Edward A Whittaker

List of Publications by Year
in descending order

47 papers	2,441 citations	361413 20 h-index	302126 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.	1.9	265
2	Sensitive absorption spectroscopy with a room-temperature distributed-feedback quantum-cascade laser. Optics Letters, 1998, 23, 219.	3.3	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.	7.8	206
5	Observation of parametric amplification and deamplification in a Josephson parametric amplifier. Physical Review A, 1989, 39, 2519-2533.	2.5	196
6	Quantum-limited laser frequency-modulation spectroscopy. Journal of the Optical Society of America B: Optical Physics, 1985, 2, 1510.	2.1	185
7	Residual amplitude modulation in laser electro-optic phase modulation. Journal of the Optical Society of America B: Optical Physics, 1985, 2, 1320.	2.1	176
8	High-frequency modulation without the relaxation oscillation resonance in quantum cascade lasers. Applied Physics Letters, 2001, 79, 2526-2528.	3.3	131
9	Quantum cascade lasers and the Kruse model in free space optical communication. Optics Express, 2009, 17, 4355.	3.4	113
10	Free-space optical transmission of multimedia satellite data streams using mid-infrared quantum cascade lasers. Electronics Letters, 2002, 38, 181.	1.0	81
11	High-speed modulation and free-space optical audio/video transmission using quantum cascade lasers. Electronics Letters, 2001, 37, 191.	1.0	62
12	Detection of SiH2in silane and disilane glow discharges by frequency modulation absorption spectroscopy. Applied Physics Letters, 1984, 44, 1155-1157.	3.3	59
13	High-speed digital data transmission using mid-infrared quantum cascade lasers. Electronics Letters, 2001, 37, 1290.	1.0	53
14	ND4 SchÃ¼ler band absorption observed by laser FM spectroscopy in a photochemical reaction. Journal of Chemical Physics, 1984, 80, 961-962.	3.0	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.	7.8	36
17	Squeezed-state-enhanced frequency-modulation spectroscopy. Optics Letters, 1987, 12, 236.	3.3	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.	2.1	36

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19	Noble-gas-induced collisional broadening of the3P12â^'3P32transition of sodium measured by the trilevel-echo technique. Physical Review A, 1980, 22, 1962-1969.	2.5	26
20	Hyperfine structure of theD21â^'H43levels ofPr3+: LaF3with the use of photon echo modulation spectroscopy. Physical Review B, 1982, 26, 3617-3621.	3.2	24
21	Photon-echo nuclear double resonance in LaF3:Pr3+. Physical Review B, 1981, 23, 6142-6144.	3.2	20
22	Improved laser technique for high sensitivity atomic absorption spectroscopy in flames. Journal of Quantitative Spectroscopy and Radiative Transfer, 1983, 30, 289-296.	2.3	19
23	Blue, green and yellow upconversion lasing in Er:YLiF4 using 1.5 Î¼m pumping. Electronics Letters, 1992, 28, 2136.	1.0	18
24	Optical echoes generated by standing-wave fields: Observations in atomic vapors. Optics Communications, 1979, 31, 223-227.	2.1	14
25	Sensitive plasma etching endpoint detection using tunable diode laser absorption spectroscopy. Applied Physics Letters, 1994, 64, 2779-2781.	3.3	13
26	Measurements of neutral species in low pressure C2F6 discharges using diode laser absorption spectroscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1993, 11, 1193-1198.	2.1	12
27	Realâ€timein situdetection of SF6in a plasma reactor. Applied Physics Letters, 1993, 63, 1035-1037.	3.3	11
28	Observation of 4.2 equilibrium noise squeezing via a Josephson-parametric amplifier. IEEE Transactions on Magnetics, 1989, 25, 1371-1375.	2.1	9
29	Theoretical modeling of multimode laser frequency-modulation spectroscopy. Journal of the Optical Society of America B: Optical Physics, 1991, 8, 719.	2.1	9
30	Spectral and thermodynamic properties of a Fibonacci quasicrystal. Journal of Physics A, 1992, 25, 577-588.	1.6	6
31	High duty cycle operation of quantum cascade lasers based on graded superlattice active regions. Journal of Applied Physics, 2001, 89, 7735-7738.	2.5	6
32	Optical free-space communications at middle-infrared wavelengths. , 2004, , .		6
33	Determination of radio-frequency phase in harmonic frequency modulation spectroscopy. Applied Optics, 1991, 30, 3799.	2.1	4
34	Determination of offset between a fixed wavelength laser and an absorption line using frequency modulation spectroscopy. Optics Communications, 1983, 45, 196-200.	2.1	3
35	Dynamic resonant peak locking scheme for diode laser modulation spectroscopy. Optical Engineering, 1993, 32, 453.	1.0	3
36	Spectral holeburning properties ofR? color centers in LiF: dependence on doping and irradiation processes. Applied Physics B, Photophysics and Laser Chemistry, 1986, 41, 197-203.	1.5	2

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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.	2.1	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.	2.5	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 8.1Î¼m) 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