

Zheng Gai

List of Publications by Year in descending order

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142
papers

4,696
citations

94269

37
h-index

118652

62
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148
all docs

148
docs citations

148
times ranked

7710
citing authors

#	ARTICLE	IF	CITATIONS
1	Understanding Heterogeneities in Quantum Materials. <i>Advanced Materials</i> , 2023, 35, e2106909.	11.1	8
2	Designing Magnetism in High Entropy Oxides. <i>Advanced Science</i> , 2022, 9, e2200391.	5.6	28
3	Magnetic and dielectric property control in the multivalent nanoscale perovskite $\text{Eu}_{0.5}\text{Ba}_{0.5}\text{TiO}_3$. <i>Nanoscale</i> , 2021, 13, 10365-10384.	2.8	5
4	Magnetic Texture in Insulating Single Crystal High Entropy Oxide Spinel Films. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 17971-17977.	4.0	24
5	Nanoscale Superconducting States in the Fe-Based Filamentary Superconductor of Pr-Doped CaFe_2As_2 . <i>Nanomaterials</i> , 2021, 11, 1019.	1.9	3
6	Revealing the Chemical Bonding in Adatom Arrays via Machine Learning of Hyperspectral Scanning Tunneling Spectroscopy Data. <i>ACS Nano</i> , 2021, 15, 11806-11816.	7.3	13
7	Bayesian Learning of Adatom Interactions from Atomically Resolved Imaging Data. <i>ACS Nano</i> , 2021, 15, 9649-9657.	7.3	8
8	Crystal Symmetry Engineering in Epitaxial Perovskite Superlattices. <i>Advanced Functional Materials</i> , 2021, 31, 2106466.	7.8	7
9	Charge doping effects on magnetic properties of single-crystal $\langle \text{mml:math} \rangle$		

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19	Atomically thin half-van der Waals metals enabled by confinement heteroepitaxy. Nature Materials, 2020, 19, 637-643. Magnetic anisotropy in single-crystal high-entropy perovskite oxide $\langle \text{mml:math}$	13.3	114

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#	ARTICLE	IF	CITATIONS
37	Highly insulating ferromagnetic cobaltite heterostructures. Current Applied Physics, 2017, 17, 722-726.	1.1	7
38	Paramagnetic Properties of Metal-Free Boron-Doped Graphene Quantum Dots and Their Application for Safe Magnetic Resonance Imaging. Advanced Materials, 2017, 29, 1605416.	11.1	112
39	Competing antiferromagnetism in a quasi-2D itinerant ferromagnet: Fe ₃ GeTe ₂ . 2D Materials, 2017, 4, 011005.	2.0	123
40	Magnetic ground state of the Ising-like antiferromagnet DyScO ₃ . Physical Review B, 2017, 96, .	1.1	17
41	Improving superconductivity in BaFe ₂ As ₂ -based crystals by cobalt clustering and electronic uniformity. Scientific Reports, 2017, 7, 949.	1.6	13
42	Dimensionality Effects in FeGe ₂ Nanowires: Enhanced Anisotropic Magnetization and Anomalous Electrical Transport. Scientific Reports, 2017, 7, 7126.	1.6	9
43	Epitaxial Growth of Intermetallic MnPt Films on Oxides and Large Exchange Bias. Advanced Materials, 2016, 28, 118-123.	11.1	24
44	Size- and Shape-Controlled Synthesis and Properties of Magnetic "Plasmonic Core" Shell Nanoparticles. Journal of Physical Chemistry C, 2016, 120, 10530-10546.	1.5	86
45	Electronic structure of the dilute helimagnet and transition metal dichalcogenide Cr ₂ Te ₃ . Physical Review B, 2016, 94, 040401.	1.1	39
46	Full Electroresistance Modulation in a Mixed-Phase Metallic Alloy. Physical Review Letters, 2016, 116, 097203.	2.9	88
47	Ultrathin nanosheets of CrSiTe ₃ : a semiconducting two-dimensional ferromagnetic material. Journal of Materials Chemistry C, 2016, 4, 315-322.	2.7	235
48	Implications of Room Temperature Oxidation on Crystal Structure and Exchange Bias Effect in Co/CoO Nanoparticles. Journal of Physical Chemistry C, 2015, 119, 26219-26228.	1.5	14
49	Direct in situ measurement of coupled magnetostructural evolution in a ferromagnetic shape memory alloy and its theoretical modeling. Physical Review B, 2015, 92, .	1.1	8
50	Strain Doping: Reversible Single-Axis Control of a Complex Oxide Lattice via Helium Implantation. Physical Review Letters, 2015, 114, 256801.	2.9	84
51	Exchange bias effect in Au-Fe ₃ O ₄ dumbbell nanoparticles induced by the charge transfer from gold. Physical Review B, 2015, 92, .	1.1	21
52	Electronic and magnetic properties of epitaxial perovskite SrCrO ₃ (0%O ₁). Journal of Physics Condensed Matter, 2015, 27, 245605.	0.7	11
53	Nanopatterning of magnetic domains: Fe coverage of self-assembled alumina nanostructure. Applied Physics Express, 2015, 8, 093002.	1.1	0
54	A Facile Solvothermal Synthesis of Octahedral Fe ₃ O ₄ Nanoparticles. Small, 2015, 11, 2649-2653.	5.2	45

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55	Dimensionality Controlled Octahedral Symmetry-Mismatch and Functionalities in Epitaxial LaCoO ₃ /SrTiO ₃ Heterostructures. Nano Letters, 2015, 15, 4677-4684.	4.5	71
56	Heptacopper(II) and dicopper(II)-adenine complexes: synthesis, structural characterization, and magnetic properties. Journal of Coordination Chemistry, 2015, 68, 2770-2787.	0.8	14
57	Ferromagnetism and Nonmetallic Transport of Thin-Film FeSi A Stabilized Metastable Material. Physical Review Letters, 2015, 114, 147202.	2.9	26
58	Magnetic/NIR-responsive drug carrier, multicolor cell imaging, and enhanced photothermal therapy of gold capped magnetite-fluorescent carbon hybrid nanoparticles. Nanoscale, 2015, 7, 7885-7895.	2.8	56
59	Chemically induced Jahn-Teller ordering on manganite surfaces. Nature Communications, 2014, 5, 4528.	5.8	28
60	Strain driven anisotropic magnetoresistance in antiferromagnetic La _{0.4} Sr _{0.6} MnO ₃ . Applied Physics Letters, 2014, 105, .	1.5	20
61	spin-orbit insulating state close to the cubic limit in $\text{CaMn}_4\text{IrO}_{10}$. Physical Review B, 2014, 89, .	1.1	27
62	Growth of skyrmionic MnSi nanowires on Si: Critical importance of the SiO ₂ layer. Nano Research, 2014, 7, 1788-1796.	5.8	11
63	Interrelation between Structure and Magnetic Properties in La _{0.5} Sr _{0.5} CoO ₃ . Advanced Materials Interfaces, 2014, 1, 1400203.	1.9	20
64	Magnetic iron oxide-fluorescent carbon dots integrated nanoparticles for dual-modal imaging, near-infrared light-responsive drug carrier and photothermal therapy. Biomaterials Science, 2014, 2, 915-923.	2.6	134
65	Kinetics of Magnetoelastic Twin-Boundary Motion in Ferromagnetic Shape-Memory Alloys. Physical Review Letters, 2014, 112, .	2.9	13
66	Multifunctional 1D Magnetic and Fluorescent Nanoparticle Chains for Enhanced MRI, fluorescent Cell Imaging, And Combined Photothermal/Chemotherapy. ACS Applied Materials & Interfaces, 2014, 6, 15309-15317.	4.0	51
67	Active control of magnetoresistance of organic spin valves using ferroelectricity. Nature Communications, 2014, 5, 4396.	5.8	51
68	Nanostructured Metal/Carbon Composites from Heterobimetallic Block Copolymers with Controlled Magnetic Properties. Chemistry of Materials, 2014, 26, 3185-3190.	3.2	32
69	Oxygen Control of Atomic Structure and Physical Properties of SrRuO ₃ Surfaces. ACS Nano, 2013, 7, 4403-4413.	7.3	19
70	A persistent metal-insulator transition at the surface of an oxygen-deficient, epitaxial manganite film. Nanoscale, 2013, 5, 9659.	2.8	4
71	Magnetic and electronic structure of LaZn_2O_6 and $\text{LaMn}_6\text{O}_{13}$.	1.1	80
72	Local crystallography analysis for atomically resolved scanning tunneling microscopy images. Nanotechnology, 2013, 24, 415707.	1.3	18

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73	Magneto-Dielectric Effects Induced by Optically-Generated Intermolecular Charge-Transfer States in Organic Semiconducting Materials. Scientific Reports, 2013, 3, 2812. Structural and magnetic properties in the quantum	1.6	25
74	system Ba		

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109	Growth and magnetism of metallic thin films and multilayers by pulsed-laser deposition. Surface Science Reports, 2004, 52, 163-218.	3.8	136
110	Growth and Magnetism of Metallic Thin Films and Multilayers by Pulsed-Laser Deposition. ChemInform, 2004, 35, no.	0.1	0
111	High-Yield Solvothermal Formation of Magnetic CoPt Alloy Nanowires. Journal of the American Chemical Society, 2003, 125, 7528-7529.	6.6	133
112	Electronic Stability of Magnetic Fe/Co Superlattices with Monatomic Layer Alternation. Physical Review Letters, 2003, 91, 226106.	2.9	16
113	Self-Assembly of Nanometer-Scale Magnetic Dots with Narrow Size Distributions on an Insulating Substrate. Physical Review Letters, 2002, 89, 235502.	2.9	59
114	Adsorption geometry of glycine on Cu(001) determined with low-energy electron diffraction and scanning tunnelling microscopy. Chinese Physics B, 2002, 11, 839-845.	1.3	15
115	Monte Carlo simulations of interacting magnetic nanoparticles. Journal of Applied Physics, 2002, 91, 6926.	1.1	23
116	Growth of low-dimensional magnetic nanostructures on an insulator. Applied Physics Letters, 2002, 81, 742-744.	1.5	22
117	Nanofaceting of unit cells and temperature dependence of the surface reconstruction and morphology of Si and. Surface Science, 2002, 517, 98-114.	0.8	14
118	Major stable surface of silicon: Si(20 4 23). Physical Review B, 2001, 64, .	1.1	28
119	Si(313)12Å-1: Another metallic stable surface of silicon having a complex reconstructed layer. Physical Review B, 2001, 63, .	1.1	10
120	Atomic structure of the Si(112)7Å-1 surface. Physical Review B, 2000, 61, 9928-9931.	1.1	12
121	SCANNING TUNNELING MICROSCOPY INVESTIGATION OF THE Si(103)- (1 Å- 1) surface. Surface Review and Letters, 1999, 06, 405-409.	0.5	1
122	Thermal stability and structure of the equilibrium clean Si(103) surface. Physical Review B, 1999, 59, 13003-13008.	1.1	13
123	Heteroepitaxy of germanium on Si(103) and stable surfaces of germanium. Physical Review B, 1999, 59, 13009-13013.	1.1	13
124	Macroscopic and nanoscale faceting of germanium surfaces. Physical Review B, 1999, 59, 15230-15239.	1.1	30
125	Adsorption of glycine on Cu(001) and related step faceting and bunching. Surface Science, 1999, 424, L347-L351.	0.8	92
126	Faceting and nanoscale faceting of Ge(hkl) surfaces around (113). Physical Review B, 1998, 58, 4572-4578.	1.1	21

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127	Atomic Structure of the Domain Walls of the Discommensurate Phases in Ge(111)/Ga. Surface Review and Letters, 1998, 05, 175-179.	0.5	2
128	Atomic structure of the Ge(15 3 23) surface. Physical Review B, 1998, 57, R15060-R15063.	1.1	25
129	Atomic structure of the Ge(313) surface. Physical Review B, 1998, 58, R4223-R4226.	1.1	9
130	Atomic structure of the Ge(101) surface. Physical Review B, 1998, 57, R6795-R6798.	1.1	37
131	Spontaneous breaking of nanowires between a STM tip and the Pb(110) surface. Physical Review B, 1998, 58, 2185-2190.	1.1	9
132	Atomic structure of high-index Ge surfaces consisting of periodic nanoscale facets. Physical Review B, 1997, 56, 12308-12315.	1.1	13
133	Migration of subsurface self-interstitial atoms of the Ge(113) surface and the energy barrier. Physical Review B, 1997, 56, 12303-12307.	1.1	2
134	Surface reconstructions and faceting of the GaGe(113) system. Surface Science, 1997, 383, 1-12.	0.8	3
135	A comparative study of the thermal stability of the (103) surface of group-III-metal/group-IV-semiconductor systems. Surface Science, 1997, 384, 276-282.	0.8	12
136	Application of moiré fringes in investigations of subsurface imperfections – a study of dislocations and strain fields under the reconstructed surface layer of Au(001) by scanning tunneling microscopy. Surface Science, 1996, 365, 96-102.	0.8	14
137	Chemisorption of group-III metals on the (111) surface of group-IV semiconductors: In/Ge(111). Physical Review B, 1996, 53, 1539-1547.	1.1	28
138	Surface structure of the (3 $\sqrt{3}$ -1) and (3 $\sqrt{3}$ -2) reconstructions of Ge(113). Physical Review B, 1996, 54, 8593-8599.	1.1	27
139	Adatom diffusion on Ge(111) and the corresponding activation energy barrier. Physical Review B, 1996, 53, 13547-13550.	1.1	8
140	Observation of conductance quantization of ballistic metallic point contacts at room temperature. Physical Review B, 1996, 53, 1042-1045.	1.1	50
141	{310} faceting of the Ge(001) 2 $\sqrt{3}$ -1 surface induced by indium. Surface Science, 1995, 338, L851-L856.	0.8	28
142	Scanning tunneling microscopy investigation of bainite in steel. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 1793.	1.6	2