

J-W Kim

List of Publications by Year in descending order

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117
papers

5,232
citations

109321

35
h-index

88630

70
g-index

118
all docs

118
docs citations

118
times ranked

6435
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantitative relationship between structural orthorhombicity, shear modulus, and heat capacity anomaly of the nematic transition in iron-based superconductors. <i>Physical Review B</i> , 2022, 105, .	3.2	0
2	Local Atomic Configuration Control of Superconductivity in the Undoped Pnictide Parent Compound BaFe_2As_2 . <i>ACS Applied Electronic Materials</i> , 2022, 4, 1511-1517.	4.3	2
3	$\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{Sr} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:math} \text{mathvariant="normal"} \rangle \text{O} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 7 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 5 \langle \text{mml:mn} \rangle \langle \text{mml:mi} \rangle \text{d} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Sr} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{Sr} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:math} \text{display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Sr} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:math} \text{by } \langle \text{i} \rangle \text{In Situ} \langle \text{/i} \rangle \text{ Shear Strain. } \langle \text{Physical Review Letters} \rangle \langle \text{2022} \rangle \langle \text{129} \rangle \langle \text{.} \rangle$ superlattice for a model two-dimensional quantum Heisenberg antiferromagnet. <i>Physical Review Emergent interlayer magnetic order via strain-induced orthorhombic distortion in the Mott insulator</i> <i>Physical Review B</i> , 2022, 105, .	3.6	5
4	Controllable Emergent Spatial Spin Modulation in Sr_2O_7 by <i>In Situ</i> Shear Strain. <i>Physical Review Letters</i> , 2022, 129, .	3.2	1
5	Self-Assembled Periodic Nanostructures Using Martensitic Phase Transformations. <i>Nano Letters</i> , 2021, 21, 1246-1252.	9.1	9
6	Optical magnons with dominant bond-directional exchange interactions in the honeycomb lattice iridate Sr_2O_7 . <i>Physical Review B</i> , 2021, 103, .	3.2	5
7	Magnetic ordering and structural distortion in a PrFeAsO single crystal studied by neutron and x-ray scattering. <i>Physical Review B</i> , 2021, 103, .	3.2	1
8	The transport-structural correspondence across the nematic phase transition probed by elasto X-ray diffraction. <i>Nature Materials</i> , 2021, 20, 1519-1524.	27.5	16
9	Strongly anisotropic antiferromagnetic coupling in EuFe_2As_2 revealed by stress detwinning. <i>Physical Review B</i> , 2021, 104, .	3.2	1
10	Template Engineering of Metal-to-Insulator Transitions in Epitaxial Bilayer Nickelate Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 54466-54475.	8.0	5
11	Microscopic piezoelectric behavior of clamped and membrane (001) PMN-30PT thin films. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	5
12	Magnetic Weyl Semimetallic Phase in Thin Films of EuFe_2As_2 . <i>Physical Review Letters</i> , 2021, 127, 277204.	7.8	4
13	Iodine orbital moment and chromium anisotropy contributions to CrI_3 magnetism. <i>Applied Physics Letters</i> , 2020, 117, 022411.	3.3	8
14	Comprehensive Electrical Control of Metamagnetic Transition of a Quasi-2D Antiferromagnet by <i>In Situ</i> Anisotropic Strain. <i>Advanced Materials</i> , 2020, 32, e2002451.	21.0	10
15	Suppression of superconductivity by anisotropic strain near a nematic quantum critical point. <i>Nature Physics</i> , 2020, 16, 1189-1193.	16.7	39
16	<i>In-situ</i> fabrication and transport properties of (111) $\text{Y}_2\text{Ir}_2\text{O}_7$ epitaxial thin film. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	12
17	Superconductivity in undoped BaFe_2As_2 by tetrahedral geometry design. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 21170-21174.	7.1	13

#	ARTICLE	IF	CITATIONS
19	Controlling symmetry of spin-orbit entangled pseudospin state through uniaxial strain. Physical Review B, 2020, 102, .	3.2	6
20	Multiferroic behavior in EuTi_3O_7 films constrained by symmetry. Physical Review B, 2020, 101, .	3.2	4
21	Spontaneous Hall effect enhanced by local Ir moments in epitaxial $\text{Pr}_2\text{Ir}_2\text{O}_7$ thin films. Physical Review B, 2020, 101, .	3.2	17
22	Direct Evidence of the Competing Nature between Electronic and Lattice Breathing Order in Rare-Earth Nickelates. Physical Review Letters, 2020, 124, 127601.	7.8	4
23	Nanometer-Thick Sr_2IrO_4 Freestanding Films for Flexible Electronics. ACS Applied Nano Materials, 2020, 3, 6310-6315.	5.0	9
24	Possible Quantum Paramagnetism in Compressed Sr_2IrO_4 . Physical Review Letters, 2020, 124, 067201.	7.8	19
25	Probing Electronic and Magnetic Transitions of Short Periodic Nickelate Superlattices Using Synchrotron X-rays. Synchrotron Radiation News, 2020, 33, 25-29.	0.8	0
26	Strain-Modulated Slater-Mott Crossover of Pseudospin-Half Square-Lattice in $(\text{SrIrO}_3)_1/(\text{SrTiO}_3)_1$ Superlattices. Physical Review Letters, 2020, 124, 177601.	7.8	10
27	Emergent behavior of LaNiO_3 in short-periodic nickelate superlattices. APL Materials, 2020, 8, .	5.1	8
28	Geometrical frustration and piezoelectric response in oxide ferroics. Physical Review Materials, 2020, 4, .	2.4	13
29	Magnetism in iridate heterostructures leveraged by structural distortions. Scientific Reports, 2019, 9, 4263.	3.3	26
30	Pseudospin-lattice coupling in the spin-orbit Mott insulator Sr_2IrO_7 . Physical Review B, 2019, 99, .	2.2	16
31	Anomalous magnetoresistance due to longitudinal spin fluctuations in a Jeff^2 Mott semiconductor. Nature Communications, 2019, 10, 5301.	12.8	12
32	Magnetic structure of Nd in NdFeAsO studied by x-ray resonant magnetic scattering. Physical Review B, 2019, 100, .	3.2	3
33	Epitaxial growth and antiferromagnetism of Sn-substituted perovskite iridate $\text{SrIr}_{0.8}\text{Sn}_{0.2}\text{O}_3$. Physical Review Materials, 2019, 3, .	2.4	1
34	Disentangled Cooperative Orderings in Artificial Rare-Earth Nickelates. Physical Review Letters, 2018, 120, 156801.	7.8	23
35	Phase Coexistence and Kinetic Arrest in the Magnetostructural Transition of the Ordered Alloy FeRh . Scientific Reports, 2018, 8, 1778.	3.3	25
36	Controlling entangled spin-orbit coupling of d^5 states with interfacial heterostructure engineering. Physical Review B, 2018, 97, .	3.2	14

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37	Engineering SrSnO ₃ Phases and Electron Mobility at Room Temperature Using Epitaxial Strain. ACS Applied Materials & Interfaces, 2018, 10, 43802-43808.	8.0	37
38	Tunable Infrared Devices via Ferroelectrics: Tunable Infrared Devices via Ferroelectric Domain Reconfiguration (Advanced Optical Materials 24/2018). Advanced Optical Materials, 2018, 6, 1870094.	7.3	2
39	Isostructural metal-insulator transition in VO ₂ . Science, 2018, 362, 1037-1040.	12.6	158
40	Application of differential resonant high-energy X-ray diffraction to three-dimensional structure studies of nanosized materials: A case study of Pt-Pd nanoalloy catalysts. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, 553-566.	0.1	11
41	Strongly-coupled quantum critical point in an all-in-all-out antiferromagnet. Nature Communications, 2018, 9, 2953.	12.8	12
42	Voltage-Controlled Bistable Thermal Conductivity in Suspended Ferroelectric Thin-Film Membranes. ACS Applied Materials & Interfaces, 2018, 10, 25493-25501.	8.0	39
43	Giant magnetostriction effect near onset of spin reorientation in MnBi. Applied Physics Letters, 2018, 112, 192411.	3.3	2
44	Ferromagnetism and Charge Order from a Frozen Electron Configuration in Strained Epitaxial LaCoO ₃ . Physical Review Letters, 2018, 120, 197201.	7.8	26
45	Phase engineering of rare earth nickelates by digital synthesis. Applied Physics Letters, 2018, 113, 081602.	3.3	8
46	Giant magnetic response of a two-dimensional antiferromagnet. Nature Physics, 2018, 14, 806-810.	16.7	44
47	Surface Atomic Structure and Functionality of Metallic Nanoparticles: A Case Study of Au-Pd Nanoalloy Catalysts. Journal of Physical Chemistry C, 2017, 121, 7854-7866.	3.1	20
48	Effects of biaxial strain on the improper multiferroicity in LuFeO ₃ films studied using the restrained thermal expansion method. Physical Review B, 2017, 95, .	3.2	14
49	On the possibility to detect multipolar order in URu ₂ Si ₂ by the electric quadrupolar transition of resonant elastic x-ray scattering. Physical Review B, 2017, 96, .	3.2	10
50	Two-Dimensional Antiferromagnetic Insulator Unraveled from Interlayer Exchange Coupling in Artificial Perovskite Iridate Superlattices. Physical Review Letters, 2017, 119, 027204.	7.8	55
51	On the structural origin of the single-ion magnetic anisotropy in LuFeO ₃ . Journal of Physics Condensed Matter, 2016, 28, 156001.	1.8	20
52	Anomalous orbital structure in a spinel-perovskite interface. Npj Quantum Materials, 2016, 1, .	5.2	36
53	Ultrafast dynamics of localized magnetic moments in the unconventional Mott insulator Sr ₂ IrO ₄ . Journal of Physics Condensed Matter, 2016, 28, 32LT01.	1.8	11
54	Strong anisotropy within a Heisenberg model in the insulating state of Sr ₂ IrO ₄ . Physical Review B, 2016, 94, .	3.2	6

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55	Atomic-scale control of magnetic anisotropy via novel spin-orbit coupling effect in $\text{La}_{2/3}\text{Sr}_{1/3}\text{MnO}_3/\text{SrIrO}_3$ superlattices. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6397-6402.	7.1	108
56	Polar metals by geometric design. Nature, 2016, 533, 68-72.	27.8	262
57	Pure electronic metal-insulator transition at the interface of complex oxides. Scientific Reports, 2016, 6, 27934.	3.3	22
58	Engineered Mott ground state in a $\text{LaTiO}_3/\text{LaNiO}_3$ heterostructure. Nature Communications, 2016, 7, 10418.	12.8	67
59	Evolution of competing magnetic order in the spin-orbit insulating state of Sr_2IrO_7 . Physical Review B, 2015, 92, .	3.2	33
60	Charge order and antiferromagnetism in epitaxial ultrathin films of EuNiO_3 . Physical Review B, 2015, 92, .	3.2	18
61	Novel Electronic Behavior Driving the Insulator-Metal Transition. Physical Review Letters, 2015, 115, 036401.	7.1	41
62	Direct evidence for dominant bond-directional interactions in a honeycomb lattice iridate Na_2IrO_3 . Nature Physics, 2015, 11, 462-466.	16.7	321
63	Epitaxial growth of (1 1 1)-oriented spinel $\text{CoCr}_2\text{O}_4/\text{Al}_2\text{O}_3$ heterostructures. Applied Physics Letters, 2015, 106, 071603.	3.3	10
64	Spin-orbit insulating state close to the cubic limit in $\text{Ca}_4\text{Ir}_3\text{O}_{14}$. Physical Review B, 2014, 90, .	3.2	27
65	Structural and electronic origin of the magnetic structures in hexagonal LuFeO_3 . Physical Review B, 2014, 90, .	3.2	38
66	Quantification of octahedral rotations in strained LaAlO_3 films via synchrotron x-ray diffraction. Physical Review B, 2013, 88, .	3.2	38
67	The effect of oxygen vacancies on the electronic phase transition in $\text{La}_{1/3}\text{Sr}_{2/3}\text{FeO}_3$ films. Applied Physics Letters, 2013, 103, .	3.3	16
68	Reversible control of magnetic interactions by electric field in a single-phase material. Nature Communications, 2013, 4, 1334.	12.8	67
69	Emergent Superstructural Dynamic Order due to Competing Antiferroelectric and Antiferrodistortive Instabilities in Bulk EuTiO_3 . Physical Review Letters, 2013, 110, 027201.	7.8	57
70	Magnetoelastic coupling and charge correlation lengths in a twin domain of $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ ($x=0.047$): A high-resolution x-ray diffraction study. Physical Review B, 2013, 87, .	3.2	2
71	Incommensurate antiferromagnetism in a pure spin system via cooperative organization of local and itinerant moments. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3287-3292.	7.1	29
72	Magnetic structures and interplay between rare-earth Ce and Fe magnetism in single-crystal CeFeAsO . Physical Review B, 2013, 88, .	3.2	18

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73	A novel approach for x-ray scattering experiments in magnetic fields utilizing trapped flux in type-II superconductors. <i>Review of Scientific Instruments</i> , 2012, 83, 065103. Magnetically polarized Ir dopant atoms in superconducting Ba(Fe \times 3)Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 727 Td	1.3	8
74		3.2	9
75	Magnetically Driven Metal-Insulator Transition in NaOsO \times 3. <i>Physical Review Letters</i> , 2012, 108, 257209.	7.8	115
76	Local atomic and electronic structures of epitaxial strained LaCoO \times 3 thin films. <i>Physical Review B</i> , 2012, 85, .	3.2	54
77	Magnetic structural change of Sr \times 2IrO \times 4 upon Mn doping. <i>Physical Review B</i> , 2012, 86, .	3.2	43
78	Structural Investigation of Perovskite Manganite and Ferrite Films on Yttria-Stabilized Zirconia Substrates. <i>Journal of the Electrochemical Society</i> , 2012, 159, F436-F441.	2.9	4
79	Antiferromagnetic order in the quasicrystal approximant Cd \times 6Tb studied by x-ray resonant magnetic scattering. <i>Physical Review B</i> , 2012, 85, .	3.2	28
80	Dimensionality Driven Spin-Flop Transition in Layered Iridates. <i>Physical Review Letters</i> , 2012, 109, 037204.	7.8	117
81	Magnetic structure determination of Ca \times 6LiOsO \times 6 using neutron and x-ray scattering. <i>Physical Review</i>	3.2	19
82	Charge Order in LuFe \times 2O \times 4: An Unlikely Route to Ferroelectricity. <i>Physical Review Letters</i> , 2012, 108, 187601.	7.8	105
83		3.2	87
84	Magnetic order in GdBiPt studied by x-ray resonant magnetic scattering. <i>Physical Review B</i> , 2011, 84, . Character of the structural and magnetic phase transitions in the parent and electron-doped BaFe \times 2As \times 2	3.2	27
85		3.2	132
86	Surface melting of electronic order in La \times 0.5Sr \times 1.5MnO \times 4. <i>Physical Review B</i> , 2011, 84, .	3.2	6
87	Anisotropic magnetoelastic coupling in single-crystalline CeFeAsO as seen via high-resolution x-ray diffraction. <i>Physical Review B</i> , 2011, 84, .	3.2	7
88	Orbital control in strained ultra-thin LaNiO \times 3/LaAlO \times 3 superlattices. <i>Europhysics Letters</i> , 2011, 96, 57004.	2.0	85
89	A strong ferroelectric ferromagnet created by means of spin \times lattice coupling. <i>Nature</i> , 2011, 476, 114-114.	27.8	183
90	A strong ferroelectric ferromagnet created by means of spin \times lattice coupling. <i>Nature</i> , 2010, 466, 954-958.	27.8	668

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91	Strain-mediated metal-insulator transition in epitaxial ultrathin films of NdNiO ₃ . Applied Physics Letters, 2010, 96, .	3.3	88
92	Strain-driven spin reorientation in magnetite/barium titanate heterostructures. Applied Physics Letters, 2010, 96, .	3.3	32
93	Quantifying octahedral rotations in strained perovskite oxide films. Physical Review B, 2010, 82, .	3.2	293
94	Commensurate antiferromagnetic ordering in $Ba_{1-x}Sr_xTiO_3$. Physical Review B, 2010, 82, .	3.2	18
95	Heat capacity study of $Ba_{1-x}Sr_xTiO_3$. Effects of annealing. Physical Review B, 2010, 82, .	3.2	15
96	Magnetic ordering in $EuRh_{1-x}Co_xO_3$ by x-ray resonant magnetic scattering. Physical Review B, 2009, 79, .	3.2	19
97	Microscopic evidence of a strain-enhanced ferromagnetic state in LaCoO ₃ thin films. Applied Physics Letters, 2009, 95, .	3.3	46
98	Surface influenced magnetostructural transition in FeRh films. Applied Physics Letters, 2009, 95, 222515.	3.3	26
99	Enhanced ordering temperatures in antiferromagnetic manganite superlattices. Nature Materials, 2009, 8, 892-897.	27.5	145
100	Magnetic structure of hexagonal multiferroic $DyMnO_3$. Charge Order, Dy ³⁺ and Magnetostructural Transition in Multiferroic $DyMnO_3$. Physical Review Letters, 2008, 101, 227602.	3.2	32
101	Charge Order, Dy ³⁺ and Magnetostructural Transition in Multiferroic $DyMnO_3$. Physical Review Letters, 2008, 101, 227602.	7.8	141
102	Nature of Ho Magnetism in Multiferroic HoMnO ₃ . Physical Review Letters, 2008, 100, 217201.	7.8	53
103	Charge Order in $LuFe_2O_4$: Antiferroelectric Ground State and Coupling to Magnetism. Physical Review Letters, 2008, 101, 227601.	7.8	120
104	Colossal positive magnetoresistance in a doped nearly magnetic semiconductor. Physical Review B, 2008, 77, .	3.2	24
105	Domain ordering of strained 5 ML SrTiO ₃ films on Si(001). Applied Physics Letters, 2007, 90, 221908.	3.3	5
106	Strong coupling between the spin polarization of Mn and Tb in multiferroic TbMnO ₃ determined by x-ray resonance exchange scattering. Physical Review B, 2007, 76, .	3.2	29
107	Crystallographic phase transition within the magnetically ordered state of Ce ₂ Fe ₁₇ . Physical Review B, 2007, 76, .	3.2	36
108	X-ray resonant magnetic scattering study of spontaneous ferrimagnetism. Applied Physics Letters, 2007, 90, 202501.	3.3	11

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109	Incommensurate Charge Order Phase in Fe_2O_7 to Geometrical Frustration. Physical Review Letters, 2007, 99, 256402.	3.2	130
110	Surface effects on the orbital order in the single-layered manganite $\text{La}_{0.5}\text{Sr}_{1.5}\text{MnO}_4$. Nature Materials, 2007, 6, 972-976.	27.5	20
111	Magnetic powder diffraction from GdNi_2Ge_2 using x-ray resonant magnetic scattering. Journal of Physics Condensed Matter, 2005, 17, L493-L497.	1.8	7
112	X-ray resonant magnetic scattering and x-ray magnetic circular dichroism branching ratios, $L_3 \cdot L_2$, for heavy rare earths. Journal of Applied Physics, 2005, 97, 10A311.	2.5	8
113	Systematics of x-ray resonant scattering amplitudes in RNi_2Ge_2 (R=Gd,Tb,Dy,Ho,Er,Tm): The origin of the branching ratio at the Ledges of the heavy rare earths. Physical Review B, 2005, 72, .	3.2	26
114	Distinct order of Gd_4 and Fe_3 moments coexisting in GdFe_4Al_8 . Physical Review B, 2005, 72, .	3.2	9
115	Imaging antiferromagnetic domains in GdNi_2Ge_2 with x-ray resonant magnetic scattering. Applied Physics Letters, 2005, 87, 202505.	3.3	6
116	Magnetic structure of Gd_5Ge_4 . Physical Review B, 2005, 71, .	3.2	59
117	Anisotropy and large magnetoresistance in the narrow-gap semiconductor FeSb_2 . Physical Review B, 2003, 67, .	3.2	124