Mathieu Carras

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/11985397/publications.pdf

Version: 2024-02-01

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	Low loss SiGe graded index waveguides for mid-IR applications. Optics Express, 2014, 22, 508.	3.4	100
2	Chaotic light at mid-infrared wavelength. Light: Science and Applications, 2016, 5, e16088-e16088.	16.6	65
3	Low-loss Ge-rich Si_02Ge_08 waveguides for mid-infrared photonics. Optics Letters, 2017, 42, 105.	3.3	56
4	Private communication with quantum cascade laser photonic chaos. Nature Communications, 2021, 12, 3327.	12.8	55
5	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
6	Highly birefringent chalcogenide optical fiber for polarization-maintaining in the 3-85 Âµm mid-IR window. Optics Express, 2016, 24, 7977.	3.4	40
7	Design, fabrication and characterization of an AWG at 45 Âµm. Optics Express, 2015, 23, 26168.	3.4	37
8	Photonic modes of metallodielectric periodic waveguides in the midinfrared spectral range. Physical Review B, 2006, 74, .	3.2	31
9	Intensity Noise Properties of Midinfrared Injection Locked Quantum Cascade Lasers: II. Experiments. IEEE Journal of Quantum Electronics, 2015, 51, 1-8.	1.9	28
10	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
11	Coherent combining of two quantum-cascade lasers in a Michelson cavity. Optics Letters, 2010, 35, 1917.	3.3	24
12	Modelling of electronic transport in Quantum Well Infrared Photodetectors. Infrared Physics and Technology, 2011, 54, 204-208.	2.9	24
13	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
14	Mid-infrared wavelength multiplexer in InGaAs/InP waveguides using a Rowland circle grating. Optics Express, 2015, 23, 20288.	3.4	17
15	Extreme events in quantum cascade lasers. Advanced Photonics, 2020, 2, .	11.8	17
16	Low-frequency fluctuations of a mid-infrared quantum cascade laser operating at cryogenic temperatures. Laser Physics Letters, 2018, 15, 116201.	1.4	16
17	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
18	Interface roughness transport in terahertz quantum cascade detectors. Applied Physics Letters, 2010, 96, 061111.	3.3	15

#	Article	IF	Citations
19	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
20	Low-Loss Surface-Mode Waveguides for Terahertz Siâ€“SiGe Quantum Cascade Lasers. IEEE Journal of Quantum Electronics, 2006, 42, 1233-1238.	1.9	13
21	Beam shaping in high-power broad-area quantum cascade lasers using optical feedback. Scientific Reports, 2017, 7, 44284.	3.3	13
22	Field concentration by exciting surface defect modes. Optics Letters, 2006, 31, 47.	3.3	12
23	Performances of quantum cascade detectors. Infrared Physics and Technology, 2013, 59, 100-107.	2.9	12
24	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
25	Mid-wave QWIPs for the [3â€“4.2Î¼m] atmospheric window. Infrared Physics and Technology, 2009, 52, 235-240.	2.9	10
26	Photonic band structures for bi-dimensional metallic mesa gratings. Optics Express, 2006, 14, 9982.	3.4	7
27	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
28	Photocurrent analysis of quantum cascade detectors by magnetotransport. Physical Review B, 2010, 82, .	3.2	7
29	Extensive study of the linewidth enhancement factor of a distributed feedback quantum cascade laser at ultra-low temperature. , 2019, , .		6
30	An FDTD approach to the simulation of quantum-well infrared photodetectors. Optical and Quantum Electronics, 2008, 40, 1085-1090.	3.3	5
31	Widely-Tunable Quantum Cascade-Based Sources for the Development of Optical Gas Sensors. Sensors, 2020, 20, 6650.	3.8	5
32	External cavity coherent quantum cascade laser array. Infrared Physics and Technology, 2016, 76, 415-420.	2.9	4
33	Quantum well infrared photodetectors hardiness to the nonideality of the energy band profile. Journal of Applied Physics, 2010, 107, .	2.5	3
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	Monolithic integration of a quantum cascade laser array and an echelle grating multiplexer for widely tunable mid-infrared sources. , 2016, , .		2
36	Beam steering in quantum cascade lasers with optical feedback. , 2017, , .		2

#	Article	IF	Citations
37	A zero-Focal-Length superlens for QWIPs and other infrared detectors. Proceedings of SPIE, 2010, , .	0.8	1
38	Ge-rich SiGe waveguides for mid-infrared photonics. Proceedings of SPIE, 2017, , .	0.8	1
39	Complex delay dynamics of high power quantum cascade oscillators. , 2017, , .		1
40	Coherent combining of quantum-cascade lasers with a binary phase grating. , 2011, , .		0
41	Passive coherent beam combining of quantum-cascade lasers with a Dammann grating. , 2012, , .		0
42	Design, process and characterization of an arrayed waveguide grating in the 2180–2280cm^{−1} range. , 2015, , .		0
43	Original designs of chalcogenide microstructured optical fibers for mid-IR applications. , 2016, , .		0
44	Enhanced Chaotic Performance with Optically Injected Quantum Cascade Lasers. , 2019, , .		0
45	Chaos synchronization in mid-infrared quantum cascade lasers for private free-space communication. , 2021, , .		0
46	Temperature dependence of a mid-infrared quantum cascade laser with external optical feedback. , 2018, , .		0
47	All-optical modulation at mid-infrared wavelength with QCLs. , 2020, , .		0
48	Peculiarities and predictions of rogue waves in mid-infrared quantum cascade lasers under conventional optical feedback. , 2020, , .		0