

C H Raymond Ooi

List of Publications by Year in descending order

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139
papers

2,149
citations

236612

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h-index

264894

42
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143
all docs

143
docs citations

143
times ranked

1421
citing authors

#	ARTICLE	IF	CITATIONS
1	Tunable optical response in a hybrid quadratic optomechanical system coupled with single semiconductor quantum well. <i>Quantum Information Processing</i> , 2022, 21, 1.	1.0	20
2	Enhanced resonances by waveguide wrapping of a bulbed microring resonator. <i>Applied Optics</i> , 2022, 61, 3279.	0.9	2
3	Light absorption by interacting atomic gas in quantum optical regime. <i>Journal of Chemical Physics</i> , 2021, 155, 044105.	1.2	0
4	Squeezed momentum distributions of relativistic electrons in intense laser fields with arbitrary polarization. <i>Physical Review A</i> , 2020, 101, .	1.0	1
5	Nonclassicality of the two-photon laser with Kerr nonlinearity. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, 820.	0.9	2
6	A two-photon laser in a Kerr-like medium with cross-Kerr and intensity-dependent coupling. <i>Laser Physics</i> , 2020, 30, 115205.	0.6	1
7	Quantum coherence and entanglement partitions for two driven quantum dots inside a coherent micro cavity. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019, 383, 125905.	0.9	54
8	Quantum plasmonics of finite-size particles with coherent anti-Stokes Raman scattering. <i>Physical Review A</i> , 2019, 99, .	1.0	2
9	Large-scale structure formation in ionic solution and its role in electrolysis and conductivity. <i>PLoS ONE</i> , 2019, 14, e0213697.	1.1	0
10	Molecular Bose-Einstein condensates: effects of molecular rotations on transition temperature and heat capacity. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2019, 52, 145301.	0.6	2
11	Spatial inhomogeneity of the absorption and re-emission properties of an optically active medium in a resonator. , 2019, , .		0
12	Non-locality Correlation in Two Driven Qubits Inside an Open Coherent Cavity: Trace Norm Distance and Maximum Bell Function. <i>Scientific Reports</i> , 2019, 9, 19632.	1.6	67
13	Dynamics of Kerr-like medium with two-mode intensity-dependent cavity fields. <i>Laser Physics</i> , 2019, 29, 015202.	0.6	2
14	Real-time path-integral approach for dissipative quantum dot-cavity quantum electrodynamics: impure dephasing-induced effects (2017 J. Phys.: Condens. Matter 29 055701). <i>Journal of Physics Condensed Matter</i> , 2018, 30, 019501.	0.7	0
15	Theoretical and experimental studies on a Q-switching operation in an erbium-doped fiber laser using vanadium oxide as saturable absorber. <i>Laser Physics</i> , 2018, 28, 085106.	0.6	12
16	Passively Q-switched erbium-doped fibre laser using cobalt oxide nanocubes as a saturable absorber. <i>Journal of Modern Optics</i> , 2017, 64, 1315-1320.	0.6	18
17	Nickel oxide nanoparticles as a saturable absorber for an all-fiber passively Q-switched erbium-doped fiber laser. <i>Laser Physics</i> , 2017, 27, 065105.	0.6	53
18	Quantum particle interacting with a metallic particle: Spectra from quantum Langevin theory. <i>Physical Review A</i> , 2017, 95, .	1.0	2

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19	Real-time path-integral approach for dissipative quantum dot-cavity quantum electrodynamics: impure dephasing-induced effects. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 055701.	0.7	7
20	Effects of ultrashort laser pulses on angular distributions of photoionization spectra. <i>Scientific Reports</i> , 2017, 7, 6739.	1.6	5
21	Laser control of giant optical absorption and gain in quantum plasmonic particles. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2017, 34, 1234.	0.9	0
22	Numerical modeling of ultracompact folded photonic crystal waveguide Mach-Zehnder interferometer thermo-optic switch. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2017, 34, 183.	0.9	2
23	Multispectral sparkling of microbubbles with a focused femtosecond laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2017, 34, 2072.	0.9	2
24	Femtoseconds soliton mode-locked erbium-doped fiber laser based on nickel oxide nanoparticle saturable absorber. <i>Chinese Optics Letters</i> , 2017, 15, 100602.	1.3	18
25	Probing infinity in bounded two-dimensional electrostatic systems. <i>Chaos</i> , 2016, 26, 073113.	1.0	1
26	Do multipartite correlations speed up adiabatic quantum computation or quantum annealing?. <i>Quantum Information Processing</i> , 2016, 15, 3081-3099.	1.0	29
27	Quantum information approach to the azurite mineral frustrated quantum magnet. <i>Quantum Information Processing</i> , 2016, 15, 2839-2850.	1.0	11
28	Analytical band Monte Carlo analysis of electron transport in silicene. <i>Semiconductor Science and Technology</i> , 2016, 31, 065012.	1.0	7
29	Atom and quantum oscillator coupled by the vacuum field: Radiation pattern, emission spectrum, and decay dynamics. <i>Physical Review A</i> , 2016, 93, .	1.0	2
30	Single-photon superradiance and radiation trapping by atomic shells. <i>Physical Review A</i> , 2016, 93, .	1.0	13
31	Intricate Plasma-Scattered Images and Spectra of Focused Femtosecond Laser Pulses. <i>Scientific Reports</i> , 2016, 6, 32056.	1.6	1
32	Coherently Tunable Triangular Trefoil Phaseonium Metamaterial. <i>Scientific Reports</i> , 2016, 6, 21083.	1.6	0
33	Mesoscopic quantum correlations of Raman photon pairs from a microparticle. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2016, 33, 1311.	0.9	1
34	Corrosion and bioactivity performance of graphene oxide coating on Ti Nb shape memory alloys in simulated body fluid. <i>Materials Science and Engineering C</i> , 2016, 68, 687-694.	3.8	47
35	Methods for monitoring scour from large-diameter heat probe tests. <i>Structural Health Monitoring</i> , 2016, 15, 38-49.	4.3	6
36	Computing the maximum violation of a Bell inequality is an NP-problem. <i>Quantum Information Processing</i> , 2016, 15, 2649-2659.	1.0	7

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37	Nonlocality in pure and mixed n-qubit X states. Quantum Information Processing, 2016, 15, 1553-1567.	1.0	15
38	Global versus local quantum correlations in the Grover search algorithm. Quantum Information Processing, 2016, 15, 833-849.	1.0	26
39	Quantum System Near Metallic Particle. , 2016, , 3403-3407.		0
40	Entanglement between exciton and mechanical modes via dissipation-induced coupling. Physical Review A, 2015, 92, .	1.0	24
41	Reexamination of the purity entanglement measure: Peculiarities of a truly thermodynamic quantum correlation measure. Physical Review A, 2015, 92, .	1.0	1
42	Quantum dynamics and spectra of vibrational Raman-resonance fluorescence in a two-mode cavity. Physical Review A, 2015, 92, .	1.0	3
43	High-Performance Dye-Sensitized Solar Cells Based on Morphology-Controllable Synthesis of ZnO/ZnS Heterostructure Nanocone Photoanodes. PLoS ONE, 2015, 10, e0123433.	1.1	45
44	Quantum optical properties in plasmonic systems. AIP Conference Proceedings, 2015, , .	0.3	0
45	Geometric phase and entanglement of Raman photon pairs in the presence of photonic band gap. Journal of Applied Physics, 2015, 117, .	1.1	7
46	Well-aligned ZnO nanoneedle arrays grown on polycarbonate substrates via electric field-assisted chemical method. Materials Letters, 2015, 146, 65-68.	1.3	41
47	Facile synthesis of vertically aligned cone-shaped ZnO/ZnS core/shell arrays using the two-step aqueous solution approach. Materials Letters, 2015, 147, 34-37.	1.3	44
48	The conservative system of N atoms coupled with one photon. Annals of Physics, 2015, 360, 207-227.	1.0	4
49	Locality and classicality: role of entropic inequalities. Quantum Information Processing, 2015, 14, 3115-3137.	1.0	1
50	Quantum spectra of Raman photon pairs from a mesoscopic particle. Physical Review A, 2015, 91, .	1.0	3
51	Higher-order squeezing oscillations in Jaynes-Cummings model of a pair of cold atoms. Indian Journal of Physics, 2015, 89, 883-888.	0.9	1
52	Synthesis of needle-shape ZnO-ZnS core-shell heterostructures and their optical and field emission properties. Electronic Materials Letters, 2015, 11, 957-963.	1.0	43
53	Ethanol solution sensor based on ZnO/PSi nanostructures synthesized by catalytic immersion method at different molar ratio concentrations: An electrochemical impedance analysis. Sensors and Actuators A: Physical, 2015, 236, 11-18.	2.0	45
54	Quantum System Near Metallic Particle. , 2015, , 1-5.		0

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55	Quantum correlations of quadratic optomechanical oscillator. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2390.	0.9	24
56	Modeling temperature-dependent shift of photoluminescence peak of In(Ga)As quantum dots with acoustic and optical phonons as two oscillators. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 1182.	0.9	3
57	Light-to-matter entanglement transfer in optomechanics. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2821.	0.9	86
58	Single-mode and intermodal higher-order nonclassicalities in two-mode Bose-Einstein condensates. Physical Review A, 2014, 89, .	1.0	38
59	Collapse and revivals in the Jaynes-Cummings model: An analysis based on the Mollow transformation. Physical Review A, 2014, 89, .	1.0	5
60	A novel method for synthesis of well-aligned hexagonal cone-shaped ZnO nanostructures in field emission applications. Materials Letters, 2014, 125, 147-150.	1.3	39
61	Photoelectron angular distributions of excited atoms in intense laser fields. Physical Review A, 2014, 90, .	1.0	9
62	Optical properties of well-aligned ZnO nanostructure arrays synthesized by an electric field-assisted aqueous solution method. Ceramics International, 2014, 40, 11193-11198.	2.3	42
63	Gravitational force of a Bessel light beam in a slow light medium. Laser Physics, 2013, 23, 035003.	0.6	2
64	Controlling Double Quantum Coherence and Electromagnetic Induced Transparency with Plasmonic Metallic Nanoparticle. Plasmonics, 2013, 8, 891-898.	1.8	14
65	Nonclassical dynamics with time- and intensity-dependent coupling. Quantum Information Processing, 2013, 12, 2103-2120.	1.0	2
66	Intermodal entanglement in Raman processes. Physical Review A, 2013, 87, .	1.0	20
67	Ultrashort pulse propagation and nonlinear frequency conversion in superconducting and magnetic photonic crystal. Applied Physics B: Lasers and Optics, 2013, 112, 193-201.	1.1	0
68	Geometric phase and entanglement for a single qubit interacting with deformed-states superposition. Quantum Information Processing, 2013, 12, 2177-2188.	1.0	23
69	Controlling laser spectra in a phaseonium photonic crystal using maser. Applied Physics B: Lasers and Optics, 2013, 112, 115-121.	1.1	2
70	Quantum entanglement criteria. Journal of Modern Optics, 2013, 60, 589-597.	0.6	5
71	Orientation dependent coherent anti-Stokes Raman scattering of cylindrical microparticle with focused lasers. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 2427.	0.9	1
72	Weak gravitational field of Bessel beam. , 2013, , .		0

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73	Surface polariton with arbitrary dielectric and magnetic materials: New regimes and SP resonance in large frequency range. , 2013, , .		0
74	Nonlinear photonic crystal: effects of negative refractive indices and dispersion in the resonant region. Journal of Optics (United Kingdom), 2013, 15, 055102.	1.0	1
75	Continuous-variable entanglement and two-mode squeezing in a single-atom Raman laser. Physical Review A, 2012, 85, .	1.0	8
76	Surface polaritons with arbitrary magnetic and dielectric materials: new regimes, effects of negative index, and superconductors. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 2691.	0.9	6
77	Pulse propagation in a medium of δ -type atoms. Physical Review A, 2012, 86, .	1.0	5
78	Generalized momentum of tunnelling ionization of hydrogenic atom in linearly polarized laser. , 2012, , .		0
79	Controlling the repulsive Casimir force with the optical Kerr effect. Physical Review A, 2012, 86, .	1.0	4
80	Photoionization spectra by intense linear, circular, and elliptic polarized lasers. Physical Review A, 2012, 86, .	1.0	14
81	Dynamics for two atoms interacting with intensity-dependent two-mode quantized cavity fields in the ladder configuration. Physical Review A, 2012, 86, .	1.0	18
82	Quantum metrology with entangled spin-coherent states of two modes. Physical Review A, 2012, 86, .	1.0	94
83	Beam splitter entangler for nonlinear bosonic fields. Laser Physics, 2012, 22, 1449-1454.	0.6	28
84	Nonclassical photon correlation of nanoparticle in a microcavity. Physical Review A, 2012, 85, .	1.0	4
85	Nonlinear photonic crystal with negative index materials. , 2012, , .		0
86	Quantum coherence effects in a Raman amplifier. Journal of Modern Optics, 2011, 58, 11-13.	0.6	1
87	Single-photon pulse propagation in and into a medium of two-level atoms: Microscopic Fresnel equations. Physical Review A, 2011, 84, .	1.0	1
88	Switching the negative refractive index and surface wavevector of superconducting metamaterials. , 2011, , .		0
89	NEAR-FIELD AND PARTICLE SIZE EFFECTS IN COHERENT RAMAN SCATTERING. Progress in Electromagnetics Research, 2011, 117, 479-494.	1.6	3
90	EVOLUTION AND COLLAPSE OF A LORENTZ BEAM IN KERR MEDIUM. Progress in Electromagnetics Research, 2011, 121, 39-52.	1.6	10

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91	Exact transient photon correlation with arbitrary laser pulses. Physical Review A, 2011, 84, .	1.0	0
92	Nonclassicality of vortex Airy beams in the Wigner representation. Physical Review A, 2011, 84, .	1.0	14
93	Conversion of heat to light using Townesâ€™™ maser-laser engine: Quantum optics and thermodynamic analysis. Physical Review A, 2011, 83, .	1.0	0
94	Temperature dependent resonances in superconductor photonic crystal. Journal of Applied Physics, 2011, 110, .	1.1	23
95	Superconducting Photonic Crystal with Nanostrips for Mid-Infrared Applications. , 2011, , .		1
96	Quantum Thermodynamics of Photo and Solar Cells. , 2011, , .		3
97	Intense nonclassical light: Controllable two-photon Talbot effect. Physical Review A, 2010, 81, .	1.0	18
98	Laser cooling of molecules by zero-velocity selection and single spontaneous emission. Physical Review A, 2010, 82, .	1.0	5
99	Superintense laser fields in circular array: effects of phase and pulse jitters. Applied Physics B: Lasers and Optics, 2010, 101, 825-833.	1.1	0
100	Preservation of Bosonic commutation relation: Explicit evaluation of quantum Langevin operator products. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 407-410.	1.3	2
101	Superintense fields from multiple ultrashort laser pulses retroreflected in circular geometry. Journal of Applied Physics, 2010, 107, 043110.	1.1	3
102	Controlling quantum resonances in photonic crystals and thin films with electromagnetically induced transparency. Physical Review B, 2010, 81, .	1.1	19
103	Near-Field CARS with Micro- and Nano-Particle. , 2010, , .		0
104	Echo and ringing of optical pulse in finite photonic crystal with superconductor and dispersive dielectric. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 458.	0.9	18
105	Femtosecond Coherent Anti-Stokes Raman Spectroscopy (CARS) As Next Generation Nonlinear LIDAR Spectroscopy and Microscopy. , 2009, , .		0
106	Theory of coherent anti-Stokes Raman scattering for mesoscopic particle with complex molecules: angularâ€ dependent spectrum. Journal of Raman Spectroscopy, 2009, 40, 714-725.	1.2	9
107	Directional property of radiation emitted from entangled atoms. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 1658-1662.	0.9	4
108	Nonclassicality generated by photon annihilation-then-creation and creation-then-annihilation operations. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 1532.	0.9	36

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109	Controlling irreversibility and directionality of light via atomic motion: optical transistor and quantum velocimeter. <i>New Journal of Physics</i> , 2008, 10, 123024.	1.2	6
110	Extended photon correlation in a negative-temperature medium. <i>Physical Review A</i> , 2008, 77, .	1.0	2
111	Effects of chirped laser pulses on nonclassical correlations and entanglement of photon pairs. <i>Physical Review A</i> , 2008, 77, .	1.0	3
112	Directional Property of Radiation Emitted from Entangled Atoms. , 2007, , .		0
113	Continuous source of phase-controlled entangled two-photon laser. <i>Physical Review A</i> , 2007, 76, .	1.0	23
114	Role of noise operators on two-photon correlations in an extended coherent Raman medium. <i>Physical Review A</i> , 2007, 75, .	1.0	8
115	Publisher's Note: Correlation of photon pairs from the double Raman amplifier: Generalized analytical quantum Langevin theory [Phys. Rev. A75, 013820 (2007)]. <i>Physical Review A</i> , 2007, 75, .	1.0	0
116	Quenching the collective effects on the two-photon correlation from two double-Raman atoms. <i>Physical Review A</i> , 2007, 75, .	1.0	11
117	Two-photon correlation in a cascade amplifier: Propagation effects via a simple model, nonclassical regimes, and validity of neglecting Langevin noise. <i>Physical Review A</i> , 2007, 76, .	1.0	14
118	Coherent effects on two-photon correlation and directional emission of two two-level atoms. <i>Physical Review A</i> , 2007, 75, .	1.0	11
119	Effects of spontaneously generated coherence on two-photon correlation in a double-cascade scheme. <i>Physical Review A</i> , 2007, 75, .	1.0	6
120	Correlation of photon pairs from the double Raman amplifier: Generalized analytical quantum Langevin theory. <i>Physical Review A</i> , 2007, 75, .	1.0	50
121	Two-photon correlation of radiation emitted by two excited atoms: Detailed analysis of a dicke problem. <i>Laser Physics</i> , 2007, 17, 956-964.	0.6	5
122	Effects of Atomic Motion on the Controllable Nonclassical Photon Statistics. , 2007, , .		0
123	Directed Spontaneous Emission from an Extended Ensemble of N Atoms: Timing Is Everything. <i>Physical Review Letters</i> , 2006, 96, 010501.	2.9	337
124	Time-Bandwidth Problem in Room Temperature Slow Light. <i>Physical Review Letters</i> , 2006, 96, 023602.	2.9	38
125	Fluctuation statistics of mesoscopic Bose-Einstein condensates: Reconciling the master equation with the partition function to reexamine the Uhlenbeck-Einstein dilemma. <i>Physical Review A</i> , 2006, 74, .	1.0	8
126	Crosstalk noise suppression in slow light for time-bandwidth product. , 2005, , .		0

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127	Injection time effects on LWI with microwave driven non-degenerate ground states. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2005, 29, 111-118.	1.3	3
128	Two-photon correlation of photon pairs: near field and polarization effects (Plenary Paper). , 2005, , .		7
129	Publisher's Note: Quantum correlations between a pair of Raman photons from a single atom under arbitrary excitation condition [Phys. Rev. A72, 043811 (2005)]. <i>Physical Review A</i> , 2005, 72, .	1.0	0
130	Quantum correlations between a pair of Raman photons from a single atom under arbitrary excitation condition. <i>Physical Review A</i> , 2005, 72, .	1.0	15
131	Theory of femtosecond coherent anti-Stokes Raman backscattering enhanced by quantum coherence for standoff detection of bacterial spores. <i>Physical Review A</i> , 2005, 72, .	1.0	26
132	Improving quantum microscopy and lithography via Raman photon pairs: II. Analysis. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2004, 6, S816-S820.	1.4	31
133	Laser cooling of molecules via single spontaneous emission. <i>European Physical Journal D</i> , 2003, 22, 259-267.	0.6	8
134	Rotational cooling of polar molecules by Stark-tuned cavity resonance. <i>Physical Review A</i> , 2003, 68, .	1.0	5
135	Momentum spread of spontaneously decaying cold gas in thermal radiation. <i>Physical Review A</i> , 2002, 66, .	1.0	3
136	General electromagnetic density of modes for a one-dimensional photonic crystal. <i>Physical Review E</i> , 2000, 62, 7405-7409.	0.8	5
137	Photonic band gap in a superconductor-dielectric superlattice. <i>Physical Review B</i> , 2000, 61, 5920-5923.	1.1	111
138	Polariton gap in a superconductor-dielectric superlattice. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1999, 259, 413-419.	0.9	45
139	Measuring Gravitational Effect of Superintense Laser by Spin-Squeezed Bose-Einstein Condensates Interferometer. <i>Chinese Physics B</i> , 0, , .	0.7	1