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	High Sensitivity Frequency Modulation Spectroscopy and the Path to Single Molecule Detection. Journal of Physical Chemistry A, 2021, 125, 8519-8528.	2.5	2
2	Quantum cascade lasers and the Kruse model in free space optical communication. Optics Express, 2009, 17, 4355.	3.4	113
3	Mid-infrared lasers and the Kruse-Mie theorem in fog for free-space optical communication applications. , 2008, , .		1
4	Investigation of near and mid infrared (1.34, 1.55 and 8.1Î¼m) laser propagation through the New York City metro area. , 2007, , .		0
5	Optical free-space communications at middle-infrared wavelengths. , 2004, , .		6
6	Analog and digital high-speed modulation of quantum cascade laser. , 2003, , .		2
7	Free-space midinfrared optical links using quantum cascade lasers. , 2003, 4975, 20.		0
8	Free-space optical transmission of multimedia satellite data streams using mid-infrared quantum cascade lasers. Electronics Letters, 2002, 38, 181.	1.0	81
9	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
10	High-frequency modulation without the relaxation oscillation resonance in quantum cascade lasers. Applied Physics Letters, 2001, 79, 2526-2528.	3.3	131
11	High-speed digital data transmission using mid-infrared quantum cascade lasers. Electronics Letters, 2001, 37, 1290.	1.0	53
12	High-speed modulation and free-space optical audio/video transmission using quantum cascade lasers. Electronics Letters, 2001, 37, 191.	1.0	62
13	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
14	High Frequency Modulation and Optical Free Space Video Transmission using Quantum Cascade Lasers. , 2001, , .		0
15	Sensitive absorption spectroscopy with a room-temperature distributed-feedback quantum-cascade laser. Optics Letters, 1998, 23, 219.	3.3	264
16	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
17	Tunable distributed-feedback quantum-cascade lasers for gas-sensing applications. , 1998, 3285, 144.		1
18	<title>Sensitive absorption spectroscopy using tunable semiconductor lasers</title>. , 1997, , .		0

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19	Sensitive plasma etching endpoint detection using tunable diode laser absorption spectroscopy. Applied Physics Letters, 1994, 64, 2779-2781.	3.3	13
20	Theoretical description of frequency modulation and wavelength modulation spectroscopy. Applied Optics, 1994, 33, 6294.	2.1	247
21	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
22	Realâ€timein situdetection of SF6in a plasma reactor. Applied Physics Letters, 1993, 63, 1035-1037.	3.3	11
23	Dynamic resonant peak locking scheme for diode laser modulation spectroscopy. Optical Engineering, 1993, 32, 453.	1.0	3
24	Blue, green and yellow upconversion lasing in Er:YLiF4 using 1.5 Î¼m pumping. Electronics Letters, 1992, 28, 2136.	1.0	18
25	Spectral and thermodynamic properties of a Fibonacci quasicrystal. Journal of Physics A, 1992, 25, 577-588.	1.6	6
26	Determination of radio-frequency phase in harmonic frequency modulation spectroscopy. Applied Optics, 1991, 30, 3799.	2.1	4
27	Theoretical modeling of multimode laser frequency-modulation spectroscopy. Journal of the Optical Society of America B: Optical Physics, 1991, 8, 719.	2.1	9
28	Resonantly enhanced radio frequency electrooptic phase modulator. Applied Optics, 1990, 29, 422.	2.1	1
29	Observation of 4.2 equilibrium noise squeezing via a Josephson-parametric amplifier. IEEE Transactions on Magnetics, 1989, 25, 1371-1375.	2.1	9
30	Observation of parametric amplification and deamplification in a Josephson parametric amplifier. Physical Review A, 1989, 39, 2519-2533.	2.5	196
31	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
32	Observation of 4.2-K equilibrium-noise squeezing via a Josephson-parametric amplifier. Physical Review Letters, 1988, 60, 764-767.	7.8	206
33	Squeezed-state-enhanced frequency-modulation spectroscopy. Optics Letters, 1987, 12, 236.	3.3	36
34	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
35	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
36	Quantum-limited laser frequency-modulation spectroscopy. Journal of the Optical Society of America B: Optical Physics, 1985, 2, 1510.	2.1	185

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37	Detection of SiH2in silane and disilane glow discharges by frequency modulation absorption spectroscopy. Applied Physics Letters, 1984, 44, 1155-1157.	3.3	59
38	ND4 SchÃ¼ler band absorption observed by laser FM spectroscopy in a photochemical reaction. Journal of Chemical Physics, 1984, 80, 961-962.	3.0	42
39	Laser FM spectroscopy with photochemical modulation. Applied Physics B, Photophysics and Laser Chemistry, 1984, 35, 105-111.	1.5	38
40	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
41	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
42	<title>Absorption Measurements Using Frequency Modulation Heterodyne Spectroscopy</title>. Proceedings of SPIE, 1983, , .	0.8	1
43	Hyperfine structure of theD21â^'H43levels ofPr3+: LaF3with the use of photon echo modulation spectroscopy. Physical Review B, 1982, 26, 3617-3621.	3.2	24
44	Photon-echo nuclear double resonance in LaF3:Pr3+. Physical Review B, 1981, 23, 6142-6144.	3.2	20
45	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
46	Temporally Recurrent Spatial Ordering of Atomic Population in Gases: Grating Echoes. Physical Review Letters, 1979, 43, 851-855.	7.8	36
47	Optical echoes generated by standing-wave fields: Observations in atomic vapors. Optics Communications, 1979, 31, 223-227.	2.1	14