Maciej Bugajski

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

128	1,100	18	28
papers	citations	h-index	g-index
153	1,292	2.2 avg, IF	3.73
ext. papers	ext. citations		L-index

#	Paper	IF	Citations
128	Coupled Cavity Mid-IR Quantum Cascade Lasers Fabricated by Dry Etching. <i>Photonics</i> , 2020 , 7, 45	2.2	2
127	Optimization of MBE Growth Conditions of InAlAs Waveguide Layers for InGaAs/InAlAs/InP Quantum Cascade Lasers. <i>Materials</i> , 2019 , 12,	3.5	5
126	Degradation of AllnAs/InGaAs/InP quantum cascade lasers due to electrode adhesion failure. Microelectronics Reliability, 2019 , 99, 113-118	1.2	1
125	Coupled-cavity AllnAs/InGaAs/InP quantum cascade lasers fabricated by focused ion beam processing. <i>JPhys Photonics</i> , 2019 , 1, 015001	2.5	2
124	Comparison of quantum cascade structures for detection of nitric oxide at ~ 5.2 fh. <i>Optical and Quantum Electronics</i> , 2019 , 51, 1	2.4	3
123	Optimization of Cavity Designs of Tapered AllnAs/InGaAs/InP Quantum Cascade Lasers Emitting at 4.5 fb. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019 , 25, 1-9	3.8	3
122	Temperature induced degradation mechanisms of AllnAs/InGaAs/InP quantum cascade lasers. <i>Materials Research Express</i> , 2018 , 5, 016204	1.7	5
121	Above room temperature operation of InGaAs/AlGaAs/GaAs quantum cascade lasers. Semiconductor Science and Technology, 2018 , 33, 035006	1.8	6
120	Tuning quantum cascade laser wavelength by the injector doping. <i>Applied Physics B: Lasers and Optics</i> , 2018 , 124, 1	1.9	2
119	Field distribution in waveguide of mid-infrared strain-compensated InAlAs/InGaAs/InP quantum cascade laser. <i>Optical and Quantum Electronics</i> , 2017 , 49, 1	2.4	1
118	MBE growth of strain-compensated InGaAs/InAlAs/InP quantum cascade lasers. <i>Journal of Crystal Growth</i> , 2017 , 466, 22-29	1.6	19
117	High-resolution mirror temperature mapping in GaN-based diode lasers by thermoreflectance spectroscopy. <i>Japanese Journal of Applied Physics</i> , 2017 , 56, 020302	1.4	5
116	Numerical simulation of GaAs-based mid-infrared one-phonon resonance quantum cascade laser. <i>Optical and Quantum Electronics</i> , 2017 , 49, 1	2.4	5
115	On the onset of strain relaxation in the Al0.45Ga0.55As/InxGa1\(\text{Inx}\) As active region in quantum cascade laser structures. <i>Journal of Applied Crystallography</i> , 2017 , 50, 1376-1381	3.8	5
114	Characterization of the superlattice region of a quantum cascade laser by secondary ion mass spectrometry. <i>Nanoscale</i> , 2017 , 9, 17571-17575	7.7	8
113	Examination of thermal properties and degradation of InGaN - based diode lasers by thermoreflectance spectroscopy and focused ion beam etching. <i>AIP Advances</i> , 2017 , 7, 075107	1.5	4
112	Analysis of Free-Space Optics Development. <i>Metrology and Measurement Systems</i> , 2017 , 24, 653-674		24

(2014-2017)

111	Heat Dissipation Schemes in AllnAs/InGaAs/InP Quantum Cascade Lasers Monitored by CCD Thermoreflectance. <i>Photonics</i> , 2017 , 4, 47	2.2	6	
110	A novel method to calculate a near field of widely divergent laser beams. <i>Optical and Quantum Electronics</i> , 2016 , 48, 1	2.4	2	
109	High numerical aperture large-core photonic crystal fiber for a broadband infrared transmission. <i>Infrared Physics and Technology</i> , 2016 , 79, 10-16	2.7	7	
108	CCD thermoreflectance spectroscopy as a tool for thermal characterization of quantum cascade lasers. <i>Semiconductor Science and Technology</i> , 2016 , 31, 115006	1.8	16	
107	Optical examination of high contrast grating fabricated by focused-ion beam etching. <i>Optical and Quantum Electronics</i> , 2016 , 48, 1	2.4		
106	Single-mode enhancement in coupled-cavity quantum cascade lasers 2016 ,		1	
105	Optical Properties of Active Regions in Terahertz Quantum Cascade Lasers. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2016 , 37, 710-719	2.2	5	
104	Direct AuAu bonding technology for high performance GaAs/AlGaAs quantum cascade lasers. <i>Optical and Quantum Electronics</i> , 2015 , 47, 893-899	2.4	11	
103	Monolithic high-index contrast grating: a material independent high-reflectance VCSEL mirror. <i>Optics Express</i> , 2015 , 23, 11674-86	3.3	33	
102	Impact of Injector Doping on Threshold Current of Mid-Infrared Quantum Cascade LaserNon-Equilibrium Green日 Function Analysis. <i>IEEE Journal of Selected Topics in Quantum</i> <i>Electronics</i> , 2015 , 21, 124-133	3.8	10	
101	Room temperature, single mode emission from two-section coupled cavity InGaAs/AlGaAs/GaAs quantum cascade laser. <i>Journal of Applied Physics</i> , 2015 , 118, 133103	2.5	7	
100	Formation of coupled-cavities in quantum cascade lasers using focused ion beam milling. <i>Microelectronics Reliability</i> , 2015 , 55, 2142-2146	1.2	6	
99	Advanced optical characterization of AlGaAs/GaAs superlattices for active regions in quantum cascade lasers. <i>Optical and Quantum Electronics</i> , 2015 , 47, 945-952	2.4	5	
98	High-resolution X-ray characterization of mid-IR Al0.45Ga0.55As/GaAs Quantum Cascade Laser structures. <i>Thin Solid Films</i> , 2014 , 564, 339-344	2.2	5	
97	Mid-IR quantum cascade lasers: Device technology and non-equilibrium Green's function modeling of electro-optical characteristics (Phys. Status Solidi B 6/2014). <i>Physica Status Solidi (B): Basic Research</i> , 2014 , 251,	1.3	1	
96	Time resolved FTIR study of spectral tuning and thermal dynamics of mid-IR QCLs 2014,		7	
95	Mid-IR quantum cascade lasers: Device technology and non-equilibrium Green's function modeling of electro-optical characteristics. <i>Physica Status Solidi (B): Basic Research</i> , 2014 , 251, 1144-1157	1.3	25	
94	Room temperature AllnAs/InGaAs/inP quantum cascade lasers. <i>Photonics Letters of Poland</i> , 2014 , 6,	2.1	4	

93	Multimode instabilities in mid-infrared quantum cascade lasers. <i>Photonics Letters of Poland</i> , 2013 , 5,	2.1	5
92	Multi-step interrupted-growth MBE technology for GaAs/AlGaAs (~9.4 fh) room temperature operating quantum-cascade lasers. <i>Opto-electronics Review</i> , 2012 , 20,	2.4	6
91	Investigation of thermal properties of mid-infrared AlGaAs/GaAs quantum cascade lasers. <i>Journal of Applied Physics</i> , 2012 , 112, 043112	2.5	30
90	Nonthermal carrier distributions in the subbands of 2-phonon resonance mid-infrared quantum cascade laser. <i>Applied Physics Letters</i> , 2012 , 101, 061110	3.4	25
89	High performance GaAs/AlGaAs quantum cascade lasers: optimization of electrical and thermal properties 2012 ,		4
88	Experimental analysis of thermal properties of AlGaAs/GaAs quantum cascade lasers 2012,		4
87	Optoelectronic properties of InAs/GaSb superlattices with asymmetric interfaces. <i>Journal of Physics: Conference Series</i> , 2012 , 367, 012014	0.3	0
86	Electrical and optical characterisation of mid-IR GaAs/AlGaAs quantum cascade lasers 2012,		5
85	Thermal effects in 2.x th vertical-external-cavity-surface-emitting lasers. <i>Journal of Applied Physics</i> , 2012 , 111, 053107	2.5	3
84	AlGaAs/GaAs quantum cascade lasers for gas detection systems 2011 ,		1
83	Determination of energy difference and width of minibands in GaAs/AlGaAs superlattices by using Fourier transform photoreflectance and photoluminescence. <i>Opto-electronics Review</i> , 2011 , 19,	2.4	1
82	The determination of the chemical composition profile of the GaAs/AlGaAs heterostructures designed for quantum cascade lasers by means of synchrotron radiation. <i>Radiation Physics and Chemistry</i> , 2011 , 80, 1112-1118	2.5	2
81	Development of (I-9.4lh) GaAs-Based Quantum Cascade Lasers Operating at the Room Temperature. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , 2011 , 91-100	0.2	2
80	GaAs/AlGaAs (~9.4 h) quantum cascade lasers operating at 260 K. <i>Bulletin of the Polish Academy of Sciences: Technical Sciences</i> , 2010 , 58,		3
79	Influence of Operating Conditions on Quantum Cascade Laser Temperature. <i>Journal of Electronic Materials</i> , 2010 , 39, 630-634	1.9	7
78	Quantification of thermoreflectance temperature measurements in high-power semiconductor devices lasers and laser bars. <i>Microelectronics Journal</i> , 2009 , 40, 1373-1378	1.8	3
77	Investigation of thermal management in optically pumped, antimonide VECSELs. <i>Microelectronics Journal</i> , 2009 , 40, 558-561	1.8	8
76	Molecular-beam epitaxy growth and characterization of mid-infrared quantum cascade laser		

(2006-2009)

75	Low-temperature grown near surface semiconductor saturable absorber mirror: Design, growth conditions, characterization, and mode-locked operation. <i>Journal of Applied Physics</i> , 2009 , 106, 053101 ^{2.5}		6
74	Development of (ੴ9.4ਊm) GaAs-based quantum cascade lasers 2009 ,		1
73	Photoluminescence studies of optical properties of VECSEL active region under high excitation conditions. <i>Journal of Physics: Conference Series</i> , 2009 , 146, 012031		1
72	Molecular Beam Epitaxy Growth for Quantum Cascade Lasers. <i>Acta Physica Polonica A</i> , 2009 , 116, 806-813.6		5
71	Mid-Infrared GaAs/AlGaAs Quantum Cascade Lasers Technology. <i>Acta Physica Polonica A</i> , 2009 , 116, S-459 %	47	11
7º	Electronic States in Type-II Superlattices. <i>Acta Physica Polonica A</i> , 2009 , 116, S-65-S-68 o.6		1
69	Passively modelocked bi-directional vertical external ring cavity surface emitting laser 2008,		1
68	Thermal processes in high-power laser bars investigated by spatially resolved thermoreflectance. <i>Journal of Materials Science: Materials in Electronics</i> , 2008 , 19, 150-154		11
67	The influence of the growth temperature and interruption time on the crystal quality of InGaAs/GaAs QW structures grown by MBE and MOCVD methods. <i>Journal of Crystal Growth</i> , 2008 , 310, 2785-2792		17
66	Characterization of (Al)GaAs/AlAs distributed Bragg mirrors grown by MBE and LP MOVPE techniques. <i>Journal of Crystal Growth</i> , 2008 , 310, 4094-4101		4
65	Low-resistance p-type ohmic contacts for high-power InGaAs/GaAs-980 nm CW semiconductor lasers. <i>Vacuum</i> , 2008 , 82, 977-981		10
64	Angular and Temperature Tuning of Emission from Vertical-External-Cavity Surface-Emitting Lasers (VECSELs). <i>Acta Physica Polonica A</i> , 2008 , 114, 1437-1443		
63	Facet Heating Mechanisms in High Power Semiconductor Lasers Investigated by Spatially Resolved Thermoreflectance 2007 ,		2
62	Improvement of quantum efficiency of MBE grown AlGaAs/InGaAs/GaAs edge emitting lasers by optimisation of construction and technology. <i>Vacuum</i> , 2007 , 82, 383-388		1
61	Thermal properties of high power laser bars investigated by spatially resolved thermoreflectance spectroscopy. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2007 , 204, 422-429		6
60	Tailoring of optical mode profiles of high-power diode lasers evidenced by near-field photocurrent spectroscopy. <i>Applied Physics Letters</i> , 2007 , 91, 101103		3
59	Investigation of thermal processes in high power laser bars by thermoreflectance spectroscopy 2007 ,		1
58	Thermoreflectance Measurements of the Temperature Distributions in Laser Diodes with Non Injected Facet. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 916, 1		2

57	Complementary thermoreflectance and micro-Raman analysis of facet temperatures of diode lasers. <i>Applied Physics Letters</i> , 2006 , 89, 071104	3.4	35
56	Room temperature photoluminescence studies of nitrided InP(100) surfaces. <i>Materials Science and Engineering C</i> , 2006 , 26, 378-382	8.3	
55	Investigation of oval defects in (In)Ga(Al)As/GaAs heterostructures by spatially resolved photoluminescence and micro-cathodoluminescence. <i>Materials Science in Semiconductor Processing</i> , 2006 , 9, 25-30	4.3	4
54	Thermoreflectance study of facet heating in semiconductor lasers. <i>Materials Science in Semiconductor Processing</i> , 2006 , 9, 188-197	4.3	23
53	Thermal properties of high-power diode lasers investigated by microthermography 2005,		5
52	Advances in self-assembled semiconductor quantum dot lasers. <i>Microelectronics Journal</i> , 2005 , 36, 950	-9БВ	24
51	Spatially resolved thermoreflectance study of facet temperature in quantum cascade lasers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005 , 202, 1227-1232	1.6	19
50	Passivation of InP(100) substrates: first stages of nitridation by thin InN surface overlayers studied by electron spectroscopies. <i>Surface and Interface Analysis</i> , 2005 , 37, 615-620	1.5	3
49	Analysis of thermal images from diode lasers: Temperature profiling and reliability screening. <i>Applied Physics Letters</i> , 2005 , 86, 203503	3.4	23
48	Comprehensive self-consistent three-dimensional simulation of an operation of the GaAs-based oxide-confined 1.3-fh quantum-dot (InGa)As/GaAs vertical-cavity surface-emitting lasers. <i>Optical and Quantum Electronics</i> , 2004 , 36, 331-347	2.4	17
47	Analysis of Threshold Current and Wall-Plug Efficiency of Diode Lasers with Asymmetric Facet Reflectivity. <i>Optical and Quantum Electronics</i> , 2004 , 36, 443-457	2.4	
46	Investigation of Indium Tin Oxide (ITO) films for the VCSEL laser with dielectric Bragg reflectors. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004 , 1, 396-400		
45	Threshold simulation of 1.3-th oxide-confined in-plane quantum-dot (InGa)As/GaAs lasers. <i>Optical and Quantum Electronics</i> , 2003 , 35, 675-692	2.4	4
44	Electron microscopy study of advanced heterostructures for optoelectronics. <i>Materials Chemistry and Physics</i> , 2003 , 81, 244-248	4.4	1
43	Output power saturation in InAs/GaAs quantum dot lasers. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003 , 1351-1354		4
42	Photoreflectance Study of GaN/AlGaN Structures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003 , 491-494		5
41	Investigations of optical properties of active regions in vertical cavity surface emitting lasers grown by MBE. <i>Thin Solid Films</i> , 2002 , 412, 107-113	2.2	4
40	Photoluminescence mapping and angle-resolved photoluminescence of MBE-grown InGaAs/GaAs RC LED and VCSEL structures. <i>Thin Solid Films</i> , 2002 , 412, 114-121	2.2	9

39	Resonant Cavity Enhanced Photonic Devices. Acta Physica Polonica A, 2002, 101, 105-118	0.6	3
38	Long-wavelength strained-layer InGaAs/GaAs quantum-well lasers grown by molecular beam epitaxy. <i>Microwave and Optical Technology Letters</i> , 2001 , 29, 75-77	1.2	2
37	Dual Contribution to the Stokes Shift in InGaN G aN Quantum Wells. <i>Physica Status Solidi (B): Basic Research</i> , 2001 , 228, 111-114	1.3	9
36	The influence of erbium on the physical properties of GaN crystals grown from N solution in Ga at high nitrogen pressure. <i>High Pressure Research</i> , 2000 , 18, 35-39	1.6	
35	MBE growth of planar microcavities with distributed Bragg reflectors. <i>Thin Solid Films</i> , 2000 , 367, 290-2	.9 <u>4</u> .2	7
34	Many-body effects in highly p-type modulation-doped GaAs/AlxGa1⊠As quantum wells. <i>Physical Review B</i> , 2000 , 61, 2794-2798	3.3	9
33	Magneto-optical studies of highly p-type modulation-doped GaAs/AlxGa1₪As quantum wells. <i>Physical Review B</i> , 2000 , 62, 15952-15961	3.3	2
32	Formation of Dislocations in InGaAs/GaAs Heterostructures. <i>Physica Status Solidi A</i> , 1999 , 171, 275-282		5
31	Optical Properties of p-Type Modulation Doped GaAs/AlGaAs Quantum Wells. <i>Physica Status Solidi</i> (B): Basic Research, 1998 , 210, 615-620	1.3	2
30	Conductance noise of submicron wires in the regime of quantum Hall effect. <i>Physica B: Condensed Matter</i> , 1998 , 256-258, 69-73	2.8	4
29	Transport and tunneling within a compressible electron liquid in wires and rings of GaAs/AlxGa1⊠As heterostructures. <i>Physical Review B</i> , 1998 , 58, 16252-16261	3.3	6
28	Fermi-Edge Singularity in Luminescence Spectra of P-Type Modulation Doped AlGaAs/GaAs Quantum Wells. <i>Acta Physica Polonica A</i> , 1998 , 94, 265-270	0.6	
27	Interisland exciton migration and enhanced bound exciton recombination in an AlGaAs/GaAs quantum well structure grown by molecular beam epitaxy without growth interruptions at interfaces. <i>Semiconductor Science and Technology</i> , 1997 , 12, 1416-1421	1.8	2
26	Theoretical Analysis of Optical Gain in Quantum Well Lasers Including Valence-Band Mixing Effect. <i>Acta Physica Polonica A</i> , 1997 , 92, 903-907	0.6	
25	Low Threshold Room Temperature AlGaAs/GaAs GRIN SCH SQW Lasers Grown by MBE. <i>Acta Physica Polonica A</i> , 1996 , 90, 847-850	0.6	
24	Fermi-Edge Singularity in Excitonic Spectra of Modulation Doped AlGaAs/GaAs Quantum Wells. <i>Acta Physica Polonica A</i> , 1996 , 90, 751-754	0.6	
23	Inter-Island Energy Transfer in AlGaAs/GaAs Quantum Wells Grown by Molecular Beam Epitaxy. <i>Acta Physica Polonica A</i> , 1996 , 90, 1007-1011	0.6	
22	Exciton dynamics in thin quantum wells grown by MBE. <i>Thin Solid Films</i> , 1995 , 267, 84-88	2.2	2

21	Identification of Residual Impurities in Si-Doped MBE Grown GaAs. <i>Acta Physica Polonica A</i> , 1995 , 88, 775-778	0.6	2
20	Transmission electron microscopy study of the formation of a contamination layer on the surface of porous silicon. <i>Journal of Materials Science: Materials in Electronics</i> , 1994 , 5, 280-283	2.1	
19	Whole wafer assessment of electronic materials by scanning photoluminescence and surface photovoltage. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1993 , 20, 186-189	3.1	1
18	Visible Light Emission from Porous Silicon. <i>Acta Physica Polonica A</i> , 1992 , 82, 914-918	0.6	2
17	Physical Principles of the Operation of Semiconductor Lasers 1991 , 11-69		
16	The Design and Basic Characteristics of Semiconductor Lasers 1991 , 107-198		
15	Response to Comment on Native acceptor levels in Ga-rich GaAsII[J. Appl. Phys. 65, 596 (1989)]. Journal of Applied Physics, 1990 , 67, 7619-7619	2.5	1
14	Native acceptor levels in Ga-rich GaAs. Journal of Applied Physics, 1989, 65, 596-599	2.5	45
13	Acceptor-bound magnetic polarons in Cd1-xMnxTe. <i>Physical Review B</i> , 1988 , 38, 10512-10516	3.3	43
12	Optical characterization of semi-insulating GaAs: Determination of the Fermi energy, the concentration of the midgap EL2 level and its occupancy. <i>Applied Physics Letters</i> , 1987 , 51, 511-513	3.4	18
11	Growth and characterization of high quality LPEE GaAs bulk crystals. <i>Journal of Crystal Growth</i> , 1987 , 85, 136-141	1.6	13
10	Diamagnetic shift of exciton energy levels in GaAs-Ga1NAlxAs quantum wells. <i>Solid State Communications</i> , 1986 , 60, 669-673	1.6	24
9	Growth and luminescence properties of GaSb single crystals. <i>Acta Physica Hungarica</i> , 1985 , 57, 303-308		1
8	Crystal growth of GaP doped with nitrogen under high nitrogen pressure. <i>Journal of Crystal Growth</i> , 1985 , 72, 711-716	1.6	8
7	Pulsed laser annealing of nitrogen-implanted GaP. Materials Letters, 1985, 3, 141-144	3.3	1
6	Concentration-dependent absorption and photoluminescence of n-type InP. <i>Journal of Applied Physics</i> , 1985 , 57, 521-530	2.5	174
5	Stoichiometry changes in IIIIV compounds under ion bombardment. <i>Nuclear Instruments & Methods in Physics Research</i> , 1983 , 209-210, 621-627		5
4	Energy bands of ternary alloy semiconductors: Coherent-potential-approximation calculations. <i>Physical Review B</i> , 1983 , 28, 7105-7114	3.3	48

LIST OF PUBLICATIONS

3	Determination of the nitrogen doping of liquid phase epitaxy GaP and GaxIn1\(\mathbb{N}P\) alloys by optical absorption and photoluminescence. <i>Journal of Applied Physics</i> , 1983 , 54, 5358-5362	2.5	19
2	The kinetics of Si incorporation in Ga melt for LPE growth of GaP doped with nitrogen from NH3. Journal of Crystal Growth, 1982, 60, 434-440	1.6	
1	A novel technique for investigation of luminescence properties of Ga1-xInxP LPE layers with a small In content. <i>Journal Physics D: Applied Physics</i> , 1981 , 14, 127-134	3	