

Woo Seok Choi

List of Publications by Year in descending order

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93
papers

3,450
citations

147801

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96
docs citations

96
times ranked

5147
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomistic Engineering of Phonons in Functional Oxide Heterostructures. <i>Advanced Science</i> , 2022, , 2103403.	11.2	9
2	Unconventional interlayer exchange coupling via chiral phonons in synthetic magnetic oxide heterostructures. <i>Science Advances</i> , 2022, 8, eabm4005.	10.3	20
3	Mixed-state Hall scaling behavior and vortex phase diagram in $\text{FeSe}_{1-x}\text{Te}_x$ thin films. <i>Physical Review B</i> , 2022, 105, .	3.2	0
4	Optical properties and characterization of oxide thin films and heterostructures. , 2022, , 401-448.		1
5	Tunable Ferromagnetism in LaCoO_3 Epitaxial Thin Films. <i>Advanced Materials Interfaces</i> , 2022, 9, .	3.7	4
6	Atomic-scale operando observation of oxygen diffusion during topotactic phase transition of a perovskite oxide. <i>Matter</i> , 2022, 5, 3009-3022.	10.0	6
7	High critical current density and high-tolerance superconductivity in high-entropy alloy thin films. <i>Nature Communications</i> , 2022, 13, .	12.8	21
8	Crystalline symmetry-dependent magnon formation in the itinerant ferromagnet SrRuO_3 . <i>Physical Review B</i> , 2021, 103, .	3.2	7
9	Atomic Structure of the Initial Nucleation Layer in Hexagonal Perovskite BaRuO_3 Thin Films. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100023.	3.7	1
10	Symmetry-Driven Spin-Wave Gap Modulation in Nanolayered $\text{SrRuO}_3/\text{SrTiO}_3$ Heterostructures: Implications for Spintronic Applications. <i>ACS Applied Nano Materials</i> , 2021, 4, 2160-2166.	5.0	12
11	Epitaxial Stabilization of Metastable 3C BaRuO_3 Thin Film with Ferromagnetic Non-Fermi Liquid Phase. <i>Advanced Electronic Materials</i> , 2021, 7, 2001111.	5.1	7
12	Color of Copper/Copper Oxide. <i>Advanced Materials</i> , 2021, 33, e2007345.	21.0	28
13	Hexagonal Perovskites: Atomic Structure of the Initial Nucleation Layer in Hexagonal Perovskite BaRuO_3 Thin Films (Adv. Mater. Interfaces 7/2021). <i>Advanced Materials Interfaces</i> , 2021, 8, 2170037.	3.7	0
14	Strain-Induced Atomic-Scale Building Blocks for Ferromagnetism in Epitaxial LaCoO_3 . <i>Nano Letters</i> , 2021, 21, 4006-4012.	9.1	15
15	Low thermal conductivity of $\text{SrTiO}_3 \sim \text{LaTiO}_3$ and $\text{SrTiO}_3 \sim \text{SrNbO}_3$ thermoelectric oxide solid solutions. <i>Journal of the American Ceramic Society</i> , 2021, 104, 4075-4085.	3.8	5
16	Defect engineering of magnetic ground state in EuTiO_3 epitaxial thin films. <i>Journal of the American Ceramic Society</i> , 2021, 104, 4606-4613.	3.8	7
17	Ultra-thin ferroelectrics. <i>Materials Science and Engineering Reports</i> , 2021, 145, 100622.	31.8	41
18	Tuning magnetic and optical properties through strain in epitaxial LaCrO_3 thin films. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	4

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19	Correlated oxide Dirac semimetal in the extreme quantum limit. <i>Science Advances</i> , 2021, 7, eabf9631.	10.3	19
20	Tailoring topological Hall effect in SrRuO ₃ /SrTiO ₃ superlattices. <i>Acta Materialia</i> , 2021, 216, 117153.	7.9	9
21	Contribution of the Surface to Electrocatalytic Activity in Atomically Precise La _{0.7} Sr _{0.3} MnO ₃ Heterostructures. <i>Small</i> , 2021, 17, e2103632.	10.0	4
22	Surface-orientation-dependent growth of SrRuO ₃ epitaxial thin films. <i>Applied Surface Science</i> , 2020, 499, 143924.	6.1	6
23	Ferroelectricity in SrTiO ₃ epitaxial thin films via Sr-vacancy-induced tetragonality. <i>Applied Surface Science</i> , 2020, 499, 143930.	6.1	20
24	Epitaxial strain dependent electrocatalytic activity in CaRuO ₃ thin films. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	5
25	Pulsed-laser epitaxy of metallic delafossite PdCrO ₂ films. <i>APL Materials</i> , 2020, 8, .	5.1	25
26	Spin-phonon coupling in epitaxial SrRuO ₃ heterostructures. <i>Nanoscale</i> , 2020, 12, 13926-13932.	5.6	13
27	Propagation Control of Octahedral Tilt in SrRuO ₃ via Artificial Heterostructuring. <i>Advanced Science</i> , 2020, 7, 2001643.	11.2	33
28	Phase Instability amid Dimensional Crossover in Artificial Oxide Crystal. <i>Physical Review Letters</i> , 2020, 124, 026401.	7.8	32
29	In situ Negative Cs HRTEM Imaging of Topotactic Phase Transformation from Perovskite SrFeO ₃ to Brownmillerite SrFeO _{2.5} . <i>Microscopy and Microanalysis</i> , 2019, 25, 1482-1483.	0.4	1
30	Correlation between Ru d-orbital hybridization and the oxygen evolution reaction in ruthenate epitaxial thin films. <i>Sustainable Energy and Fuels</i> , 2019, 3, 2867-2872.	4.9	7
31	Physical Review B , 2019, 100, .	3.2	9
32	Confined polaronic transport in (LaFeO ₃) _n /(SrFeO ₃) ₁ superlattices. <i>APL Materials</i> , 2019, 7, .	5.1	5
33	Indium-Free Amorphous CaAlO Thin Film as a Transparent Conducting Oxide. <i>Chemistry of Materials</i> , 2019, 31, 8019-8025.	6.7	9
34	Thickness-dependent orbital hybridization in ultrathin SrRuO ₃ epitaxial films. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	23
35	Multiferroic Materials: A Room-Temperature Ferroelectric Ferromagnet in a 1D Tetrahedral Chain Network (Adv. Mater. 24/2019). <i>Advanced Materials</i> , 2019, 31, 1970173.	21.0	3
36	A Room-Temperature Ferroelectric Ferromagnet in a 1D Tetrahedral Chain Network. <i>Advanced Materials</i> , 2019, 31, e1808104.	21.0	22

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37	Synergetic Behavior in 2D Layered Material/Complex Oxide Heterostructures. <i>Advanced Materials</i> , 2019, 31, e1803732.	21.0	37
38	Enhanced magnetic and thermoelectric properties in epitaxial polycrystalline SrRuO ₃ thin films. <i>Nanoscale</i> , 2018, 10, 4377-4384.	5.6	19
39	Oxygen vacancy induced structural evolution of SrFeO_{3-x} epitaxial thin film from brownmillerite to perovskite. <i>Physical Review B</i> , 2018, 97, .	3.2	1
40	Directing Oxygen Vacancy Channels in SrFeO _{2.5} Epitaxial Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 4831-4837.	8.0	43
41	Ferroelectric Polarization Rotation in Order-Disorder-Type LiNbO ₃ Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 41471-41478.	8.0	13
42	Effect of Nb concentration on the spin-orbit coupling strength in Nb-doped SrTiO ₃ epitaxial thin films. <i>Scientific Reports</i> , 2018, 8, 5739.	3.3	3
43	Oxygen-deficient triple perovskites as highly active and durable bifunctional electrocatalysts for oxygen electrode reactions. <i>Science Advances</i> , 2018, 4, eaap9360.	10.3	195
44	Highly Oriented SrTiO ₃ Thin Film on Graphene Substrate. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 3246-3250.	8.0	22
45	Optical investigation of oxygen defect states in SrTiO ₃ epitaxial thin films. <i>Current Applied Physics</i> , 2017, 17, 1148-1151.	2.4	12
46	Dielectrics: Quantum Conductance Probing of Oxygen Vacancies in SrTiO ₃ Epitaxial Thin Film using Graphene (Adv. Mater. 18/2017). <i>Advanced Materials</i> , 2017, 29, .	21.0	1
47	Highly insulating ferromagnetic cobaltite heterostructures. <i>Current Applied Physics</i> , 2017, 17, 722-726.	2.4	7
48	Enhanced electrocatalytic activity via phase transitions in strongly correlated SrRuO ₃ thin films. <i>Energy and Environmental Science</i> , 2017, 10, 924-930.	30.8	82
49	Quantum Conductance Probing of Oxygen Vacancies in SrTiO ₃ Epitaxial Thin Film using Graphene. <i>Advanced Materials</i> , 2017, 29, 1700071.	21.0	25
50	Ex-situ atomic force microscopy on the growth mode of SrRuO ₃ epitaxial thin film. <i>Current Applied Physics</i> , 2017, 17, 1721-1726.	2.4	5
51	Thin Films: Topotactic Metal-Insulator Transition in Epitaxial SrFeO _x Thin Films (Adv. Mater. 37/2017). <i>Advanced Materials</i> , 2017, 29, .	21.0	0
52	Tuning electromagnetic properties of SrRuO ₃ epitaxial thin films via atomic control of cation vacancies. <i>Scientific Reports</i> , 2017, 7, 11583.	3.3	36
53	Origin of Hysteresis in CH ₃ NH ₃ PbI ₃ Perovskite Thin Films. <i>Advanced Functional Materials</i> , 2017, 27, 1701924.	14.9	86
54	Topotactic Metal-Insulator Transition in Epitaxial SrFeO _x Thin Films. <i>Advanced Materials</i> , 2017, 29, 1606566.	21.0	96

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55	Strongly Coupled Magnetic and Electronic Transitions in Multivalent Strontium Cobaltites. Scientific Reports, 2017, 7, 16066.	3.3	13
56	Tunable band gap in epitaxial ferroelectric Ho(Mn,Ga)O ₃ films. Applied Physics Letters, 2016, 108, .	3.3	6
57	Growth control of oxygen stoichiometry in homoepitaxial SrTiO ₃ films by pulsed laser epitaxy in high vacuum. Scientific Reports, 2016, 6, 19941.	3.3	75
58	Phase transitions via selective elemental vacancy engineering in complex oxide thin films. Scientific Reports, 2016, 6, 23649.	3.3	46
59	Perovskite: Strain Control of Oxygen Vacancies in Epitaxial Strontium Cobaltite Films (Adv. Funct.) Tj ETQq1 1 0.784314 rgBT ₃ /Overlo	14.9	199
60	Strain Control of Oxygen Vacancies in Epitaxial Strontium Cobaltite Films. Advanced Functional Materials, 2016, 26, 1564-1570.	14.9	199
61	Valence-state reflectometry of complex oxide heterointerfaces. Npj Quantum Materials, 2016, 1, .	5.2	23
62	Voltage Scaling of Graphene Device on SrTiO ₃ Epitaxial Thin Film. Nano Letters, 2016, 16, 1754-1759.	9.1	15
63	Modulation of electronic structure in $B_{i-4}T_{i-3}$	3.2	17
64	Surface properties of atomically flat poly-crystalline SrTiO ₃ . Scientific Reports, 2015, 5, 8822.	3.3	57
65	Polaron Transport and Thermoelectric Behavior in La-doped SrTiO ₃ Thin Films with Elemental Vacancies. Advanced Functional Materials, 2015, 25, 799-804.	14.9	35
66	Role of Strain and Conductivity in Oxygen Electrocatalysis on LaCoO ₃ Thin Films. Journal of Physical Chemistry Letters, 2015, 6, 487-492.	4.6	152
67	Resonant tunnelling in a quantum oxide superlattice. Nature Communications, 2015, 6, 7424.	12.8	44
68	Structural instability of the CoO ₄ tetrahedral chain in SrCoO ₃ thin films. Journal of Applied Physics, 2015, 118, .	2.5	17
69	Resistance switching in epitaxial SrCoO _x thin films. Applied Physics Letters, 2014, 105, .	3.3	45
70	Thermoelectrics: Thermopower Enhancement by Fractional Layer Control in 2D Oxide Superlattices (Adv. Mater. 39/2014). Advanced Materials, 2014, 26, 6799-6799.	21.0	0
71	Thermopower Enhancement by Fractional Layer Control in 2D Oxide Superlattices. Advanced Materials, 2014, 26, 6701-6705.	21.0	27
72	Nanoscale Spin-State Ordering in LaCoO ₃ Epitaxial Thin Films. Chemistry of Materials, 2014, 26, 2496-2501.	6.7	74

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73	Transparent conducting oxides: A $\hat{\Gamma}$ -doped superlattice approach. Scientific Reports, 2014, 4, 6021.	3.3	11
74	Dimensionality Control of d-orbital Occupation in Oxide Superlattices. Scientific Reports, 2014, 4, 6124.	3.3	28
75	Reversible redox reactions in an epitaxially stabilized SrCoO _x oxygen sponge. Nature Materials, 2013, 12, 1057-1063.	27.5	349
76	Orienting Oxygen Vacancies for Fast Catalytic Reaction. Advanced Materials, 2013, 25, 6459-6463.	21.0	96
77	Reversal of the Lattice Structure in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mrow} \langle \text{mml:msub} \langle \text{mml:mi} \text{SrCoO} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{x} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{Epitaxial Thin Films Studied by Real-Time Optical Spectroscopy and First-Principles Calculations. Physical Review Letters, 2013, 111, 097401.}$	7.8	73
78	Tunneling Electroresistance Induced by Interfacial Phase Transitions in Ultrathin Oxide Heterostructures. Nano Letters, 2013, 13, 5837-5843.	9.1	115
79	Strongly coupled phase transition in ferroelectric/correlated electron oxide heterostructures. Applied Physics Letters, 2012, 101, 042902.	3.3	29
80	Atomic Layer Engineering of Perovskite Oxides for Chemically Sharp Heterointerfaces. Advanced Materials, 2012, 24, 6423-6428.	21.0	49
81	Nanoengineering: Atomic Layer Engineering of Perovskite Oxides for Chemically Sharp Heterointerfaces (Adv. Mater. 48/2012). Advanced Materials, 2012, 24, 6422-6422.	21.0	0
82	Fractionally $\hat{\Gamma}$ -Doped Oxide Superlattices for Higher Carrier Mobilities. Nano Letters, 2012, 12, 4590-4594.	9.1	36
83	Strain-Induced Spin States in Atomically Ordered Cobaltites. Nano Letters, 2012, 12, 4966-4970.	9.1	160
84	Wide bandgap tunability in complex transition metal oxides by site-specific substitution. Nature Communications, 2012, 3, 689.	12.8	237
85	Band gap tuning in ferroelectric Bi ₄ Ti ₃ O ₁₂ by alloying with La _x Ti _{1-x} O ₃ (<i>x</i> = 0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0). Physical Review B, 2011, 84, 085111.	3.3	38
86	Charge states and magnetic ordering in LaMnO ₃ . Physical Review B, 2010, 81, 085111.	3.2	41
87	Optical spectroscopy of the carrier dynamics in LaVO ₃ . Physical Review B, 2011, 84, 085111.	3.2	11
88	Electronic structure and anomalous band-edge absorption feature in multiferroic MnWO ₄ . Physical Review B, 2010, 81, 085111.	3.2	20
89	Dimensional crossover of polaron dynamics in Nb _{1-x} Sr _x TiO ₃ . Physical Review B, 2010, 82, 085111.	3.2	36
90	Electronic structure of amorphous InGaO ₃ (ZnO) _{0.5} thin films. Thin Solid Films, 2009, 518, 1079-1081.	1.8	27

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91	Effect of dimethylhydrazine on p-type conductivity of as-grown Mg-doped GaN. Physica Status Solidi - Rapid Research Letters, 2009, 3, 52-54.	2.4	0
92	Electronic structures of hexagonal RMnO_3 (R=Gd, Tb, Dy, and Ho) thin films: Optical spectroscopy and first-principles calculations. Physical Review B, 2008, 77, . Optical spectroscopic investigation on the coupling of electronic and magnetic structure in	3.2	75
93	multiferroic hexagonal MnO	3.2	41