Richard Maulini

List of Publications by Year
in descending order

39 papers	1,971 citations	394421 19 h-index	395702 33 g-index
39 all docs	39 docs citations	39 times ranked	967 citing authors

#	Article	IF	Citations
1	Widely tunable mode-hop free external cavity quantum cascade laser for high resolution spectroscopic applications. Applied Physics B: Lasers and Optics, 2005, 81, 769-777.	2.2	214
2	Widely tunable mode-hop free external cavity quantum cascade lasers for high resolution spectroscopy and chemical sensing. Applied Physics B: Lasers and Optics, 2008, 92, 305-311.	2.2	202
3	External cavity quantum cascade laser. Semiconductor Science and Technology, 2010, 25, 083001.	2.0	189
4	3 W continuous-wave room temperature single-facet emission from quantum cascade lasers based on nonresonant extraction design approach. Applied Physics Letters, 2009, 95, .	3.3	180
5	1.6W high wall plug efficiency, continuous-wave room temperature quantum cascade laser emitting at 4.6Î¼m. Applied Physics Letters, 2008, 92, 111110.	3.3	171
6	Broadband tuning of external cavity bound-to-continuum quantum-cascade lasers. Applied Physics Letters, 2004, 84, 1659-1661.	3.3	150
7	External cavity quantum-cascade laser tunable from 8.2to10.4Î¼m using a gain element with a heterogeneous cascade. Applied Physics Letters, 2006, 88, 201113.	3.3	133
8	Direct measurement of the linewidth enhancement factor by optical heterodyning of an amplitude-modulated quantum cascade laser. Applied Physics Letters, 2006, 89, 091121.	3.3	76
9	Continuous-wave operation of a broadly tunable thermoelectrically cooled external cavity quantum-cascade laser. Optics Letters, 2005, 30, 2584.	3.3	73
10	High power thermoelectrically cooled and uncooled quantum cascade lasers with optimized reflectivity facet coatings. Applied Physics Letters, 2009, 95, .	3.3	70
11	Î»~71 Î¼m quantum cascade lasers with 19% wall-plug efficiency at room temperature. Optics Express, 2011, 19, 17203.	3.4	67
12	Multiwatt long wavelength quantum cascade lasers based on high strain composition with 70% injection efficiency. Optics Express, 2012, 20, 24272.	3.4	65
13	Tapered 47 Î¼m quantum cascade lasers with highly strained active region composition delivering over 45 watts of continuous wave optical power. Optics Express, 2012, 20, 4382.	3.4	58
14	Widely tunable high-power external cavity quantum cascade laser operating in continuous-wave at room temperature. Electronics Letters, 2009, 45, 107.	1.0	46
15	High-performance continuous-wave room temperature 4.0-Î¼m quantum cascade lasers with single-facet optical emission exceeding 2ÂW. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18799-18802.	7.1	40
16	Long-Wave IR Quantum Cascade Lasers for emission in the Î» = 8-12Î¼m spectral region. Optical Materials Express, 2013, 3, 1546.	3.0	40
17	Plasmon-enhanced waveguide for dispersion compensation in mid-infrared quantum cascade laser frequency combs. Optics Letters, 2017, 42, 1604.	3.3	35
18	Continuous wave operation of buried heterostructure 46Âµm quantum cascade laser Y-junctions and tree arrays. Optics Express, 2014, 22, 1203.	3.4	27

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19	Activation energy study of electron transport in high performance short wavelengths quantum cascade lasers. Optics Express, 2010, 18, 746.	3.4	20
20	Intersubband absorption of quantum cascade laser structures and its application to laser modulation. Applied Physics Letters, 2008, 92, 211108.	3.3	15
21	All-electrical frequency noise reduction and linewidth narrowing in quantum cascade lasers. Optics Letters, 2014, 39, 6411.	3.3	15
22	High average power uncooled mid-wave infrared quantum cascade lasers. Electronics Letters, 2011, 47, 395.	1.0	11
23	An experimental study of noise in mid-infrared quantum cascade lasers of different designs. Applied Physics B: Lasers and Optics, 2015, 119, 189-201.	2.2	11
24	A Non-Invasive Photonics-Based Device for Monitoring of Diabetic Foot Ulcers: Architectural/Sensorial Components & Technical Specifications. Inventions, 2021, 6, 27.	2.5	11
25	Gain-guided broad area quantum cascade lasers emitting 235 W peak power at room temperature. Optics Express, 2016, 24, 19063.	3.4	10
26	Rate equations analysis of external-cavity quantum cascade lasers. Journal of Applied Physics, 2010, 107, .	2.5	8
27	Room-temperature continuous-wave external cavity interband cascade laser tunable from 3.2 to 3.6â€…Âµm. Optics Express, 2021, 29, 38291.	3.4	7
28	Electrically driven frequency blue-chirped emission in Fabryâ€“Perot cavity quantum cascade laser at room temperature. Applied Physics Letters, 2021, 118, 021108.	3.3	6
29	QCL as a game changer in MWIR and LWIR military and homeland security applications. Proceedings of SPIE, 2012, , .	0.8	5
30	Frequency Ageing and Noise Evolution in a Distributed Feedback Quantum Cascade Laser Measured Over a Two-Month Period. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 68-73.	2.9	5
31	Frequency stability of a dual wavelength quantum cascade laser. Optics Express, 2017, 25, 11027.	3.4	5
32	High performance quantum cascade laser frequency combs at Î»â€‰â¼ 6 Î¼m based on plasmon-enhanced dispersion compensation. Optics Express, 2020, 28, 20714.	3.4	3
33	External cavity quantum-cascade laser tunable from 8.2 to 10.4 μm using an inhomogenously broadened gain element. , 2006, , .		1
34	Widely Tunable, High Power, Mode-hop Free, CW External Cavity Quantum Cascade Laser at 8.4μm. , 2007, , .		1
35	Electrically-driven pure amplitude and frequency modulation in a quantum cascade laser. Optics Express, 2018, 26, 12306-12317.	3.4	1
36	High performance mid- and far-infrared quantum cascade lasers. , 0, , .		0

#	Article	IF	Citations
37	High-Power Thermoelectrically-Cooled and Uncooled Mid-Wave Infrared Quantum Cascade Lasers. , 2010, , .		0
38	Multiwatt long wavelength quantum cascade lasers based on high strain composition with 70% injection efficiency. , 2013, , .		0
39	High performance quantum cascade laser frequency combs at Î» ~ 6 pm. , 2020, , .		0