

Andrew D Kent

List of Publications by Year in descending order

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docs citations

150
times ranked

5722
citing authors

#	ARTICLE	IF	CITATIONS
1	Easy-plane spin Hall nano-oscillators as spiking neurons for neuromorphic computing. Physical Review B, 2022, 105, .	3.2	12
2	Perspectives on spintronics technology development: Giant magnetoresistance to spin transfer torque magnetic random access memory. APL Materials, 2022, 10, .	5.1	9
3	A perspective on electrical generation of spin current for magnetic random access memories. Applied Physics Letters, 2022, 120, .	3.3	7
4	Quantifying Spin-Orbit Torques in Antiferromagnetic Heavy-Metal Heterostructures. Physical Review Letters, 2022, 128, .	7.8	8
5	Magnetization Dynamics. , 2021, , 1-33.		0
6	Micromagnetic instabilities in spin-transfer switching of perpendicular magnetic tunnel junctions. Physical Review B, 2021, 103, .	3.2	6
7	Thermal Effects in Spin-Torque Switching of Perpendicular Magnetic Tunnel Junctions at Cryogenic Temperatures. Physical Review Applied, 2021, 15, .	3.8	6
8	Direct imaging of electrical switching of antiferromagnetic Néel order in FeO epitaxial films. Physical Review B, 2021, 103, .	3.2	23
9	Spin-torque switching mechanisms of perpendicular magnetic tunnel junction nanopillars. Applied Physics Letters, 2021, 118, .	3.3	6
10	Tuning Dzyaloshinskii-Moriya interaction in ferrimagnetic GdCo: A first-principles approach. Physical Review B, 2021, 103, .	3.2	13
11	A quantum material spintronic resonator. Scientific Reports, 2021, 11, 15082.	3.3	3
12	Interplay between Spin-Orbit Torques and Dzyaloshinskii-Moriya Interactions in Ferrimagnetic Amorphous Alloys. Advanced Science, 2021, 8, 2100481.	11.2	7
13	Skyrmionics Computing and memory technologies based on topological excitations in magnets. Journal of Applied Physics, 2021, 130, .	2.5	42
14	Precessional spin-torque dynamics in biaxial antiferromagnets. Physical Review B, 2021, 103, .	3.2	17
15	Magnetization Dynamics. , 2021, , 1333-1365.		1
16	Magnetic droplet solitons. Journal of Applied Physics, 2020, 128, .	2.5	14
17	Tuning interfacial Dzyaloshinskii-Moriya interactions in thin amorphous ferrimagnetic alloys. Scientific Reports, 2020, 10, 7447.	3.3	30
18	Planar Hall Driven Torque in a Ferromagnet/Nonmagnet/Ferromagnet System. Physical Review Letters, 2020, 124, 197204.	7.8	27

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19	Charge-To-Spin Conversion Efficiency in Ferromagnetic Nanowires by Spin Torque Ferromagnetic Resonance: Reconciling Lineshape and Linewidth Analysis Methods. <i>Physical Review Applied</i> , 2020, 14, .	3.8	10
20	A low temperature functioning CoFeB/MgO-based perpendicular magnetic tunnel junction for cryogenic nonvolatile random access memory. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	28
21	Sub-nanosecond switching in a cryogenic spin-torque spin-valve memory element with a dilute permalloy free layer. <i>Applied Physics Letters</i> , 2019, 114, 212402.	3.3	8
22	Spin transport in an insulating ferrimagnetic-antiferromagnetic-ferrimagnetic trilayer as a function of temperature. <i>AIP Advances</i> , 2019, 9, .	1.3	9
23	Sub-nanosecond spin-torque switching of perpendicular magnetic tunnel junction nanopillars at cryogenic temperatures. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	32
24	Nonvolatile Ionic Modification of the Dzyaloshinskii-Moriya Interaction. <i>Physical Review Applied</i> , 2019, 12, .	3.8	59
25	Efficient spin current generation in low-damping Mg(Al, Fe)2O4 thin films. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	21
26	Reduced Exchange Interactions in Magnetic Tunnel Junction Free Layers with Insertion Layers. <i>ACS Applied Electronic Materials</i> , 2019, 1, 2025-2029.	4.3	16
27	Electrical Control of Majorana Bound States Using Magnetic Stripes. <i>Physical Review Applied</i> , 2019, 12, .	3.8	32
28	A cryogenic spin-torque memory element with precessional magnetization dynamics. <i>Scientific Reports</i> , 2019, 9, 803.	3.3	25
29	Multiple magnetic droplet soliton modes. <i>Physical Review B</i> , 2019, 99, .	3.2	9
30	Voltage-Controlled Topological Spin Switch for Ultralow-Energy Computing: Performance Modeling and Benchmarking. <i>Physical Review Applied</i> , 2019, 11, .	3.8	4
31	Asymmetric Magnetization Switching in Perpendicular Magnetic Tunnel Junctions: Role of the Synthetic Antiferromagnet's Fringe Field. <i>Physical Review Applied</i> , 2019, 11, .	3.8	11
32	Increased energy efficiency spin-torque switching of magnetic tunnel junction devices with a higher order perpendicular magnetic anisotropy. <i>Applied Physics Letters</i> , 2019, 114, 012404.	3.3	6
33	Generation and annihilation time of magnetic droplet solitons. <i>Scientific Reports</i> , 2018, 8, 6847.	3.3	15
34	First harmonic measurements of the spin Seebeck effect. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	13
35	Generation and stability of dynamical skyrmions and droplet solitons. <i>Nanotechnology</i> , 2018, 29, 325302.	2.6	8
36	Ferromagnetic resonance linewidth in coupled layers with easy-plane and perpendicular magnetic anisotropies. <i>Journal of Applied Physics</i> , 2018, 124, .	2.5	5

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37	Spin transport in antiferromagnetic NiO and magnetoresistance in Y3Fe5O12/NiO/Pt structures. AIP Advances, 2017, 7, 055903.	1.3	30
38	The 2017 Magnetism Roadmap. Journal Physics D: Applied Physics, 2017, 50, 363001.	2.8	279
39	Effect of Temperature on Magnetic Solitons Induced by Spin-Transfer Torque. Physical Review Applied, 2017, 7, .	3.8	15
40	Field tuning of domain-wall type and chirality in SrRuO_3 . Physical Review B, 2017, 95, .	3.2	2
41	Spin-orbit torque based magnetization switching in Pt/Cu/[Co/Ni]5 multilayer structures. Journal of Applied Physics, 2017, 122, 213905.	2.5	6
42	Domain wall fringe field coupled spin logic. AIP Advances, 2016, 6, .	1.3	3
43	Spin transport and dynamics in all-oxide perovskite $\text{La}_{0.92}\text{Sr}_{0.08}\text{MnO}_2$. Physical Review B, 2016, 94, .	3.2	2
44	Time-resolved studies of the spin-transfer reversal mechanism in perpendicularly magnetized magnetic tunnel junctions. Physical Review B, 2016, 94, .	3.2	46
45	Interlayer exchange coupling between layers with perpendicular and easy-plane magnetic anisotropies. Applied Physics Letters, 2016, 109, 082401.	3.3	22
46	Reliable spin-transfer torque driven precessional magnetization reversal with an adiabatically decaying pulse. Physical Review B, 2016, 93, .	3.2	5
47	Large fluctuations and singular behavior of nonequilibrium systems. Physical Review E, 2016, 93, 012114.	2.1	4
48	Reduced model for precessional switching of thin-film nanomagnets under the influence of spin torque. Physical Review B, 2016, 94, .	3.2	2
49	Thermal Stability of Magnetic States in Circular Thin-Film Nanomagnets with Large Perpendicular Magnetic Anisotropy. Physical Review Applied, 2015, 4, .	3.8	78
50	Observation of droplet soliton drift resonances in a spin-transfer-torque nanocontact to a ferromagnetic thin film. Physical Review B, 2015, 92, .	3.2	36
51	Micromagnetic study of spin transfer switching with a spin polarization tilted out of the free layer plane. Journal of Applied Physics, 2015, 117, 17D705.	2.5	11
52	Singlet-to-triplet interconversion using hyperfine as well as ferromagnetic fringe fields. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140326.	3.4	2
53	X-ray Detection of Transient Magnetic Moments Induced by a Spin Current in Cu. Physical Review Letters, 2015, 115, 096601.	7.8	38
54	Direct Observation of a Localized Magnetic Soliton in a Spin-Transfer Nanocontact. Physical Review Letters, 2015, 115, 127205.	7.8	56

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55	Direct observation and imaging of a spin-wave soliton with p-like symmetry. Nature Communications, 2015, 6, 8889.	12.8	52
56	A new spin on magnetic memories. Nature Nanotechnology, 2015, 10, 187-191.	31.5	645
57	State diagram of an orthogonal spin transfer spin valve device. Journal of Applied Physics, 2015, 117, .	2.5	9
58	Temperature dependent nucleation, propagation, and annihilation of domain walls in all-perpendicular spin-valve nanopillars. Journal of Applied Physics, 2014, 115, 113910.	2.5	6
59	Spin-torque oscillators with thermal noise: A constant energy orbit approach. Physical Review B, 2014, 90, .	3.2	33
60	Nonlocal transport mediated by spin supercurrents. Physical Review B, 2014, 90, .	3.2	47
61	Stable magnetic droplet solitons in spin-transfer nanocontacts. Nature Nanotechnology, 2014, 9, 992-996.	31.5	79
62	Partial spin reversal in magnetic deflagration. Physical Review B, 2014, 89, .	3.2	6
63	Dynamics of spin torque switching in all-perpendicular spin valve nanopillars. Journal of Magnetism and Magnetic Materials, 2014, 358-359, 233-258.	2.3	84
64	Switching field distributions with spin transfer torques in perpendicularly magnetized spin-valve nanopillars. Physical Review B, 2014, 89, .	3.2	12
65	Organic magnetoelectroluminescence for room temperature transduction between magnetic and optical information. Nature Communications, 2014, 5, 3609.	12.8	38
66	Bimodal switching field distributions in all-perpendicular spin-valve nanopillars. Journal of Applied Physics, 2014, 115, 17C707.	2.5	6
67	Spin-transfer switching of orthogonal spin-valve devices at cryogenic temperatures. Journal of Applied Physics, 2014, 115, .	2.5	35
68	Spin-transfer torque magnetization reversal in uniaxial nanomagnets with thermal noise. Journal of Applied Physics, 2013, 114, .	2.5	19
69	Temperature dependence of the switching field in all-perpendicular spin-valve nanopillars. Physical Review B, 2013, 88, .	3.2	11
70	Thermally assisted spin-transfer torque dynamics in energy space. Physical Review B, 2013, 88, .	3.2	44
71	Thermally-Assisted Spin-Transfer Torque Magnetization Reversal of Uniaxial Nanomagnets in Energy Space. IEEE Transactions on Magnetism, 2013, 49, 3144-3146.	2.1	9
72	Energy barriers to magnetization reversal in perpendicularly magnetized thin film nanomagnets. Journal of Applied Physics, 2013, 113, .	2.5	23

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73	Quantum fluctuations and long-range order in molecular magnets. Polyhedron, 2013, 64, 262-267.	2.2	1
74	Hysteretic control of organic conductance due to remanent magnetic fringe fields. Applied Physics Letters, 2013, 102, 042408.	3.3	8
75	Onset of a Propagating Self-Sustained Spin Reversal Front in a Magnetic System. Physical Review Letters, 2013, 110, 207203.	7.8	16
76	Including fringe fields from a nearby ferromagnet in a percolation theory of organic magnetoresistance. Physical Review B, 2013, 87, .	3.2	12
77	Characterization of interlayer interactions in magnetic random access memory layer stacks using ferromagnetic resonance. Journal of Applied Physics, 2012, 111, 07C721.	2.5	6
78	Magnetic Fringe-Field Control of Electronic Transport in an Organic Film. Physical Review X, 2012, 2, .	8.9	21
79	Precessional reversal in orthogonal spin transfer magnetic random access memory devices. Applied Physics Letters, 2012, 101, .	3.3	30
80	Domain wall motion in nanopillar spin-valves with perpendicular anisotropy driven by spin-transfer torques. Physical Review B, 2012, 86, .	3.2	9
81	Transverse field Ising ferromagnetism in Mn \times Co \times Ni \times acetate-MeOH. Physical Review B, 2012, 85, .	3.2	4
82	Thermally assisted spin-transfer torque magnetization reversal in uniaxial nanomagnets. Applied Physics Letters, 2012, 101, .	3.3	23
83	Asymmetric switching behavior in perpendicularly magnetized spin-valve nanopillars due to the polarizer dipole field. Applied Physics Letters, 2012, 100, 062404.	3.3	25
84	Perpendicular magnetic anisotropy in ultrathin Co/Ni multilayer films studied with ferromagnetic resonance and magnetic x-ray microspectroscopy. Journal of Magnetism and Magnetic Materials, 2012, 324, 3629-3632.	2.3	36
85	Current-induced torques in magnetic materials. Nature Materials, 2012, 11, 372-381.	27.5	969
86	Time-resolved magnetic relaxation of a nanomagnet on subnanosecond time scales. Physical Review B, 2012, 85, .	3.2	19
87	Annular Spin-Transfer Memory Element. IEEE Nanotechnology Magazine, 2011, 10, 129-134.	2.0	7
88	Regulating low-dimensional magnetic behavior of organic radicals in crystalline hydrogen-bonded host frameworks. Journal of Materials Chemistry, 2011, 21, 2204-2219.	6.7	23
89	Orthogonal spin transfer MRAM. , 2011, , .		0
90	Spin-wave interference patterns created by spin-torque nano-oscillators for memory and computation. Nanotechnology, 2011, 22, 095301.	2.6	71

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91	Anisotropic spin-wave patterns generated by spin-torque nano-oscillators. Journal of Applied Physics, 2011, 109, 07C733.	2.5	2
92	Minimum action paths for spin-torque assisted thermally induced magnetization reversal. Journal of Applied Physics, 2011, 109, 07C918.	2.5	5
93	Ferromagnetic resonance study of Co/Pd/Co/Ni multilayers with perpendicular anisotropy irradiated with helium ions. Journal of Applied Physics, 2011, 109, .	2.5	19
94	Ultrafast spin-transfer switching in spin valve nanopillars with perpendicular anisotropy. Applied Physics Letters, 2010, 96, .	3.3	89
95	Ultrafast switching in magnetic tunnel junction based orthogonal spin transfer devices. Applied Physics Letters, 2010, 97, .	3.3	145
96	Stability of 2π Domain Walls in Ferromagnetic Nanorings. IEEE Transactions on Magnetics, 2010, 46, 2272-2274.	2.1	17
97	Perpendicular all the way. Nature Materials, 2010, 9, 699-700.	27.5	87
98	Realization of random-field Ising ferromagnetism in a molecular magnet. Physical Review B, 2010, 82, .	3.2	24
99	Longitudinal and transverse magnetization components in thin films: A resonant magnetic reflectivity investigation using circularly polarized soft x-rays. Applied Physics Letters, 2010, 96, 042507.	3.3	4
100	Spin-transfer pulse switching: From the dynamic to the thermally activated regime. Applied Physics Letters, 2010, 97, .	3.3	128
101	Pure and random-field quantum criticality in the dipolar Ising model: Theory of Mn ₁₂ acetates. Physical Review B, 2010, 81, .	3.2	14
102	Switching probability in all-perpendicular spin valves. , 2010, , .		0
103	Role of the nonmagnetic layer in determining the Landé g -factor in a spin-transfer system. Physical Review B, 2009, 80, .	3.2	2
104	Micromagnetic study of magnetization reversal in ferromagnetic nanorings. Physical Review B, 2009, 79, .	3.2	32
105	Spin-torque driven ferromagnetic resonance in a nonlinear regime. Applied Physics Letters, 2009, 95, 172513.	3.3	33
106	Influence of the ligand shell on the surface orientation of Mn ₁₂ single molecule magnets. Polyhedron, 2009, 28, 1977-1981.	2.2	13
107	Strong perpendicular magnetic anisotropy in Ni/Co(111) single crystal superlattices. Applied Physics Letters, 2009, 94, 262504.	3.3	58
108	Ferromagnetic resonance linewidth in ultrathin films with perpendicular magnetic anisotropy. Physical Review B, 2009, 80, .	3.2	124

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109	Spin-transfer in nanopillars with a perpendicularly magnetized spin polarizer. Proceedings of SPIE, 2009, , .	0.8	12
110	Micromagnetic simulations of ferromagnetic rings. Journal of Applied Physics, 2008, 103, 07D917.	2.5	7
111	Ferromagnetic resonance study of polycrystalline Fe _{1-x} V _x alloy thin films. Journal of Applied Physics, 2008, 103, .	2.5	22
112	Finite size effects on spin-torque driven ferromagnetic resonance in spin valves with a Co•Ni synthetic free layer. Journal of Applied Physics, 2008, 103, 07A502.	2.5	15
113	On-chip integration of high-frequency electron paramagnetic resonance spectroscopy and Hall-effect magnetometry. Review of Scientific Instruments, 2008, 79, 074703.	1.3	6
114	High frequency EPR on dilute solutions of the single molecule magnet Ni ₄ . Journal of Applied Physics, 2008, 103, 07B910.	2.5	14
115	Spin-torque driven ferromagnetic resonance of Co•Ni synthetic layers in spin valves. Applied Physics Letters, 2008, 92, .	3.3	45
116	Direct observation of mixing of spin multiplets in an antiferromagnetic molecular nanomagnet by electron paramagnetic resonance. Physical Review B, 2007, 76, .	3.2	25
117	A nanomagnet oscillator. Nature Materials, 2007, 6, 399-400.	27.5	20
118	Ferromagnetic resonance study of sputtered Co Ni multilayers. European Physical Journal B, 2007, 59, 475-483.	1.5	85
119	Ferromagnetic resonance study of polycrystalline cobalt ultrathin films. Journal of Applied Physics, 2006, 99, 08N503.	2.5	40
120	Magnetic reversal in nanoscopic ferromagnetic rings. Physical Review B, 2006, 73, .	3.2	26
121	Current-induced switching in single ferromagnetic layer nanopillar junctions. Applied Physics Letters, 2006, 88, 162506.	3.3	19
122	Magnetization damping in ultrathin polycrystalline Co films: Evidence for nonlocal effects. Physical Review B, 2006, 74, .	3.2	46
123	Spin transfer in bilayer magnetic nanopillars at high fields as a function of free-layer thickness. Physical Review B, 2006, 74, .	3.2	19
124	A comparison between high-symmetry Mn ₁₂ single-molecule magnets in different ligand/solvent environments. Polyhedron, 2005, 24, 2284-2292.	2.2	34
125	Magnetic and microwave studies of high-spin states of single-molecule magnet Ni ₄ . Polyhedron, 2005, 24, 2695-2700.	2.2	7
126	Magnetic Quantum Tunneling in the Single-Molecule Magnet Mn ₁₂ -Acetate. Journal of Low Temperature Physics, 2005, 140, 119-174.	1.4	131

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127	Incommensurate transverse anisotropy induced by disorder and spin-orbit-vibron coupling in Mn12 acetate. Journal of Applied Physics, 2005, 97, 10M505.	2.5	8
128	Spin-transfer-induced magnetic excitation: The role of spin-pumping induced damping. Journal of Applied Physics, 2005, 97, 10C714.	2.5	9
129	Quantum Superposition of High Spin States in the Single Molecule MagnetNi4. Physical Review Letters, 2004, 93, 157202.	7.8	74
130	Spin-transfer-induced precessional magnetization reversal. Applied Physics Letters, 2004, 84, 3897-3899.	3.3	244
131	Distribution of internal transverse magnetic fields in aMn12-based single molecule magnet. Physical Review B, 2004, 69, .	3.2	19
132	Current-Induced Magnetization Reversal in High Magnetic Fields inCo/Cu/CoNanopillars. Physical Review Letters, 2003, 91, 067203.	7.8	122
133	Symmetry of Magnetic Quantum Tunneling in Single Molecule MagnetMn12-Acetate. Physical Review Letters, 2003, 91, 047203.	7.8	76
134	Tunneling splittings in Mn 12 -acetate single crystals. Europhysics Letters, 2002, 60, 768-774.	2.0	30
135	Magnetic properties of Fe microstructures with focused ion beam-fabricated nano-constrictions. IEEE Transactions on Magnetics, 2001, 37, 2101-2103.	2.1	18
136	Domain wall resistivity in epitaxial thin film microstructures. Journal of Physics Condensed Matter, 2001, 13, R461-R488.	1.8	124
137	Shape-dependent magnetization reversal processes and flux-closure configurations of microstructured epitaxial Fe(110) elements. Applied Physics Letters, 2001, 79, 3648-3650.	3.3	11
138	Low-temperature magnetic hysteresis in Mn 12 acetate single crystals. Europhysics Letters, 2000, 49, 521-527.	2.0	59
139	Micromagnetism and high temperature coercivity of MnBi/Al multilayers. Journal of Applied Physics, 2000, 88, 4221.	2.5	21
140	Crossover between Thermally Assisted and Pure Quantum Tunneling in Molecular MagnetMn12-Acetate. Physical Review Letters, 2000, 85, 4803-4806.	7.8	108
141	Micromagnetics of submicron (110) Fe elements. Applied Physics Letters, 2000, 76, 766-768.	3.3	30
142	Magnetoresistance of epitaxial Fe wires with varied domain wall structure. Journal of Magnetism and Magnetic Materials, 1999, 198-199, 261-263.	2.3	13
143	Micromagnetics of mesoscopic epitaxial (110) Fe elements with nanoshaped ends. Journal of Applied Physics, 1999, 85, 5501-5503.	2.5	55
144	Negative Domain Wall Contribution to the Resistivity of Microfabricated Fe Wires. Physical Review Letters, 1998, 80, 5639-5642.	7.8	224

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145	Magnetoresistance due to domain walls in micron scale Fe wires with stripe domains. IEEE Transactions on Magnetics, 1998, 34, 900-902.	2.1	26
146	Magnetoresistance due to domain walls in an epitaxial microfabricated Fe wire. Applied Physics Letters, 1998, 73, 1298-1300.	3.3	35
147	Properties and measurement of scanning tunneling microscope fabricated ferromagnetic particle arrays (invited). Journal of Applied Physics, 1994, 76, 6656-6660.	2.5	189
148	Shape dependent magnetization reversal processes of microstructured epitaxial Fe [110] elements. , 0, , .		0
149	Spin Mixing in Ferromagnets Revealed. Physics Magazine, 0, 14, .	0.1	0