Paul Harrison

List of Publications by Year in Descending Order

167 papers	3,270 citations	30 h-index	50 g-index
197 ext. papers	3,621 ext. citations	2.5 avg, IF	5.15 L-index

#	Paper	IF	Citations
167	Corrections to Temperature-Dependent High-Speed Dynamics of Terahertz Quantum Cascade Lasers[Jul/Aug 17 Art. no. 1200209]. *IEEE Journal of Selected Topics in Quantum Electronics*, **2020**, 26, 1-1	3.8	
166	Exciton Dynamics in InSb Colloidal Quantum Dots. *Journal of Physical Chemistry Letters*, **2016**, 7, 31-5	6.4	15
165	Mid-infrared entangled photon generation in optimised asymmetric semiconductor quantum wells. *Superlattices and Microstructures*, **2016**, 90, 107-116	2.8	1
164	Model for a pulsed terahertz quantum cascade laser under optical feedback. *Optics Express*, **2016**, 24, 20554-70	3.3	15
163	Origin of terminal voltage variations due to self-mixing in terahertz frequency quantum cascade lasers. *Optics Express*, **2016**, 24, 21948-56	3.3	8
162	Carrier transport **2016**, 407-440		
161	Polarization-entangled mid-infrared photon generation inp-doped semiconductor quantum wells. *Semiconductor Science and Technology*, **2016**, 31, 115011	1.8	
160	Optical feedback effects on terahertz quantum cascade lasers: modelling and applications **2016**,		1
159	Coherent vertical electron transport and interface roughness effects in AlGaN/GaN intersubband devices. *Journal of Applied Physics*, **2015**, 118, 224308	2.5	19
158	Efficient prediction of terahertz quantum cascade laser dynamics from steady-state simulations. *Applied Physics Letters*, **2015**, 106, 161105	3.4	24
157	Importance of Polaronic Effects for Charge Transport in CdSe Quantum Dot Solids. *Journal of Physical Chemistry Letters*, **2014**, 5, 1335-40	6.4	17
156	Stable perfectly-matched-layer boundary conditions for finite-difference time-domain simulation of acoustic waves in piezoelectric crystals. *Journal of Computational Physics*, **2013**, 253, 239-246	4.1	2
155	Comparative study of intersubband absorption in AlGaN/GaN and AlInN/GaN superlattices: Impact of material inhomogeneities. *Physical Review B*, **2013**, 88,	3.3	25
154	Band engineering and growth of tensile strained Ge/(Si)GeSn heterostructures for tunnel field effect transistors. *Applied Physics Letters*, **2013**, 102, 192103	3.4	112
153	Strong heavy-to-light hole intersubband absorption in the valence band of carbon-doped GaAs/AlAs superlattices. *Journal of Applied Physics*, **2013**, 113, 053103	2.5	1
152	Self-mixing effect in THz quantum cascade lasers: Applications in sensing and imaging **2013**,		1
151	Swept-frequency feedback interferometry using terahertz frequency QCLs: a method for imaging and materials analysis. *Optics Express*, **2013**, 21, 22194-205	3.3	62

150	Heavy-to-light hole intersubband absorption in the valence band of GaAs/AlAs heterostructures. *Materials Research Society Symposia Proceedings*, **2013**, 1509, 1		
149	Electronic properties calculation of Ge1−x−ySixSny ternary alloy and nanostructure. *Journal of Non-Crystalline Solids*, **2012**, 358, 2096-2098	3.9	19
148	Electronic states and intraband terahertz optical transitions in InGaAs quantum rods. *Journal of Applied Physics*, **2012**, 111, 073110	2.5	5
147	The role of temperature in quantum-cascade laser waveguides. *Journal of Computational Electronics*, **2012**, 11, 137-143	1.8	7
146	Active glass waveguide amplifier on GaAs by UV-pulsed laser deposition and femtosecond laser inscription. *Laser Physics Letters*, **2012**, 9, 329-339	1.5	7
145	Coherent transport description of the dual-wavelength ambipolar terahertz quantum cascade laser. *Journal of Applied Physics*, **2011**, 109, 013111	2.5	10
144	Terahertz imaging through self-mixing in a quantum cascade laser. *Optics Letters*, **2011**, 36, 2587-9	3	108
143	Magnetotunneling in resonant tunneling structures with spin orbit interaction. *Journal of Applied Physics*, **2011**, 110, 064507	2.5	1
142	Demonstration of a self-mixing displacement sensor based on terahertz quantum cascade lasers. *Applied Physics Letters*, **2011**, 99, 081108	3.4	47
141	Charge Carrier Transport in Quantum Cascade Lasers in Strong Magnetic Field. *Acta Physica Polonica A*, **2011**, 119, 99-102	0.6	1
140	Impurity-related photoluminescence line shape asymmetry in GaAs/AlAs multiple quantum wells: Fractional-dimensional space approach. *Journal of Applied Physics*, **2010**, 107, 093109	2.5	6
139	Phase-breaking effects in double-barrier resonant tunneling diodes with spin-orbit interaction. *Journal of Applied Physics*, **2010**, 108, 044506	2.5	11
138	Interdiffusion effects and line broadening of hole intersubband absorption in complex GaAs/AlGaAs quantum well structures. *Journal of Applied Physics*, **2010**, 107, 113107	2.5	3
137	Monotonic Evolution of the Optical Properties in the Transition from Three- to Quasi-Two-Dimensional Quantum Confinement in InAs Nanorods. *Journal of Physical Chemistry C*, **2010**, 114, 6901-6908	3.8	9
136	Finite difference method for solving the Schrdinger equation with band nonparabolicity in mid-infrared quantum cascade lasers. *Journal of Applied Physics*, **2010**, 108, 113109	2.5	53
135	Dependence of Threshold Current Density on the Waveguide Ridge Width in Quantum-Cascade Lasers. *IEEE Journal of Quantum Electronics*, **2010**, 46, 1320-1326	2	1
134	. *IEEE Journal of Selected Topics in Quantum Electronics*, **2010**, 16, 100-105	3.8	19
133	MBE growth and transport properties of silicon doped GaAs/AlAs quantum well structures for terahertz frequency detection. *Journal of Crystal Growth*, **2010**, 312, 1761-1765	1.6	5

132	Comparison of SiO2, Si3N4, As2S3, and Ge0.25Se0.75 dielectric layers for InP- and GaAs-based material systems for midinfrared quantum cascade laser waveguides. *Journal of Applied Physics*, **2009**, 106, 053104	2.5	3
131	The effect of small elongations on the electronic and optical signatures in InAs nanocrystal quantum dots. *Journal of Physics Condensed Matter*, **2009**, 21, 144212	1.8	1
130	Nonparabolicity effects and the spin-split electron dwell time in symmetric III-V double-barrier structures. *Microelectronics Journal*, **2009**, 40, 611-614	1.8	3
129	Intervalley scattering in GaAs/AlGaAs quantum wells and quantum cascade lasers. *Microelectronics Journal*, **2009**, 40, 577-580	1.8	1
128	Electronic structure and optical transitions in Sn and SnGe quantum dots in a Si matrix. *Microelectronics Journal*, **2009**, 40, 483-485	1.8	5
127	Theoretical Modeling of a $sim {2}~mu{rm m}~{rm Tm}^{3+}$-Doped Tellurite Fiber Laser: The Influence of Cross Relaxation. *Journal of Lightwave Technology*, **2009**, 27, 4026-4032	4	15
126	Numerical Rate Equation Modeling of a ${sim {hbox {2.1}}-}mu{hbox {m}}-{rm Tm}^{3+}/{rm Ho}^{3+}$ Co-Doped Tellurite Fiber Laser. *Journal of Lightwave Technology*, **2009**, 27, 4280-4288	4	29
125	Terahertz ambipolar dual-wavelength quantum cascade laser. *Optics Express*, **2009**, 17, 19926-32	3.3	20
124	Quantum Dots as Sources and Detectors of Mid- and Far-Infrared Radiation: Theoretical Models. *Acta Physica Polonica A*, **2009**, 116, 464-467	0.6	7
123	Spin Precession of Quasi-Bound States in Heterostructures with Spin-Orbit Interaction. *Acta Physica Polonica A*, **2009**, 116, 513-515	0.6	
122	Interband and intraband optical transitions in InAs nanocrystal quantum dots: A pseudopotential approach. *Physical Review B*, **2008**, 78,	3.3	37
121	Electron Transport and Terahertz Gain in Quantum-Dot Cascades. *IEEE Photonics Technology Letters* , **2008**, 20, 129-131	2.2	18
120	Thermal Modeling of Terahertz Quantum-Cascade Lasers: Comparison of Optical Waveguides. *IEEE Journal of Quantum Electronics*, **2008**, 44, 680-685	2	29
119	Impurity bound-to-unbound terahertz sensors based on beryllium and silicon -doped GaAs/AlAs multiple quantum wells. *Applied Physics Letters*, **2008**, 92, 053503	3.4	14
118	Electronic structure and optical properties of Sn and SnGe quantum dots. *Journal of Applied Physics*, **2008**, 103, 103712	2.5	25
117	Time delay in thin slabs with self-focusing Kerr-type nonlinearity. *Physical Review A*, **2008**, 77,	2.6	15
116	Radiative recombination spectra of p-type -doped GaAs/AlAs multiple quantum wells near the Mott transition. *Journal of Applied Physics*, **2008**, 103, 123108	2.5	12
115	Saturation of intersubband transitions in p-doped GaAs/AlGaAs quantum wells. *Applied Physics Letters*, **2008**, 92, 183104	3.4	6

114	Wide wavelength tuning of GaAs/AlxGa1−xAs bound-to-continuum quantum cascade lasers by aluminum content control. *Applied Physics Letters*, **2008**, 92, 141111	3.4	5
113	Differential surface photovoltage spectroscopy of δ-doped GaAs/AlAs multiple quantum wells below and close to Mott transition. *Physica Status Solidi (B): Basic Research*, **2008**, 245, 82-88	1.3	3
112	Intervalley Scattering and the Role of Indirect Band Gap AlAs Barriers: Application to GaAs/AlGaAs Quantum Cascade Lasers. *Acta Physica Polonica A*, **2008**, 113, 891-902	0.6	2
111	Terahertz Detection with δ-Doped GaAs/AlAs Multiple Quantum Wells. *Acta Physica Polonica A*, **2008**, 113, 909-912	0.6	3
110	Radiative Recombination Spectra of Heavily p-Type δ-Doped GaAs/AlAs MQWs. *Acta Physica Polonica A*, **2008**, 113, 963-966	0.6	1
109	Effect of ion implantation on quantum well infrared photodetectors. *Infrared Physics and Technology*, **2007**, 50, 106-112	2.7	2
108	Photo- and electro-reflectance spectroscopy of δ-doped GaAs/AlAs multiple quantum well structures. *Physica Status Solidi (A) Applications and Materials Science*, **2007**, 204, 412-421	1.6	2
107	Band structure calculations of Si–Ge–Sn alloys: achieving direct band gap materials. *Semiconductor Science and Technology*, **2007**, 22, 742-748	1.8	165
106	Stark shift of the spectral response in quantum dots-in-a-well infrared photodetectors. *Journal Physics D: Applied Physics*, **2007**, 40, 5537-5540	3	20
105	Effect of GaP strain compensation layers on rapid thermally annealed InGaAs/GaAs quantum dot infrared photodetectors grown by metal-organic chemical-vapor deposition. *Applied Physics Letters*, **2007**, 91, 073515	3.4	5
104	Laterally pumped GaAs/AlGaAs quantum wells as sources of broadband terahertz radiation. *Journal of Applied Physics*, **2007**, 102, 073715	2.5	7
103	Room temperature operation of AlGaN/GaN quantum well infrared photodetectors at a 34 μm wavelength range. *Semiconductor Science and Technology*, **2007**, 22, 1240-1244	1.8	9
102	Electron transport in n-doped Si/SiGe quantum cascade structures. *Journal of Applied Physics*, **2007**, 101, 093703	2.5	8
101	Interwell relaxation times in p-Si/SiGe asymmetric quantum well structures: Role of interface roughness. *Physical Review B*, **2007**, 75,	3.3	29
100	Density matrix theory of transport and gain in quantum cascade lasers in a magnetic field. *Physical Review B*, **2007**, 76,	3.3	32
99	Far-infrared absorption studies of Be acceptors in δ-doped GaAs/AlAs multiple quantum wells **2006** , 49, 702-708		2
98	Electric field domains in p-Si/SiGe quantum cascade structures. *IEEE Transactions on Electron Devices*, **2006**, 53, 189-195	2.9	3
97	Modelling and simulation of electronic and optical responses of quantum well infrared photodetectors (QWIPs). *Journal Physics D: Applied Physics*, **2006**, 39, 1773-1780	3	3

96	Comparative Analysis of 9 μm GaAs/AlGaAs Quantum Cascade Lasers with Different Injector Doping. *Materials Science Forum*, **2006**, 518, 29-34	0.4	
95	Origin of detection wavelength tuning in quantum dots-in-a-well infrared photodetectors. *Applied Physics Letters*, **2006**, 88, 251107	3.4	19
94	Selective wavelength tuning of self-assembled InAs quantum dots grown on InP. *Applied Physics Letters*, **2006**, 88, 193112	3.4	16
93	Effects of rapid thermal annealing on device characteristics of InGaAs/GaAs quantum dot infrared photodetectors. *Journal of Applied Physics*, **2006**, 99, 114517	2.5	39
92	Dependence of saturation effects on electron confinement and injector doping in GaAs/Al0.45Ga0.55As quantum-cascade lasers. *Applied Physics Letters*, **2006**, 88, 251109	3.4	16
91	A microscopic model of electron transport in quantum dot infrared photodetectors. *Journal of Applied Physics*, **2006**, 100, 074502	2.5	22
90	Influence of the active region design on output characteristics of GaAs/AlGaAs quantum cascade lasers in a strong magnetic field. *Semiconductor Science and Technology*, **2006**, 21, 215-220	1.8	30
89	Toward Silicon-Based Lasers for Terahertz Sources. *IEEE Journal of Selected Topics in Quantum Electronics*, **2006**, 12, 1570-1578	3.8	26
88	Symmetry-based calculation of single-particle states and intraband absorption in hexagonal GaN/AlN quantum dot superlattices. *Journal of Physics Condensed Matter*, **2006**, 18, 6249-6262	1.8	16
87	Intraband absorption in InAs/GaAs quantum dot infrared photodetectors: effective mass versus k.p modelling. *Semiconductor Science and Technology*, **2006**, 21, 1098-1104	1.8	38
86	Aspects of the internal physics of InGaAs/InAlAs quantum cascade lasers. *Journal of Applied Physics*, **2006**, 99, 114505	2.5	19
85	Electron transport in quantum cascade lasers in a magnetic field. *Physical Review B*, **2006**, 73,	3.3	22
84	Influence of doping density on electron dynamics in GaAs/AlGaAs quantum cascade lasers. *Journal of Applied Physics*, **2006**, 99, 103106	2.5	38
83	Investigation of thermal effects in quantum-cascade lasers. *IEEE Journal of Quantum Electronics*, **2006**, 42, 857-865	2	41
82	Influence of injector doping density and electron confinement on the properties of GaAs/Al0.45Ga0.55As quantum cascade lasers. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2006**, 3, 411-414		4
81	Symmetry based calculation of electronic structure and intraband absorption in GaN/AlN hexagonal quantum dot superlattices. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2006**, 3, 3939-3942		
80	Theoretical modelling of electron transport in InAs/GaAs quantum dot superlattices. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2006**, 3, 3770-3773		
79	Lasing in spin-polarized terahertz quantum cascade structures. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2006**, 3, 4401-4404		

78	Study of Be-doped GaAs/AlAs multiple quantum wells by the surface photovoltage spectroscopy. *Applied Surface Science*, **2006**, 252, 5437-5440	6.7	2
77	n-Si/SiGe quantum cascade structures for THz emission. *Journal of Luminescence*, **2006**, 121, 311-314	3.8	4
76	Mechanisms of dynamic range limitations in GaAs-AlGaAs quantum-cascade lasers: Influence of injector doping. *Applied Physics Letters*, **2005**, 86, 211117	3.4	55
75	Symmetry of k·p Hamiltonian in pyramidal InAs-GaAs quantum dots: Application to the calculation of electronic structure. *Physical Review B*, **2005**, 72,	3.3	40
74	Intersubband lifetimes in p-Si-SiGe terahertz quantum cascade heterostructures. *Physical Review B*, **2005**, 71,	3.3	22
73	Relationship between carrier dynamics and temperature in terahertz quantum cascade structures: simulation of GaAs/AlGaAs, SiGe/Si and GaN/AlGaN devices. *Semiconductor Science and Technology*, **2005**, 20, S237-S245	1.8	28
72	Electron-phonon relaxation rates and optical gain in a quantum cascade laser in a magnetic field. *Journal of Applied Physics*, **2005**, 97, 103109	2.5	29
71	A microscopic model of quantum well infrared photodetectors (QWIP). *Infrared Physics and Technology*, **2005**, 47, 3-8	2.7	7
70	Optically pumped intersublevel MidInfrared lasers based on InAs-GaAs quantum dots. *IEEE Journal of Quantum Electronics*, **2005**, 41, 1361-1368	2	16
69	The effect of the localization in a quantum well on the lifetime of the states of shallow impurity centers. *Semiconductors*, **2005**, 39, 58	0.7	2
68	Optical cavities for Si/SiGe tetrahertz quantum cascade emitters. *Optical Materials*, **2005**, 27, 851-854	3.3	4
67	On the Formation of Periodic Electric Field Domains in p-Si/SiGe Quantum Cascade Structures. *Journal of Computational Electronics*, **2005**, 4, 11-14	1.8	
66	SUSY transformation of guided modes in semiconductor waveguides. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2005**, 2, 3552-3555		4
65	A physical model of quantum cascade lasers: Application to GaAs, GaN and SiGe devices. *Physica Status Solidi (A) Applications and Materials Science*, **2005**, 202, 980-986	1.6	13
64	Quantum cascade lasers in magnetic field: An active region model. *Physica Status Solidi (B): Basic Research*, **2005**, 242, 1812-1816	1.3	2
63	GaAs/Al0.45Ga0.55As Double Phonon Resonance Quantum Cascade Laser. *AIP Conference Proceedings*, **2005**,	0	2
62	Electron-nuclear spin transfer in quantum-dot networks. *Nanotechnology*, **2005**, 16, S266-S272	3.4	1
61	Optically pumped terahertz laser based on intersubband transitions in a GaN-AlGaN double quantum well. *Journal of Applied Physics*, **2005**, 97, 103106	2.5	45

60	Temperature dependence of terahertz optical transitions from boron and phosphorus dopant impurities in silicon. *Applied Physics Letters*, **2005**, 87, 101114	3.4	20
59	Towards automated design of quantum cascade lasers. *Journal of Applied Physics*, **2005**, 97, 084506	2.5	30
58	Photoreflectance and surface photovoltage spectroscopy of beryllium-doped GaAs□AlAs multiple quantum wells. *Journal of Applied Physics*, **2005**, 98, 023508	2.5	20
57	Design and simulation of InGaAs□AlAsSb quantum-cascade lasers for short wavelength emission. *Applied Physics Letters*, **2005**, 87, 141109	3.4	4
56	Magnetic-field tunable terahertz quantum well infrared photodetector. *Journal of Applied Physics*, **2005**, 98, 084509	2.5	12
55	Normal Incidence Mid-Infrared Photocurrent in AlGaN/GaN Quantum Well Infrared Photodetectors. *Acta Physica Polonica A*, **2005**, 107, 174-178	0.6	2
54	Experimental Study of Optical Transitions in Be-Doped GaAs/AlAs Multiple Quantum Wells. *Acta Physica Polonica A*, **2005**, 107, 245-249	0.6	1
53	Optical and Terahertz Characterization of Be-Doped GaAs/AlAs Multiple Quantum Wells. *Acta Physica Polonica A*, **2005**, 107, 328-332	0.6	4
52	Carrier Dynamics in Quantum Cascade Lasers. *Acta Physica Polonica A*, **2005**, 107, 75-81	0.6	
51	**2005**,		417
50	Mechanisms of carrier transport and temperature performance evaluation in terahertz quantum cascade lasers. *Semiconductor Science and Technology*, **2004**, 19, S104-S106	1.8	5
49	Physical model of quantum-well infrared photodetectors. *Journal of Applied Physics*, **2004**, 96, 269-272	2.5	27
48	Effect of confinement on the lifetimes of shallow impurity states in quantum wells. *Applied Physics Letters*, **2004**, 85, 5257-5259	3.4	3
47	Effect of quantum confinement on shallow acceptor transitions in □doped GaAs/AlAs multiple-quantum wells. *Applied Physics Letters*, **2004**, 84, 735-737	3.4	12
46	Towards a Si/SiGe Quantum Cascade Laser for Terahertz Applications. *Materials Research Society Symposia Proceedings*, **2004**, 832, 12		2
45	Waveguide design for mid- and far-infrared p-Si/SiGe quantum cascade lasers. *Semiconductor Science and Technology*, **2004**, 19, 76-81	1.8	21
44	Optical losses in dielectric apertured terahertz VCSEL. *Optics and Laser Technology*, **2004**, 36, 575-580	4.2	1
43	Binding energy and dynamics of Be acceptor levels in AlAs/GaAs multiple quantum wells. *Journal of Luminescence*, **2004**, 108, 181-184	3.8	3

42	Hole transport simulations in SiGe cascade quantum wells. *Physica E: Low-Dimensional Systems and Nanostructures*, **2004**, 21, 907-910	3	1
41	Simulation and design of GaN/AlGaN far-infrared (34 m) quantum-cascade laser. *Applied Physics Letters*, **2004**, 84, 2995-2997	3.4	72
40	Self-consistent energy balance simulations of hole dynamics in SiGeSiTHz quantum cascade structures. *Journal of Applied Physics*, **2004**, 96, 6803-6811	2.5	32
39	Dilute magnetic semiconductor quantum-well structures for magnetic field tunable far-infrared/terahertz absorption. *IEEE Journal of Quantum Electronics*, **2004**, 40, 1614-1621	2	8
38	Occupancy calculations for quantum-dot-based memory devices. *New Journal of Physics*, **2004**, 6, 30-30	2.9	5
37	Simulation of Carrier Transport in p-Si/SiGe Quantum Cascade Emitters. *Journal of Computational Electronics*, **2003**, 2, 353-356	1.8	3
36	The effect of inter-dot separation on the finite difference solution of vertically aligned coupled quantum dots. *Computer Physics Communications*, **2003**, 155, 236-243	4.2	12
35	Geometrical effects on the charge/discharge properties of quantum dot flash memories. *Superlattices and Microstructures*, **2003**, 34, 241-244	2.8	1
34	Modeling the capture probability and enhancing the photoconductive gain in quantum well infrared photodetectors (QWIPs). *Infrared Physics and Technology*, **2003**, 44, 481-485	2.7	1
33	Quantum mechanical scattering investigation of the dark current in quantum well infrared photodetectors (QWIPs). *Infrared Physics and Technology*, **2003**, 44, 473-480	2.7	7
32	THz intersubband dynamics in p-Si/SiGe quantum well emitter structures. *Physica Status Solidi (B): Basic Research*, **2003**, 237, 381-385	1.3	
31	Mechanisms of temperature performance degradation in terahertz quantum-cascade lasers. *Applied Physics Letters*, **2003**, 82, 1347-1349	3.4	59
30	Self-consistent scattering model of carrier dynamics in GaAs-AlGaAs terahertz quantum-cascade lasers. *IEEE Photonics Technology Letters*, **2003**, 15, 15-17	2.2	22
29	Optimal design of GaN-AlGaN Bragg-confined structures for intersubband absorption in the near-infrared spectral range. *IEEE Journal of Quantum Electronics*, **2003**, 39, 1297-1304	2	10
28	Designing strain-balanced GaN/AlGaN quantum well structures: Application to intersubband devices at 1.3 and 1.55 m wavelengths. *Journal of Applied Physics*, **2003**, 93, 3194-3197	2.5	41
27	Surface plasmon waveguides with gradually doped or NiAl intermetallic compound buried contact for terahertz quantum cascade lasers. *Journal of Applied Physics*, **2003**, 94, 3249-3252	2.5	7
26	Interwell intersubband electroluminescence from Si/SiGe quantum cascade emitters. *Applied Physics Letters*, **2003**, 83, 4092-4094	3.4	60
25	Effect of quantum-well confinement on acceptor state lifetime in doped GaAs/AlAs multiple quantum wells. *Applied Physics Letters*, **2003**, 83, 3719-3721	3.4	9

24	Monte Carlo Simulations of Hole Dynamics in Si/SiGe Quantum Cascade Structures. *Journal of Computational Electronics*, **2002**, 1, 191-194	1.8	2
23	Quantum mechanical scattering investigation of the thermionic and field induced emission components of the dark current in quantum well infrared photodetectors. *Journal of Applied Physics*, **2002**, 92, 248-252	2.5	18
22	Nonequilibrium electron heating in inter-subband terahertz lasers. *Journal of Applied Physics*, **2002**, 91, 904-910	2.5	8
21	Self-consistent scattering theory of transport and output characteristics of quantum cascade lasers. *Journal of Applied Physics*, **2002**, 91, 9019-9026	2.5	100
20	Influence of leakage current on temperature performance of GaAs/AlGaAs quantum cascade lasers. *Applied Physics Letters*, **2002**, 81, 400-402	3.4	42
19	Electron temperature and mechanisms of hot carrier generation in quantum cascade lasers. *Journal of Applied Physics*, **2002**, 92, 6921-6923	2.5	51
18	Self-consistent solutions to the intersubband rate equations in quantum cascade lasers: Analysis of a GaAs/AlxGa1⊠As device. *Journal of Applied Physics*, **2001**, 89, 3084-3090	2.5	57
17	Population-inversion and gain estimates for a semiconductor TASER. *IEEE Journal of Quantum Electronics*, **2001**, 37, 153-158	2	14
16	Carrier scattering approach to the origins of dark current in mid- and far-infrared (terahertz) quantum-well intersubband photodetectors (QWLPs). *IEEE Journal of Quantum Electronics*, **2001**, 37, 672-675	2	31
15	Anticrossing effects in the design of MIR intersubband semiconductor lasers. *Journal of Modern Optics*, **2000**, 47, 1791-1801	1.1	2
14	A Single-Band Constant-Confining-Potential Model for Self-Assembled InAs/GaAs Quantum Dots. *Materials Research Society Symposia Proceedings*, **2000**, 642, 141		1
13	Quantum box energies as a route to the ground state levels of self-assembled InAs pyramidal dots. *Journal of Applied Physics*, **2000**, 88, 5870-5874	2.5	23
12	Solid-state terahertz sources using quantum-well intersubband transitions. *IEEE Transactions on Microwave Theory and Techniques*, **2000**, 48, 645-652	4.1	9
11	Comparison of the quantum efficiencies of interwell and intrawell radiative transitions in quantum cascade lasers. *Applied Physics Letters*, **1999**, 75, 1999-2001	3.4	19
10	Approximate methods for the solution of quantum wires and dots: Connection rules between pyramidal, cuboidal, and cubic dots. *Journal of Applied Physics*, **1999**, 86, 5054-5059	2.5	35
9	The nature of the electron distribution functions in quantum cascade lasers. *Applied Physics Letters*, **1999**, 75, 2800-2802	3.4	62
8	Intersubband terahertz lasers using four-level asymmetric quantum wells. *Journal of Applied Physics* , **1999**, 85, 23-28	2.5	25
7	Stark ladders as tunable far-infrared emitters. *Journal of Applied Physics*, **1998**, 84, 5175-5179	2.5	6

6	Population inversion in optically pumped asymmetric quantum well terahertz lasers. *Journal of Applied Physics*, **1997**, 81, 7135-7140	2.5	36
5	Effects of interface imperfections on the Zeeman splitting of excitons in diluted magnetic semiconductor quantum wells. *The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties*, **1997**, 75, 349-361		5
4	Numerical solution to the general one-dimensional diffusion equation in semiconductor heterostructures. *Physica Status Solidi (B): Basic Research*, **1996**, 197, 81-90	1.3	6
3	In search of a Si/SiGe THz quantum cascade laser		1
2	Quantum well intersubband transitions as a source of terahertz radiation		1
1	Anticrossing effects in the design of MIR intersubband semiconductor lasers		1