Maurizio De Rosa

List of Publications by Year
in descending order

80	1,499	304743	345221
papers	citations	22 h-index	36 g-index

82	82	82	1220
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Signal processing and calibration procedures for in situ diode-laser absorption spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2004, 60, 1685-1705.	3.9	116
2	Walk-Off-Induced Modulation Instability, Temporal Pattern Formation, and Frequency Comb Generation in Cavity-Enhanced Second-Harmonic Generation. Physical Review Letters, 2016, 116, 033901.	7.8	100
3	Modulation Instability Induced Frequency Comb Generation in a Continuously Pumped Optical Parametric Oscillator. Physical Review Letters, 2018, 121, 093903.	7.8	89
4	Frequency comb generation in quadratic nonlinear media. Physical Review A, 2015, 91, .	2.5	84
5	Frequency-comb formation in doubly resonant second-harmonic generation. Physical Review A, 2016, 93, .	2.5	67
6	Detection of mercury in air by time-resolved laser-induced breakdown spectroscopy technique. Laser and Particle Beams, 1994, 12, 525-530.	1.0	52
7	Results of the IGEC-2 search for gravitational wave bursts during 2005. Physical Review D, 2007, 76, .	4.7	50
8	Status report and near future prospects for the gravitational wave detector AURIGA. Classical and Quantum Gravity, 2002, 19, 1925-1933.	4.0	45
9	Direct generation of optical frequency combs in Ï‡⁽²⁾ nonlinear cavities. Nanophotonics, 2016, 5, 316-331.	6.0	44
10	Frequency-comb-referenced singly-resonant OPO for sub-Doppler spectroscopy. Optics Express, 2012, 20, 9178.	3.4	41
11	Experimental Measurement of the Dynamic Photothermal Effect in Fabry-Perot Cavities for Gravitational Wave Detectors. Physical Review Letters, 2002, 89, 237402.	7.8	37
12	Singly resonant second-harmonic-generation frequency combs. Physical Review A, 2017, 95, .	2.5	35
13	Single envelope equation modeling of multi-octave comb arrays in microresonators with quadratic and cubic nonlinearities. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 1207.	2.1	33
14	Measurement of the thermal expansion coefficients of ferroelectric crystals by a moirÃ© interferometer. Optics Communications, 2007, 277, 14-18.	2.1	32
15	Optical Frequency Combs in Quadratically Nonlinear Resonators. Micromachines, 2020, 11, 230.	2.9	31
16	Diode laser spectroscopy of overtone bands of acetylene. Applied Physics B: Lasers and Optics, 1996, 63, 277-282.	2.2	30
17	Absolute measurement of the S(0) and S(1) lines in the electric quadrupole fundamental band of D2 around 3â€‚Î¼m. Journal of Chemical Physics, 2010, 133, 154317.	3.0	30
18	COLLISIONAL BROADENING AND SHIFT OF LINES IN THE 2Î½1+2Î½2+Î½3 BAND OF CO2. Journal of Quantitative Spectroscopy and Radiative Transfer, 1999, 61, 97-104.	2.3	27

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19	Sum-frequency generation of cw ultraviolet radiation in periodically poled LiTaO_3. Optics Letters, 2009, 34, 1348.	3.3	27
20	Room temperature gravitational wave bar detector with optomechanical readout. Journal of Applied Physics, 2003, 93, 3589-3595.	2.5	26
21	High-resolution measurements of line intensity, broadening and shift of CO $mathsf{_2}$ around $mathsf{2 mu}$ m. European Physical Journal D, 1999, 6, 327-332.	1.3	24
22	Cavity-enhanced generation of 6 W cw second-harmonic power at 532 nm in periodically-poled MgO:LiTaO_3. Optics Express, 2010, 18, 10985.	3.4	24
23	Comb-assisted cavity ring-down spectroscopy of a buffer-gas-cooled molecular beam. Physical Chemistry Chemical Physics, 2016, 18, 16715-16720.	2.8	23
24	Self- and foreign-broadening and shift coefficients for C2H2 lines at 1.54 Î¼m. European Physical Journal D, 2001, 17, 175-179.	1.3	22
25	A folded Fabryâ€“Perot cavity for optical sensing in gravitational wave detectors. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 309, 15-23.	2.1	20
26	Canard orbits in Fabry-Perot cavities induced by radiation pressure and photothermal effects. Physical Review E, 2006, 73, 026217.	2.1	20
27	Directionally induced quasi-phase matching in homogeneous AlGaAs waveguides. Optics Letters, 2017, 42, 4287.	3.3	20
28	High-spectral-purity laser system for the AURIGA detector optical readout. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 462.	2.1	19
29	Upper Limits on Gravitational-Wave Emission in Association with the 27ÂDecÂ2004 Giant Flare of SGR1806-20. Physical Review Letters, 2005, 95, 081103.	7.8	19
30	A narrow-linewidth optical parametric oscillator for mid-infrared high-resolution spectroscopy. Molecular Physics, 2012, 110, 2103-2109.	1.7	19
31	High-speed multi-THz-range mode-hop-free tunable mid-IR laser spectrometer. Optics Letters, 2013, 38, 1972.	3.3	19
32	Derivation of the critical angle for Mach reflection for strong shock waves. Physical Review A, 1992, 45, 6130-6132.	2.5	18
33	Low-amplitude-noise laser for AURIGA detector optical readout. Applied Optics, 2000, 39, 5732.	2.1	18
34	Phase noise analysis of a 10 Watt Yb-doped fibre amplifier seeded by a 1-Hz-linewidth laser. Optics Express, 2013, 21, 14618.	3.4	18
35	Tunable diode lasers and two-tone frequency modulation spectroscopy applied to atmospheric gas analysis. Optics and Lasers in Engineering, 2002, 37, 533-551.	3.8	17
36	Sub-kilohertz linewidth narrowing of a mid-infrared optical parametric oscillator idler frequency by direct cavity stabilization. Optics Letters, 2015, 40, 4743.	3.3	17

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37	New results for the temperature dependence of self-broadening and shift in the v2 ammonia band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2000, 67, 365-374.	2.3	16
38	A joint search for gravitational wave bursts with AURIGA and LIGO. Classical and Quantum Gravity, 2008, 25, 095004.	4.0	16
39	First room temperature operation of the AURIGA optical readout. Classical and Quantum Gravity, 2002, 19, 1919-1924.	4.0	15
40	Assessing the time constancy of the proton-to-electron mass ratio by precision ro-vibrational spectroscopy of a cold molecular beam. Journal of Molecular Spectroscopy, 2014, 300, 116-123.	1.2	15
41	Lamb-dip spectroscopy of buffer-gas-cooled molecules. Optica, 2019, 6, 436.	9.3	15
42	Temperature dependence of self-shift of ammonia transitions in the Î½2 band. Journal of Quantitative Spectroscopy and Radiative Transfer, 1996, 55, 745-753.	2.3	11
43	Pressure broadening in the second overtone of NO, measured with a near infrared DFB diode laser. Optics Communications, 1999, 159, 80-83.	2.1	10
44	High-resolution investigation of the weak Î½1+3Î½21-Î½21+Î½3 band of CO2 around 2ÂÎ¼m. Applied Physics B: Lasers and Optics, 2000, 70, 879-881.	2.2	10
45	Two infrared laser spectrometers for the in situ measurement of stratospheric gas concentration. Infrared Physics and Technology, 2004, 46, 109-113.	2.9	9
46	LOW-TEMPERATURE SPECTROSCOPY OF THE¹²C₂H₂(Ï...₁+) Tj ETQq0 0 0 rgBT /Ov	4.5	9
47	Experimental investigation of dynamic photo-thermal effect. Classical and Quantum Gravity, 2006, 23, S259-S266.	4.0	8
48	AlGaAs waveguide microresonators for efficient generation of quadratic frequency combs. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 1842.	2.1	8
49	Measurement of atmospheric CO concentration with tunable diode lasers. Infrared Physics and Technology, 1996, 37, 1-5.	2.9	7
50	Propagation of electromagnetic waves in inhomogeneous plasmas. Journal of Plasma Physics, 1994, 52, 443-456.	2.1	6
51	Continuous in situ measurements of volcanic gases with a diode-laser-based spectrometer: CO2 and H2O concentration and soil degassing at Vulcano (Aeolian islands: Italy). Geochemical Transactions, 2007, 8, 5.	0.7	5
52	Infrared Comb Spectroscopy of Buffer-Gas-Cooled Molecules: Toward Absolute Frequency Metrology of Cold Acetylene. International Journal of Molecular Sciences, 2021, 22, 250.	4.1	4
53	Simulation and experimental studies on the evolution of a laser spark in air. Laser and Particle Beams, 1992, 10, 707-713.	1.0	3
54	A narrow-linewidth, frequency-stabilized OPO for sub-Doppler molecular spectroscopy around 3 Î¼m. , 2012, , .		3

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55	On the process of Mach wave generation in air. Laser and Particle Beams, 1991, 9, 453-464.	1.0	2
56	An optical readout scheme for advanced acoustic GW detectors. Classical and Quantum Gravity, 2004, 21, S1237-S1240.	4.0	2
57	Measurement of thermal expansion and thermo-optic coefficients in LiNbO 3 and KTiOPO 4 crystals using dual-interferometric techniques. , 2006, 6341, 534.		2
58	Performance evaluation of fiber Bragg grating sensors by digital holographic technique, strain gauge measurement. Optics and Lasers in Engineering, 2007, 45, 385-389.	3.8	2
59	Optical metrology for massive detectors of gravitational waves. Optics and Lasers in Engineering, 2007, 45, 471-477.	3.8	1
60	Directional quasi-phase matching AlGaAs waveguide microresonators for efficient generation of quadratic frequency combs. , 2017, , .		1
61	Theory of Frequency Comb Generation in Cavity Enhanced Second Harmonic Generation. , 2016, , .		1
62	Interferometric readout for acoustic gravitational wave detectors. AIP Conference Proceedings, 2005, , .	0.4	0
63	Interferometric measurement of thermal expansion coefficients and thermo-optic coefficients in ferroelectric crystals. , 2006, 6188, 163.		0
64	Experimental study of face and edge-pumped ceramic slab DPSSLs in the 100-500W power range. , 2008, , .		0
65	Atomic and molecular spectroscopy with optical-frequency-comb-referenced IR coherent sources. EPJ Web of Conferences, 2013, 57, 02003.	0.3	0
66	Frequency comb generation in continuously-pumped quadratic nonlinear media. , 2015, , .		0
67	Theory of quadratic optical frequency combs. , 2016, , .		0
68	Numerical modelling of frequency comb generation in nonlinear resonators. , 2016, , .		0
69	Nonlinear dynamics of optical frequency combs. , 2017, , .		0
70	Experimental Observation of Optical Frequency Combs in Doubly Resonant Second Harmonic Generation. , 2019, , .		0
71	Quadratic Optical Frequency Combs. , 2019, , .		0
72	LASER-BASED IN SITU GAS SENSORS FOR ENVIRONMENTAL MONITORING. Series in Optics and Photonics, 2009, , 468-493.	0.1	0

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73	High-Speed, Multi-THz-Range Mode-Hop-Free Tunable Mid-IR OPO Spectrometer. , 2013, , .		0
74	Sub-kHz-Linewidth Mid-infrared Optical Parametric Oscillator. , 2014, , .		0
75	Frequency combs in quadratically nonlinear resonators. , 2016, , .		0
76	Single envelope equation modelling of frequency comb generation in quadratic and cubic nonlinear resonators. , 2016, , .		0
77	Control of squeezed light by optomechanical interaction. , 2017, , .		0
78	Frequency comb generation in continuously pumped optical parametric oscillator. , 2017, , .		0
79	Frequency comb generation in a continuously pumped optical parametric oscillator. , 2018, , .		0
80	Second order nonlinearities in silicon waveguides: from the physics to new applications (Conference) Tj ETQq0 0 0 rgBT /Overlock 10 Tf		0