Kathleen M Mccreary

List of Publications by Year
in descending order

60 papers	4,321 citations	117453 34 h-index	138251 58 g-index
61 all docs	61 docs citations	61 times ranked	6165 citing authors

#	Article	IF	Citations
1	Tunneling Spin Injection into Single Layer Graphene. Physical Review Letters, 2010, 105, 167202.	2.9	422
2	Magnetic Moment Formation in Graphene Detected by Scattering of Pure Spin Currents. Physical Review Letters, 2012, 109, 186604.	2.9	262
3	Exciton diamagnetic shifts and valley Zeeman effects in monolayer WS2 and MoS2 to 65â€‰Tesla. Nature Communications, 2016, 7, 10643.	5.8	253
4	Electronic doping and scattering by transition metals on graphene. Physical Review B, 2009, 80, .	1.1	245
5	Twist Angle-Dependent Atomic Reconstruction and MoirÃ© Patterns in Transition Metal Dichalcogenide Heterostructures. ACS Nano, 2020, 14, 4550-4558.	7.3	172
6	Manipulation of Spin Transport in Graphene by Surface Chemical Doping. Physical Review Letters, 2010, 104, 187201.	2.9	168
7	Double Indirect Interlayer Exciton in a MoSe₂/WSe₂ van der Waals Heterostructure. ACS Nano, 2018, 12, 4719-4726.	7.3	160
8	Synthesis of Large-Area WS2 monolayers with Exceptional Photoluminescence. Scientific Reports, 2016, 6, 19159.	1.6	153
9	Largeâ€Area Synthesis of Continuous and Uniform MoS₂ Monolayer Films on Graphene. Advanced Functional Materials, 2014, 24, 6449-6454.	7.8	149
10	Effect of cluster formation on graphene mobility. Physical Review B, 2010, 81, .	1.1	143
11	Electrical detection of spin precession in single layer graphene spin valves with transparent contacts. Applied Physics Letters, 2009, 94, .	1.5	141
12	Electron-Hole Asymmetry of Spin Injection and Transport in Single-Layer Graphene. Physical Review Letters, 2009, 102, 137205.	2.9	130
13	Spin transport and relaxation in graphene. Journal of Magnetism and Magnetic Materials, 2012, 324, 369-381.	1.0	128
14	Nano-â€œSqueegeeâ€•for the Creation of Clean 2D Material Interfaces. ACS Applied Materials & Interfaces, 2018, 10, 10379-10387.	4.0	124
15	Photoinduced Bandgap Renormalization and Exciton Binding Energy Reduction in WS₂. ACS Nano, 2017, 11, 12601-12608.	7.3	112
16	Charge Trapping and Exciton Dynamics in Large-Area CVD Grown MoS₂. Journal of Physical Chemistry C, 2016, 120, 5819-5826.	1.5	111
17	The Effect of Preparation Conditions on Raman and Photoluminescence of Monolayer WS2. Scientific Reports, 2016, 6, 35154.	1.6	107
18	Electrical Characterization of Discrete Defects and Impact of Defect Density on Photoluminescence in Monolayer WS₂. ACS Nano, 2018, 12, 1793-1800.	7.3	106

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19	A- and B-exciton photoluminescence intensity ratio as a measure of sample quality for transition metal dichalcogenide monolayers. APL Materials, 2018, 6, .	2.2	103
20	Auger Recombination in Chemical Vapor Deposition-Grown Monolayer WS₂. Journal of Physical Chemistry Letters, 2016, 7, 5242-5246.	2.1	85
21	Giant spin-splitting and gap renormalization driven by trions in single-layer WS2/h-BN heterostructures. Nature Physics, 2018, 14, 355-359.	6.5	83
22	Quantum Calligraphy: Writing Single-Photon Emitters in a Two-Dimensional Materials Platform. ACS Nano, 2019, 13, 904-912.	7.3	80
23	Anomalous temperature-dependent spin-valley polarization in monolayer WS2. Scientific Reports, 2016, 6, 18885.	1.6	57
24	Understanding Variations in Circularly Polarized Photoluminescence in Monolayer Transition Metal Dichalcogenides. ACS Nano, 2017, 11, 7988-7994.	7.3	56
25	Spin Relaxation in Single-Layer Graphene with Tunable Mobility. Nano Letters, 2012, 12, 3443-3447.	4.5	53
26	Spin Coherence and Dephasing of Localized Electrons in Monolayer MoS₂. Nano Letters, 2015, 15, 8250-8254.	4.5	49
27	Imaging spin dynamics in monolayer WS ₂ by time-resolved Kerr rotation microscopy. 2D Materials, 2018, 5, 011010.	2.0	47
28	Spatially Selective Enhancement of Photoluminescence in MoS₂ by Exciton-Mediated Adsorption and Defect Passivation. ACS Applied Materials & Interfaces, 2019, 11, 16147-16155.	4.0	47
29	Metallic and insulating adsorbates on graphene. Applied Physics Letters, 2011, 98, .	1.5	46
30	Resonant optical Stark effect in monolayer WS2. Nature Communications, 2019, 10, 5539.	5.8	46
31	Growth of atomically smooth MgO films on graphene by molecular beam epitaxy. Applied Physics Letters, 2008, 93, .	1.5	43
32	Chemical Identification of Interlayer Contaminants within van der Waals Heterostructures. ACS Applied Materials & Interfaces, 2019, 11, 25578-25585.	4.0	43
33	Continuous Wave Sum Frequency Generation and Imaging of Monolayer and Heterobilayer Two-Dimensional Semiconductors. ACS Nano, 2020, 14, 708-714.	7.3	41
34	Direct observation of minibands in a twisted graphene/WS ₂ bilayer. Science Advances, 2020, 6, eaay6104.	4.7	39
35	Optical detection of spin Hall effect in metals. Applied Physics Letters, 2014, 104, 172402.	1.5	32
36	Spatially Resolved Electronic Properties of Single-Layer WS₂ on Transition Metal Oxides. ACS Nano, 2016, 10, 10058-10067.	7.3	31

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37	Spatial Control of Photoluminescence at Room Temperature by Ferroelectric Domains in Monolayer WS₂/PZT Hybrid Structures. ACS Omega, 2016, 1, 1075-1080.	1.6	25
38	Prominent room temperature valley polarization in WS2/graphene heterostructures grown by chemical vapor deposition. Applied Physics Letters, 2020, 116, .	1.5	25
39	High room temperature optical polarization due to spin-valley coupling in monolayer WS2. AIP Advances, 2016, 6, .	0.6	21
40	Effect ofin situdeposition of Mg adatoms on spin relaxation in graphene. Physical Review B, 2013, 87, .	1.1	20
41	Stacking-dependent optical properties in bilayer WSe₂. Nanoscale, 2021, 14, 147-156.	2.8	16
42	Graphene and monolayer transition-metal dichalcogenides: properties and devices. Journal of Materials Research, 2016, 31, 845-877.	1.2	15
43	Imaging microscopic electronic contrasts at the interface of single-layer WS2 with oxide and boron nitride substrates. Applied Physics Letters, 2019, 114, 151601.	1.5	14
44	Spin relaxation and proximity effect in WS2/graphene/fluorographene non-local spin valves. Carbon, 2018, 131, 18-25.	5.4	13
45	Integrating MBE materials with graphene to induce novel spin-based phenomena. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 04D105.	0.6	12
46	Ultrafast Carrier Dynamics of Monolayer WS₂ via Broad-Band Time-Resolved Terahertz Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 30676-30683.	1.5	12
47	Induced smectic phases in phase diagrams of binary nematic liquid crystal mixtures. Journal of Chemical Physics, 2011, 134, 124508.	1.2	11
48	A graphene solution to conductivity mismatch: Spin injection from ferromagnetic metal/graphene tunnel contacts into silicon. Journal of Applied Physics, 2013, 113, .	1.1	10
49	Synthesis of High-Quality Monolayer MoS₂ by Direct Liquid Injection. ACS Applied Materials & Interfaces, 2020, 12, 9580-9588.	4.0	9
50	Visualizing band structure hybridization and superlattice effects in twisted MoS₂/WS₂ heterobilayers. 2D Materials, 2022, 9, 015032.	2.0	9
51	Nanoscale Optical Imaging of 2D Semiconductor Stacking Orders by Excitonâ€Enhanced Second Harmonic Generation. Advanced Optical Materials, 2022, 10, .	3.6	9
52	Spin transport in graphite and graphene spin valves. Proceedings of SPIE, 2009, , .	0.8	8
53	Magnetoreflection spectroscopy of monolayer transition-metal dichalcogenide semiconductors in pulsed magnetic fields. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, 04J102.	0.6	7
54	Correlating spin transport and electrode magnetization in a graphene spin valve: Simultaneous magnetic microscopy and non-local measurements. Applied Physics Letters, 2015, 107, 142406.	1.5	5

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55	Enhanced spin injection efficiency and extended spin lifetimes in graphene spin valves. Proceedings of SPIE, 2011, , .	0.8	2
56	Laser-Patterned Submicrometer Bi₂Se₃â€“WS₂ Pixels with Tunable Circular Polarization at Room Temperature. ACS Applied Materials & Interfaces, 2022, 14, 9504-9514.	4.0	2
57	A systematic approach to interpreting Hanle spin precession data in non-local spin valves. , 2013, , .		1
58	Probing Electronic Structures of Monolayer WSe2 Stacked with hBN Using Correlative Cathodoluminescence and Electron Energy-Loss Spectroscopy. Microscopy and Microanalysis, 2021, 27, 1174-1176.	0.2	1
59	Bias and gate control of graphene spin valves. , 2009, , .		0
60	Enhanced spin injection into single layer graphene with atomically smooth MgO barrier. , 2010, , .		0