

# Andrew C Irvine

## List of Publications by Year in descending order

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49  
papers

1,930  
citations

304743

22  
h-index

243625

44  
g-index

50  
all docs

50  
docs citations

50  
times ranked

2552  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin Hall Effect Transistor. <i>Science</i> , 2010, 330, 1801-1804.	12.6	288
2	An antidamping spin-orbit torque originating from the Berry curvature. <i>Nature Nanotechnology</i> , 2014, 9, 211-217.	31.5	273
3	Enhanced annealing, high Curie temperature, and low-voltage gating in (Ga,Mn)As: A surface oxide control study. <i>Physical Review B</i> , 2008, 78, .	3.2	110
4	Anisotropic Magnetoresistance Components in (Ga,Mn)As. <i>Physical Review Letters</i> , 2007, 99, 147207.	7.8	107
5	Electrical manipulation of ferromagnetic NiFe by antiferromagnetic IrMn. <i>Physical Review B</i> , 2015, 92, .	3.2	102
6	Coulomb Blockade Anisotropic Magnetoresistance Effect in a (Ga,Mn)As Single-Electron Transistor. <i>Physical Review Letters</i> , 2006, 97, 077201.	7.8	100
7	Spin-injection Hall effect in a planar photovoltaic cell. <i>Nature Physics</i> , 2009, 5, 675-681.	16.7	68
8	Piezoelectric control of the mobility of a domain wall driven by adiabatic and non-adiabatic torques. <i>Nature Materials</i> , 2013, 12, 808-814.	27.5	64
9	Magnonic charge pumping via spin-orbit coupling. <i>Nature Nanotechnology</i> , 2015, 10, 50-54.	31.5	64
10	Local control of magnetocrystalline anisotropy in (Ga,Mn)As microdevices: Demonstration in current-induced switching. <i>Physical Review B</i> , 2007, 76, .	3.2	63
11	Lithographically and electrically controlled strain effects on anisotropic magnetoresistance in (Ga,Mn)As. <i>New Journal of Physics</i> , 2008, 10, 065003.	2.9	57
12	Spin-orbit torque opposing the Oersted torque in ultrathin Co/Pt bilayers. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	55
13	A memory cell with single-electron and metal-oxide-semiconductor transistor integration. <i>Applied Physics Letters</i> , 1999, 74, 1293-1295.	3.3	46
14	First observation of the EL2 lattice defect in indium gallium arsenide grown by molecular-beam epitaxy. <i>Physical Review Letters</i> , 1992, 68, 2168-2171.	7.8	35
15	Single-electron effects in heavily doped polycrystalline silicon nanowires. <i>Applied Physics Letters</i> , 1998, 73, 1113-1115.	3.3	35
16	Coulomb blockade memory using integrated single-electron transistor/metal-oxide-semiconductor transistor gain cells. <i>IEEE Transactions on Electron Devices</i> , 2000, 47, 2334-2339.	3.0	31
17	Optical Spin-Transfer-Torque-Driven Domain-Wall Motion in a Ferromagnetic Semiconductor. <i>Physical Review Letters</i> , 2015, 114, 067202.	7.8	30
18	Current-driven domain wall motion across a wide temperature range in a (Ga,Mn)(As,P) device. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	25

#	ARTICLE	IF	CITATIONS
19	Low-voltage control of ferromagnetism in a semiconductor p-n junction. New Journal of Physics, 2009, 11, 023008.	2.9	23
20	Selective coherent x-ray diffractive imaging of displacement fields in (Ga,Mn)As/GaAs periodic wires. Physical Review B, 2011, 84, .	3.2	23
21	Detection of Electrically Modulated Inverse Spin Hall Effect in an $\text{Fe/GaAs}$ Microdevice. Physical Review Letters, 2012, 109, 076601.	7.8	23
22	Strain field in (Ga,Mn)As/GaAs periodic wires revealed by coherent X-ray diffraction. Europhysics Letters, 2011, 94, 66001.	2.0	22
23	Inertial displacement of a domain wall excited by ultra-short circularly polarized laser pulses. Nature Communications, 2017, 8, 15226.	12.8	22
24	Nanoscale Coulomb blockade memory and logic devices. Nanotechnology, 2001, 12, 155-159.	2.6	20
25	Electrical control of fine-structure splitting in self-assembled quantum dots for entangled photon pair creation. Applied Physics Letters, 2010, 97, .	3.3	20
26	The origin and control of the sources of AMR in (Ga,Mn)As devices. Journal of Magnetism and Magnetic Materials, 2009, 321, 1001-1008.	2.3	18
27	Ultrafast high-fidelity initialization of a quantum-dot spin qubit without magnetic fields. Physical Review B, 2014, 90, .	3.2	18
28	A high-speed silicon-based few-electron memory with metal oxide semiconductor field-effect transistor gain element. Journal of Applied Physics, 2000, 87, 8594-8603.	2.5	16
29	Voltage-controlled electron tunneling from a single self-assembled quantum dot embedded in a two-dimensional-electron-gas-based photovoltaic cell. Journal of Applied Physics, 2011, 110, .	2.5	16
30	Bias-controlled single-electron charging of a self-assembled quantum dot in a two-dimensional-electron-gas-based $n\text{-i-Schottky}$ diode. Physical Review B, 2011, 83, .	3.2	15
31	Spin gating electrical current. Applied Physics Letters, 2012, 101, .	3.3	14
32	Coulomb oscillations of indium-doped ZnO nanowire transistors in a magnetic field. Physical Review B, 2010, 82, .	3.2	13
33	Precise measurements of the dipole moment and polarizability of the neutral exciton and positive trion in a single quantum dot. Physical Review B, 2017, 95, .	3.2	13
34	Enhanced inverse spin-Hall effect in ultrathin ferromagnetic/normal metal bilayers. Applied Physics Letters, 2013, 102, .	3.3	12
35	Electrically tunable hole tunnelling from a single self-assembled quantum dot embedded in an n-i-Schottky photovoltaic cell. Applied Physics Letters, 2011, 99, 031102.	3.3	11
36	Magnetic reversal under external field and current-driven domain wall motion in (Ga,Mn)As: influence of extrinsic pinning. New Journal of Physics, 2008, 10, 085007.	2.9	10

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37	Electrical control of quantum-dot fine-structure splitting for high-fidelity hole spin initialization. Physical Review B, 2016, 93, .	3.2	10
38	High-resolution photocurrent spectroscopy of the positive trion state in a single quantum dot. Physical Review B, 2013, 87, .	3.2	9
39	Ordinary and extraordinary Coulomb blockade magnetoresistance in a (Ga, Mn)As single electron transistor. Solid State Communications, 2007, 144, 536-541.	1.9	8
40	Coulomb blockade anisotropic magnetoresistance and voltage controlled magnetic switching in a ferromagnetic GaMnAs single electron transistor. Journal of Magnetism and Magnetic Materials, 2007, 310, 1883-1888.	2.3	8
41	Demonstration of gallium-defect annealing at 280 K in irradiated GaAs and Al <sub>x</sub> Ga <sub>1-x</sub> As. Physical Review B, 1994, 49, 5695-5698.	3.2	7
42	Magneto-optical and micromagnetic simulation study of the current-driven domain wall motion in ferromagnetic (Ga,Mn)As. Journal of Magnetism and Magnetic Materials, 2009, 321, 971-973.	2.3	7
43	Recombination current in GaAs/AlGaAs heterostructure bipolar transistors. International Journal of Electronics, 1997, 83, 761-778.	1.4	6
44	Simulation of Si multiple tunnel junctions. Physica B: Condensed Matter, 1999, 272, 85-87.	2.7	5
45	Efficient conversion of light to charge and spin in Hall-bar microdevices. Physical Review B, 2015, 91, .	3.2	4
46	Domain wall resistance in perpendicular (Ga,Mn)As: Dependence on pinning. Journal of Magnetism and Magnetic Materials, 2010, 322, 3481-3484.	2.3	2
47	Reconfigurable Boolean Logic Using Magnetic Single-Electron Transistors. PLoS ONE, 2015, 10, e0125142.	2.5	2
48	Aperiodic lattices in silicon nano-wire for spectrally engineered DWDM photonics. , 2006, , .		0
49	Noise-based approximation to thermal spin-injection in Fe/GaAs. Applied Physics Letters, 2017, 111, 142401.	3.3	0