surfaces: From Single Adatom Diffusion to Quantum Wire Formation. Physical Review Letters, 2005, 94, 086101.	7.8	20
85	Adatom Ascending at Step Edges and Faceting on fcc Metal (110) Surfaces. Physical Review Letters, 2004, 92, 106102.	7.8	52
86	Contrasting Growth Modes of Mn on Ge(100) and Ge(111) Surfaces: Subsurface Segregation versus Intermixing. Physical Review Letters, 2004, 93, 126102.	7.8	60
87	Initial stages of Mn adsorption on Ge(111). Physical Review B, 2004, 70, .	3.2	56
88	Superconductivity Modulated by Quantum Size Effects. Science, 2004, 306, 1915-1917.	12.6	540
89	Nanocrystal Formation and Faceting Instability in Al(110) Homoepitaxy: True Upward Adatom Diffusion at Step Edges and Island Corners. Physical Review Letters, 2003, 91, 016102.	7.8	55
90	High Photoreactivity on a Reconstructed Anatase TiO ₂ (001) Surface Predicted by Ab Initio Nonadiabatic Molecular Dynamics. Journal of Physical Chemistry Letters, 0, , 5766-5775.	4.6	2