Dustin A Gilbert

List of Publications by Year
in descending order

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70	2,197	218677	233421
papers	citations	26 h-index	45 g-index

71	71	71	3270
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Realization of ground-state artificial skyrmion lattices at room temperature. Nature Communications, 2015, 6, 8462.	12.8	184
2	The emergent field of high entropy oxides: Design, prospects, challenges, and opportunities for tailoring material properties. APL Materials, 2020, 8, .	5.1	152
3	Quantitative Decoding of Interactions in Tunable Nanomagnet Arrays Using First Order Reversal Curves. Scientific Reports, 2014, 4, 4204.	3.3	125
4	Rapid Size-Controlled Synthesis of Dextran-Coated, ⁶⁴Cu-Doped Iron Oxide Nanoparticles. ACS Nano, 2012, 6, 3461-3467.	14.6	113
5	Structural and magnetic depth profiles of magneto-ionic heterostructures beyond the interface limit. Nature Communications, 2016, 7, 12264.	12.8	107
6	Controllable positive exchange bias via redox-driven oxygen migration. Nature Communications, 2016, 7, 11050.	12.8	101
7	Exchange bias switching in an antiferromagnet/ferromagnet bilayer driven by spinâ€“orbit torque. Nature Electronics, 2020, 3, 757-764.	26.0	99
8	Rapid microwave-assisted synthesis of dextran-coated iron oxide nanoparticles for magnetic resonance imaging. Nanotechnology, 2012, 23, 215602.	2.6	83
9	Two-way magnetic resonance tuning and enhanced subtraction imaging for non-invasive and quantitative biological imaging. Nature Nanotechnology, 2020, 15, 482-490.	31.5	78
10	Tuning magnetic anisotropy in (001) oriented L1 (Fe1â^'xCux)55Pt45 films. Applied Physics Letters, 2013, 102, .	3.3	66
11	Exchange-biasing topological charges by antiferromagnetism. Nature Communications, 2018, 9, 2767.	12.8	61
12	Nonvolatile Ionic Modification of the Dzyaloshinskii-Moriya Interaction. Physical Review Applied, 2019, 12, .	3.8	59
13	Voltage-Controlled ONâ€“OFF Ferromagnetism at Room Temperature in a Single Metal Oxide Film. ACS Nano, 2018, 12, 10291-10300.	14.6	57
14	Tunable magnetic ordering through cation selection in entropic spinel oxides. Physical Review Materials, 2019, 3, .	2.4	57
15	Correlation-driven eightfold magnetic anisotropy in a two-dimensional oxide monolayer. Science Advances, 2020, 6, eaay0114.	10.3	43
16	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, .	3.2	39
17	3D Nanomagnetism in Low Density Interconnected Nanowire Networks. Nano Letters, 2021, 21, 716-722.	9.1	39
18	Large exchange splitting in monolayer graphene magnetized by an antiferromagnet. Nature Electronics, 2020, 3, 604-611.	26.0	36

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19	Optical and Magnetic Properties of Agâ€“Ni Bimetallic Nanoparticles Assembled via Pulsed Laser-Induced Dewetting. ACS Omega, 2020, 5, 19285-19292.	3.5	34
20	Chirality control via double vortices in asymmetric Co dots. Physical Review B, 2011, 83, .	3.2	33
21	Reversible control of magnetism in La0.67Sr0.33MnO3 through chemically-induced oxygen migration. Applied Physics Letters, 2016, 108, .	3.3	33
22	Tunable Low Density Palladium Nanowire Foams. Chemistry of Materials, 2017, 29, 9814-9818.	6.7	32
23	Ionic tuning of cobaltites at the nanoscale. Physical Review Materials, 2018, 2, .	2.4	32
24	Realization of ordered magnetic skyrmions in thin films at ambient conditions. Physical Review Materials, 2019, 3, .	2.4	30
25	Probing the A1 to L1 transformation in FeCuPt using the first order reversal curve method. APL Materials, 2014, 2, .	5.1	28
26	Fingerprinting Inhomogeneities in Recording Media Using the First-Order Reversal Curve Method. IEEE Transactions on Magnetics, 2011, 47, 2988-2991.	2.1	27
27	Observation of Quantum Anomalous Hall Effect and Exchange Interaction in Topological Insulator/Antiferromagnet Heterostructure. Advanced Materials, 2020, 32, e2001460.	21.0	27
28	Concurrent magnetic and structural reconstructions at the interface of (111)-oriented <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">L</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mrow><mml:mn>0.7</mml:mn></mml:mrow></mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">r</mml:mi><mml:mrow><mml:mn>0.3</mml:mn></mml:mrow></mml:msub><mml:mi>Mn</mml:mi><mml:msu	3.2	26
29	Microwave enhanced silica encapsulation of magnetic nanoparticles. Journal of Materials Chemistry, 2012, 22, 8449.	6.7	23
30	Reversal mode instability and magnetoresistance in perpendicular (Co/Pd)/Cu/(Co/Ni) pseudo-spin-valves. Applied Physics Letters, 2013, 103, .	3.3	21
31	Termination switching of antiferromagnetic proximity effect in topological insulator. Science Advances, 2020, 6, eaaz8463.	10.3	20
32	Magnetic field frustration of the metal-insulator transition in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">V</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2020, 101, .	3.2	20
33	Charge doping effects on magnetic properties of single-crystal <mml:math		

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37	Record thermopower found in an IrMn-based spintronic stack. Nature Communications, 2020, 11, 2023.	12.8	16
38	Reconstructing phase-resolved hysteresis loops from first-order reversal curves. Scientific Reports, 2021, 11, 4018.	3.3	16
39	Persistent Structure and Frustrated Magnetism in High Entropy Rareâ€Earth Zirconates. Small, 2022, 18, e2101323.	10.0	16
40	Control of dissipation in superconducting films by magnetic stray fields. Applied Physics Letters, 2013, 102, 052601.	3.3	15
41	Growth-Induced In-Plane Uniaxial Anisotropy in V2O3/Ni Films. Scientific Reports, 2017, 7, 13471.	3.3	14
42	Ferroic phase transitions and magnetoelectric coupling in cobalt doped BaTiO₃. Journal of Materials Chemistry C, 2021, 9, 12694-12711.	5.5	13
43	Effects of aluminum content on thermoelectric performance of Al CoCrFeNi high-entropy alloys. Journal of Alloys and Compounds, 2021, 883, 160811.	5.5	12
44	Precipitating ordered skyrmion lattices from helical spaghetti and granular powders. Physical Review Materials, 2019, 3, .	2.4	12
45	Size-dependent magnetization switching characteristics and spin wave modes of FePt nanostructures. Journal of Applied Physics, 2013, 113, .	2.5	11
46	Interfacial-Redox-Induced Tuning of Superconductivity in YBa₂Cu₃O_{7-Î´}. ACS Applied Materials & Interfaces, 2020, 12, 4741-4748.	8.0	11
47	Exploring the composition, phase separation and structure of AgFe alloys for magneto-optical applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 266, 115044.	3.5	10
48	Magnetization reversal in perpendicularly magnetized L1 FePd/FePt heterostructures. Journal of Applied Physics, 2014, 116, .	2.5	9
49	Damping Enhancement in Coherent Ferriteâ€“Insulating-Paramagnet Bilayers. Physical Review Applied, 2019, 12, .	3.8	8
50	X-ray nanodiffraction studies of ionically controlled nanoscale phase separation in cobaltites. Physical Review Materials, 2019, 3, .	2.4	8
51	Lengthscale effects on exchange coupling in Co-Pt L1 + L12 nanochessboards. APL Materials, 2016, 4, .	5.1	7
52	First-order reversal curve of the magnetostructural phase transition in FeTe. Physical Review B, 2017, 95, .	3.2	7
53	Probing the dynamic response of antivortex, interstitial and trapped vortex lattices on magnetic periodic pinning potentials. Superconductor Science and Technology, 2013, 26, 085018.	3.5	6
54	Hydrogen finds a home in ionic devices. Nature Materials, 2019, 18, 7-8.	27.5	6

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55	Indications for Dzyaloshinskii-Moriya interaction at the Pd/Fe interface studied by in situ polarized neutron reflectometry. Physical Review B, 2020, 101, .	3.2	6
56	Design and realization of a sputter deposition system for the in situ and in operando use in polarized neutron reflectometry experiments: Novel capabilities. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 964, 163710.	1.6	5
57	Nanoscale magnetization inhomogeneity within single phase nanopillars. Physical Review Materials, 2019, 3, .	2.4	5
58	Magnetism in metastable and annealed compositionally complex alloys. Physical Review Materials, 2021, 5, .	2.4	5
59	Magnetic and Optical Properties of Auâ€“Co Solid Solution and Phase-Separated Thin Films and Nanoparticles. ACS Applied Materials & Interfaces, 2022, 14, 15047-15058.	8.0	5
60	Magnetization Reversal of Three-Dimensional Nickel Anti-Sphere Arrays. IEEE Magnetics Letters, 2017, 8, 1-4.	1.1	3
61	Reflectometry with Polarized Neutrons on In Situ Grown Thin Films. Physica Status Solidi (B): Basic Research, 2022, 259, 2100153.	1.5	3
62	The effect of polymer stiffness on magnetization reversal of magnetorheological elastomers. APL Materials, 2022, 10, 041106.	5.1	3
63	Strain-induced competition between ferromagnetism and emergent antiferromagnetism in (Eu,Sr) <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MnO</mml:mi><mml:mn>3</mml:mn></mml:msub></m Physical Review Materials, 2018, 2, .	2.4	2
64	Realization of Ground-State Artificial Skyrmion Lattices at Room Temperature. , 2016, , .		1
65	Effect of chemical substitution on the skyrmion phase in Cu2OSeO3. Physical Review B, 2020, 102, .	3.2	1
66	Using methodical compositional tuning to optimize CoxTb1â^'x structural and magnetic properties. Applied Physics Letters, 2021, 118, 212405.	3.3	1
67	Resolving interfacial charge transfer in titanate superlattices using resonant x-ray reflectometry. Physical Review Materials, 2018, 2, .	2.4	1
68	Controlling magnetic configuration in softâ€“hard bilayers probed by polarized neutron reflectometry. APL Materials, 2022, 10, 011107.	5.1	1
69	Magnetometry-based order parameter to probe the A1 to L1<inf>0</inf> transformation in FeCuPt for heat-assisted magnetic recording media. , 2015, , .		0
70	FORC Diagrams in Magnetic Thin Films. , 2021, , 629-650.		0