

Edward A Whittaker

List of Publications by Year in descending order

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47
papers

2,441
citations

361045

20
h-index

301761

39
g-index

48
all docs

48
docs citations

48
times ranked

1793
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum cascade lasers: ultrahigh-speed operation, optical wireless communication, narrow linewidth, and far-infrared emission. IEEE Journal of Quantum Electronics, 2002, 38, 511-532.	1.0	265
2	Sensitive absorption spectroscopy with a room-temperature distributed-feedback quantum-cascade laser. Optics Letters, 1998, 23, 219.	1.7	264
3	Theoretical description of frequency modulation and wavelength modulation spectroscopy. Applied Optics, 1994, 33, 6294.	2.1	247
4	Observation of 4.2-K equilibrium-noise squeezing via a Josephson-parametric amplifier. Physical Review Letters, 1988, 60, 764-767.	2.9	206
5	Observation of parametric amplification and deamplification in a Josephson parametric amplifier. Physical Review A, 1989, 39, 2519-2533.	1.0	196
6	Quantum-limited laser frequency-modulation spectroscopy. Journal of the Optical Society of America B: Optical Physics, 1985, 2, 1510.	0.9	185
7	Residual amplitude modulation in laser electro-optic phase modulation. Journal of the Optical Society of America B: Optical Physics, 1985, 2, 1320.	0.9	176
8	High-frequency modulation without the relaxation oscillation resonance in quantum cascade lasers. Applied Physics Letters, 2001, 79, 2526-2528.	1.5	131
9	Quantum cascade lasers and the Kruse model in free space optical communication. Optics Express, 2009, 17, 4355.	1.7	113
10	Free-space optical transmission of multimedia satellite data streams using mid-infrared quantum cascade lasers. Electronics Letters, 2002, 38, 181.	0.5	81
11	High-speed modulation and free-space optical audio/video transmission using quantum cascade lasers. Electronics Letters, 2001, 37, 191.	0.5	62
12	Detection of SiH ₂ in silane and disilane glow discharges by frequency modulation absorption spectroscopy. Applied Physics Letters, 1984, 44, 1155-1157.	1.5	59
13	High-speed digital data transmission using mid-infrared quantum cascade lasers. Electronics Letters, 2001, 37, 1290.	0.5	53
14	ND ₄ Sch ^{1/4} ler band absorption observed by laser FM spectroscopy in a photochemical reaction. Journal of Chemical Physics, 1984, 80, 961-962.	1.2	42
15	Laser FM spectroscopy with photochemical modulation. Applied Physics B, Photophysics and Laser Chemistry, 1984, 35, 105-111.	1.5	38
16	Temporally Recurrent Spatial Ordering of Atomic Population in Gases: Grating Echoes. Physical Review Letters, 1979, 43, 851-855.	2.9	36
17	Squeezed-state-enhanced frequency-modulation spectroscopy. Optics Letters, 1987, 12, 236.	1.7	36
18	Reduction of residual amplitude modulation in frequency-modulation spectroscopy by using harmonic frequency modulation. Journal of the Optical Society of America B: Optical Physics, 1988, 5, 1253.	0.9	36

#	ARTICLE	IF	CITATIONS
19	Noble-gas-induced collisional broadening of the $3P_{1/2} \rightarrow 3P_{3/2}$ transition of sodium measured by the trilevel-echo technique. <i>Physical Review A</i> , 1980, 22, 1962-1969.	1.0	26
20	Hyperfine structure of the $D_{21} \rightarrow H_{43}$ levels of $\text{Pr}^{3+}:\text{LaF}_3$ with the use of photon echo modulation spectroscopy. <i>Physical Review B</i> , 1982, 26, 3617-3621.	1.1	24
21	Photon-echo nuclear double resonance in $\text{LaF}_3:\text{Pr}^{3+}$. <i>Physical Review B</i> , 1981, 23, 6142-6144.	1.1	20
22	Improved laser technique for high sensitivity atomic absorption spectroscopy in flames. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 1983, 30, 289-296.	1.1	19
23	Blue, green and yellow upconversion lasing in $\text{Er}:\text{YLiF}_4$ using $1.5 \mu\text{m}$ pumping. <i>Electronics Letters</i> , 1992, 28, 2136.	0.5	18
24	Optical echoes generated by standing-wave fields: Observations in atomic vapors. <i>Optics Communications</i> , 1979, 31, 223-227.	1.0	14
25	Sensitive plasma etching endpoint detection using tunable diode laser absorption spectroscopy. <i>Applied Physics Letters</i> , 1994, 64, 2779-2781.	1.5	13
26	Measurements of neutral species in low pressure C_2F_6 discharges using diode laser absorption spectroscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1993, 11, 1193-1198.	0.9	12
27	Real-time in situ detection of SF_6 in a plasma reactor. <i>Applied Physics Letters</i> , 1993, 63, 1035-1037.	1.5	11
28	Observation of 4.2 equilibrium noise squeezing via a Josephson-parametric amplifier. <i>IEEE Transactions on Magnetics</i> , 1989, 25, 1371-1375.	1.2	9
29	Theoretical modeling of multimode laser frequency-modulation spectroscopy. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1991, 8, 719.	0.9	9
30	Spectral and thermodynamic properties of a Fibonacci quasicrystal. <i>Journal of Physics A</i> , 1992, 25, 577-588.	1.6	6
31	High duty cycle operation of quantum cascade lasers based on graded superlattice active regions. <i>Journal of Applied Physics</i> , 2001, 89, 7735-7738.	1.1	6
32	Optical free-space communications at middle-infrared wavelengths. , 2004, , .		6
33	Determination of radio-frequency phase in harmonic frequency modulation spectroscopy. <i>Applied Optics</i> , 1991, 30, 3799.	2.1	4
34	Determination of offset between a fixed wavelength laser and an absorption line using frequency modulation spectroscopy. <i>Optics Communications</i> , 1983, 45, 196-200.	1.0	3
35	Dynamic resonant peak locking scheme for diode laser modulation spectroscopy. <i>Optical Engineering</i> , 1993, 32, 453.	0.5	3
36	Spectral holeburning properties of R^2 color centers in LiF : dependence on doping and irradiation processes. <i>Applied Physics B, Photophysics and Laser Chemistry</i> , 1986, 41, 197-203.	1.5	2

#	ARTICLE	IF	CITATIONS
37	Response of a two-level atom to a frequency-modulated optically coherent pulse train. Journal of the Optical Society of America B: Optical Physics, 1998, 15, 1833.	0.9	2
38	Analog and digital high-speed modulation of quantum cascade laser. , 2003, , .		2
39	High Sensitivity Frequency Modulation Spectroscopy and the Path to Single Molecule Detection. Journal of Physical Chemistry A, 2021, 125, 8519-8528.	1.1	2
40	<title>Absorption Measurements Using Frequency Modulation Heterodyne Spectroscopy</title>. Proceedings of SPIE, 1983, , .	0.8	1
41	Resonantly enhanced radio frequency electrooptic phase modulator. Applied Optics, 1990, 29, 422.	2.1	1
42	Tunable distributed-feedback quantum-cascade lasers for gas-sensing applications. , 1998, 3285, 144.		1
43	Mid-infrared lasers and the Kruse-Mie theorem in fog for free-space optical communication applications. , 2008, , .		1
44	<title>Sensitive absorption spectroscopy using tunable semiconductor lasers</title>. , 1997, , .		0
45	Free-space midinfrared optical links using quantum cascade lasers. , 2003, 4975, 20.		0
46	Investigation of near and mid infrared (1.34, 1.55 and 8.1 $\hat{1}$ / ₄ m) laser propagation through the New York City metro area. , 2007, , .		0
47	High Frequency Modulation and Optical Free Space Video Transmission using Quantum Cascade Lasers. , 2001, , .		0