

Wenrui Zhang

List of Publications by Year in descending order

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136740

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docs citations

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times ranked

4622
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploring the Spatial Control of Topotactic Phase Transitions Using Vertically Oriented Epitaxial Interfaces. <i>Nano-Micro Letters</i> , 2022, 14, 2.	14.4	3
2	Room temperature fabrication and post-annealing treatment of amorphous Ga ₂ O ₃ photodetectors for deep-ultraviolet light detection. <i>Applied Physics Express</i> , 2022, 15, 022007.	1.1	19
3	The influence of <i>in situ</i> ozone on structure and transport properties for perovskite stannate La-doped BaSnO ₃ epitaxial films. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	4
4	Fast-Response Amorphous Ga ₂ O ₃ Solar-Blind Ultraviolet Photodetectors Tuned by a Polar AlN Template. <i>IEEE Electron Device Letters</i> , 2022, 43, 68-71.	2.2	24
5	Non-equilibrium epitaxy of metastable polymorphs of ultrawide-bandgap gallium oxide. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	8
6	Exotic Long-Range Surface Reconstruction on La _{0.7} Sr _{0.3} MnO ₃ Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 9166-9173.	4.0	6
7	Resolving the Evolution of Atomic Layer-Deposited Thin-Film Growth by Continuous <i>In Situ</i> X-Ray Absorption Spectroscopy. <i>Chemistry of Materials</i> , 2021, 33, 1740-1751.	3.2	13
8	Epitaxial Growth and Stoichiometry Control of Ultrawide Bandgap ZnGa ₂ O ₄ Films by Pulsed Laser Deposition. <i>Coatings</i> , 2021, 11, 782.	1.2	5
9	Thin-film synthesis of superconductor-on-insulator A15 vanadium silicide. <i>Scientific Reports</i> , 2021, 11, 2358.	1.6	3
10	Unusual electrical conductivity driven by localized stoichiometry modification at vertical epitaxial interfaces. <i>Materials Horizons</i> , 2020, 7, 3217-3225.	6.4	5
11	A zwitterionic serine modified chitosan derivative for improving protein stability and activity. <i>International Journal of Biological Macromolecules</i> , 2020, 163, 1738-1746.	3.6	5
12	Interstitial Lithium Doping in BiVO ₄ Thin Film Photoanode for Enhanced Solar Water Splitting Activity. <i>Chemistry of Materials</i> , 2020, 32, 6401-6409.	3.2	37
13	Couplings of Polarization with Interfacial Deep Trap and Schottky Interface Controlled Ferroelectric Memristive Switching. <i>Advanced Functional Materials</i> , 2020, 30, 2000664.	7.8	50
14	Applying Configurational Complexity to the 2D Ruddlesden-Popper Crystal Structure. <i>ACS Nano</i> , 2020, 14, 13030-13037.	7.3	21
15	Mechanistic Insights into Defect-Assisted Carrier Transport in Bismuth Vanadate Photoanodes. <i>Journal of Physical Chemistry C</i> , 2019, 123, 20730-20736.	1.5	32
16	New aspects of improving the performance of WO ₃ thin films for photoelectrochemical water splitting by tuning the ultrathin depletion region. <i>RSC Advances</i> , 2019, 9, 899-905.	1.7	14
17	Information-Theoretic Intrinsic Plasticity for Online Unsupervised Learning in Spiking Neural Networks. <i>Frontiers in Neuroscience</i> , 2019, 13, 31.	1.4	14
18	Comparison Study of the Flux Pinning Enhancement of YBa ₂ Cu ₃ 7 $\frac{1}{2}$ Thin Films With BaHfO ₃ + Y ₂ O ₃ Single- and Mixed-Phase Additions. <i>IEEE Transactions on Applied Superconductivity</i> , 2019, 29, 1-5.	1.1	7

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37	Near band edge photoluminescence of ZnO nanowires: Optimization via surface engineering. Applied Physics Letters, 2017, 111, 231901.	1.5	15
38	Structural and optical characterization of highly anisotropic low loss Al:ZnO/ZnO multilayered metamaterial with hyperbolic dispersion grown by pulsed layer deposition. , 2017, , .		0
39	Strong perpendicular exchange bias in epitaxial La _{0.7} Sr _{0.3} MnO ₃ :LaFeO ₃ nanocomposite thin films. APL Materials, 2016, 4, .	2.2	22
40	Stabilizing new bismuth compounds in thin film form. Journal of Materials Research, 2016, 31, 3530-3537.	1.2	8
41	Self-Assembled Epitaxial Au“Oxide Vertically Aligned Nanocomposites for Nanoscale Metamaterials. Nano Letters, 2016, 16, 3936-3943.	4.5	91
42	Self-Assembled Magnetic Metallic Nanopillars in Ceramic Matrix with Anisotropic Magnetic and Electrical Transport Properties. ACS Applied Materials & Interfaces, 2016, 8, 20283-20291.	4.0	39
43	Turning antiferromagnetic Sm _{0.34} Sr _{0.66} MnO ₃ into a 140 K ferromagnet using a nanocomposite strain tuning approach. Nanoscale, 2016, 8, 8083-8090.	2.8	25
44	Role of scaffold network in controlling strain and functionalities of nanocomposite films. Science Advances, 2016, 2, e1600245.	4.7	80
45	Two-Dimensional Layered Oxide Structures Tailored by Self-Assembled Layer Stacking via Interfacial Strain. ACS Applied Materials & Interfaces, 2016, 8, 16845-16851.	4.0	26
46	Multifunctional, self-assembled oxide nanocomposite thin films and devices. MRS Bulletin, 2015, 40, 736-745.	1.7	70
47	Heterointerface design and strain tuning in epitaxial BiFeO ₃ :CoFe ₂ O ₄ nanocomposite films. Applied Physics Letters, 2015, 107, .	1.5	27
48	Enhanced tunable magnetoresistance properties over a wide temperature range in epitaxial (La _{0.7} Sr _{0.3} MnO ₃) _{1-x} (CeO ₂) _x nanocomposites. Journal of Applied Physics, 2015, 118, .	1.1	26
49	Roles of grain boundaries on the semiconductor to metal phase transition of VO ₂ thin films. Applied Physics Letters, 2015, 107, .	1.5	48
50	Manipulating redox reaction during pulsed laser deposition. Journal of Applied Physics, 2015, 118, .	1.1	5
51	Atomic-scale EDS Mapping for Chemical Imaging and Quantification of Interdiffusion in Self-assembled Vertically Aligned Nanocomposite Thin Films. Microscopy and Microanalysis, 2015, 21, 2249-2250.	0.2	0
52	Strain Tuning and Strong Enhancement of Ionic Conductivity in SrZrO ₃ â€“RE ₂ O ₃ (RE = Sm, Eu, Gd, Dy, and Er) Nanocomposite Films. Advanced Functional Materials, 2015, 25, 4328-4333.	7.8	54
53	Strain and Interface Effects in a Novel Bismuth-Based Self-Assembled Supercell Structure. ACS Applied Materials & Interfaces, 2015, 7, 11631-11636.	4.0	22
54	Strong perpendicular exchange bias in epitaxial La _{0.7} Sr _{0.3} MnO ₃ :BiFeO ₃ nanocomposite films through vertical interfacial coupling. Nanoscale, 2015, 7, 13808-13815.	2.8	43

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55	Strongly Bias-Dependent Tunnel Magnetoresistance in Manganite Spin Filter Tunnel Junctions. <i>Advanced Materials</i> , 2015, 27, 3079-3084.	11.1	15
56	Enhanced Flux Pinning Properties in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}/\text{CoFe}_2\text{O}_4/0.3\text{CeO}_2/0.7\text{SrTiO}_3$ Multilayer Thin Films. <i>IEEE Transactions on Applied Superconductivity</i> , 2015, 25, 1-4.	1.1	2
57	Perpendicular Exchange-Biased Magnetotransport at the Vertical Heterointerfaces in $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3/\text{NiO}$ Nanocomposites. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 21646-21651.	4.0	40
58	Strongly enhanced oxygen ion transport through samarium-doped CeO_2 nanopillars in nanocomposite films. <i>Nature Communications</i> , 2015, 6, 8588.	5.8	145
59	Single-Crystalline Thin Films for Studying Intrinsic Properties of $\text{BiFeO}_3/\text{SrTiO}_3$ Solid Solution Photoelectrodes in Solar Energy Conversion. <i>Chemistry of Materials</i> , 2015, 27, 6635-6641.	3.2	44
60	Ionic Conductivity Increased by Two Orders of Magnitude in Micrometer-Thick Vertical Yttria-Stabilized ZrO_2 Nanocomposite Films. <i>Nano Letters</i> , 2015, 15, 7362-7369.	4.5	90
61	Aqueous Solution-Deposited Molybdenum Oxide Films as an Anode Interfacial Layer for Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 18218-18224.	4.0	26
62	Strain relaxation and enhanced perpendicular magnetic anisotropy in $\text{BiFeO}_3/\text{CoFe}_2\text{O}_4$ vertically aligned nanocomposite thin films. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	45
63	Manipulating leakage behavior via distribution of interfaces in oxide thin films. <i>Applied Physics Letters</i> , 2014, 105, 072907.	1.5	15
64	Textured metastable VO_2 (B) thin films on SrTiO_3 substrates with significantly enhanced conductivity. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	41
65	Interfacial coupling in heteroepitaxial vertically aligned nanocomposite thin films: From lateral to vertical control. <i>Current Opinion in Solid State and Materials Science</i> , 2014, 18, 6-18.	5.6	98
66	Ferroelectric Sm-Doped BiMnO_3 Thin Films with Ferromagnetic Transition Temperature Enhanced to 140 K. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 14836-14843.	4.0	18
67	Vertical-Interface-Manipulated Conduction Behavior in Nanocomposite Oxide Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 5356-5361.	4.0	43
68	Novel Electroforming-Free Nanoscaffold Memristor with Very High Uniformity, Tunability, and Density. <i>Advanced Materials</i> , 2014, 26, 6284-6289.	11.1	75
69	Nanopillar Spin Filter Tunnel Junctions with Manganite Barriers. <i>Nano Letters</i> , 2014, 14, 2789-2793.	4.5	20
70	Superior corrosion resistance properties of TiN-based coatings on Zircaloy tubes in supercritical water. <i>Journal of Nuclear Materials</i> , 2014, 451, 346-351.	1.3	71
71	Evolution of microstructure, strain and physical properties in oxide nanocomposite films. <i>Scientific Reports</i> , 2014, 4, 5426.	1.6	33
72	Strong oxygen pressure dependence of ferroelectricity in $\text{BaTiO}_3/\text{SrRuO}_3/\text{SrTiO}_3$ epitaxial heterostructures. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	88

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73	Enhanced Flux Pinning Properties in Self-Assembled Magnetic CoFe_2O_4 Nanoparticles Doped $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Thin Films. IEEE Transactions on Applied Superconductivity, 2013, 23, 8001204-8001204.	1.1	16
74	Integration of Self-Assembled Vertically Aligned Nanocomposite $(\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3)_{1-x}(\text{ZnO})_x$ Thin Films on Silicon Substrates. ACS Applied Materials & Interfaces, 2013, 5, 3995-3999.	4.0	58
75	Optical limiting properties in copper oxide thin films under a high-repetition-rate femtosecond laser. Materials Letters, 2013, 91, 319-322.	1.3	35
76	Ferroelectric Properties of Vertically Aligned Nanostructured $\text{BaTiO}_3/\text{CeO}_2$ Thin Films and Their Integration on Silicon. ACS Applied Materials & Interfaces, 2013, 5, 12541-12547.	4.0	47
77	Role of boundaries on low-field magnetotransport properties of $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ -based nanocomposite thin films. Journal of Materials Research, 2013, 28, 1707-1714.	1.2	22
78	Magnetotransport properties of quasi-one-dimensionally channeled vertically aligned heteroepitaxial nanomazes. Applied Physics Letters, 2013, 102, .	1.5	34
79	Sharp semiconductor-to-metal transition of VO_2 thin films on glass substrates. Journal of Applied Physics, 2013, 114, .	1.1	52
80	Research Updates: Epitaxial strain relaxation and associated interfacial reconstructions: The driving force for creating new structures with integrated functionality. APL Materials, 2013, 1, .	2.2	29
81	Quasi-Aligned Ag-Nb 2O_5 Nanobelt Arrays with Enhanced Photocatalytic and Antibacterial Activities. Journal of the American Ceramic Society, 2011, 94, 2330-2338.	1.9	37
82	Arrays of nanofibers composed of a TiC core and a carbon coating for sensitive electrochemical detection of hydrazine. Mikrochimica Acta, 2011, 175, 137-143.	2.5	13
83	Antibacterial nano-structured titania coating incorporated with silver nanoparticles. Biomaterials, 2011, 32, 5706-5716.	5.7	670
84	Influence of Structure Parameters and Crystalline Phase on the Photocatalytic Activity of TiO_2 Nanotube Arrays. Journal of Nanoscience and Nanotechnology, 2011, 11, 11200-11205.	0.9	20