Aubrey Hanbicki

List of Publications by Year
in descending order

70 papers	6,248 citations	117625 34 h-index	85541 71 g-index
71 all docs	71 docs citations	71 times ranked	6950 citing authors

#	Article	IF	Citations
1	Spinâ€“orbit coupling proximity effect in MoS2/Fe3GeTe2 heterostructures. Applied Physics Letters, 2022, 120, .	3.3	11
2	2D Monolayers for Superior Transparent Electromagnetic Interference Shielding. ACS Nano, 2022, 16, 9498-9509.	14.6	13
3	Gate-tunable giant tunneling electroresistance in van der Waals ferroelectric tunneling junctions. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 283, 115829.	3.5	4
4	Room-Temperature Spin Transport in Cd₃As₂. ACS Nano, 2021, 15, 5459-5466.	14.6	8
5	Nonlocal Measurement as a Probe of the Spin Hall Effect in Topological Insulators. Physical Review Applied, 2021, 16, .	3.8	2
6	Continuous Wave Sum Frequency Generation and Imaging of Monolayer and Heterobilayer Two-Dimensional Semiconductors. ACS Nano, 2020, 14, 708-714.	14.6	41
7	Effect of Sn Doping on Surface States of Bi₂Se₃ Thin Films. Journal of Physical Chemistry C, 2020, 124, 27082-27088.	3.1	12
8	Synthesis of High-Quality Monolayer MoS₂ by Direct Liquid Injection. ACS Applied Materials & Interfaces, 2020, 12, 9580-9588.	8.0	9
9	Prominent room temperature valley polarization in WS2/graphene heterostructures grown by chemical vapor deposition. Applied Physics Letters, 2020, 116, .	3.3	25
10	Spatially Selective Enhancement of Photoluminescence in MoS₂ by Exciton-Mediated Adsorption and Defect Passivation. ACS Applied Materials & Interfaces, 2019, 11, 16147-16155.	8.0	47
11	Resonant optical Stark effect in monolayer WS2. Nature Communications, 2019, 10, 5539.	12.8	46
12	Nano-â€œSqueegeeâ€•for the Creation of Clean 2D Material Interfaces. ACS Applied Materials & Interfaces, 2018, 10, 10379-10387.	8.0	124
13	Double Indirect Interlayer Exciton in a MoSe₂/WSe₂ van der Waals Heterostructure. ACS Nano, 2018, 12, 4719-4726.	14.6	160
14	A- and B-exciton photoluminescence intensity ratio as a measure of sample quality for transition metal dichalcogenide monolayers. APL Materials, 2018, 6, .	5.1	103
15	Chemical vapor sensing with CVD-grown monolayer MoSe2 using photoluminescence modulation. Applied Physics Letters, 2018, 113, 163106.	3.3	9
16	Optical polarization of excitons and trions under continuous and pulsed excitation in single layers of WSe₂. Nanoscale, 2017, 9, 17422-17428.	5.6	9
17	Evidence for Chemical Vapor Induced 2H to 1T Phase Transition in MoX2 (Xâ€‰=â€‰Se, S) Transition Metal Dichalcogenide Films. Scientific Reports, 2017, 7, 3836.	3.3	47
18	Understanding Variations in Circularly Polarized Photoluminescence in Monolayer Transition Metal Dichalcogenides. ACS Nano, 2017, 11, 7988-7994.	14.6	56

#	Article	IF	Citations
19	Photoinduced Bandgap Renormalization and Exciton Binding Energy Reduction in WS₂. ACS Nano, 2017, 11, 12601-12608.	14.6	112
20	Graphene and monolayer transition-metal dichalcogenides: properties and devices. Journal of Materials Research, 2016, 31, 845-877.	2.6	15
21	High room temperature optical polarization due to spin-valley coupling in monolayer WS2. AIP Advances, 2016, 6, .	1.3	21
22	Dynamics of chemical vapor sensing with MoS₂using 1T/2H phase contacts/channel. Nanoscale, 2016, 8, 11445-11453.	5.6	32
23	Anomalous temperature-dependent spin-valley polarization in monolayer WS2. Scientific Reports, 2016, 6, 18885.	3.3	57
24	The Effect of Preparation Conditions on Raman and Photoluminescence of Monolayer WS2. Scientific Reports, 2016, 6, 35154.	3.3	107
25	Synthesis of Large-Area WS2 monolayers with Exceptional Photoluminescence. Scientific Reports, 2016, 6, 19159.	3.3	153
26	Optical polarization and intervalley scattering in single layers of MoS2 and MoSe2. Scientific Reports, 2016, 6, 25041.	3.3	102
27	Charge Trapping and Exciton Dynamics in Large-Area CVD Grown MoS₂. Journal of Physical Chemistry C, 2016, 120, 5819-5826.	3.1	111
28	Optical control of charged exciton states in tungsten disulfide. Applied Physics Letters, 2015, 106, .	3.3	72
29	Nonlinear magneto-plasmonics. Optical Materials Express, 2015, 5, 2597.	3.0	18
30	Optical detection of spin Hall effect in metals. Applied Physics Letters, 2014, 104, 172402.	3.3	32
31	Largeâ€Area Synthesis of Continuous and Uniform MoS₂ Monolayer Films on Graphene. Advanced Functional Materials, 2014, 24, 6449-6454.	14.9	149
32	Chemical vapor sensing of two-dimensional MoS2 field effect transistor devices. Solid-State Electronics, 2014, 101, 2-7.	1.4	47
33	Control of magnetic contrast with nonlinear magneto-plasmonics. Scientific Reports, 2014, 4, 6191.	3.3	19
34	A graphene solution to conductivity mismatch: Spin injection from ferromagnetic metal/graphene tunnel contacts into silicon. Journal of Applied Physics, 2013, 113, .	2.5	10
35	Exchange bias of the interface spin system at the Fe/MgO interface. Nature Nanotechnology, 2013, 8, 438-444.	31.5	97
36	Surface plasmon-enhanced transverse magnetic second-harmonic generation. Optics Express, 2013, 21, 28842.	3.4	10

#	Article	IF	Citations
37	Valley polarization and intervalley scattering in monolayer MoS₂. Applied Physics Letters, 2012, 101, 221907.	3.3	251
38	Anisotropic exchange coupling and stress-induced uniaxial magnetic anisotropy in Fe/GaAs(001). Physical Review B, 2012, 85, .	3.2	18
39	Contributions to Hanle lineshapes in Fe/GaAs nonlocal spin valve transport. Applied Physics Letters, 2009, 94, 102511.	3.3	24
40	Information Processing With Pure Spin Currents in Silicon: Spin Injection, Extraction, Manipulation, and Detection. IEEE Transactions on Electron Devices, 2009, 56, 2343-2347.	3.0	34
41	Electrical spin injection into Si: A comparison between Fe/Si Schottky and Fe/Al2O3 tunnel contacts. Applied Physics Letters, 2009, 94, 122106.	3.3	36
42	Intershell Exchange and Sequential Electrically Injected Spin Populations of InAs Quantum-Dot Shell States. Physical Review Letters, 2008, 101, 227203.	7.8	23
43	Epitaxial growth and electrical spin injection from Fe(1â^'x)Gax (001) films on AlGaAsâ^•GaAs (001) heterostructures. Applied Physics Letters, 2007, 91, 122515.	3.3	14
44	Electrical injection and detection of spin-polarized carriers in silicon in a lateral transport geometry. Applied Physics Letters, 2007, 91, .	3.3	231
45	Electrical spin injection into the InAsâ^•GaAs wetting layer. Applied Physics Letters, 2007, 91, .	3.3	11
46	Electrical spin-injection into silicon from a ferromagnetic metal/tunnel barrier contact. Nature Physics, 2007, 3, 542-546.	16.7	330
47	Determination of Interface Atomic Structure and Its Impact on Spin Transport UsingZ-Contrast Microscopy and Density-Functional Theory. Physical Review Letters, 2006, 96, 196101.	7.8	78
48	Synthesis, solid-state NMR, and magnetic characterization of h-GaN containing magnetic ions. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 2437-2440.	0.8	9
49	Ultrafast magnetization dynamics of epitaxial Fe films on AlGaAs (001). Applied Physics Letters, 2005, 86, 152512.	3.3	39
50	Bias-controlled hole degeneracy and implications for quantifying spin polarization. Applied Physics Letters, 2005, 87, 122503.	3.3	8
51	Interface Magnetization Reversal and Anisotropy inFe/AlGaAs(001). Physical Review Letters, 2005, 95, 137202.	7.8	35
52	Epitaxial growth of the diluted magnetic semiconductors CryGe1â^'y and CryMnxGe1â^'xâ^'y. Applied Physics Letters, 2004, 84, 1725-1727.	3.3	27
53	Electrical spin injection from an n-type ferromagnetic semiconductor into a IIIâ€"V device heterostructure. Nature Materials, 2004, 3, 799-803.	27.5	49
54	Spin injection across (110) interfaces: Feâ^•GaAs(110) spin-light-emitting diodes. Applied Physics Letters, 2004, 85, 1544-1546.	3.3	35

#	Article	IF	Citations
55	Comparison of Fe/Schottky and Fe/Al2O3 tunnel barrier contacts for electrical spin injection into GaAs. Applied Physics Letters, 2004, 84, 4334-4336.	3.3	122
56	Comment on â€œFerromagnetism in Cr-doped Geâ€•[Appl. Phys. Lett. 81, 3606 (2002)]. Applied Physics Letters, 2003, 83, 2716-2717.	3.3	18
57	Band offsets at CdCr2Se4â€"(AlGa)As and CdCr2Se4â€"ZnSe interfaces. Applied Physics Letters, 2003, 82, 1422-1424.	3.3	9
58	Analysis of the transport process providing spin injection through an Fe/AlGaAs Schottky barrier. Applied Physics Letters, 2003, 82, 4092-4094.	3.3	335
59	Epitaxial growth of an n-type ferromagnetic semiconductor CdCr2Se4 on GaAs(001) and GaP(001). Applied Physics Letters, 2002, 81, 1471-1473.	3.3	30
60	Reduction of Spin Injection Efficiency by Interface Defect Spin Scattering inZnMnSe/AlGaAsâ^'GaAsSpin-Polarized Light-Emitting Diodes. Physical Review Letters, 2002, 89, 166602.	7.8	86
61	Efficient electrical spin injection from a magnetic metal/tunnel barrier contact into a semiconductor. Applied Physics Letters, 2002, 80, 1240-1242.	3.3	633
62	Response to â€œComment on â€˜Efficient electrical spin injection from a magnetic metal/tunnel barrier contact into a semiconductorâ€™â€Šâ€•[Appl. Phys. Lett. 81, 2130 (2002)]. Applied Physics Letters, 2002, 81, 2131-2132.	3.3	6
63	A Group-IV Ferromagnetic Semiconductor: MnxGe1-x. Science, 2002, 295, 651-654.	12.6	1,531
64	Magnetoresistance of Mn:Ge ferromagnetic nanoclusters in a diluted magnetic semiconductor matrix. Applied Physics Letters, 2001, 78, 2739-2741.	3.3	184
65	Quantifying electrical spin injection: Component-resolved electroluminescence from spin-polarized light-emitting diodes. Applied Physics Letters, 2001, 79, 3098-3100.	3.3	72
66	Nonvolatile reprogrammable logic elements using hybrid resonant tunneling diodeâ€"giant magnetoresistance circuits. Applied Physics Letters, 2001, 79, 1190-1192.	3.3	21
67	Influence of steps on the interaction between adsorbed hydrogen atoms and a nickel surface. Journal of Chemical Physics, 1999, 111, 9053-9057.	3.0	19
68	Rational Design of Interfacial Structure:â€‰ Adsorbate-Mediated Templating. Journal of Physical Chemistry B, 1999, 103, 9805-9808.	2.6	4
69	Inelastic multiphonon helium scattering from a stepped Ni(977) surface. Journal of Chemical Physics, 1998, 109, 6947-6955.	3.0	12
70	Hydrogen-induced structural changes on NiAl(110). Surface Science, 1996, 365, L639-L646.	1.9	18