John L Hall

List of Publications by Year
in descending order

75 papers	8,441 citations	100601 38 h-index	162838 57 g-index
78 all docs	78 docs citations	78 times ranked	4736 citing authors

#	Article	IF	Citations
1	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.	0.9	1
2	Accurate removal of RAM from FM laser beams. , 2015, , .		3
3	Learning from the time and length redefinitions, and the metre demotion. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 4090-4108.	1.6	3
4	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
5	Rulers of light. Scientific American, 2008, 298, 74-81.	1.0	23
6	Surface Plasmon Resonance enhanced Common Path Interferometry for high sensitivity label free biomolecule interaction analysis. , 2007, , .		0
7	High sensitivity detection of bacteria by surface plasmon resonance enhanced common path interferometry. , 2007, , .		0
8	Defining and Measuring Optical Frequencies: The Optical Clock Opportunityâ€" And More (Nobel) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.0	24
9	Contribution of thermal noise to frequency stability of rigid optical cavity via Hertz-linewidth lasers. Physical Review A, 2006, 73, .	1.0	102
10	Vibration-induced elastic deformation of Fabry-Perot cavities. Physical Review A, 2006, 74, .	1.0	98
11	Nobel Lecture: Defining and measuring optical frequencies. Reviews of Modern Physics, 2006, 78, 1279-1295.	16.4	444
12	A systematic study of thermal noise limited stability of rigid Fabry-Perot cavities. , 2006, , .		0
13	IMPROVING LASER COHERENCE. , 2005, , .		3
14	Simple and compact 1-Hz laser system via an improved mounting configuration of a reference cavity. Optics Letters, 2005, 30, 1815.	1.7	195
15	Cooling and trapping of atomic strontium. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 968.	0.9	96
16	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.	0.9	167
17	Single-Stage Sub-Doppler Cooling of Alkaline Earth Atoms. Physical Review Letters, 2003, 90, 193002.	2.9	55
18	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

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19	Active synchronization and carrier phase locking of two separate mode-locked femtosecond lasers. Journal of Modern Optics, 2002, 49, 401-409.	0.6	14
20	Dynamics in a two-level atom magneto-optical trap. Physical Review A, 2002, 66, .	1.0	47
21	Subfemtosecond timing jitter between two independent, actively synchronized, mode-locked lasers. Optics Letters, 2002, 27, 312.	1.7	114
22	Sub-Doppler molecular-iodine transitions near the dissociation limit (523â€“498 nm). Optics Letters, 2002, 27, 571.	1.7	77
23	Sub-Doppler molecular-iodine transitions near the dissociation limit (523-498 nm):â€ƒerrata. Optics Letters, 2002, 27, 1076.	1.7	2
24	Continuously tunable, precise, single frequency optical signal generator. Optics Express, 2002, 10, 515.	1.7	111
25	Issues and applications in ultrasensitive molecular spectroscopy. , 2002, , .		9
26	MERGING TWO INDEPENDENT FEMTOSECOND LASERS INTO ONE. , 2002, , .		0
27	COHERENT OPTICAL FREQUENCY SYNTHESIS AND DISTRIBUTION. , 2002, , .		0
28	Phase-Coherent Optical Pulse Synthesis from Separate Femtosecond Lasers. Science, 2001, 293, 1286-1289.	6.0	241
29	A New Era of Frequency Standards and Optical Frequency Measurement. Optics and Photonics News, 2001, 12, 44.	0.4	6
30	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.	0.9	46
31	Synchronization and phase lock of two mode-locked femtosecond lasers. , 2001, , .		3
32	Carrier-envelope phase stabilization of mode-locked lasers. , 2001, 4271, 183.		1
33	High-resolution Rb two-photon spectroscopy with ultrafast lasers. , 2001, , .		0
34	Optical frequency synthesis based on mode-locked lasers. Review of Scientific Instruments, 2001, 72, 3749-3771.	0.6	218
35	A common-path heterodyne interferometer for surface profiling in microelectronic fabrication. Review of Scientific Instruments, 2001, 72, 2455-2466.	0.6	6
36	Molecular Iodine Clock. Physical Review Letters, 2001, 87, 270801.	2.9	153

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37	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
38	Cavity ringdown heterodyne spectroscopy: High sensitivity with microwatt light power. Physical Review A, 2000, 61, .	1.0	48
39	Accuracy Comparison of Absolute Optical Frequency Measurement between Harmonic-Generation Synthesis and a Frequency-Division Femtosecond Comb. Physical Review Letters, 2000, 85, 3797-3800.	2.9	83
40	Measurement of mirror birefringence at the sub-ppm level: Proposed application to a test of QED. Physical Review A, 2000, 62, .	1.0	39
41	Phase-coherent multilevel two-photon transitions in cold Rb atoms: Ultrahigh-resolution spectroscopy via frequency-stabilized femtosecond laser. Physical Review A, 2000, 63, .	1.0	27
42	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.	0.9	24
43	Carrier-Envelope Phase Control of Femtosecond Mode-Locked Lasers and Direct Optical Frequency Synthesis. Science, 2000, 288, 635-639.	6.0	2,344
44	Optical frequency measurement across a 104-THz gap with a femtosecond laser frequency comb. Optics Letters, 2000, 25, 186.	1.7	68
45	Frequency comb generation using femtosecond pulses and cross-phase modulation in optical fiber at arbitrary center frequencies. Optics Letters, 2000, 25, 308.	1.7	60
46	Cancellation of laser dither modulation from optical frequency standards. Optics Letters, 2000, 25, 311.	1.7	18
47	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.	1.7	67
48	Towards the ultimate control of LIGHT Optical frequency metrology and the phase control of femtosecond pulses. Optics and Photonics News, 2000, 11, 16.	0.4	11
49	Direct Link between Microwave and Optical Frequencies with a 300 THz Femtosecond Laser Comb. Physical Review Letters, 2000, 84, 5102-5105.	2.9	1,030
50	Cold collisions ofSr*â^'Srin a magneto-optical trap. Physical Review A, 1999, 59, 1216-1222.	1.0	87
51	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.	0.9	170
52	Broadband optical frequency comb generation with a phase-modulated parametric oscillator. Optics Letters, 1999, 24, 1747.	1.7	67
53	Optical phase locking in the microradian domain:?potential applications to NASA spaceborne optical measurements. Optics Letters, 1999, 24, 1838.	1.7	36
54	Kilohertz linewidth from frequency-stabilized mid-infrared quantum cascade lasers. Optics Letters, 1999, 24, 1844.	1.7	113

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55	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.	0.9	368
56	Influence of decorrelation on Heisenberg-limited interferometry with quantum correlated photons. Physical Review A, 1998, 57, 4004-4013.	1.0	134
57	<title>Cavity-enhanced frequency modulation spectroscopy: advancing optical detection sensitivity and laser frequency stabilization</title>. , 1998, , .		1
58	<title>Experiments with strontium in a vapor cell magneto-optic trap</title>. , 1998, , .		7
59	<title>Portable I2-stabilized Nd:YAG laser for wavelength standards at 532 nm and 1064 nm</title>. , 1998, , .		11
60	Frequency Stabilization of Tunable Lasers. Experimental Methods in the Physical Sciences, 1997, , 103-136.	0.1	5
61	Precise Wavelength Measurement of Tunable Lasers. Experimental Methods in the Physical Sciences, 1997, , 311-341.	0.1	0
62	Highly selective terahertz optical frequency comb generator. Optics Letters, 1997, 22, 301.	1.7	58
63	Highly selective terahertz optical frequency comb generator:â€ƒerrata. Optics Letters, 1997, 22, 746.	1.7	2
64	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.	1.7	100
65	Hyperfine structure and absolute frequency of the ^87Rb 5P_3/2 state. Optics Letters, 1996, 21, 1280.	1.7	206
66	Accurate cancellation (to milliHertz levels) of optical phase noise due to vibration or insertion phase in fiber-transmitted light. , 1995, , .		3
67	Stability and absolute frequency of molecular iodine transitions near 532 nm. , 1995, 2378, 22.		23
68	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.	1.7	431
69	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.	0.9	108
70	Frequency-stabilized lasers: a parochial review. , 1993, , .		14
71	Correlated spontaneous emission in a Zeeman laser. Physical Review Letters, 1990, 65, 3116-3119.	2.9	77
72	Riiset al.Reply. Physical Review Letters, 1989, 62, 842-842.	2.9	5

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73	Frequency stability measurements on polarization-stabilized Heâ€“Ne lasers. Applied Optics, 1988, 27, 1285.	2.1	77
74	Test of the Isotropy of the Speed of Light Using Fast-Beam Laser Spectroscopy. Physical Review Letters, 1988, 60, 81-84.	2.9	121
75	Measurement of the Positronium1S13â^'2S13Interval by Doppler-Free Two-Photon Spectroscopy. Physical Review Letters, 1984, 52, 1689-1692.	2.9	116