

# Lloyd C L Hollenberg

## List of Publications by Year in descending order

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288  
papers

16,799  
citations

27035

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18944

123  
g-index

292  
all docs

292  
docs citations

292  
times ranked

11489  
citing authors

#	ARTICLE	IF	CITATIONS
1	Clustering and enhanced classification using a hybrid quantum autoencoder. Quantum Science and Technology, 2022, 7, 015020.	2.6	5
2	Valley population of donor states in highly strained silicon. Materials for Quantum Technology, 2022, 2, 025002.	1.2	2
3	Chemistry beyond the Hartree-Fock energy via quantum computed moments. Scientific Reports, 2022, 12, .	1.6	10
4	Long-Range Surface-Assisted Molecule-Molecule Hybridization. Small, 2021, 17, e2005974.	5.2	3
5	Polarization Transfer to External Nuclear Spins Using Ensembles of Nitrogen-Vacancy Centers. Physical Review Applied, 2021, 15, .	1.5	19
6	Anisotropic electron-nuclear interactions in a rotating quantum spin bath. Physical Review B, 2021, 104, .	1.1	3
7	Whole-Device Entanglement in a 65-Qubit Superconducting Quantum Computer. Advanced Quantum Technologies, 2021, 4, 2100061.	1.8	30
8	Generation and verification of 27-qubit Greenberger-Horne-Zeilinger states in a superconducting quantum computer. Journal of Physics Communications, 2021, 5, 095004.	0.5	36
9	Performance Optimization for Drift-Robust Fidelity Improvement of Two-Qubit Gates. Physical Review Applied, 2021, 15, .	1.5	9
10	Prospects for nuclear spin hyperpolarization of molecular samples using nitrogen-vacancy centers in diamond. Physical Review B, 2021, 103, .	1.1	19
11	Advances in the Surface Functionalization of Nanodiamonds for Biological Applications: A Review. ACS Applied Nano Materials, 2021, 4, 9985-10005.	2.4	28
12	Quantum Support Vector Machines for Continuum Suppression in B Meson Decays. Computing and Software for Big Science, 2021, 5, 1.	1.3	19
13	Quantum magnetic imaging of iron organelles within the pigeon cochlea. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	14
14	An integrated widefield probe for practical diamond nitrogen-vacancy microscopy. Applied Physics Letters, 2021, 119, .	1.5	5
15	Interplay between geometric and dynamic phases in a single-spin system. Physical Review B, 2020, 102, .	1.1	5
16	Investigation of charge carrier trapping in H-terminated diamond devices. Applied Physics Letters, 2020, 117, 143507.	1.5	4
17	Valley interference and spin exchange at the atomic scale in silicon. Nature Communications, 2020, 11, 6124.	5.8	21
18	Framework for atomic-level characterisation of quantum computer arrays by machine learning. Npj Computational Materials, 2020, 6, .	3.5	15

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19	Improved Current Density and Magnetization Reconstruction Through Vector Magnetic Field Measurements. <i>Physical Review Applied</i> , 2020, 14, .	1.5	32
20	Imaging Domain Reversal in an Ultrathin Van der Waals Ferromagnet. <i>Advanced Materials</i> , 2020, 32, e2003314.	11.1	47
21	Demonstration of non-Markovian process characterisation and control on a quantum processor. <i>Nature Communications</i> , 2020, 11, 6301.	5.8	53
22	Epitaxial Formation of SiC on (100) Diamond. <i>ACS Applied Electronic Materials</i> , 2020, 2, 2003-2009.	2.0	5
23	Quantum Magnetic Imaging of Iron Biomineralization in Teeth of the Chiton <i>Acanthopleura hirtosa</i> . <i>Small Methods</i> , 2020, 4, 1900754.	4.6	27
24	Laser Modulation of Superconductivity in a Cryogenic Wide-field Nitrogen-Vacancy Microscope. <i>Nano Letters</i> , 2020, 20, 1855-1861.	4.5	28
25	Enhanced Widefield Quantum Sensing with Nitrogen-Vacancy Ensembles Using Diamond Nanopillar Arrays. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 13421-13427.	4.0	33
26	Observation of a Quantum Phase from Classical Rotation of a Single Spin. <i>Physical Review Letters</i> , 2020, 124, 020401.	2.9	15
27	Comparison of different methods of nitrogen-vacancy layer formation in diamond for wide-field quantum microscopy. <i>Physical Review Materials</i> , 2020, 4, .	0.9	14
28	Investigating Immersive Virtual Reality as an Educational Tool for Quantum Computing. , 2020, , .		8
29	Imaging Graphene Field-Effect Transistors on Diamond Using Nitrogen-Vacancy Microscopy. <i>Physical Review Applied</i> , 2019, 12, .	1.5	18
30	Entanglement in a 20-Qubit Superconducting Quantum Computer. <i>Scientific Reports</i> , 2019, 9, 13465.	1.6	77
31	Nonvanishing effect of detuning errors in dynamical-decoupling-based quantum sensing experiments. <i>Physical Review A</i> , 2019, 99, .	1.0	13
32	Apparent delocalization of the current density in metallic wires observed with diamond nitrogen-vacancy magnetometry. <i>Physical Review B</i> , 2019, 99, .	1.1	14
33	Microscopic Imaging of the Stress Tensor in Diamond Using in Situ Quantum Sensors. <i>Nano Letters</i> , 2019, 19, 4543-4550.	4.5	51
34	Magnetic Materials: Rapid, High-Resolution Magnetic Microscopy of Single Magnetic Microbeads (Small) Tj ETQq0,0 0 rgBT/Overlock		
35	Rapid, High-Resolution Magnetic Microscopy of Single Magnetic Microbeads. <i>Small</i> , 2019, 15, 1805159.	5.2	16
36	Quantum Bath Control with Nuclear Spin State Selectivity via Pulse-Adjusted Dynamical Decoupling. <i>Physical Review Letters</i> , 2019, 123, 210401.	2.9	8

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37	Evidence for Primal $sp^2$ Defects at the Diamond Surface: Candidates for Electron Trapping and Noise Sources. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801449.	1.9	75
38	Imaging with NV ensembles: beyond magnetometry. , 2019, , .		0
39	Two-electron spin correlations in precision placed donors in silicon. <i>Nature Communications</i> , 2018, 9, 980.	5.8	57
40	High precision single qubit tuning via thermo-magnetic field control. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	8
41	Spin properties of dense near-surface ensembles of nitrogen-vacancy centers in diamond. <i>Physical Review B</i> , 2018, 97, .	1.1	76
42	Magnetically sensitive nanodiamond-doped tellurite glass fibers. <i>Scientific Reports</i> , 2018, 8, 1268.	1.6	44
43	Two-electron states of a group-V donor in silicon from atomistic full configuration interactions. <i>Physical Review B</i> , 2018, 97, .	1.1	18
44	Quantum measurement of a rapidly rotating spin qubit in diamond. <i>Science Advances</i> , 2018, 4, eaar7691.	4.7	31
45	Impact of Surface Functionalization on the Quantum Coherence of Nitrogen-Vacancy Centers in Nanodiamonds. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 13143-13149.	4.0	36
46	The Yidaki: A Triumph of Mind over Matter in Tribute to Joe Gumbula. <i>Preservation, Digital Technology and Culture</i> , 2018, 47, 163-165.	0.2	0
47	$\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle T \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle$ -limited sensing of static magnetic fields via fast rotation of quantum spins. <i>Physical Review B</i> , 2018, 98, .	1.1	14
48	Spin-orbit coupling in silicon for electrons bound to donors. <i>Npj Quantum Information</i> , 2018, 4, .	2.8	17
49	Spatial mapping of band bending in semiconductor devices using in situ quantum sensors. <i>Nature Electronics</i> , 2018, 1, 502-507.	13.1	77
50	Measurements and atomistic theory of electron g-factor anisotropy for phosphorus donors in strained silicon. <i>Physical Review B</i> , 2018, 98, .	1.1	3
51	Proximity-Induced Artefacts in Magnetic Imaging with Nitrogen-Vacancy Ensembles in Diamond. <i>Sensors</i> , 2018, 18, 1290.	2.1	18
52	Quantum probe hyperpolarisation of molecular nuclear spins. <i>Nature Communications</i> , 2018, 9, 1246.	5.8	53
53	Magnetic noise from ultrathin abrasively deposited materials on diamond. <i>Physical Review Materials</i> , 2018, 2, .	0.9	10
54	Superadiabatic quantum state transfer in spin chains. <i>Physical Review A</i> , 2017, 95, .	1.0	31

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55	Quantum imaging of current flow in graphene. <i>Science Advances</i> , 2017, 3, e1602429.	4.7	185
56	Simulations of Shor's algorithm using matrix product states. <i>Quantum Information Processing</i> , 2017, 16, 1.	1.0	15
57	Atomically engineered electron spin lifetimes of 30 s in silicon. <i>Science Advances</i> , 2017, 3, e1602811.	4.7	57
58	Fan-out Estimation in Spin-based Quantum Computer Scale-up. <i>Scientific Reports</i> , 2017, 7, 13386.	1.6	3
59	Electron paramagnetic resonance microscopy using spins in diamond under ambient conditions. <i>Nature Communications</i> , 2017, 8, 458.	5.8	65
60	Magnetic pseudo-fields in a rotating electron-nuclear spin system. <i>Nature Physics</i> , 2017, 13, 1070-1073.	6.5	24
61	Ab initio calculation of energy levels for phosphorus donors in silicon. <i>Scientific Reports</i> , 2017, 7, 6010.	1.6	18
62	Non-Neurotoxic Nanodiamond Probes for Intraneuronal Temperature Mapping. <i>ACS Nano</i> , 2017, 11, 12077-12086.	7.3	113
63	Environmentally Mediated Coherent Control of a Spin Qubit in Diamond. <i>Physical Review Letters</i> , 2017, 118, 167204.	2.9	8
64	Microwave-free nuclear magnetic resonance at molecular scales. <i>Nature Communications</i> , 2017, 8, 15950.	5.8	26
65	Electron spin relaxation of single phosphorus donors and donor clusters in atomically engineered silicon devices. , 2017, , .		0
66	Towards visualisation of central-cell-effects in scanning tunnelling microscope images of subsurface dopant qubits in silicon. <i>Nanoscale</i> , 2017, 9, 17013-17019.	2.8	5
67	Quantum simulation of the Hubbard model with dopant atoms in silicon. <i>Nature Communications</i> , 2016, 7, 11342.	5.8	81
68	Wide-band nanoscale magnetic resonance spectroscopy using quantum relaxation of a single spin in diamond. <i>Physical Review B</i> , 2016, 94, .	1.1	44
69	Magneto-optical imaging of thin magnetic films using spins in diamond. <i>Scientific Reports</i> , 2016, 6, 22797.	1.6	75
70	A quantum spin-probe molecular microscope. <i>Nature Communications</i> , 2016, 7, 12667.	5.8	26
71	Highly tunable exchange in donor qubits in silicon. <i>Npj Quantum Information</i> , 2016, 2, .	2.8	45
72	Spatial metrology of dopants in silicon with exact lattice site precision. <i>Nature Nanotechnology</i> , 2016, 11, 763-768.	15.6	45

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73	Scanning Nanospin Ensemble Microscope for Nanoscale Magnetic and Thermal Imaging. Nano Letters, 2016, 16, 326-333.	4.5	79
74	Detection of nanoscale electron spin resonance spectra demonstrated using nitrogen-vacancy centre probes in diamond. Nature Communications, 2016, 7, 10211.	5.8	89
75	Strain and electric field control of hyperfine interactions for donor spin qubits in silicon. Physical Review B, 2015, 91, .	1.1	17
76	Surface code continuous quantum error correction using feedback. , 2015, , .		2
77	A surface code quantum computer in silicon. Science Advances, 2015, 1, e1500707.	4.7	193
78	A Tight-Binding Study of Single-Atom Transistors. Small, 2015, 11, 374-381.	5.2	14
79	Spin-Lattice Relaxation Times of Single Donors and Donor Clusters in Silicon. Physical Review Letters, 2014, 113, 246406.	2.9	27
80	Silicon at the fundamental scaling limit-atomic-scale donor-based quantum electronics. , 2014, , .		0
81	Statistical modeling of ultra-scaled donor-based silicon phosphorus devices. , 2014, , .		0
82	In vivo imaging and tracking of individual nanodiamonds in drosophila melanogaster embryos. Biomedical Optics Express, 2014, 5, 1250.	1.5	43
83	Temperature shifts of the resonances of the $NV$ center in diamond. Physical Review B, 2014, 90, .	1.1	127
84	Non-Abelian geometric phase in the diamond nitrogen-vacancy center. Physical Review A, 2014, 90, .	1.0	15
85	Towards single-molecule NMR detection and spectroscopy using single spins in diamond. Physical Review B, 2014, 89, .	1.1	26
86	Analytic solutions to the central-spin problem for nitrogen-vacancy centers in diamond. Physical Review B, 2014, 90, .	1.1	42
87	Dark spins in the spotlight. Nature Nanotechnology, 2014, 9, 253-255.	15.6	0
88	Spatially resolving valley quantum interference of a donor in silicon. Nature Materials, 2014, 13, 605-610.	13.3	90
89	Electronic Properties and Metrology Applications of the Diamond $NV$ center under Pressure. Physical Review Letters. 2014. 112. 047601.	2.9	302
90	Ab initio electronic properties of dual phosphorus monolayers in silicon. Nanoscale Research Letters, 2014, 9, 443.	3.1	5

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91	Spin blockade and exchange in Coulomb-confined silicon double quantum dots. Nature Nanotechnology, 2014, 9, 430-435.	15.6	117
92	Designing a large scale quantum computer with atomistic simulations. , 2014, , .		2
93	Silicon quantum electronics. Reviews of Modern Physics, 2013, 85, 961-1019.	16.4	892
94	Ab initio calculation of valley splitting in monolayer $\hat{\Gamma}$ -doped phosphorus in silicon. Nanoscale Research Letters, 2013, 8, 111.	3.1	28
95	Ambient nanoscale sensing with single spins using quantum decoherence. New Journal of Physics, 2013, 15, 073042.	1.2	61
96	A tight-binding study of channel modulation in atomic-scale Si:P nanowires. , 2013, , .		0
97	Atomistic modeling of metallic nanowires in silicon. Nanoscale, 2013, 5, 8666.	2.8	28
98	Nanoscale magnetometry through quantum control of nitrogen-vacancy centres in rotationally diffusing nanodiamonds. New Journal of Physics, 2013, 15, 013041.	1.2	26
99	Noninvasive Spatial Metrology of Single-Atom Devices. Nano Letters, 2013, 13, 1903-1909.	4.5	29
100	Ab Initio Electronic Properties of Monolayer Phosphorus Nanowires in Silicon. Physical Review Letters, 2013, 110, 126802.	2.9	16
101	Nanoscale sensing and imaging in biology using the nitrogen-vacancy center in diamond. MRS Bulletin, 2013, 38, 162-167.	1.7	22
102	The nitrogen-vacancy colour centre in diamond. Physics Reports, 2013, 528, 1-45.	10.3	1,947
103	Electronic spectrum of a deterministic single-donor device in silicon. , 2013, , .		0
104	Detection of atomic spin labels in a lipid bilayer using a single-spin nanodiamond probe. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10894-10898.	3.3	113
105	Theory and Simulations of Controlled Electronic States Bound to a Single Dopant in Silicon. , 2013, , .		0
106	Tuning a Spin Bath through the Quantum-Classical Transition. Physical Review Letters, 2012, 108, 200402.	2.9	52
107	Towards Practical Classical Processing for the Surface Code. Physical Review Letters, 2012, 108, 180501.	2.9	127
108	Measurable Quantum Geometric Phase from a Rotating Single Spin. Physical Review Letters, 2012, 108, 240403.	2.9	64

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109	Ab initio thermodynamics calculation of the relative concentration of NV <sup>0</sup> and NV <sup>-</sup> defects in diamond. Physical Review B, 2012, 85, .	1.1	16
110	Through the quantum chicane. Nature Physics, 2012, 8, 113-114.	6.5	11
111	Full-band study of ultra-thin Si:P nanowires. , 2012, , .		0
112	Towards practical classical processing for the surface code: Timing analysis. Physical Review A, 2012, 86, .	1.0	32
113	Effective mass theory of monolayer $\tilde{\Gamma}$ -doping in the high-density limit. Physical Review B, 2012, 85, .	1.1	24
114	Electronic properties of multiple adjacent $\tilde{\Gamma}$ -doped Si:P layers: The approach to monolayer confinement. Physical Review B, 2012, 86, .	1.1	10
115	Spectroscopy of a deterministic single-donor device in silicon. Proceedings of SPIE, 2012, , .	0.8	3
116	Ohm's Law Survives to the Atomic Scale. Science, 2012, 335, 64-67.	6.0	291
117	A single-atom transistor. Nature Nanotechnology, 2012, 7, 242-246.	15.6	730
118	High spatial and temporal resolution wide-field imaging of neuron activity using quantum NV-diamond. Scientific Reports, 2012, 2, 401.	1.6	141
119	Theory of the ground-state spin of the NV <sup>0</sup> center in diamond. Physical Review B, 2012, 85, .	1.1	249
120	Dynamical decoupling of a single-electron spin at room temperature. Physical Review B, 2011, 83, .	1.1	210
121	Lifetime-Enhanced Transport in Silicon due to Spin and Valley Blockade. Physical Review Letters, 2011, 107, 136602.	2.9	22
122	Quantum measurement in living cells: Fluorescent diamond nanocrystals for biology. , 2011, , .		0
123	Engineering electromagnetic metamaterials from coupled cavity arrays. , 2011, , .		0
124	Coupling slot-waveguide cavities for large-scale quantum optical devices. Optics Express, 2011, 19, 6354.	1.7	1
125	Reconfigurable quantum metamaterials. Optics Express, 2011, 19, 11018.	1.7	45
126	Quantum measurement and orientation tracking of fluorescent nanodiamonds inside living cells. Nature Nanotechnology, 2011, 6, 358-363.	15.6	552



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127	Electric-field sensing using single diamond spins. Nature Physics, 2011, 7, 459-463.	6.5	942
128	Stark tuning of the charge states of a two-donor molecule in silicon. Nanotechnology, 2011, 22, 225202.	1.3	12
129	Electronic structure of realistically extended atomistically resolved disordered Si:P-doped layers. Physical Review B, 2011, 84, .	1.1	44
130	Surface code quantum computing with error rates over 1%. Physical Review A, 2011, 83, .	1.0	240
131	Engineered valley-orbit splittings in quantum-confined nanostructures in silicon. Physical Review B, 2011, 83, .	1.1	32
132	Publisher's Note: Engineered valley-orbit splittings in quantum-confined nanostructures in silicon [Phys. Rev. B 83 (2011)]. Physical Review B, 2011, 83, .	1.1	1
133	Electric field reduced charging energies and two-electron bound excited states of single donors in silicon. Physical Review B, 2011, 84, .	1.1	26
134	The negatively charged nitrogen-vacancy centre in diamond: the electronic solution. New Journal of Physics, 2011, 13, 025019.	1.2	187
135	Parallel interaction-free measurement using spatial adiabatic passage. New Journal of Physics, 2011, 13, 125002.	1.2	5
136	Surface code quantum error correction incorporating accurate error propagation. Quantum Information and Computation, 2011, 11, 8-18.	0.1	14
137	Single-shot readout of an electron spin in silicon. Nature, 2010, 467, 687-691.	13.7	623
138	+Level Spectrum Of Single Gated As Donors. , 2010, , .		0
139	Accessing diamond waveguides and future applications. , 2010, , .		3
140	Monitoring ion-channel function in real time through quantum decoherence. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18777-18782.	3.3	112
141	Probe and control of the reservoir density of states in single-electron devices. Physical Review B, 2010, 81, .	1.1	21
142	Ultrasensitive diamond magnetometry using optimal dynamic decoupling. Physical Review B, 2010, 82, .	1.1	58
143	Thermodynamic stability of neutral Xe defects in diamond. Physical Review B, 2010, 82, .	1.1	12
144	Surface Code Quantum Communication. Physical Review Letters, 2010, 104, 180503.	2.9	115

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145	Top-down pathways to devices with few and single atoms placed to high precision. <i>New Journal of Physics</i> , 2010, 12, 065016.	1.2	23
146	Coherent electron transport by adiabatic passage in an imperfect donor chain. <i>Physical Review B</i> , 2010, 82, .	1.1	20
147	Experimental implementation of a four-player quantum game. <i>New Journal of Physics</i> , 2010, 12, 063031.	1.2	32
148	Quantum transport in ultra-scaled phosphorous-doped silicon nanowires. , 2010, , .		0
149	Modeling two-spin dynamics in a noisy environment. <i>Physical Review A</i> , 2009, 80, .	1.0	6
150	Hossain<i>et al.</i>Reply:. <i>Physical Review Letters</i> , 2009, 102, .	2.9	0
151	Gate-induced<math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mi>g</mi></math>-factor control and dimensional transition for donors in multivalley semiconductors. <i>Physical Review B</i> , 2009, 80, .	1.1	44
152	Single atom-scale diamond defect allows a large Aharonov-Casher phase. <i>Physical Review A</i> , 2009, 80, .	1.0	5
153	Orbital Stark effect and quantum confinement transition of donors in silicon. <i>Physical Review B</i> , 2009, 80, .	1.1	56
154	Mapping Donor Electron Wave Function Deformations at a Sub-Bohr Orbit Resolution. <i>Physical Review Letters</i> , 2009, 103, 106802.	2.9	11
155	Atomistic simulations of adiabatic coherent electron transport in triple donor systems. <i>Physical Review B</i> , 2009, 80, .	1.1	27
156	Architecture for high-sensitivity single-shot readout and control of the electron spin of individual donors in silicon. <i>Physical Review B</i> , 2009, 80, .	1.1	80
157	A highly efficient two level diamond based single photon source. <i>Applied Physics Letters</i> , 2009, 94, 203107.	1.5	52
158	Pulse shaping by coupled cavities: Single photons and qudits. <i>Physical Review A</i> , 2009, 80, .	1.0	12
159	Architectural design for a topological cluster state quantum computer. <i>New Journal of Physics</i> , 2009, 11, 083032.	1.2	84
160	Coherent tunneling adiabatic passage with the alternating coupling scheme. <i>Nanotechnology</i> , 2009, 20, 405402.	1.3	25
161	Single photon quantum non-demolition measurements in the presence of inhomogeneous broadening. <i>New Journal of Physics</i> , 2009, 11, 093005.	1.2	14
162	Equivalence between Bell inequalities and quantum minority games. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2009, 373, 521-524.	0.9	19

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163	Scanning quantum decoherence microscopy. <i>Nanotechnology</i> , 2009, 20, 495401.	1.3	99
164	Loss of spin entanglement for accelerated electrons in electric and magnetic fields. <i>Physical Review A</i> , 2009, 79, .	1.0	52
165	Sensing of Fluctuating Nanoscale Magnetic Fields Using Nitrogen-Vacancy Centers in Diamond. <i>Physical Review Letters</i> , 2009, 103, 220802.	2.9	127
166	Slot-waveguide cavities for optical quantum information applications. <i>Optics Express</i> , 2009, 17, 7295.	1.7	34
167	Nano-manipulation of diamond-based single photon sources. <i>Optics Express</i> , 2009, 17, 11287.	1.7	75
168	Time evolution of the one-dimensional Jaynes-Cummings-Hubbard Hamiltonian. <i>Physical Review A</i> , 2009, 80, .	1.0	36
169	High-performance diamond-based single-photon sources for quantum communication. <i>Physical Review A</i> , 2009, 80, .	1.0	34
170	Band structure, phase transitions, and semiconductor analogs in one-dimensional solid light systems. <i>Physical Review A</i> , 2009, 80, .	1.0	28
171	Measuring the Charge and Spin States of Electrons on Individual Dopant Atoms in Silicon. <i>Topics in Applied Physics</i> , 2009, , 169-182.	0.4	1
172	Gate-induced quantum-confinement transition of a single dopant atom in a silicon FinFET. <i>Nature Physics</i> , 2008, 4, 656-661.	6.5	287
173	Asymmetric quantum error correction via code conversion. <i>Physical Review A</i> , 2008, 77, .	1.0	36
174	Spatial adiabatic passage in a realistic triple well structure. <i>Physical Review B</i> , 2008, 77, .	1.1	51
175	Towards a picosecond transform-limited nitrogen-vacancy based single photon source. <i>Optics Express</i> , 2008, 16, 6240.	1.7	76
176	Coherent Tunneling Adiabatic Passage with the alternating coupling scheme. , 2008, , .		0
177	Phase transitions in photonic cavities: Exact vs. mean-field. , 2008, , .		0
178	Cavity enhancement of a Nitrogen-Vacancy-based single photon source. , 2008, , .		0
179	Spatial adiabatic passage as a quantum wire. , 2008, , .		0
180	Deterministic optical quantum computer using photonic modules. <i>Physical Review A</i> , 2008, 78, .	1.0	44

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181	High-speed quantum gates with cavity quantum electrodynamics. <i>Physical Review A</i> , 2008, 78, .	1.0	42
182	<i>Ab Initio</i> Electronic and Optical Properties of the $NV^0$ Center in Diamond. <i>Physical Review Letters</i> , 2008, 101, 226403.	2.9	77
183	Quantum phase transitions in photonic cavities with two-level systems. <i>Physical Review A</i> , 2008, 77, .	1.0	68
184	Level Spectrum of a Single Gated Arsenic Donor in a Three Terminal Geometry. <i>Materials Research Society Symposia Proceedings</i> , 2008, 1117, 103.	0.1	0
185	Atomistic Understanding of a Single Gated Dopant Atom in a MOSFET. <i>Materials Research Society Symposia Proceedings</i> , 2008, 1067, 1.	0.1	2
186	Visualizing a silicon quantum computer. <i>New Journal of Physics</i> , 2008, 10, 125005.	1.2	5
187	Transport-based dopant metrology in advanced FinFETs. , 2008, , .		6
188	Spatial coherent transport of interacting dilute Bose gases. <i>Physical Review A</i> , 2008, 77, .	1.0	80
189	Transport spectroscopy of a single atom in a FinFET. <i>Journal of Physics: Conference Series</i> , 2008, 109, 012003.	0.3	0
190	QUANTUM COMPUTATION IN SILICON $\delta$ DEVICE MODELING, TRANSPORT AND FAULT-TOLERANCE. <i>International Journal of Modern Physics A</i> , 2007, 22, 4999-5009.	0.5	0
191	Subspace confinement: how good is your qubit?. <i>New Journal of Physics</i> , 2007, 9, 384-384.	1.2	19
192	Electrostatically defined serial triple quantum dot charged with few electrons. <i>Physical Review B</i> , 2007, 76, .	1.1	170
193	Robust controlled-NOT gate in the presence of large fabrication-induced variations of the exchange interaction strength. <i>Physical Review A</i> , 2007, 76, .	1.0	25
194	High Precision Quantum Control of Single Donor Spins in Silicon. <i>Physical Review Letters</i> , 2007, 99, 036403.	2.9	108
195	Processing of Diamond: Towards All-Diamond Integrated Optics. , 2007, , .		0
196	Multiplexing single electron transistors for application in scalable solid-state quantum computing. <i>Applied Physics Letters</i> , 2007, 90, 043109.	1.5	6
197	Quantum minority game utilizing various forms of entanglement. , 2007, , .		1
198	Vocal tract resonances and the sound of the Australian didgeridu (yidaki). III. Determinants of playing quality. <i>Journal of the Acoustical Society of America</i> , 2007, 121, 547-558.	0.5	13

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200	Charge State Control and Relaxation in an Atomically Doped Silicon Device. <i>Nano Letters</i> , 2007, 7, 2000-2003.	4.5	55
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