Elizabeth A Donley

List of Publications by Year
in descending order

101 papers	4,835 citations	159358 30 h-index	91712 69 g-index
104 all docs	104 docs citations	104 times ranked	3183 citing authors

#	Article	IF	Citations
1	General Methods for Suppressing the Light Shift in Atomic Clocks Using Power Modulation. Physical Review Applied, 2020, 14, .	1.5	21
2	Dynamic Characterization of an Alkali-Ion Battery as a Source for Laser-Cooled Atoms. Physical Review Applied, 2020, 13, .	1.5	14
3	Robust inertial sensing with point-source atom interferometry for interferograms spanning a partial period. Optics Express, 2020, 28, 34516.	1.7	3
4	A cold-atom beam clock based on coherent population trapping. Applied Physics Letters, 2019, 115, 033503.	1.5	19
5	Single-Source Multiaxis Cold-Atom Interferometer in a Centimeter-Scale Cell. Physical Review Applied, 2019, 12, .	1.5	32
6	Ramsey Spectroscopy with Displaced Frequency Jumps. Physical Review Letters, 2019, 122, 113601.	2.9	24
7	Reduction of light shifts in Ramsey spectroscopy with a combined error signal. Applied Physics Letters, 2019, 114, .	1.5	19
8	Magneto-optic trap using a reversible, solid-state alkali-metal source. Optics Letters, 2019, 44, 3002.	1.7	18
9	A Cold Atomic Beam Ramsey CPT Clock. , 2018, , .		0
10	ac Stark shifts of dark resonances probed with Ramsey spectroscopy. Physical Review A, 2018, 98, .	1.0	19
11	Combined error signal in Ramsey spectroscopy of clock transitions. New Journal of Physics, 2018, 20, 123016.	1.2	16
12	Editorial Introduction to the Special Issue on the IEEE International Frequency Control Symposium (IFCS) and European Frequency and Time Forum (EFTF). IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 897-897.	1.7	0
13	Active stabilization of alkali-atom vapor density with a solid-state electrochemical alkali-atom source. Optics Express, 2018, 26, 3696.	1.7	8
14	Analytical tools for point source interferometry. , 2017, , .		0
15	Trade-offs in size and performance for a point source interferometer gyroscope. , 2017, , .		0
16	A low-power reversible alkali atom source. Applied Physics Letters, 2017, 110, .	1.5	18
17	An optimized microfabricated platform for the optical generation and detection of hyperpolarized 129Xe. Scientific Reports, 2017, 7, 43994.	1.6	18
18	High contrast dark resonances in a cold-atom clock probed with counterpropagating circularly polarized beams. Applied Physics Letters, 2017, 111, .	1.5	35

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19	Low-Drift Coherent Population Trapping Clock Based on Laser-Cooled Atoms and High-Coherence Excitation Fields. Physical Review Applied, 2017, 8, .	1.5	46
20	Frequency shift mitigation in a cold-atom CPT clock. , 2016, , .		1
21	Compact atom-interferometer gyroscope based on an expanding ball of atoms. Journal of Physics: Conference Series, 2016, 723, 012058.	0.3	3
22	Low helium permeation cells for atomic microsystems technology. Optics Letters, 2016, 41, 2775.	1.7	42
23	Dependence of scale factor on initial cloud size for an atom-ball gyroscope. , 2016, , .		0
24	NIST on a chip with alkali vapor cells: Initial results. , 2016, , .		1
25	NIST on a Chip: Realizing SI units with microfabricated alkali vapour cells. Journal of Physics: Conference Series, 2016, 723, 012056.	0.3	35
26	Extended source interferometry in the compact regime. , 2016, , .		0
27	Point source atom interferometry with a cloud of finite size. Applied Physics Letters, 2016, 109, .	1.5	31
28	Chip-scale MOT for Microsystems Technology. , 2016, , .		1
29	Light shifts in a pulsed cold-atom coherent-population-trapping clock. Physical Review A, 2015, 91, .	1.0	35
30	First accuracy evaluation of NIST-F2. Metrologia, 2014, 51, 174-182.	0.6	153
31	Optical hyperpolarization and NMR detection of 129Xe on a microfluidic chip. Nature Communications, 2014, 5, 3908.	5.8	58
32	High-Accuracy Measurement of the Blackbody Radiation Frequency Shift of the Ground-State Hyperfine Transition inCs133. Physical Review Letters, 2014, 112, 050801.	2.9	25
33	Frequency biases in a cold-atom coherent population trapping clock. , 2014, , .		2
34	A View on Energy Transfer Between Cold Atoms. Science, 2013, 342, 942-943.	6.0	0
35	Atom number in magneto-optic traps with millimeter scale laser beams. Optics Letters, 2013, 38, 661.	1.7	20
36	Cold-atom double-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î›</mml:mi></mml:math>coherent population trapping clock. Physical Review A, 2013, 88, .	1.0	68

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37	Cancellation of Doppler shifts in a cold-atom CPT clock. , 2013, , .		0
38	A compact cold-atom frequency standard based on coherent population trapping. , 2012, , .		0
39	Atom-number amplification in a magneto-optical trap via stimulated light forces. Physical Review A, 2012, 85, .	1.0	13
40	Atomic Sensors â€“ A Review. IEEE Sensors Journal, 2011, 11, 1749-1758.	2.4	231
41	MOT loading enhancement with stimulated light forces. , 2011, , .		0
42	Status of a compact cold-atom CPT frequency standard. , 2011, , .		1
43	Offset phase locking of noisy diode lasers aided by frequency division. Review of Scientific Instruments, 2011, 82, 083110.	0.6	15
44	Towards a compact cold atom frequency standard based on coherent population trapping. , 2010, , .		1
45	Number enhancement for compact laser-cooled atomic samples by use of stimulated radiation forces. , 2010, , .		0
46	Nuclear magnetic resonance gyroscopes. , 2010, , .		54
47	Cryogenic fountain development at NIST and INRIM: preliminary characterization. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 600-605.	1.7	20
48	Nuclear quadrupole resonances in compact vapor cells: The crossover between the NMR and the nuclear quadrupole resonance interaction regimes. Physical Review A, 2009, 79, .	1.0	43
49	The cryogenic fountain ITCsF2. , 2009, , .		3
50	Rubidium vapor cell with integrated Bragg reflectors for compact atomic MEMS. Sensors and Actuators A: Physical, 2009, 154, 295-303.	2.0	24
51	CHIP-SCALE ATOMIC DEVICES: PRECISION ATOMIC INSTRUMENTS BASED ON MEMS. , 2009, , .		5
52	Glass-blown spherical microcells for chip-scale atomic devices. Sensors and Actuators A: Physical, 2008, 143, 175-180.	2.0	63
53	Differential atomic magnetometry based on a diverging laser beam. Applied Physics Letters, 2007, 91, .	1.5	15
54	Demonstration of high-performance compact magnetic shields for chip-scale atomic devices. Review of Scientific Instruments, 2007, 78, 083102.	0.6	35

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55	Spherical rubidium vapor cells fabricated by micro glass blowing. , 2007, , .		3
56	Absolute Optical Frequency Measurements with a Fractional Frequency Uncertainty at 1 Õ10Â¿15. , 2006, , .		0
57	Single-Atom Optical Clock with High Accuracy. Physical Review Letters, 2006, 97, 020801.	2.9	251
58	Atom-Molecule Coherence in 85Rb BEC. , 2005, , 311-319.		0
59	PARCS: NASAâ€™s laser-cooled atomic clock in space. Advances in Space Research, 2005, 36, 107-113.	1.2	18
60	Recent Improvements in NIST-F1 and a Resulting Accuracy of<tex>$delta f/f=0.61times 10^-15$</tex>. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 842-845.	2.4	19
61	Optical Molasses Loaded From a Low-Velocity Intense Source of Atoms: An Atom Source for Improved Atomic Fountains. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 1905-1910.	2.4	8
62	NIST-F1: recent improvements and accuracy evaluations. Metrologia, 2005, 42, 411-422.	0.6	169
63	Double-pass acousto-optic modulator system. Review of Scientific Instruments, 2005, 76, 063112.	0.6	145
64	Operation of the NIST-F1 caesium fountain primary frequency standard with a maser ensemble, including the impact of frequency transfer noise. Metrologia, 2005, 42, 423-430.	0.6	36
65	Quantum-based microwave power measurements: Proof-of-concept experiment. Review of Scientific Instruments, 2004, 75, 2575-2580.	0.6	34
66	Measurement of dynamic end-to-end cavity phase shifts in cesium-fountain frequency standards. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2004, 51, 652-653.	1.7	3
67	Cesium Primary Frequency References. Japanese Journal of Applied Physics, 2004, 43, 2803-2807.	0.8	6
68	Measurement of dynamic end-to-end cavity phase shifts in cesium-fountain frequency standards. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2004, 51, 652-653.	1.7	1
69	Very-high-precision bound-state spectroscopy near a85RbFeshbach resonance. Physical Review A, 2003, 67, .	1.0	116
70	Atomâ€"Molecule Coherence Near a Feshbach Resonance in a Bose-Einstein Condensate. , 2003, , .		0
71	Microscopic Dynamics in a Strongly Interacting Bose-Einstein Condensate. Physical Review Letters, 2002, 89, 010401.	2.9	87
72	Atomâ€“molecule coherence in a Boseâ€“Einstein condensate. Nature, 2002, 417, 529-533.	13.7	600

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73	QUANTUM IMPLOSIONS AND EXPLOSIONS IN A 85RB BEC. , 2002, , .		0
74	Dynamics of collapsing and exploding Boseâ€"Einstein condensates. Nature, 2001, 412, 295-299.	13.7	670
75	Some simple mechanisms of multiphoton excitation in many-level systems. Molecular Physics, 2001, 99, 1275-1287.	0.8	13
76	Statistics for Single Molecule Spectroscopy Data. Single Molecules, 2001, 2, 23-30.	1.7	10
77	Controlled Collapse of a Bose-Einstein Condensate. Physical Review Letters, 2001, 86, 4211-4214.	2.9	375
78	Electronic Energy Relaxation and Transition Frequency Jumps of Single Molecules at 30 mK. Physical Review Letters, 2001, 87, 015504.	2.9	4
79	Luminescence lifetimes of single molecules in disordered media. Journal of Chemical Physics, 2001, 114, 9993-9997.	1.2	21
80	Improved characterization of elastic scattering near a Feshbach resonance in85Rb. Physical Review A, 2001, 64, .	1.0	38
81	Statistics of a single terrylene molecule in hexadecane. Journal of Luminescence, 2000, 86, 175-180.	1.5	4
82	Zeroâ€"phonon lines of single molecules in polyethylene down to millikelvin temperatures. Journal of Luminescence, 2000, 87-89, 109-114.	1.5	20
83	Spectral diffusion in polyethylene: Single-molecule studies performed between 30 mK and 1.8 K. Journal of Chemical Physics, 2000, 113, 9294-9299.	1.2	16
84	The distribution of line widths of single probe molecules in a crystalline host at milliKelvin temperatures. Journal of Luminescence, 1999, 83-84, 255-259.	1.5	30
85	Coupling Strength Distributions for Dynamic Interactions Experienced by Probe Molecules in a Polymer Host. Journal of Physical Chemistry A, 1999, 103, 2282-2289.	1.1	32
86	Single molecule microscopy: peak-frequency trajectories and linewidth distribution. Optical Materials, 1998, 9, 376-380.	1.7	11
87	A comparison of molecular hyperpolarizabilities from gas and liquid phase measurements. Journal of Chemical Physics, 1998, 108, 849-856.	1.2	240
88	Optical-dipole-force fiber guiding and heating of atoms. Physical Review A, 1997, 55, 3684-3696.	1.0	52
89	SINGLE-MOLECULE SPECTROSCOPY. Annual Review of Physical Chemistry, 1997, 48, 181-212.	4.8	203
90	Evanescent-wave guiding of atoms in hollow optical fibers. Physical Review A, 1996, 53, R648-R651.	1.0	133

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91	Hyperpolarizabilities measured for interacting molecular pairs. Chemical Physics Letters, 1993, 215, 156-162.	1.2	18
92	Gas pump with a magnetically coupled piston. Review of Scientific Instruments, 1993, 64, 2399-2400.	0.6	1
93	A comparison of calculated and experimental hyperpolarizabilities for acetonitrile in gas and liquid phases. Journal of Chemical Physics, 1993, 98, 5595-5603.	1.2	83
94	The hyperpolarizability dispersion of neon is not anomalous. Chemical Physics Letters, 1992, 195, 591-595.	1.2	24
95	Progress on a miniature laser-cooled cesium fountain frequency standard. , 0, , .		0
96	A quantum-based microwave power measurement performed with a miniature atomic fountain. , 0, , .		4
97	Development of a quantum based microwave power measurement. , 0, , .		1
98	Progress towards the second-generation atomic fountain clock at NIST. , 0, , .		2
99	Laser cooling and launching performance in a (1,1,1)-geometry atomic fountain. , 0, , .		1
100	A new microwave synthesis chain for the primary frequency standard NIST-F1. , 0, , .		12
101	On the power dependence of extraneous microwave fields in atomic frequency standards. , 0, , .		5