

Brian J Kirby

List of Publications by Year in descending order

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121
papers

3,831
citations

109264

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125
all docs

125
docs citations

125
times ranked

5432
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnetotransport and magnetic textures in Ho/FeCoGd/W multilayers. Physical Review B, 2022, 105, .	1.1	3
2	Controlling magnetic configuration in soft-hard bilayers probed by polarized neutron reflectometry. APL Materials, 2022, 10, 011107.	2.2	1
3	Large unidirectional spin Hall and Rashba-Edelstein magnetoresistance in topological insulator/magnetic insulator heterostructures. Applied Physics Reviews, 2022, 9, .	5.5	13
4	Magnetization and antiferromagnetic coupling of the interface between a 20Ånm Y ₃ Fe ₅ O ₁₂ film and Gd ₃ O ₅ . Physical Review Materials, 2020, 4, .	0.9	5
5	Strong Ferromagnetism Achieved via Breathing Lattices in Atomically Thin Cobaltites. Advanced Materials, 2021, 33, e2001324.	11.1	21
6	Graded magnetic materials. Journal Physics D: Applied Physics, 2021, 54, 303002.	1.3	23
7	Differentiation between strain and charge mediated magnetoelectric coupling in La _{0.7} Sr _{0.3} MnO ₃ /Pb(Mg _{1/3} Nb _{2/3}) _{0.7} Ti _{0.3} Bi _{0.3} FeO ₃ . New Journal of Physics, 2021, 23, 063043.	0.7	1
8	Electrically Enhanced Exchange Bias via Solid-State Magneto-ionics. ACS Applied Materials & Interfaces, 2021, 13, 38916-38922.	4.0	16
9	Modifying Critical Exponents of Magnetic Phase Transitions via Nanoscale Materials Design. Physical Review Letters, 2021, 127, 147201.	2.9	5
10	Interfacial-Redox-Induced Tuning of Superconductivity in YBa ₂ Cu ₃ O _{7-δ} . ACS Applied Materials & Interfaces, 2020, 12, 4741-4748.	4.0	11
11	Dysprosium Iron Garnet Thin Films with Perpendicular Magnetic Anisotropy on Silicon. Advanced Electronic Materials, 2020, 6, 1900820.	2.6	41
12	The 2020 magnetism roadmap. Journal Physics D: Applied Physics, 2020, 53, 453001.	1.3	162
13	Impact of growth kinetics on the interface morphology and magnetization in La _{1/3} Sr _{2/3} FeO ₃ /La _{2/3} Sr _{1/3} MnO ₃ heterostructures. Journal of Physics Condensed Matter, 2020, 32, 165801.	0.7	1
14	Correlation-driven eightfold magnetic anisotropy in a two-dimensional oxide monolayer. Science Advances, 2020, 6, eaay0114.	4.7	43
15	Strain-induced majority carrier inversion in ferromagnetic epitaxial LaCoO ₃ thin films. Physical Review Materials, 2020, 4, .	0.9	14
16	Magnetic properties and electronic origin of the interface between dilute magnetic semiconductors with orthogonal magnetic anisotropy. Physical Review Materials, 2020, 4, .	0.9	7
17	Distortions to the penetration depth and coherence length of superconductor/normal-metal superlattices. Physical Review Materials, 2020, 4, .	0.9	7
18	Direct observation of magnetic proximity effects in amorphous exchange-spring magnets by neutron reflectometry. Physical Review Materials, 2020, 4, .	0.9	3

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19	Correlating magnetic structure and magnetotransport in semimetal thin films of EuPtNiO_3 . Physical Review Materials, 2020, 4, .	4.9	1
20	Emergent Magnetic State in (111)-Oriented Quasi-Two-Dimensional Spinel Oxides. Nano Letters, 2019, 19, 8381-8387.	4.5	10
21	Using structural phase transitions to enhance the coercivity of ferromagnetic films. APL Materials, 2019, 7, 101115.	2.2	3
22	Spin Seebeck Imaging of Spin-Torque Switching in Antiferromagnetic Pt/NiO Heterostructures. Physical Review X, 2019, 9, .	2.8	58
23	Effect of oxygen stoichiometry on the magnetization profiles and negative magnetization in LSMO thin films. Journal of Applied Physics, 2019, 126, 105301.	1.1	4
24	Ultrathin interfacial layer with suppressed room temperature magnetization in magnesium aluminum ferrite thin films. Applied Physics Letters, 2019, 115, .	1.5	12
25	Exploring interfacial exchange coupling and sublattice effect in heavy metal/ferrimagnetic insulator heterostructures using Hall measurements, x-ray magnetic circular dichroism, and neutron reflectometry. Physical Review B, 2019, 99, .	1.1	39
26	Nanoscale ferroelastic twins formed in strained LaCoO_3 films. Science Advances, 2019, 5, eaav5050.	4.7	48
27	Quasistatic antiferromagnetism in the quantum wells of $\text{SmTiO}_3/\text{SrTiO}_3$ heterostructures. Npj Quantum Materials, 2018, 3, .	1.8	8
28	Tunable Noncollinear Antiferromagnetic Resistive Memory through Oxide Superlattice Design. Physical Review Applied, 2018, 9, .	1.5	16
29	Octahedral tilt independent magnetism in confined GdTiO_3 films. Applied Physics Letters, 2018, 112, 132407.	1.5	2
30	Phonon localization in heat conduction. Science Advances, 2018, 4, eaat9460.	4.7	108
31	Polarized neutron reflectometry study of depth dependent magnetization variation in Co thin film due to strain transfer from PMN-PT substrate. Journal of Applied Physics, 2018, 124, 113903.	1.1	1
32	Thickness dependence of ferrimagnetic compensation in amorphous rare-earth transition-metal thin films. Applied Physics Letters, 2018, 113, .	1.5	11
33	Pulsed laser deposition films from a $\text{Ba}_2\text{FeMoO}_6$ target onto $\text{SrTiO}_3[001]$: Chemical and magnetic inhomogeneity. Journal of Applied Physics, 2018, 124, 163903.	1.1	0
34	Long-Range Electric Field Control of Permalloy Layers in Strain-Coupled Composite Multiferroics. Physical Review Applied, 2018, 10, .	1.5	4
35	Topological Transitions Induced by Antiferromagnetism in a Thin-Film Topological Insulator. Physical Review Letters, 2018, 121, 096802.	2.9	42
36	Highly Contrasting Static Charging and Bias Stress Effects in Pentacene Transistors with Polystyrene Heterostructures Incorporating Oxidizable N^{\oplus} -Bis(4-methoxyphenyl)aniline Side Chains as Gate Dielectrics. Macromolecules, 2018, 51, 6011-6020.	2.2	11

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37	Modulation of Magnetic Properties at the Nanometer Scale in Continuously Graded Ferromagnets. Materials, 2018, 11, 251.	1.3	16
38	Exchange-biasing topological charges by antiferromagnetism. Nature Communications, 2018, 9, 2767.	5.8	61
39	Nanoscale magnetic localization in exchange strength modulated ferromagnets. Physical Review B, 2018, 98, .	1.1	17
40	Strain-induced competition between ferromagnetism and emergent antiferromagnetism in (Eu,Sr) MnO_3 . Physical Review Materials, 2018, 2, .	0.9	2
41	Ionic tuning of cobaltites at the nanoscale. Physical Review Materials, 2018, 2, .	0.9	32
42	Lateral Magnetically Modulated Multilayers by Combining Ion Implantation and Lithography. Small, 2017, 13, 1603465.	5.2	11
43	Magnetic properties of epitaxial CoCr films with depth-dependent exchange-coupling profiles. Physical Review B, 2017, 95, .	1.1	23
44	Neutron study of in-plane skyrmions in MnSi thin films. Physical Review B, 2017, 96, .	1.1	26
45	Structural Doping to Control Local Magnetization in Isovalent Oxide Heterostructures. Physical Review Letters, 2017, 119, 197204.	2.9	28
46	Compensated Ferrimagnetism in the Zero-Moment Heusler Alloy Mn_3Sn . Physical Review Applied, 2017, 7, .	1.5	52
47	Tailoring exchange couplings in magnetic topological-insulator/antiferromagnet heterostructures. Nature Materials, 2017, 16, 94-100.	13.3	137
48	Ion-gel-gating-induced oxygen vacancy formation in epitaxial $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$. Physical Review Applied, 2017, 7, .	0.9	44
49	Realization of Ground-State Artificial Skyrmion Lattices at Room Temperature. , 2016, , .		1
50	Reversible control of magnetism in $\text{La}_{0.67}\text{Sr}_{0.33}\text{MnO}_3$ through chemically-induced oxygen migration. Applied Physics Letters, 2016, 108, .	1.5	33
51	Magnetic Yoking and Tunable Interactions in FePt-Based Hard/Soft Bilayers. Scientific Reports, 2016, 6, 32842.	1.6	19
52	Controllable positive exchange bias via redox-driven oxygen migration. Nature Communications, 2016, 7, 11050.	5.8	101
53	Oscillatory Noncollinear Magnetism Induced by Interfacial Charge Transfer in Superlattices Composed of Metallic Oxides. Physical Review X, 2016, 6, .	2.8	30
54	Structural and magnetic depth profiles of magneto-ionic heterostructures beyond the interface limit. Nature Communications, 2016, 7, 12264.	5.8	107

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55	Interface-Driven Ferromagnetism within the Quantum Wells of a Rare Earth Titanate Superlattice. Physical Review Letters, 2016, 117, 037205.	2.9	12
56	Interfacial Symmetry Control of Emergent Ferromagnetism at the Nanoscale. Nano Letters, 2016, 16, 5647-5651.	4.5	30
57	Large energy product enhancement in perpendicularly coupled MnBi/CoFe magnetic bilayers. Physical Review B, 2016, 94, .	1.1	15
58	Correlation between morphology and device performance of pBTTT:PC71BM solar cells. Solar Energy Materials and Solar Cells, 2016, 155, 387-396.	3.0	10
59	Concurrent magnetic and structural reconstructions at the interface of (111)-oriented $L_{a_1S_0.7r_{0.3}}Mn$	1.1	26
60	Spatial Evolution of the Ferromagnetic Phase Transition in an Exchange Graded Film. Physical Review Letters, 2016, 116, 047203.	2.9	19
61	Synthesis, Fabrication, and Heterostructure of Charged, Substituted Polystyrene Multilayer Dielectrics and Their Effects in Pentacene Transistors. Macromolecules, 2016, 49, 3478-3489.	2.2	17
62	Measurement and modeling of polarized specular neutron reflectivity in large magnetic fields. Journal of Applied Crystallography, 2016, 49, 1121-1129.	1.9	10
63	Proximity-Driven Enhanced Magnetic Order at Ferromagnetic-Insulator/Magnetic-Topological-Insulator Interface. Physical Review Letters, 2015, 115, 087201.	2.9	81
64	Effective anisotropy gradient in pressure graded [Co/Pd] multilayers. Journal of Applied Physics, 2015, 117, 063905.	1.1	2
65	Electric Field Control of Interfacial Ferromagnetism in $CaMnO_3$	2.9	28
66	Realization of ground-state artificial skyrmion lattices at room temperature. Nature Communications, 2015, 6, 8462.	5.8	184
67	Structural and magnetic etch damage in CoFeB. Journal of Applied Physics, 2014, 115, .	1.1	4
68	Deposition order dependent magnetization reversal in pressure graded Co/Pd films. Applied Physics Letters, 2014, 104, .	1.5	5
69	Interdependence between training and magnetization reversal in granular Co-CoO exchange bias systems. Physical Review B, 2014, 89, .	1.1	20
70	Interfacial exchange coupling in Fe/(Ga,Mn)As bilayers. Physical Review B, 2014, 89, .	1.1	6
71	Magnetic depth profile in GaMnAs layers with vertically graded Mn concentrations. Journal of Magnetism and Magnetic Materials, 2014, 350, 135-140.	1.0	4
72	Magnetocaloric effect in nanoscale thin films and heterostructures. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	0.9	51

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73	Effect of Interfacial Octahedral Behavior in Ultrathin Manganite Films. Nano Letters, 2014, 14, 2509-2514.	4.5	121
74	Structural control of magnetic anisotropy in a strain-driven multiferroic EuTiO_3 thin film. Physical Review B, 2013, 88, .	1.1	20
75	Characterizing formation of interfacial domain wall and exchange coupling strength in laminated exchange coupled composites. Applied Physics Letters, 2013, 102, 162408.	1.5	5
76	Morphological characterization of plastic solar cells using polarized neutron reflectivity. Applied Physics Letters, 2013, 102, .	1.5	7
77	Magnetic properties of GaAs/Fe core/shell nanowires. Journal of Applied Physics, 2013, 113, 17B520.	1.1	6
78	Depth-resolved magnetization reversal in nanoporous perpendicular anisotropy multilayers. Journal of Applied Physics, 2013, 113, .	1.1	6
79	Magnetoelastic coupling in $\text{La}(\text{Ca}_{0.7}\text{Mn}_{0.3})\text{MnO}_3/\text{MnO}$ multilayers. Physical Review Letters, 2013, 111, 087202.	1.1	7
80	Interfacial Ferromagnetism in $\text{LaNiO}_3/\text{MnO}$ multilayers. Physical Review Letters, 2013, 111, 087202.	2.9	82
81	Interfacial Ferromagnetism and Exchange Bias in $\text{CaRuO}_3/\text{MnO}$ multilayers. Physical Review Letters, 2012, 109, 197202.	2.9	82
82	Optimization of Spin-Triplet Supercurrent in Ferromagnetic Josephson Junctions. Physical Review Letters, 2012, 108, 127002.	2.9	117
83	Chiral modulations and reorientation effects in MnSi thin films. Physical Review B, 2012, 85, .	1.1	109
84	X-ray and neutron reflectivity and electronic properties of PCBM-poly(bromo)styrene blends and bilayers with poly(3-hexylthiophene). Journal of Materials Chemistry, 2012, 22, 4364-4370.	6.7	24
85	Controlling spin ordering in frustrated magnets via thin film heteroepitaxy. Physical Review B, 2012, 85, .	1.1	7
86	Phase-sensitive specular neutron reflectometry for imaging the nanometer scale composition depth profile of thin-film materials. Current Opinion in Colloid and Interface Science, 2012, 17, 44-53.	3.4	159
87	Exchange Coupling in Magnetic Semiconductor Multilayers and Superlattices. Acta Physica Polonica A, 2012, 121, 973-980.	0.2	6
88	(001) FePt graded media with PtMn underlayers. Applied Physics Letters, 2011, 99, 212504.	1.5	8
89	Structural properties of Bi_2Te_3 and Bi_2Se_3 topological insulators grown by molecular beam epitaxy on GaAs(001) substrates. Applied Physics Letters, 2011, 99, .	1.5	74
90	Magnetization reversal mechanisms in Heusler alloy spin valves. Journal of Applied Physics, 2011, 109, .	1.1	3

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91	Helical magnetic order in MnSi thin films. Physical Review B, 2011, 84, .	1.1	56
92	Antiferromagnetic exchange coupling between GaMnAs layers separated by a nonmagnetic GaAs:Be spacer. Journal of Applied Physics, 2011, 109, 07C307.	1.1	8
93	Investigation of weak interlayer exchange coupling in GaMnAs/GaAs superlattices with insulating nonmagnetic spacers. Journal of Applied Physics, 2011, 110, .	1.1	15
94	Delta Doping of Ferromagnetism in Antiferromagnetic Manganite Superlattices. Physical Review Letters, 2011, 107, 167202.	2.9	40
95	Probing vertically graded anisotropy in FePtCu films. Physical Review B, 2011, 84, .	1.1	28
96	Interfacial electronic and magnetic properties of a $Y_{0.6}Pr_{0.4}Ba$ multilayer. Physical Review B, 2010, 82, .	1.1	4
97	Impact of interfacial magnetism on magnetocaloric properties of thin film heterostructures. Journal of Applied Physics, 2011, 109, 063905.	1.1	22
98	Application of polarized neutron reflectometry and X-ray resonant magnetic reflectometry for determining the inhomogeneous magnetic structure in Fe/Gd multilayers. Bulletin of the Russian Academy of Sciences: Physics, 2010, 74, 1471-1473.	0.1	0
99	Observation of antiferromagnetic interlayer exchange coupling in a $Ga_{1-x}Y_x$ multilayer. Physical Review B, 2010, 82, .	1.1	27
100	Vertically graded anisotropy in Co/Pd multilayers. Physical Review B, 2010, 81, .	1.1	66
101	Phase-sensitive neutron reflectometry measurements applied in the study of photovoltaic films. Journal of Chemical Physics, 2010, 133, 074902.	1.2	40
102	Nanoparticle concentration profile in polymer-based solar cells. Soft Matter, 2010, 6, 641-646.	1.2	167
103	Complementary polarized neutron and resonant x-ray magnetic reflectometry measurements in Fe/Gd heterostructures: Case of inhomogeneous intralayer magnetic structure. Physical Review B, 2009, 79, .	1.1	42
104	Direct observation of magnetic gradient in Co/Pd pressure-graded media. Journal of Applied Physics, 2009, 105, 07C929.	1.1	26
105	Anomalous ferromagnetism in TbMnO ₃ thin films. Journal of Applied Physics, 2009, 105, .	1.1	42
106	Ferromagnetic semiconductor GaMnAs. Materials Today, 2009, 12, 14-21.	8.3	52
107	Birefringent neutron prisms for spin echo scattering angle measurement. Physica B: Condensed Matter, 2009, 404, 2582-2584.	1.3	18
108	Extreme magnetic anisotropy and multiple superconducting transition signatures in a [Nb(23nm)/Ni(5nm)] ₅ multilayer. Physica C: Superconductivity and Its Applications, 2008, 468, 523-530.	0.6	5

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109	Magnetization reversal of Ga _{1-x} Mn _x As layers separated by a nonmagnetic spacer. Journal of Applied Physics, 2008, 103, 07D116.	1.1	5
110	Ferromagnetism in CuO/ZnO multilayers. Applied Physics Letters, 2008, 93, .	1.5	18
111	Carrier-Mediated Antiferromagnetic Interlayer Exchange Coupling in Diluted Magnetic Semiconductor Multilayers $\text{Ga}_{1-x}\text{Mn}_x\text{As}/\text{BeMnAs}$. Physical Review Letters, 2008, 101, 237202.	1.1	23
112	The use of symmetry to correct Larmor phase aberrations in spin echo scattering angle measurement. Review of Scientific Instruments, 2008, 79, 063901.	0.6	11
113	Suppression of nuclear polarization near the surface of optically pumped GaAs. Physical Review B, 2007, 76, .	1.1	8
114	Definitive evidence of interlayer coupling between $\text{Ga}_{1-x}\text{Mn}_x\text{As}/\text{BeMnAs}$ layers separated by a nonmagnetic spacer. Physical Review B, 2007, 76, .	1.1	23
115	Pinned magnetization in the antiferromagnet and ferromagnet of an exchange bias system. Physical Review B, 2007, 75, .	1.1	99
116	Pinned Spin Depth Profile of an Oxidized-Mn/Ga _{1-x} Mn _x As Exchange Bias Bilayer—The Effects of Overannealing. IEEE Transactions on Magnetics, 2007, 43, 3016-3018.	1.2	2
117	Spin dynamics and magnon-phonon interactions in Nd _{0.6} Sr _{0.4} MnO ₃ . Journal of Magnetism and Magnetic Materials, 2006, 302, 237-243.	1.0	6
118	Magnetic and chemical nonuniformity in Ga _{1-x} Mn _x As films as probed by polarized neutron and x-ray reflectometry. Physical Review B, 2006, 74, .	1.1	17
119	Effects of capping on the Ga _{1-x} Mn _x As magnetic depth profile. Applied Physics Letters, 2005, 86, 072506.	1.5	10
120	Annealing-dependent magnetic depth profile in Ga _{1-x} Mn _x As. Physical Review B, 2004, 69, .	1.1	50
121	Spin excitations in [La _{1-x} Ca _x MnO ₃] in the mixed-phase region. Journal of Applied Physics, 2002, 91, 7511.	1.1	2