John L Hall

List of Publications by Year
in descending order

75 papers	8,441 citations	87886 38 h-index	144002 57 g-index
78 all docs	78 docs citations	78 times ranked	4157 citing authors

#	Article	IF	Citations
1	Carrier-Envelope Phase Control of Femtosecond Mode-Locked Lasers and Direct Optical Frequency Synthesis. Science, 2000, 288, 635-639.	12.6	2,344
2	Direct Link between Microwave and Optical Frequencies with a 300 THz Femtosecond Laser Comb. Physical Review Letters, 2000, 84, 5102-5105.	7.8	1,030
3	Nobel Lecture: Defining and measuring optical frequencies. Reviews of Modern Physics, 2006, 78, 1279-1295.	45.6	444
4	Delivering the same optical frequency at two places: accurate cancellation of phase noise introduced by an optical fiber or other time-varying path. Optics Letters, 1994, 19, 1777.	3.3	431
5	Ultrasensitive detections in atomic and molecular physics: demonstration in molecular overtone spectroscopy. Journal of the Optical Society of America B: Optical Physics, 1998, 15, 6.	2.1	368
6	Phase-Coherent Optical Pulse Synthesis from Separate Femtosecond Lasers. Science, 2001, 293, 1286-1289.	12.6	241
7	Optical frequency synthesis based on mode-locked lasers. Review of Scientific Instruments, 2001, 72, 3749-3771.	1.3	218
8	Hyperfine structure and absolute frequency of the ^87Rb 5P_3/2 state. Optics Letters, 1996, 21, 1280.	3.3	206
9	Simple and compact 1-Hz laser system via an improved mounting configuration of a reference cavity. Optics Letters, 2005, 30, 1815.	3.3	195
10	Ultrasensitive frequency-modulation spectroscopy enhanced by a high-finesse optical cavity: theory and application to overtone transitions of C_2H_2 and C_2HD. Journal of the Optical Society of America B: Optical Physics, 1999, 16, 2255.	2.1	170
11	Delivery of high-stability optical and microwave frequency standards over an optical fiber network. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 1459.	2.1	167
12	Molecular Iodine Clock. Physical Review Letters, 2001, 87, 270801.	7.8	153
13	Influence of decorrelation on Heisenberg-limited interferometry with quantum correlated photons. Physical Review A, 1998, 57, 4004-4013.	2.5	134
14	Test of the Isotropy of the Speed of Light Using Fast-Beam Laser Spectroscopy. Physical Review Letters, 1988, 60, 81-84.	7.8	121
15	Measurement of the Positronium1S13â^'2S13Interval by Doppler-Free Two-Photon Spectroscopy. Physical Review Letters, 1984, 52, 1689-1692.	7.8	116
16	Subfemtosecond timing jitter between two independent, actively synchronized, mode-locked lasers. Optics Letters, 2002, 27, 312.	3.3	114
17	Kilohertz linewidth from frequency-stabilized mid-infrared quantum cascade lasers. Optics Letters, 1999, 24, 1844.	3.3	113
18	Continuously tunable, precise, single frequency optical signal generator. Optics Express, 2002, 10, 515.	3.4	111

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19	Stabilization of optical phase/frequency of a laser system: application to a commercial dye laser with an external stabilizer. Journal of the Optical Society of America B: Optical Physics, 1993, 10, 802.	2.1	108
20	Contribution of thermal noise to frequency stability of rigid optical cavity via Hertz-linewidth lasers. Physical Review A, 2006, 73, .	2.5	102
21	Sub-Doppler optical frequency reference at 1064 Î¼m by means of ultrasensitive cavity-enhanced frequency modulation spectroscopy of a C_2HD overtone transition. Optics Letters, 1996, 21, 1000.	3.3	100
22	Vibration-induced elastic deformation of Fabry-Perot cavities. Physical Review A, 2006, 74, .	2.5	98
23	Cooling and trapping of atomic strontium. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 968.	2.1	96
24	Cold collisions ofSr*â^'Srin a magneto-optical trap. Physical Review A, 1999, 59, 1216-1222.	2.5	87
25	Accuracy Comparison of Absolute Optical Frequency Measurement between Harmonic-Generation Synthesis and a Frequency-Division Femtosecond Comb. Physical Review Letters, 2000, 85, 3797-3800.	7.8	83
26	Frequency stability measurements on polarization-stabilized Heâ€“Ne lasers. Applied Optics, 1988, 27, 1285.	2.1	77
27	Correlated spontaneous emission in a Zeeman laser. Physical Review Letters, 1990, 65, 3116-3119.	7.8	77
28	Sub-Doppler molecular-iodine transitions near the dissociation limit (523â€“498 nm). Optics Letters, 2002, 27, 571.	3.3	77
29	Optical frequency measurement across a 104-THz gap with a femtosecond laser frequency comb. Optics Letters, 2000, 25, 186.	3.3	68
30	Broadband optical frequency comb generation with a phase-modulated parametric oscillator. Optics Letters, 1999, 24, 1747.	3.3	67
31	Precision phase control of an ultrawide-bandwidth femtosecond laser:â€ƒa network of ultrastable frequency marks across the visible spectrum. Optics Letters, 2000, 25, 1675.	3.3	67
32	Frequency comb generation using femtosecond pulses and cross-phase modulation in optical fiber at arbitrary center frequencies. Optics Letters, 2000, 25, 308.	3.3	60
33	Highly selective terahertz optical frequency comb generator. Optics Letters, 1997, 22, 301.	3.3	58
34	Single-Stage Sub-Doppler Cooling of Alkaline Earth Atoms. Physical Review Letters, 2003, 90, 193002.	7.8	55
35	Cavity ringdown heterodyne spectroscopy: High sensitivity with microwatt light power. Physical Review A, 2000, 61, .	2.5	48
36	Dynamics in a two-level atom magneto-optical trap. Physical Review A, 2002, 66, .	2.5	47

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37	Rotation dependence of electric quadrupole hyperfine interaction in the ground state of molecular iodine by high-resolution laser spectroscopy. Journal of the Optical Society of America B: Optical Physics, 2001, 18, 379.	2.1	46
38	Measurement of mirror birefringence at the sub-ppm level: Proposed application to a test of QED. Physical Review A, 2000, 62, .	2.5	39
39	Optical phase locking in the microradian domain:?potential applications to NASA spaceborne optical measurements. Optics Letters, 1999, 24, 1838.	3.3	36
40	Phase-coherent multilevel two-photon transitions in cold Rb atoms: Ultrahigh-resolution spectroscopy via frequency-stabilized femtosecond laser. Physical Review A, 2000, 63, .	2.5	27
41	High-resolution frequency standard at 1030 nm for Yb:YAG solid-state lasers. Journal of the Optical Society of America B: Optical Physics, 2000, 17, 927.	2.1	24
42	Defining and Measuring Optical Frequencies: The Optical Clock Opportunityâ€" And More (Nobel) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.1	24
43	Stability and absolute frequency of molecular iodine transitions near 532 nm. , 1995, 2378, 22.		23
44	Rulers of light. Scientific American, 2008, 298, 74-81.	1.0	23
45	Cancellation of laser dither modulation from optical frequency standards. Optics Letters, 2000, 25, 311.	3.3	18
46	Frequency-stabilized lasers: a parochial review. , 1993, , .		14
47	Active synchronization and carrier phase locking of two separate mode-locked femtosecond lasers. Journal of Modern Optics, 2002, 49, 401-409.	1.3	14
48	<title>Portable I2-stabilized Nd:YAG laser for wavelength standards at 532 nm and 1064 nm</title>. , 1998, , .		11
49	Towards the ultimate control of LIGHT Optical frequency metrology and the phase control of femtosecond pulses. Optics and Photonics News, 2000, 11, 16.	0.5	11
50	Issues and applications in ultrasensitive molecular spectroscopy. , 2002, , .		9
51	<title>Experiments with strontium in a vapor cell magneto-optic trap</title>. , 1998, , .		7
52	A New Era of Frequency Standards and Optical Frequency Measurement. Optics and Photonics News, 2001, 12, 44.	0.5	6
53	A common-path heterodyne interferometer for surface profiling in microelectronic fabrication. Review of Scientific Instruments, 2001, 72, 2455-2466.	1.3	6
54	Riiset al.Reply. Physical Review Letters, 1989, 62, 842-842.	7.8	5

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55	Frequency Stabilization of Tunable Lasers. Experimental Methods in the Physical Sciences, 1997, , 103-136.	0.1	5
56	Measurement of gravitational time delay using drag-free spacecraft and an optical clock. Proceedings of the International Astronomical Union, 2009, 5, 414-419.	0.0	5
57	Accurate cancellation (to milliHertz levels) of optical phase noise due to vibration or insertion phase in fiber-transmitted light. , 1995, , .		3
58	Synchronization and phase lock of two mode-locked femtosecond lasers. , 2001, , .		3
59	3. Absorption detection at the quantum limit: Probing high-finesse cavities with modulation techniques. Experimental Methods in the Physical Sciences, 2003, 40, 83-127.	0.1	3
60	IMPROVING LASER COHERENCE. , 2005, , .		3
61	Learning from the time and length redefinitions, and the metre demotion. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 4090-4108.	3.4	3
62	Accurate removal of RAM from FM laser beams. , 2015, , .		3
63	Highly selective terahertz optical frequency comb generator:â€ƒerrata. Optics Letters, 1997, 22, 746.	3.3	2
64	Sub-Doppler molecular-iodine transitions near the dissociation limit (523-498 nm):â€ƒerrata. Optics Letters, 2002, 27, 1076.	3.3	2
65	<title>Cavity-enhanced frequency modulation spectroscopy: advancing optical detection sensitivity and laser frequency stabilization</title>. , 1998, , .		1
66	Carrier-envelope phase stabilization of mode-locked lasers. , 2001, 4271, 183.		1
67	Why it took so long for the laser and the optical comb to be invented: the unmarked trail from concept to experimental reality [Invited]. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 338.	2.1	1
68	Precise Control of the Pulse-to-Pulse Carrier-Envelope Phase in a Mode-Locked Laser. Springer Series in Chemical Physics, 2001, , 74-78.	0.2	1
69	Precise Wavelength Measurement of Tunable Lasers. Experimental Methods in the Physical Sciences, 1997, , 311-341.	0.1	0
70	High-resolution Rb two-photon spectroscopy with ultrafast lasers. , 2001, , .		0
71	A systematic study of thermal noise limited stability of rigid Fabry-Perot cavities. , 2006, , .		0
72	Surface Plasmon Resonance enhanced Common Path Interferometry for high sensitivity label free biomolecule interaction analysis. , 2007, , .		0

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73	High sensitivity detection of bacteria by surface plasmon resonance enhanced common path interferometry. , 2007, , .		0
74	MERGING TWO INDEPENDENT FEMTOSECOND LASERS INTO ONE. , 2002, , .		0
75	COHERENT OPTICAL FREQUENCY SYNTHESIS AND DISTRIBUTION. , 2002, , .		0