

Richard J Warburton

List of Publications by Year in descending order

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135
papers

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citations

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all docs

135
docs citations

135
times ranked

5491
citing authors

#	ARTICLE	IF	CITATIONS
1	A chiral one-dimensional atom using a quantum dot in an open microcavity. Npj Quantum Information, 2022, 8, .	2.8	4
2	Wafer-scale epitaxial modulation of quantum dot density. Nature Communications, 2022, 13, 1633.	5.8	9
3	A hole spin qubit in a fin field-effect transistor above 4â€%kelvin. Nature Electronics, 2022, 5, 178-183.	13.1	69
4	A diamond-confined open microcavity featuring a high quality-factor and a small mode-volume. Journal of Applied Physics, 2022, 131, .	1.1	10
5	A deterministic source of single photons. Physics Today, 2022, 75, 44-50.	0.3	13
6	Quantum interference of identical photons from remote GaAs quantum dots. Nature Nanotechnology, 2022, 17, 829-833.	15.6	48
7	Single-Photon Radiative Auger Emission from a Quantum Dot. , 2021, , .		0
8	Low-noise GaAs quantum dots in a p-i-n diode. , 2021, , .		0
9	Self-aligned gates for scalable silicon quantum computing. Applied Physics Letters, 2021, 118, .	1.5	26
10	Suppression of Surface-Related Loss in a Gated Semiconductor Microcavity. Physical Review Applied, 2021, 15, .	1.5	11
11	Tuning the Mode Splitting of a Semiconductor Microcavity with Uniaxial Stress. Physical Review Applied, 2021, 15, .	1.5	6
12	Low-Charge-Noise Nitrogen-Vacancy Centers in Diamond Created Using Laser Writing with a Solid-Immersion Lens. ACS Photonics, 2021, 8, 1726-1734.	3.2	28
13	Coherent Spin-Photon Interface with Waveguide Induced Cycling Transitions. Physical Review Letters, 2021, 126, 013602.	2.9	27
14	A bright and fast source of coherent single photons. Nature Nanotechnology, 2021, 16, 399-403.	15.6	268
15	Charge Tunable GaAs Quantum Dots in a Photonic n-i-p Diode. Nanomaterials, 2021, 11, 2703.	1.9	6
16	Optically driving the radiative Auger transition. Nature Communications, 2021, 12, 6575.	5.8	6
17	Giant Stark splitting of an exciton in bilayer MoS2. Nature Nanotechnology, 2020, 15, 901-907.	15.6	72
18	Near Transform-Limited Quantum Dot Linewidths in a Broadband Photonic Crystal Waveguide. ACS Photonics, 2020, 7, 2343-2349.	3.2	28

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19	On-chip deterministic operation of quantum dots in dual-mode waveguides for a plug-and-play single-photon source. Nature Communications, 2020, 11, 3782.	5.8	48
20	Low-noise GaAs quantum dots for quantum photonics. Nature Communications, 2020, 11, 4745.	5.8	79
21	Statistically modeling optical linewidths of nitrogen vacancy centers in microstructures. Physical Review B, 2020, 102, .	1.1	13
22	Large-range frequency tuning of a narrow-linewidth quantum emitter. Applied Physics Letters, 2020, 117, .	1.5	12
23	First-Order Magnetic Phase Transition of Mobile Electrons in Monolayer MoS_2 . Physical Review Letters. 2020. 124. 187602.	2.9	22
24	Controlling interlayer excitons in MoS_2 layers grown by chemical vapor deposition. Nature Communications, 2020, 11, 2391.	5.8	73
25	Radiative Auger process in the single-photon limit. Nature Nanotechnology, 2020, 15, 558-562.	15.6	23
26	Cavity-Enhanced Raman Scattering for <i>In Situ</i> Alignment and Characterization of Solid-State Microcavities. Physical Review Applied, 2020, 13, .	1.5	17
27	Towards Spin-Multiphoton Entanglement using Quantum Dots with Asymmetric Waveguide Coupling. , 2020, , .		0
28	Excitons in InGaAs quantum dots without electron wetting layer states. Communications Physics, 2019, 2, .	2.0	25
29	Intrinsically-limited timing jitter in molybdenum silicide superconducting nanowire single-photon detectors. Journal of Applied Physics, 2019, 126, 164501.	1.1	16
30	Correlations between optical properties and Voronoi-cell area of quantum dots. Physical Review B, 2019, 100, .	1.1	13
31	Spin-polarized electrons in monolayer MoS_2 . Nature Nanotechnology, 2019, 14, 432-436.	15.6	76
32	Coherent Optical Control of a Quantum-Dot Spin-Qubit in a Waveguide-Based Spin-Photon Interface. Physical Review Applied, 2019, 11, .	1.5	20
33	A gated quantum dot strongly coupled to an optical microcavity. Nature, 2019, 575, 622-627.	13.7	145
34	Quantum Optics with Near-Lifetime-Limited Quantum-Dot Transitions in a Nanophotonic Waveguide. Nano Letters, 2018, 18, 1801-1806.	4.5	49
35	High-detection efficiency and low-timing jitter with amorphous superconducting nanowire single-photon detectors. Applied Physics Letters, 2018, 112, .	1.5	89
36	Quantum-Confined Stark Effect in a MoS_2 Monolayer van der Waals Heterostructure. Nano Letters, 2018, 18, 1070-1074.	4.5	55

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37	Far-field nanoscopy on a semiconductor quantum dot via a rapid-adiabatic-passage-based switch. <i>Nature Photonics</i> , 2018, 12, 68-72.	15.6	18
38	Spin-photon interface and spin-controlled photon switching in a nanobeam waveguide. <i>Nature Nanotechnology</i> , 2018, 13, 398-403.	15.6	85
39	Optical second harmonic generation in encapsulated single-layer InSe. <i>AIP Advances</i> , 2018, 8, .	0.6	24
40	On-demand semiconductor source of 780-nm single photons with controlled temporal wave packets. <i>Physical Review B</i> , 2018, 97, .	1.1	17
41	Fabrication of mirror templates in silica with micron-sized radii of curvature. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	26
42	Ultra-low charge and spin noise in self-assembled quantum dots. <i>Journal of Crystal Growth</i> , 2017, 477, 193-196.	0.7	15
43	Optically probing the detection mechanism in a molybdenum silicide superconducting nanowire single-photon detector. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	32
44	Indistinguishable and efficient single photons from a quantum dot in a planar nanobeam waveguide. <i>Physical Review B</i> , 2017, 96, .	1.1	85
45	Coherent and robust high-fidelity generation of a biexciton in a quantum dot by rapid adiabatic passage. <i>Physical Review B</i> , 2017, 95, .	1.1	41
46	Deterministic Enhancement of Coherent Photon Generation from a Nitrogen-Vacancy Center in Ultrapure Diamond. <i>Physical Review X</i> , 2017, 7, .	2.8	108
47	Demonstrating the decoupling regime of the electron-phonon interaction in a quantum dot using chirped optical excitation. <i>Physical Review B</i> , 2017, 95, .	1.1	31
48	Resonant driving of a single photon emitter embedded in a mechanical oscillator. <i>Nature Communications</i> , 2017, 8, 76.	5.8	39
49	Simple Atomic Quantum Memory Suitable for Semiconductor Quantum Dot Single Photons. <i>Physical Review Letters</i> , 2017, 119, 060502.	2.9	77
50	Narrow optical linewidths and spin pumping on charge-tunable close-to-surface self-assembled quantum dots in an ultrathin diode. <i>Physical Review B</i> , 2017, 96, .	1.1	29
51	A Self-assembled Quantum Dot as Single Photon Source and Spin Qubit: Charge Noise and Spin Noise. <i>Nano-optics and Nanophotonics</i> , 2017, , 287-323.	0.2	0
52	Role of the electron spin in determining the coherence of the nuclear spins in a quantum dot. <i>Nature Nanotechnology</i> , 2016, 11, 885-889.	15.6	32
53	A fiber-coupled quantum-dot on a photonic tip. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	54
54	A tunable fiber-coupled optical cavity for agile enhancement of detector absorption. <i>Journal of Applied Physics</i> , 2016, 120, .	1.1	3

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55	Decoupling a hole spin qubit from the nuclear spins. Nature Materials, 2016, 15, 981-986.	13.3	76
56	Electrically tunable hole g-factor of an optically active quantum dot for fast spin rotations. Physical Review B, 2015, 91, .	1.1	35
57	Towards high-cooperativity strong coupling of a quantum dot in a tunable microcavity. Physical Review B, 2015, 92, .	1.1	28
58	An artificial Rb atom in a semiconductor with lifetime-limited linewidth. Physical Review B, 2015, 92, .	1.1	54
59	Epitaxial lift-off for solid-state cavity quantum electrodynamics. Journal of Applied Physics, 2015, 118, .	1.1	5
60	Transform-limited single photons from a single quantum dot. Nature Communications, 2015, 6, 8204.	5.8	180
61	Manipulation of the nuclear spin ensemble in a quantum dot with chirped magnetic resonance pulses. Nature Nanotechnology, 2014, 9, 671-675.	15.6	27
62	High Resolution Coherent Population Trapping on a Single Hole Spin in a Semiconductor Quantum Dot. Physical Review Letters, 2014, 112, 107401.	2.9	40
63	A small mode volume tunable microcavity: Development and characterization. Applied Physics Letters, 2014, 105, .	1.5	71
64	Nano-optical observation of cascade switching in a parallel superconducting nanowire single photon detector. Applied Physics Letters, 2014, 104, .	1.5	12
65	A dark-field microscope for background-free detection of resonance fluorescence from single semiconductor quantum dots operating in a set-and-forget mode. Review of Scientific Instruments, 2013, 84, 073905.	0.6	108
66	Charge noise and spin noise in a semiconductor quantum device. Nature Physics, 2013, 9, 570-575.	6.5	320
67	Single spins in self-assembled quantum dots. Nature Materials, 2013, 12, 483-493.	13.3	277
68	Frequency-Stabilized Source of Single Photons from a Solid-State Qubit. Physical Review X, 2013, 3, .	2.8	29
69	Prospects for storage and retrieval of a quantum-dot single photon in an ultracold Rb ensemble. Physical Review A, 2013, 88, .	1.0	18
70	Exciton fine-structure splitting of telecom-wavelength single quantum dots: Statistics and external strain tuning. Physical Review B, 2013, 88, .	1.1	17
71	Fast electro-optics of a single self-assembled quantum dot in a charge-tunable device. Journal of Applied Physics, 2012, 111, 043112.	1.1	4
72	Laser micro-fabrication of concave, low-roughness features in silica. AIP Advances, 2012, 2, .	0.6	112

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73	A superconducting nanowire single photon detector on lithium niobate. <i>Nanotechnology</i> , 2012, 23, 505201.	1.3	38
74	Probing Single-Charge Fluctuations at a GaAs/AlAs Interface Using Laser Spectroscopy on a Nearby InGaAs Quantum Dot. <i>Physical Review Letters</i> , 2012, 108, 107401.	2.9	125
75	Laser spectroscopy of individual quantum dots charged with a single hole. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	14
76	Controlling the Interaction of Electron and Nuclear Spins in a Tunnel-Coupled Quantum Dot. <i>Physical Review Letters</i> , 2011, 106, 046802.	2.9	27
77	Spatial dependence of output pulse delay in a niobium nitride nanowire superconducting single-photon detector. <i>Applied Physics Letters</i> , 2011, 98, 201116.	1.5	34
78	A tunable microcavity. <i>Journal of Applied Physics</i> , 2011, 110, 053107.	1.1	49
79	Determination of the etching mechanism in MgS and ZnMgSSe epitaxial lift-off layers. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 1399-1401.	0.7	3
80	Noninvasive probing of persistent conductivity in high quality ZnCdSe/ZnSe quantum wells using surface acoustic waves. <i>Journal of Applied Physics</i> , 2010, 107, 093717.	1.1	12
81	Enhanced telecom wavelength single-photon detection with NbTiN superconducting nanowires on oxidized silicon. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	99
82	Structure of quantum dots as seen by excitonic spectroscopy versus structural characterization: Using theory to close the loop. <i>Physical Review B</i> , 2009, 80, .	1.1	45
83	Gigahertz bandwidth electrical control over a dark exciton-based memory bit in a single quantum dot. <i>Applied Physics Letters</i> , 2009, 94, .	1.5	41
84	Temperature dependent high resolution resonant spectroscopy on a charged quantum dot. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 795-798.	0.7	7
85	A Coherent Single-Hole Spin in a Semiconductor. <i>Science</i> , 2009, 325, 70-72.	6.0	319
86	Optical pumping of a single hole spin in a quantum dot. <i>Nature</i> , 2008, 451, 441-444.	13.7	355
87	The nonlinear Fano effect. <i>Nature</i> , 2008, 451, 311-314.	13.7	200
88	Nanoscale optical microscopy in the vectorial focusing regime. <i>Nature Photonics</i> , 2008, 2, 311-314.	15.6	84
89	Electronics lightens up. <i>Nature Physics</i> , 2008, 4, 676-677.	6.5	8
90	Power law carrier dynamics in semiconductor nanocrystals at nanosecond timescales. <i>Applied Physics Letters</i> , 2008, 92, 101111.	1.5	78

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91	Optically Induced Hybridization of a Quantum Dot State with a Filled Continuum. Physical Review Letters, 2008, 100, 176801.	2.9	37
92	Rabi splitting and ac-Stark shift of a charged exciton. Applied Physics Letters, 2008, 92, .	1.5	33
93	Coulomb interactions in single charged self-assembled quantum dots: Radiative lifetime and recombination energy. Physical Review B, 2008, 77, .	1.1	76
94	Hole recapture limited single photon generation from a single n-type charge-tunable quantum dot. Applied Physics Letters, 2008, 92, .	1.5	16
95	Resonant transmission spectroscopy on the p to p transitions of a charge tunable InGaAs quantum dot. Applied Physics Letters, 2008, 92, 153103.	1.5	11
96	Optical Detection of Single-Electron Spin Resonance in a Quantum Dot. Physical Review Letters, 2008, 100, 156803.	2.9	48
97	Resonant two-color high-resolution spectroscopy of a negatively charged exciton in a self-assembled quantum dot. Physical Review B, 2008, 78, .	1.1	28
98	RESONANT INTERACTION BETWEEN A QUANTUM DOT AND A NARROWBAND LASER: SPECTROSCOPY AND OPTICAL PUMPING OF A SINGLE SPIN. International Journal of Modern Physics B, 2007, 21, 1307-1315.	1.0	4
99	Three-dimensional nanoscale subsurface optical imaging of silicon circuits. Applied Physics Letters, 2007, 90, 131101.	1.5	31
100	Nanometric three-dimensional sub-surface imaging of a silicon flip-chip. , 2007, , .		0
101	Angle resolved transmission spectroscopy of ZnSe based microcavities fabricated using epitaxial liftoff technique. , 2007, , .		0
102	Nanometric three-dimensional sub-surface imaging of a silicon flip-chip. , 2007, , .		0
103	Modulation spectroscopy on a single self assembled quantum dot. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 381-389.	0.8	2
104	Peculiar many-body effects revealed in the spectroscopy of highly charged quantum dots. Nature Physics, 2007, 3, 774-779.	6.5	96
105	Stable fiber-based Fabry-Pérot cavity. Applied Physics Letters, 2006, 89, 111110.	1.5	83
106	Effect of uniaxial stress on excitons in a self-assembled quantum dot. Applied Physics Letters, 2006, 88, 203113.	1.5	199
107	The effects of in situ annealing on CdSe quantum dots grown by ALE. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 908-911.	0.8	0
108	Controlled charging of the same single quantum dot from +6e to -8e: emission, shell filling and configuration interactions. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 3806-3810.	0.8	4

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109	Direct and exchange Coulomb energies in CdSe/ZnSe quantum dots. <i>Physica Status Solidi (B): Basic Research</i> , 2006, 243, 782-786.	0.7	5
110	Voltage-Controlled Electron-Hole Interaction in a Single Quantum Dot. <i>Journal of Superconductivity and Novel Magnetism</i> , 2005, 18, 245-249.	0.5	3
111	Coherent spin dynamics in semiconductor quantum dots. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 3157-3162.	0.8	0
112	Dark exciton decay dynamics of a semiconductor quantum dot. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005, 202, 2591-2597.	0.8	18
113	Epitaxial liftoff of ZnSe-based heterostructures using a II-VI release layer. <i>Applied Physics Letters</i> , 2005, 86, 011915.	1.5	34
114	Spin-selective optical absorption of singly charged excitons in a quantum dot. <i>Applied Physics Letters</i> , 2005, 86, 221905.	1.5	49
115	Absorption and photoluminescence spectroscopy on a single self-assembled charge-tunable quantum dot. <i>Physical Review B</i> , 2005, 72, .	1.1	65
116	Voltage Control of the Spin Dynamics of an Exciton in a Semiconductor Quantum Dot. <i>Physical Review Letters</i> , 2005, 94, 197402.	2.9	153
117	Hybridization of electronic states in quantum dots through photon emission. <i>Nature</i> , 2004, 427, 135-138.	13.7	113
118	Fine structure of highly charged quantum dot excitons: turning dark into bright states. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004, 1, 421-425.	0.8	0
119	Temperature dependent photoluminescence of CdSe quantum dots grown in MgS and ZnSe. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004, 1, 755-758.	0.8	5
120	Electronic quantum dot states induced through photon emission. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004, 1, 2079-2093.	0.8	0
121	Temperature-dependent linewidth of charged excitons in semiconductor quantum dots: Strongly broadened ground state transitions due to acoustic phonon scattering. <i>Physical Review B</i> , 2004, 69, .	1.1	47
122	Voltage-Controlled Optics of a Quantum Dot. <i>Physical Review Letters</i> , 2004, 93, 217401.	2.9	216
123	Growth and Spectroscopy of CdSe: Mn Quantum Dots. <i>Journal of Superconductivity and Novel Magnetism</i> , 2003, 16, 19-22.	0.5	5
124	Optical transmission and reflection spectroscopy of single quantum dots. <i>Superlattices and Microstructures</i> , 2003, 33, 311-337.	1.4	50
125	Magnetic properties of charged excitons in self-assembled quantum dots. <i>Physica Status Solidi (B): Basic Research</i> , 2003, 238, 293-296.	0.7	4
126	Kondo excitons in self-assembled quantum dots. <i>Physical Review B</i> , 2003, 67, .	1.1	22

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127	Optically tunable mechanics of microlevers. Applied Physics Letters, 2003, 83, 1337-1339.	1.5	62
128	Fine Structure of Highly Charged Excitons in Semiconductor Quantum Dots. Physical Review Letters, 2003, 90, 247403.	2.9	124
129	Dark exciton signatures in time-resolved photoluminescence of single quantum dots. Materials Research Society Symposia Proceedings, 2003, 789, 365.	0.1	0
130	Magneto-optical properties of charged excitons in quantum dots. Physical Review B, 2002, 66, .	1.1	63
131	Charged Excitons in Self-assembled Quantum Dots. Materials Research Society Symposia Proceedings, 2002, 737, 75.	0.1	1
132	Kondo-excitons and Auger processes in self-assembled quantum dots. Materials Research Society Symposia Proceedings, 2002, 737, 86.	0.1	1
133	Giant permanent dipole moments of excitons in semiconductor nanostructures. Physical Review B, 2002, 65, .	1.1	147
134	Optical emission from a charge-tunable quantum ring. Nature, 2000, 405, 926-929.	13.7	832
135	Intraband and interband magneto-optics of p-type $\text{In}_{0.18}\text{Ga}_{0.82}\text{As}/\text{GaAs}$ quantum wells. Physical Review B, 1991, 43, 14124-14133.	1.1	12