Mathieu Carras

List of Publications by Year
in descending order

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48	771	567281 15	526287 27
papers	citations	h-index	g-index

49	49	49	725
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Direct Modulation and Free-Space Transmissions of up to 6 Gbps Multilevel Signals With a 4.65-mum Quantum Cascade Laser at Room Temperature. Journal of Lightwave Technology, 2022, 40, 2370-2377.	4.6	16
2	Private communication with quantum cascade laser photonic chaos. Nature Communications, 2021, 12, 3327.	12.8	55
3	Chaos synchronization in mid-infrared quantum cascade lasers for private free-space communication. , 2021, , .		0
4	Widely-Tunable Quantum Cascade-Based Sources for the Development of Optical Gas Sensors. Sensors, 2020, 20, 6650.	3.8	5
5	Extreme events in quantum cascade lasers. Advanced Photonics, 2020, 2, .	11.8	17
6	All-optical modulation at mid-infrared wavelength with QCLs. , 2020, , .		0
7	Peculiarities and predictions of rogue waves in mid-infrared quantum cascade lasers under conventional optical feedback. , 2020, , .		0
8	Enhanced Chaotic Performance with Optically Injected Quantum Cascade Lasers. , 2019, , .		0
9	Chaotic optical power dropouts driven by low frequency bias forcing in a mid-infrared quantum cascade laser. Scientific Reports, 2019, 9, 4451.	3.3	14
10	Investigation of Chaotic and Spiking Dynamics in Mid-Infrared Quantum Cascade Lasers Operating Continuous-Waves and Under Current Modulation. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-11.	2.9	18
11	Extensive study of the linewidth enhancement factor of a distributed feedback quantum cascade laser at ultra-low temperature. , 2019, , .		6
12	Low-frequency fluctuations of a mid-infrared quantum cascade laser operating at cryogenic temperatures. Laser Physics Letters, 2018, 15, 116201.	1.4	16
13	Temperature dependence of a mid-infrared quantum cascade laser with external optical feedback. , 2018, , .		0
14	Beam steering in quantum cascade lasers with optical feedback. , 2017, , .		2
15	Ge-rich SiGe waveguides for mid-infrared photonics. Proceedings of SPIE, 2017, , .	0.8	1
16	Multi-gas sensing with quantum cascade laser array in the mid-infrared region. Applied Physics B: Lasers and Optics, 2017, 123, 1.	2.2	28
17	Beam shaping in high-power broad-area quantum cascade lasers using optical feedback. Scientific Reports, 2017, 7, 44284.	3.3	13
18	Low-loss Ge-rich Si_02Ge_08 waveguides for mid-infrared photonics. Optics Letters, 2017, 42, 105.	3.3	56

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19	Complex delay dynamics of high power quantum cascade oscillators. , 2017, , .		1
20	Gigabit free-space multi-level signal transmission with a mid-infrared quantum cascade laser operating at room temperature. Optics Letters, 2017, 42, 3646.	3.3	46
21	Comparative study of SiO_2, Si_3N_4 and TiO_2 thin films as passivation layers for quantum cascade lasers. Optics Express, 2016, 24, 24032.	3.4	11
22	Chaotic light at mid-infrared wavelength. Light: Science and Applications, 2016, 5, e16088-e16088.	16.6	65
23	External cavity coherent quantum cascade laser array. Infrared Physics and Technology, 2016, 76, 415-420.	2.9	4
24	Original designs of chalcogenide microstructured optical fibers for mid-IR applications. , 2016, , .		0
25	Highly birefringent chalcogenide optical fiber for polarization-maintaining in the 3-85 Âµm mid-IR window. Optics Express, 2016, 24, 7977.	3.4	40
26	Monolithic integration of a quantum cascade laser array and an echelle grating multiplexer for widely tunable mid-infrared sources. , 2016, , .		2
27	Design, process and characterization of an arrayed waveguide grating in the 2180–2280cm^{−1} range. , 2015, , .		0
28	Design, fabrication and characterization of an AWG at 45 Âµm. Optics Express, 2015, 23, 26168.	3.4	37
29	Intensity Noise Properties of Midinfrared Injection Locked Quantum Cascade Lasers: II. Experiments. IEEE Journal of Quantum Electronics, 2015, 51, 1-8.	1.9	28
30	Mid-infrared wavelength multiplexer in InGaAs/InP waveguides using a Rowland circle grating. Optics Express, 2015, 23, 20288.	3.4	17
31	Low loss SiGe graded index waveguides for mid-IR applications. Optics Express, 2014, 22, 508.	3.4	100
32	Performances of quantum cascade detectors. Infrared Physics and Technology, 2013, 59, 100-107.	2.9	12
33	Passive coherent beam combining of quantum-cascade lasers with a Dammann grating. , 2012, , .		0
34	Description of transport mechanisms in a very long wave infrared quantum cascade detector under strong magnetic field. Journal of Applied Physics, 2012, 112, .	2.5	2
35	Modelling of electronic transport in Quantum Well Infrared Photodetectors. Infrared Physics and Technology, 2011, 54, 204-208.	2.9	24
36	Coherent combining of quantum-cascade lasers with a binary phase grating. , 2011, , .		0

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37	A zero-Focal-Length superlens for QWIPs and other infrared detectors. Proceedings of SPIE, 2010, , .	0.8	1
38	Quantum well infrared photodetectors hardiness to the nonideality of the energy band profile. Journal of Applied Physics, 2010, 107, .	2.5	3
39	Photocurrent analysis of quantum cascade detectors by magnetotransport. Physical Review B, 2010, 82, .	3.2	7
40	Interface roughness transport in terahertz quantum cascade detectors. Applied Physics Letters, 2010, 96, 061111.	3.3	15
41	Coherent combining of two quantum-cascade lasers in a Michelson cavity. Optics Letters, 2010, 35, 1917.	3.3	24
42	Mid-wave QWIPs for the [3â€“4.2Î¼m] atmospheric window. Infrared Physics and Technology, 2009, 52, 235-240.	2.9	10
43	An FDTD approach to the simulation of quantum-well infrared photodetectors. Optical and Quantum Electronics, 2008, 40, 1085-1090.	3.3	5
44	Design and Optimization of High-Q Surface Mode Cavities on Patterned Metallic Surfaces. IEEE Journal of Quantum Electronics, 2008, 44, 905-910.	1.9	7
45	Low-Loss Surface-Mode Waveguides for Terahertz Siâ€“SiGe Quantum Cascade Lasers. IEEE Journal of Quantum Electronics, 2006, 42, 1233-1238.	1.9	13
46	Field concentration by exciting surface defect modes. Optics Letters, 2006, 31, 47.	3.3	12
47	Photonic band structures for bi-dimensional metallic mesa gratings. Optics Express, 2006, 14, 9982.	3.4	7
48	Photonic modes of metallodielectric periodic waveguides in the midinfrared spectral range. Physical Review B, 2006, 74, .	3.2	31