

# Qing Hu

## List of Publications by Year in descending order

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75  
papers

4,152  
citations

185998

28  
h-index

118652

62  
g-index

75  
all docs

75  
docs citations

75  
times ranked

2008  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Tunable Unidirectional Source for GUSTO™s Local Oscillator at 4.74 THz. IEEE Transactions on Terahertz Science and Technology, 2022, 12, 144-150.	2.0	8
2	High-power portable terahertz laser systems. Nature Photonics, 2021, 15, 16-20.	15.6	228
3	THz Near-Field Imaging of Extreme Subwavelength Metal Structures. ACS Photonics, 2020, 7, 687-694.	3.2	58
4	Terahertz Spectroscopy of Gas Mixtures with Dual Quantum Cascade Laser Frequency Combs. ACS Photonics, 2020, 7, 1082-1087.	3.2	33
5	3.9 THz spatial filter based on a back-to-back Si-lens system. Optics Express, 2020, 28, 32693.	1.7	7
6	Split-well direct-phonon terahertz quantum cascade lasers. Applied Physics Letters, 2019, 114, .	1.5	29
7	Microelectromechanical control of the state of quantum cascade laser frequency combs. Applied Physics Letters, 2019, 115, 021105.	1.5	6
8	Phase-locked photonic wire lasers by ĩ coupling. Nature Photonics, 2019, 13, 47-53.	15.6	21
9	Manipulating Terahertz Plasmonic Vortex Based on Geometric and Dynamic Phase. Advanced Optical Materials, 2019, 7, 1801328.	3.6	77
10	Linewidth of the laser optical frequency comb with arbitrary temporal profile. Applied Physics Letters, 2018, 113, 131104.	1.5	5
11	Lateral Heterogeneous Integration of Quantum Cascade Lasers. ACS Photonics, 2018, 5, 2742-2747.	3.2	4
12	Two-well terahertz quantum cascade lasers with suppressed carrier leakage. Applied Physics Letters, 2017, 111, .	1.5	32
13	Unidirectional photonic wire laser. Nature Photonics, 2017, 11, 555-559.	15.6	23
14	Efficient Detection of 3 THz Radiation from Quantum Cascade Laser Using Silicon CMOS Detectors. Journal of Infrared, Millimeter, and Terahertz Waves, 2017, 38, 1183-1188.	1.2	15
15	Terahertz multiheterodyne spectroscopy with quantum cascade lasers " A feasibility study. , 2017, , .		1
16	Amplifiers of free-space terahertz radiation. Optica, 2017, 4, 713.	4.8	10
17	Pseudorandom dynamics of frequency combs in free-running quantum cascade lasers. Optical Engineering, 2017, 57, 1.	0.5	17
18	Tradeoffs between oscillator strength and lifetime in terahertz quantum cascade lasers. Applied Physics Letters, 2016, 109, .	1.5	31

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19	Room temperature negative differential resistance in terahertz quantum cascade laser structures. Applied Physics Letters, 2016, 109, .	1.5	45
20	Frequency Tuning of Third-Order Distributed Feedback Terahertz Quantum Cascade Lasers by SiO <sub>2</sub> and PMMA. IEEE Transactions on Terahertz Science and Technology, 2016, 6, 851-857.	2.0	2
21	Computational multiheterodyne spectroscopy. Science Advances, 2016, 2, e1601227.	4.7	80
22	Phase-locked laser arrays through global antenna mutual coupling. Nature Photonics, 2016, 10, 541-546.	15.6	54
23	Carrier leakage into the continuum in diagonal GaAs/Al <sub>0.15</sub> GaAs terahertz quantum cascade lasers. Applied Physics Letters, 2015, 107, .	1.5	43
24	Investigating temperature degradation in THz quantum cascade lasers by examination of temperature dependence of output power. Applied Physics Letters, 2015, 106, .	1.5	39
25	Antenna coupled photonic wire lasers. Optics Express, 2015, 23, 17091.	1.7	18
26	Broadband all-electronically tunable MEMS terahertz quantum cascade lasers. Optics Letters, 2014, 39, 3480.	1.7	28
27	Terahertz laser frequency combs. Nature Photonics, 2014, 8, 462-467.	15.6	409
28	Direct Nanoscale Imaging of Evolving Electric Field Domains in Quantum Structures. Scientific Reports, 2014, 4, 7183.	1.6	26
29	Tall-barrier terahertz quantum cascade lasers. Applied Physics Letters, 2013, 103, .	1.5	23
30	Non-equilibrium longitudinal and transverse optical phonons in terahertz quantum cascade lasers. Applied Physics Letters, 2012, 100, .	1.5	24
31	Ground state terahertz quantum cascade lasers. Applied Physics Letters, 2012, 101, .	1.5	60
32	Gain measurements of scattering-assisted terahertz quantum cascade lasers. Applied Physics Letters, 2012, 100, .	1.5	21
33	Investigation of possible microcavity effect on lasing threshold of nonradiative-scattering-dominated semiconductor lasers. Applied Physics Letters, 2012, 100, .	1.5	6
34	MEMS-based tunable terahertz wire-laser over 330%GHz. Optics Letters, 2011, 36, 692.	1.7	65
35	A 1.8-THz quantum cascade laser operating significantly above the temperature of $\hat{\lambda}_{\text{J}}/k\text{B}$ . Nature Physics, 2011, 7, 166-171.	6.5	216
36	A terahertz pulse emitter monolithically integrated with a quantum cascade laser. Applied Physics Letters, 2011, 98, .	1.5	45

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37	Phase-locked arrays of surface-emitting terahertz quantum-cascade lasers. Applied Physics Letters, 2010, 96, .	1.5	44
38	Thresholdless coherent light scattering from subband polaritons in a strongly coupled microcavity. Physical Review B, 2010, 82, .	1.1	2
39	Tuning a terahertz wire laser. Nature Photonics, 2009, 3, 732-737.	15.6	125
40	Two-well terahertz quantum-cascade laser with direct intrawell-phonon depopulation. Applied Physics Letters, 2009, 95, .	1.5	73
41	186 K operation of terahertz quantum-cascade lasers based on a diagonal design. Applied Physics Letters, 2009, 94, .	1.5	300
42	Introduction to the Special Issue on THz Materials, Devices, and Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 257-259.	1.9	5
43	Real-Time, Transmission-Mode, Terahertz Imaging Over a 25-meter Distance. , 2007, , .		2
44	High-Power Metal-Metal Waveguide Terahertz Quantum-Cascade Laser with a Hyperhemispherical Lens. , 2007, , .		0
45	Terahertz Quantum Cascade Lasers. , 2007, , .		1
46	Single-Mode Surface-Emitting Terahertz Quantum-Cascade Lasers Operating up to ~ 150 K. , 2007, , .		1
47	Quantum-Cascade Lasers with One-Well Injector Operating at 1.59 THz (&#x003BBB; = 188.5 &#x003BC;m). , 2007, , .		3
48	Single-mode surface-emitting terahertz quantum-cascade lasers operating up to ~ 150 K. , 2007, , .		0
49	Real-time imaging using a 4.3-THz quantum cascade laser and a 320 /spl times/ 240 microbolometer focal-plane array. IEEE Photonics Technology Letters, 2006, 18, 1415-1417.	1.3	226
50	High-temperature and high-power terahertz quantum cascade lasers. , 2006, , .		0
51	Long wavelength terahertz quantum-cascade lasers with one-well injector. , 2006, , .		0
52	Real-time imaging using a 4.3-THz quantum cascade laser and a 240Å—320 element focal-plane array. , 2006, , .		3
53	High-power terahertz quantum cascade lasers. , 2006, , .		5
54	Importance of coherence for electron transport in terahertz quantum cascade lasers. Journal of Applied Physics, 2005, 98, 104505.	1.1	168

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55	Electromagnetic modeling of terahertz quantum cascade laser waveguides and resonators. Journal of Applied Physics, 2005, 97, 053106.	1.1	191
56	Operation of terahertz quantum-cascade lasers at 164 K in pulsed mode and at 117 K in continuous-wave mode. Optics Express, 2005, 13, 3331.	1.7	402
57	Terahertz quantum cascade lasers based on resonant phonon scattering for depopulation. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 233-249.	1.6	10
58	Low-temperature-grown GaAs coplanar waveguide single-photon/two photon absorption autocorrelator. Journal of Applied Physics, 2004, 95, 2230-2237.	1.1	10
59	3.4-THz quantum cascade laser based on longitudinal-optical-phonon scattering for depopulation. Applied Physics Letters, 2003, 82, 1015-1017.	1.5	384
60	Numerical study of a GaAs-based heterojunction bipolar transistor with stepwise alloy-graded base. Journal of Applied Physics, 2002, 91, 5400-5410.	1.1	3
61	Generation of Terahertz Emission Based on Intersubband Transitions. International Journal of High Speed Electronics and Systems, 2002, 12, 995-1024.	0.3	0
62	Optimized energy separation for phonon scattering in three-level terahertz intersubband lasers. Journal of Applied Physics, 2001, 90, 5504-5511.	1.1	24
63	Response to "Comment on "Energy level schemes for far-infrared quantum well lasers" [Appl. Phys. Lett. 74, 2555 (1999)]. Applied Physics Letters, 1999, 74, 3065-3065.	1.5	2
64	A 3Å–3 millimeter-wave micromachined imaging array with superconductor-insulator-superconductor mixers. Applied Physics Letters, 1999, 75, 868-870.	1.5	17
65	Grating coupling for intersubband emission. Applied Physics Letters, 1997, 70, 2511-2513.	1.5	9
66	Development of a 3Å–3 micromachined millimeter wave SIS imaging array. IEEE Transactions on Applied Superconductivity, 1997, 7, 3593-3596.	1.1	5
67	Intrawell and interwell intersubband transitions in multiple quantum wells for far-infrared sources. Journal of Applied Physics, 1996, 79, 9305-9320.	1.1	145
68	A low-noise micromachined millimeter-wave heterodyne mixer using Nb superconducting tunnel junctions. Applied Physics Letters, 1996, 68, 1862-1864.	1.5	7
69	Micromachined room-temperature microbolometers for millimeter-wave detection. Applied Physics Letters, 1996, 68, 2020-2022.	1.5	26
70	Magnetotunneling spectroscopy in wide In <sub>0.53</sub> Ga <sub>0.47</sub> As/In <sub>0.52</sub> Al <sub>0.48</sub> As double quantum wells. Applied Physics Letters, 1993, 63, 2225-2227.	1.5	19
71	Far-infrared photon-induced current in a quantum point contact. Applied Physics Letters, 1993, 63, 1522-1524.	1.5	64
72	Fabrication of high-quality superconductor-insulator-superconductor junctions on thin SiN membranes. Applied Physics Letters, 1993, 63, 1002-1004.	1.5	7

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73	Photon-assisted quantum transport in quantum point contacts. Applied Physics Letters, 1993, 62, 837-839.	1.5	54
74	Focused ion beam fabrication of single grain Bi <sub>2</sub> Sr <sub>2</sub> Ca <sub>1</sub> Cu <sub>2</sub> O <sub>x</sub> submicron bridges. Applied Physics Letters, 1991, 59, 727-729.	1.5	6
75	Resonant-phonon terahertz quantum-cascade lasers using metal-metal waveguides. , 0, , .		0