

Scott A Crooker

List of Publications by Year in descending order

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79
papers

7,658
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71102

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times ranked

8252
citing authors

#	ARTICLE	IF	CITATIONS
1	Dative Epitaxy of Commensurate Monocrystalline Covalent van der Waals Moir� Super-crystal. <i>Advanced Materials</i> , 2022, 34, e2200117.	21.0	20
2	Magnetic field dependent thermodynamic properties of square and quadrupolar artificial spin ice. <i>Physical Review B</i> , 2022, 105, .	3.2	4
3	Nonreciprocal directional dichroism at telecom wavelengths. <i>Npj Quantum Materials</i> , 2022, 7, .	5.2	9
4	Many-Body Exciton and Intervalley Correlations in Heavily Electron-Doped WSe ₂ Monolayers. <i>Nano Letters</i> , 2022, 22, 426-432.	9.1	13
5	Optical Detection of Long Electron Spin Transport Lengths in a Monolayer Semiconductor. <i>Physical Review Letters</i> , 2022, 129, .	7.8	2
6	Covalent 2D Cr ₂ Te ₃ ferromagnet. <i>Materials Research Letters</i> , 2021, 9, 205-212.	8.7	25
7	Field-Induced Magnetic Monopole Plasma in Artificial Spin Ice. <i>Physical Review X</i> , 2021, 11, .	8.9	9
8	Observation of cyclotron resonance and measurement of the hole mass in optimally doped $\text{La}_{1-x}\text{Mg}_x\text{MnO}_3$. <i>Physical Review B</i> , 2021, 103, .	11.0	11
9	Valley relaxation of resident electrons and holes in a monolayer semiconductor: Dependence on carrier density and the role of substrate-induced disorder. <i>Physical Review Materials</i> , 2021, 5, .	2.4	28
10	Intrinsic and Extrinsic Exciton Recombination Pathways in AgInS ₂ Colloidal Nanocrystals. <i>Energy Material Advances</i> , 2021, 2021, .	11.0	15
11	Optical and Magneto-Optical Properties of Donor-Bound Excitons in Vacancy-Engineered Colloidal Nanocrystals. <i>Nano Letters</i> , 2021, 21, 6211-6219.	9.1	2
12	Enhanced Emission from Bright Excitons in Asymmetrically Strained Colloidal CdSe/Cd _x Zn _{1-x} Se Quantum Dots. <i>ACS Nano</i> , 2021, 15, 14444-14452.	14.6	9
13	Evidence for the Band-Edge Exciton of CuInS ₂ Nanocrystals Enables Record Efficient Large-Area Luminescent Solar Concentrators. <i>Advanced Functional Materials</i> , 2020, 30, 1906629.	14.9	65
14	Spontaneous Valley Polarization of Interacting Carriers in a Monolayer Semiconductor. <i>Physical Review Letters</i> , 2020, 125, 147602.	7.8	17
15	Exploiting Functional Impurities for Fast and Efficient Incorporation of Manganese into Quantum Dots. <i>Journal of the American Chemical Society</i> , 2020, 142, 18160-18173.	13.7	10
16	Nonreciprocal directional dichroism of a chiral magnet in the visible range. <i>Npj Quantum Materials</i> , 2020, 5, .	5.2	24
17	Spectroscopic and Magneto-Optical Signatures of Cu ¹⁺ and Cu ²⁺ Defects in Copper Indium Sulfide Quantum Dots. <i>ACS Nano</i> , 2020, 14, 2212-2223.	14.6	56
18	Negatively Charged Excitons in CdSe Nanoplatelets. <i>Nano Letters</i> , 2020, 20, 1370-1377.	9.1	58

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19	GaN/AlGaN 2DEGs in the quantum regime: Magneto-transport and photoluminescence to 60 tesla. Applied Physics Letters, 2020, 117, 262105.	3.3	1
20	Dual-Emitting Dot-in-Bulk CdSe/CdS Nanocrystals with Highly Emissive Core- and Shell-Based Trions Sharing the Same Resident Electron. Nano Letters, 2019, 19, 8846-8854.	9.1	6
21	Revealing exciton masses and dielectric properties of monolayer semiconductors with high magnetic fields. Nature Communications, 2019, 10, 4172.	12.8	179
22	Quantized Electronic Doping towards Atomically Controlled "Charge-Engineered" Semiconductor Nanocrystals. Nano Letters, 2019, 19, 1307-1317.	9.1	17
23	Comparing the anomalous Hall effect and the magneto-optical Kerr effect through antiferromagnetic phase transitions in Mn ₃ Sn. Applied Physics Letters, 2019, 114, .	3.3	29
24	Determination of the In-Plane Exciton Radius in 2D CdSe Nanoplatelets via Magneto-optical Spectroscopy. ACS Nano, 2019, 13, 8589-8596.	14.6	35
25	Room-Temperature Magnetic Order in Air-Stable Ultrathin Iron Oxide. Nano Letters, 2019, 19, 3777-3781.	9.1	40
26	Detection of thermodynamic "valley noise" in monolayer semiconductors: Access to intrinsic valley relaxation time scales. Science Advances, 2019, 5, eaau4899.	10.3	17
27	Magneto-optics of Exciton Rydberg States in a Monolayer Semiconductor. Physical Review Letters, 2018, 120, 057405.	7.8	195
28	Excitonic pathway to photoinduced magnetism in colloidal nanocrystals with nonmagnetic dopants. Nature Nanotechnology, 2018, 13, 145-151.	31.5	64
29	Broadband Spectroscopy of Thermodynamic Magnetization Fluctuations through a Ferromagnetic Spin-Reorientation Transition. Physical Review X, 2018, 8, .	8.9	10
30	Semiconductor Nanoplatelet Excimers. Nano Letters, 2018, 18, 6948-6953.	9.1	46
31	High magnetic fields for fundamental physics. Physics Reports, 2018, 765-766, 1-39.	25.6	87
32	Spatial extent of the excited exciton states in WS_2 monolayers from diamagnetic shifts. Physical Review B, 2018, 98, .	7.8	107
33	Scaling law for excitons in 2D perovskite quantum wells. Nature Communications, 2018, 9, 2254.	12.8	559
34	Direct Measurements of Magnetic Polarons in CdMnSe Nanocrystals from Resonant Photoluminescence. Nano Letters, 2017, 17, 3068-3075.	9.1	36
35	Gate-Controlled Spin-Valley Locking of Resident Carriers in WS_2 Monolayers. Physical Review Letters, 2017, 119, 137401.	7.8	107
36	Fiber Bragg Grating Dilatometry in Extreme Magnetic Field and Cryogenic Conditions. Sensors, 2017, 17, 2572.	3.8	24

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37	Magnetoreflexion spectroscopy of monolayer transition-metal dichalcogenide semiconductors in pulsed magnetic fields. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016, 34, 04J102.	1.2	7
38	Probing the Influence of Dielectric Environment on Excitons in Monolayer WSe ₂ : Insight from High Magnetic Fields. <i>Nano Letters</i> , 2016, 16, 7054-7060.	9.1	198
39	Higher-order spin-noise spectroscopy of atomic spins in fluctuating external fields. <i>Physical Review A</i> , 2016, 93, .	2.5	11
40	Exciton diamagnetic shifts and valley Zeeman effects in monolayer WS ₂ and MoS ₂ to 65% Tesla. <i>Nature Communications</i> , 2016, 7, 10643.	12.8	253
41	Revealing giant internal magnetic fields due to spin fluctuations in magnetically doped colloidal nanocrystals. <i>Nature Nanotechnology</i> , 2016, 11, 137-142.	31.5	53
42	Cross-correlation spin noise spectroscopy of heterogeneous interacting spin systems. <i>Scientific Reports</i> , 2015, 5, 9573.	3.3	27
43	Long-lived nanosecond spin relaxation and spin coherence of electrons in monolayer MoS ₂ and WS ₂ . <i>Nature Physics</i> , 2015, 11, 830-834.	16.7	253
44	Spin Coherence and Dephasing of Localized Electrons in Monolayer MoS ₂ . <i>Nano Letters</i> , 2015, 15, 8250-8254.	9.1	49
45	Magneto-Optical Properties of CuInS ₂ Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 4105-4109.	4.6	69
46	Spin Noise Spectroscopy Beyond Thermal Equilibrium and Linear Response. <i>Physical Review Letters</i> , 2014, 113, 156601.	7.8	32
47	Two-colour spin noise spectroscopy and fluctuation correlations reveal homogeneous linewidths within quantum-dot ensembles. <i>Nature Communications</i> , 2014, 5, 4949.	12.8	54
48	Electrical Spin Injection and Detection in Silicon Nanowires through Oxide Tunnel Barriers. <i>Nano Letters</i> , 2013, 13, 430-435.	9.1	26
49	Optical Spectroscopy of Spin Noise. <i>Physical Review Letters</i> , 2013, 110, 176601.	7.8	76
50	Magnetostriction and magnetic texture to 100.75 Tesla in frustrated SrCu ₂ (BO) ₃ . <i>Physical Review Letters</i> , 2012, 109, 12404-12407.	7.1	118
51	Long-lived photoinduced magnetization in copper-doped ZnSe/CdSe core-shell nanocrystals. <i>Nature Nanotechnology</i> , 2012, 7, 792-797.	31.5	110
52	Intrinsic Spin Fluctuations Reveal the Dynamical Response Function of Holes Coupled to Nuclear Spin Baths in (In,Ga)As Quantum Dots. <i>Physical Review Letters</i> , 2012, 108, 186603.	7.8	77
53	Cascade of Magnetic Field Induced Spin Transitions in LaCoO ₃ . <i>Physical Review Letters</i> , 2012, 109, 037201.	7.8	56
54	Copper-Doped Inverted Core/Shell Nanocrystals with Permanent-Optically Active Holes. <i>Nano Letters</i> , 2011, 11, 4753-4758.	9.1	176

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55	Nano-engineered electron-hole exchange interaction controls exciton dynamics in core-shell semiconductor nanocrystals. Nature Communications, 2011, 2, 280.	12.8	223
56	Spin Noise of Electrons and Holes in Self-Assembled Quantum Dots. Physical Review Letters, 2010, 104, 036601.	7.8	136
57	Bias-controlled sensitivity of ferromagnet/semiconductor electrical spin detectors. Physical Review B, 2009, 80, .	3.2	47
58	Spin noise of conduction electrons in n -type bulk GaAs. Physical Review B, 2009, 79, .	3.2	75
59	Tunable magnetic exchange interactions in manganese-doped inverted core-shell ZnSe-CdSe nanocrystals. Nature Materials, 2009, 8, 35-40.	27.5	217
60	Local Hanle-effect studies of spin drift and diffusion in n -GaAs epilayers and spin-transport devices. New Journal of Physics, 2007, 9, 347-347.	2.9	51
61	Optical and electrical spin injection and spin transport in hybrid Fe/GaAs devices. Journal of Applied Physics, 2007, 101, 081716.	2.5	20
62	Electrical detection of spin transport in lateral ferromagnet-semiconductor devices. Nature Physics, 2007, 3, 197-202.	16.7	732
63	Bright-exciton fine structure and anisotropic exchange in CdSe nanocrystal quantum dots. Physical Review B, 2006, 73, .	3.2	57
64	Electrical Detection of Spin Accumulation at a Ferromagnet-Semiconductor Interface. Physical Review Letters, 2006, 96, 176603.	7.8	173
65	Effects of strain, electric, and magnetic fields on lateral electron-spin transport in semiconductor epilayers. Physical Review B, 2006, 73, .	3.2	32
66	Bias-dependent electron spin lifetimes in n -GaAs and the role of donor impact ionization. Applied Physics Letters, 2006, 89, 102102.	3.3	33
67	Spin noise spectroscopy to probe quantum states of ultracold fermionic atom gases. Physical Review A, 2006, 74, .	2.5	12
68	Quantitative study of spin noise spectroscopy in a classical gas of ^{41}K atoms. Physical Review A, 2006, 74, .	2.5	28
69	Optical and Electrical Detection of Spin-Polarized Transport. , 2006, , .		0
70	Measuring random spin fluctuations for perturbation-free probes of spin dynamics and magnetic resonance (Invited Paper). , 2005, , .		0
71	Imaging Spin Flows in Semiconductors Subject to Electric, Magnetic, and Strain Fields. Physical Review Letters, 2005, 94, 236601.	7.8	161
72	Time- and Polarization-Resolved Optical Spectroscopy of Colloidal CdSe Nanocrystal Quantum Dots in High Magnetic Fields. Journal of Physical Chemistry B, 2005, 109, 15332-15338.	2.6	64

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73	Imaging Spin Transport in Lateral Ferromagnet/Semiconductor Structures. <i>Science</i> , 2005, 309, 2191-2195.	12.6	298
74	Spectroscopy of spontaneous spin noise as a probe of spin dynamics and magnetic resonance. <i>Nature</i> , 2004, 431, 49-52.	27.8	195
75	Multiple temperature regimes of radiative decay in CdSe nanocrystal quantum dots: Intrinsic limits to the dark-exciton lifetime. <i>Applied Physics Letters</i> , 2003, 82, 2793-2795.	3.3	371
76	Picosecond Energy Transfer in Quantum Dot Langmuir-Blodgett Nanoassemblies. <i>Journal of Physical Chemistry B</i> , 2003, 107, 13782-13787.	2.6	217
77	Spectrally Resolved Dynamics of Energy Transfer in Quantum-Dot Assemblies: Towards Engineered Energy Flows in Artificial Materials. <i>Physical Review Letters</i> , 2002, 89, 186802.	7.8	617
78	Spin spectroscopy of dark excitons in CdSe quantum dots to 60 T. <i>Physical Review B</i> , 2001, 63, .	3.2	78
79	Optical spin resonance and transverse spin relaxation in magnetic semiconductor quantum wells. <i>Physical Review B</i> , 1997, 56, 7574-7588.	3.2	307