Sam G Carter

List of Publications by Year
in descending order

60 papers	1,495 citations	331670 21 h-index	302126 39 g-index
63 all docs	63 docs citations	63 times ranked	1618 citing authors

#	Article	IF	Citations
1	Orders of Magnitude Improvement in Coherence of Silicon-Vacancy Ensembles in Isotopically Purified <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mn>4</mml:mn><mml:mrow><mml:mrow><mml:mi mathvariant="normal">H</mml:mi></mml:mrow></mml:mrow></mml:math> - <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>SiC</mml:mi></mml:math>. PRX Quantum, 2022, 3, .	9.2	3
2	Enhanced Spin Coherence of a Self-Assembled Quantum Dot Molecule at the Optimal Electrical Bias. Physical Review Letters, 2022, 129, .	7.8	5
3	Arrays of Si vacancies in 4H-SiC produced by focused Li ion beam implantation. Scientific Reports, 2021, 11, 3561.	3.3	16
4	Coherent Population Trapping Combined with Cycling Transitions for Quantum Dot Hole Spins Using Triplet Trion States. Physical Review Letters, 2021, 126, 107401.	7.8	9
5	Enabling remote quantum emission in 2D semiconductors via porous metallic networks. Nature Communications, 2020, 11, 5.	12.8	20
6	Spin coherence as a function of depth for high-density ensembles of silicon vacancies in proton-irradiated 4Hâ€“SiC. Solid State Communications, 2020, 320, 114014.	1.9	3
7	Spectral broadening of optical transitions at tunneling resonances in InAs/GaAs coupled quantum dot pairs. Physical Review B, 2020, 102, .	3.2	1
8	Photoexcited elastic waves in free-standing GaAs films. Physical Review B, 2020, 101, .	3.2	3
9	Quantum optics of superradiant QDs in a photonic crystal waveguide. , 2020, , .		0
10	Coherent Optical Control of Quantum Dot Hole Spins using Triplet Trion States. , 2020, , .		0
11	Tunable Coupling of a Double Quantum Dot Spin System to a Mechanical Resonator. Nano Letters, 2019, 19, 6166-6172.	9.1	9
12	Scalable in operando strain tuning in nanophotonic waveguides enabling three-quantum-dot superradiance. Nature Materials, 2019, 18, 963-969.	27.5	80
13	Spin-dependent quantum optics in a quantum dot molecule. Physical Review B, 2019, 100, .	3.2	3
14	A Spinâ€“Photon Interface Using Charge-Tunable Quantum Dots Strongly Coupled to a Cavity. Nano Letters, 2019, 19, 7072-7077.	9.1	22
15	On the doping concentration dependence and dopant selectivity of photogenerated carrier assisted etching of 4Hâ€“SiC epilayers. Electrochimica Acta, 2019, 323, 134778.	5.2	3
16	Strong coupling of a quantum dot molecule to a photonic crystal cavity. Physical Review B, 2019, 99, .	3.2	9
17	Resonant Optical Spin Initialization and Readout of Single Silicon Vacancies in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mn>4</mml:mn><mml:mi>H</mml:mi></mml:math> - <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Si</mml:mi><mml:mi mathvariant="normal">C</mml:mi></mml:math>. Physical Review Applied, 2019, 11, .	3.8	47
18	Quantum Optics of a Driven Quantum Dot Molecule. , 2019, , .		0

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19	Picosecond pulse shaping of single photons using quantum dots. Nature Communications, 2018, 9, 115.	12.8	38
20	Spin-Mechanical Coupling of an InAs Quantum Dot Embedded in a Mechanical Resonator. Physical Review Letters, 2018, 121, 246801.	7.8	19
21	Processing of Cavities in SiC Material for Quantum Technologies. Materials Science Forum, 2018, 924, 905-908.	0.3	3
22	Electron spin coherence of silicon vacancies in proton-irradiated 4 <i>H</i> -SiC. Physical Review B, 2017, 95, .	3.2	15
23	Sensing flexural motion of a photonic crystal membrane with InGaAs quantum dots. Applied Physics Letters, 2017, 111, 183101.	3.3	9
24	Deterministic spectral tuning of InAs quantum dots in photonic crystal membrane diodes with laser annealing. , 2017, , .		0
25	Controlling the temporal behavior of photon emission from a quantum dot molecule. , 2017, , .		0
26	Optical spectroscopy of site-controlled quantum dots in a Schottky diode. Applied Physics Letters, 2016, 108, .	3.3	5
27	Spin coherence and echo modulation of the silicon vacancy in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>4</mml:mn><mml:mi>H</mml:mi><mml:mo>â€"</mm room temperature. Physical Review B, 2015, 92, .	3.2	75
28	Spinâ€"cavity interactions between a quantum dot molecule and a photonic crystal cavity. Nature Communications, 2015, 6, 7665.	12.8	51
29	Coupling Spins in Quantum Dots to Photonic Crystal Cavities. , 2014, , .		0
30	Strong hyperfine-induced modulation of an optically driven hole spin in an InAs quantum dot. Physical Review B, 2014, 89, .	3.2	27
31	Cavity-stimulated Raman emission from a single quantum dot spin. Nature Photonics, 2014, 8, 442-447.	31.4	65
32	Leveraging Crystal Anisotropy for Deterministic Growth of InAs Quantum Dots with Narrow Optical Linewidths. Nano Letters, 2013, 13, 4870-4875.	9.1	25
33	Quantum control of a spin qubit coupled to a photonic crystal cavity. Nature Photonics, 2013, 7, 329-334.	31.4	115
34	A Spin Qubit Coupled to a Photonic Crystal Cavity. , 2013, , .		0
35	Optical control of one and two hole spins in interacting quantum dots. Nature Photonics, 2011, 5, 702-708.	31.4	144
36	Ultrafast Optical Entanglement Control between two Quantum Dot Spins. , 2011, , .		1

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37	Ultrafast optical control of entanglement between two quantum-dot spins. Nature Physics, 2011, 7, 223-229.	16.7	200
38	Controlling the nuclear polarization in quantum dots using optical pulse shape with a modest bandwidth. Physical Review B, 2011, 83, .	3.2	11
39	Ultrafast optical control of electron spins in quantum wells and quantum dots. Proceedings of SPIE, 2010, , .	0.8	1
40	Optical excitation and control of electron spins in semiconductor quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 1803-1819.	2.7	23
41	Electron spin polarization and detection in InAs quantum dots through<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-shell trions. Physical Review B, 2010, 81, .	3.2	10
42	Directing Nuclear Spin Flips in InAs Quantum Dots Using Detuned Optical Pulse Trains. Physical Review Letters, 2009, 102, 167403.	7.8	50
43	Spin dynamics of InAs quantum dots with uniform height. Proceedings of SPIE, 2008, , .	0.8	2
44	Electron spin polarization through interactions between excitons, trions, and the two-dimensional electron gas. Physical Review B, 2007, 75, .	3.2	24
45	Ultrafast below-resonance Raman rotation of electron spins in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>GaAs</mml:mi></mml:mrow></mml:math>quantum wells. Physical Review B, 2007, 76, .	3.2	21
46	Echo peak-shift spectroscopy of non-Markovian exciton dynamics in quantum wells. Physical Review B, 2007, 76, .	3.2	22
47	Effects of disorder on electron spin dynamics in a semiconductor quantum well. Nature Physics, 2007, 3, 265-269.	16.7	35
48	Optical Measurement and Control of Spin Diffusion inn-Doped GaAs Quantum Wells. Physical Review Letters, 2006, 97, 136602.	7.8	37
49	Transient spin-gratings of itinerant electrons in lightly-doped GaAs quantum wells. , 2006, , .		0
50	Spin Dynamics in n-doped CdTe quantum wells: Interplay of excitons, trions and two-dimensional electron gas. , 2006, , .		0
51	Terahertz-optical mixing in undoped and doped GaAs quantum wells: From excitonic to electronic intersubband transitions. Physical Review B, 2005, 72, .	3.2	12
52	Quantum Coherence in an Optical Modulator. Science, 2005, 310, 651-653.	12.6	118
53	Terahertz electro-optic wavelength conversion in GaAs quantum wells: Improved efficiency and room-temperature operation. Applied Physics Letters, 2004, 84, 840-842.	3.3	37
54	Terahertz optical mixing in biasedGaAssingle quantum wells. Physical Review B, 2004, 70, .	3.2	16

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55	Onset of dynamical localization in a semiconductor superlattice. , 2004, , .		0
56	Terahertz-optical mixing in n-doped GaAs quantum wells: suppression of excitonic resonances. , 2004, , .		0
57	Strong-field terahertz optical mixing in excitons. Physical Review B, 2003, 67, .	3.2	18
58	Voltage-controlled wavelength conversion by terahertz electro-optic modulation in double quantum wells. Applied Physics Letters, 2002, 81, 1564-1566.	3.3	33
59	Terahertz electro-optic modulation in biased GaAs quantum wells. , 0, , .		0
60	Excitonic Autler-Townes splitting induced by an intense terahertz field. , 0, , .		0