

C R Pidgeon

List of Publications by Year in descending order

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113
papers

3,965
citations

117571

34
h-index

128225

60
g-index

118
all docs

118
docs citations

118
times ranked

1944
citing authors

#	ARTICLE	IF	CITATIONS
1	Interband Magneto-Absorption and Faraday Rotation in InSb. <i>Physical Review</i> , 1966, 146, 575-583.	2.7	676
2	Interband Magnetoreflexion and Band Structure of HgTe. <i>Physical Review</i> , 1967, 161, 779-793.	2.7	190
3	Interband Magnetoabsorption in InAs and InSb. <i>Physical Review</i> , 1967, 154, 737-742.	2.7	157
4	Auger recombination dynamics of lead salts under picosecond free-electron-laser excitation. <i>Physical Review B</i> , 1998, 58, 12908-12915.	1.1	145
5	Intersubband electroluminescence from Si/SiGe cascade emitters at terahertz frequencies. <i>Applied Physics Letters</i> , 2002, 81, 1543-1545.	1.5	130
6	Direct observation of the LO phonon bottleneck in wide GaAs/AlxGa1-xAs quantum wells. <i>Physical Review B</i> , 1997, 55, 5171-5176.	1.1	126
7	Coherent control of Rydberg states in silicon. <i>Nature</i> , 2010, 465, 1057-1061.	13.7	117
8	Two-Photon Absorption in Zinc-Blende Semiconductors. <i>Physical Review Letters</i> , 1979, 42, 1785-1788.	2.9	115
9	Inversion-Asymmetry and Warping-Induced Interband Magneto-Optical Transitions in InSb. <i>Physical Review</i> , 1969, 186, 824-833.	2.7	106
10	Silicon as a model ion trap: Time domain measurements of donor Rydberg states. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 10649-10653.	3.3	71
11	Tunable lasers. <i>Reports on Progress in Physics</i> , 1975, 38, 329-460.	8.1	70
12	Spin-galvanic effect due to optical spin orientation in n-type GaAs quantum well structures. <i>Physical Review B</i> , 2003, 68, .	1.1	68
13	Auger recombination in long-wavelength infrared InNxSb1-x alloys. <i>Applied Physics Letters</i> , 2001, 78, 1568-1570.	1.5	63
14	Spin-Polarized Splittings in the Temperature-Dependent Reflectance of EuO. <i>Physical Review Letters</i> , 1969, 22, 1385-1388.	2.9	60
15	Direct observation of magnetophonon resonances in Landau-level lifetimes of a semiconductor heterostructure. <i>Physical Review B</i> , 1996, 53, 16481-16484.	1.1	56
16	Band anticrossing in dilute InNxSb1-x. <i>Applied Physics Letters</i> , 2002, 81, 256-258.	1.5	56
17	Suppression of Auger recombination in arsenic-rich InAs1-xSbx strained layer superlattices. <i>Journal of Applied Physics</i> , 1996, 80, 2994-2997.	1.1	54
18	HIGH-INTENSITY TUNABLE InSb SPIN-FLIP RAMAN LASER. <i>Applied Physics Letters</i> , 1971, 18, 383-385.	1.5	52

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19	Frequency dependence of two-photon absorption in InSb and Hg _{1-x} Cd _x Te. Physical Review B, 1980, 22, 825-831.	1.1	51
20	Temperature dependence of the electron Landau level g-factor in InSb and GaAs. Physical Review B, 2008, 77, .	1.1	50
21	Si:P as a laboratory analogue for hydrogen on high magnetic field white dwarf stars. Nature Communications, 2013, 4, 1469.	5.8	50
22	Influence of electron temperature and carrier concentration on electron-LO-phonon intersubband scattering in wide GaAs/Al _x Ga _{1-x} As quantum wells. Physical Review B, 1995, 52, 1874-1881.	1.1	48
23	Excite-probe determination of the intersubband lifetime in wide GaAs/AlGaAs quantum wells using a far-infrared free-electron laser. Semiconductor Science and Technology, 1994, 9, 1554-1557.	1.0	47
24	Two-photon absorption in InSb and Hg _{1-x} Cd _x Te. Journal of Physics C: Solid State Physics, 1979, 12, 4839-4849.	1.5	45
25	Infrared Magnetoelectroreflectance in Ge, GaSb, and InSb. Physical Review Letters, 1966, 17, 643-646.	2.9	43
26	Tunable cyclotron-resonance laser in germanium. Physical Review Letters, 1990, 64, 2277-2280.	2.9	41
27	Impurity and Landau-level electron lifetimes in n-type GaAs. Physical Review B, 1985, 31, 3560-3567.	1.1	40
28	Optically detected magnetic resonance of deep centers in molecular beam epitaxy ZnSe:N. Applied Physics Letters, 1993, 63, 2411-2413.	1.5	40
29	Temperature dependence of the electron spin g-factor in GaAs. Physical Review B, 2008, 78, .	1.1	40
30	Picosecond intersubband dynamics in p-Si/SiGe quantum-well emitter structures. Applied Physics Letters, 2002, 80, 1456-1458.	1.5	39
31	Far-infrared optically detected cyclotron resonance in GaAs layers and low-dimensional structures. Semiconductor Science and Technology, 1992, 7, 357-363.	1.0	38
32	Suppression of LO phonon scattering in Landau quantized quantum dots. Physical Review B, 1999, 59, R7817-R7820.	1.1	38
33	Far-infrared optically detected cyclotron resonance observation of quantum effects in GaAs. Semiconductor Science and Technology, 1990, 5, 438-441.	1.0	36
34	Temperature and doping dependence of spin relaxation in InAs. Physical Review B, 2005, 72, .	1.1	36
35	Experimental determination of the Rashba coefficient in InSb/InAlSb quantum wells at zero magnetic field and elevated temperatures. Journal of Physics Condensed Matter, 2011, 23, 035801.	0.7	35
36	Coherent creation and destruction of orbital wavepackets in Si:P with electrical and optical read-out. Nature Communications, 2015, 6, 6549.	5.8	33

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37	Excitonic signatures in the photoluminescence and terahertz absorption of $\text{Al}_x\text{Ga}_{1-x}\text{As}$ multiple quantum well. <i>Physical Review B</i> , 2005, 71, .	1.1	32
38	Interwell relaxation times in Si/SiGe asymmetric quantum well structures: Role of interface roughness. <i>Physical Review B</i> , 2007, 75, .	1.1	32
39	Optical Observation of Magnetic-Field-Induced Spin Alignment in Antiferromagnetic EuTe . <i>Physical Review Letters</i> , 1969, 23, 1391-1394.	2.9	30
40	Exciton-binding-energy maximum in $\text{Ga}_{1-x}\text{In}_x\text{As}/\text{GaAs}$ quantum wells. <i>Physical Review B</i> , 1991, 43, 11944-11949.	1.1	30
41	Identification of VSe impurity pairs in ZnSe:N . <i>Applied Physics Letters</i> , 1994, 65, 1112-1114.	1.5	29
42	Giant multiphoton absorption for THz resonances in silicon hydrogenic donors. <i>Nature Photonics</i> , 2018, 12, 179-184.	15.6	28
43	Band alignments and offsets in $\text{In}(\text{As,Sb})/\text{InAs}$ superlattices. <i>Physical Review B</i> , 1997, 55, 4589-4595.	1.1	27
44	Nonlinear Far-Infrared Magnetoabsorption and Optically Detected Magnetoimpurity Effect in GaAs . <i>Physical Review Letters</i> , 1983, 50, 1309-1312.	2.9	26
45	Intersubband lifetimes in Si/SiGe terahertz quantum cascade heterostructures. <i>Physical Review B</i> , 2005, 71, .	1.1	26
46	Tunable Coherent Radiation Source in the $5\text{--}14\ \mu\text{m}$ Region. <i>Applied Physics Letters</i> , 1971, 19, 333-335.	1.5	25
47	Double-resonance spectroscopy of InAs/GaAs self-assembled quantum dots. <i>Physical Review B</i> , 2000, 62, R7755-R7758.	1.1	23
48	Spin relaxation in $n\text{-InSb}/\text{AlInSb}$ quantum wells. <i>New Journal of Physics</i> , 2006, 8, 49-49.	1.2	23
49	Photogenerated carrier recombination time in bulk ZnSe . <i>Journal of Applied Physics</i> , 1991, 69, 2708-2710.	1.1	22
50	Auger recombination dynamics of $\text{Hg}_{0.795}\text{Cd}_{0.205}\text{Te}$ in the high excitation regime. <i>Applied Physics Letters</i> , 1997, 71, 491-493.	1.5	22
51	Complete bleaching of the intersubband absorption in $\text{GaAs}/\text{AlGaAs}$ quantum wells using a far-infrared free-electron laser. <i>Applied Physics Letters</i> , 1993, 63, 3315-3317.	1.5	20
52	Electron spin lifetimes in long-wavelength $\text{Hg}_{1-x}\text{Cd}_x\text{Te}$ and InSb at elevated temperature. <i>Physical Review B</i> , 2003, 67, .	1.1	20
53	Room-temperature optical nonlinearities of electronic origin in ZnSe . <i>Journal of the Optical Society of America B: Optical Physics</i> , 1990, 7, 868.	0.9	19
54	Interband magneto-optics of $\text{InAs}_{1-x}\text{Sb}_x$. <i>Semiconductor Science and Technology</i> , 1992, 7, 900-906.	1.0	19

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55	Strong dependence of spin dynamics on the orientation of an external magnetic field for InSb and InAs. Applied Physics Letters, 2010, 96, 111107.	1.5	18
56	Two-photon light shift and autler-townes splitting in optically-pumped FIR lasers. Journal of Infrared, Millimeter and Terahertz Waves, 1981, 2, 207-214.	0.6	17
57	Determination of the intersubband lifetime in Si/SiGe quantum wells. Applied Physics Letters, 1995, 66, 3313-3315.	1.5	17
58	Suppression of Dâ€™yakonovâ€™Perel spin relaxation in InAs and InSb by n-type doping at 300 K. Applied Physics Letters, 2003, 83, 5220-5222.	1.5	17
59	Time-Resolved Dynamics of Shallow Acceptor Transitions in Silicon. Physical Review X, 2013, 3, .	2.8	17
60	Tunable cyclotron resonance-laser in p-Ge. Semiconductor Science and Technology, 1992, 7, B604-B609.	1.0	16
61	Determination of Landau level lifetimes in AlGaAs/GaAs heterostructures with a ps free electron laser. Applied Physics Letters, 1995, 67, 1110-1112.	1.5	16
62	Application of an isotopically enriched ¹³ C ¹⁶ O ₂ laser to an optically pumped far-infrared laser. Optics Letters, 1980, 5, 153.	1.7	15
63	Spin lifetime in InAs epitaxial layers grown on GaAs. Physical Review B, 2006, 74, .	1.1	14
64	Spin lifetime in high quality InSb epitaxial layers grown on GaAs. Journal of Applied Physics, 2007, 101, 083105.	1.1	14
65	p-type Ge cyclotron-resonance laser: Theory and experiment. Physical Review B, 1993, 47, 4522-4531.	1.1	13
66	Direct determination of Shockley-Read-Hall trap density in InSb/InAlSb detectors. Journal of Physics Condensed Matter, 2000, 12, L731-L734.	0.7	13
67	Spin Relaxation by Transient Monopolar and Bipolar Optical Orientation. Physical Review Letters, 2006, 96, 096603.	2.9	13
68	Direct monitoring of the excited state population in biased SiGe valence band quantum wells by femtosecond resolved photocurrent experiments. Applied Physics Letters, 2006, 89, 211111.	1.5	12
69	Radii of Rydberg states of isolated silicon donors. Physical Review B, 2018, 98, .	1.1	12
70	Linear-â€™Valence-Band Splitting in InSb. Physical Review Letters, 1968, 20, 1003-1007.	2.9	11
71	Coherent superpositions of three states for phosphorous donors in silicon prepared using THz radiation. Nature Communications, 2017, 8, 16038.	5.8	11
72	Fundamental loss mechanisms of the spin-flip Raman laser. Journal of Physics C: Solid State Physics, 1972, 5, L73-L79.	1.5	10

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73	Dispersion in a cw optically pumped FIR laser. Applied Physics B, Photophysics and Laser Chemistry, 1982, 29, 131-134.	1.5	10
74	Power broadening and nonlinear FIR magneto-photoconductivity in n-GaAs. Journal of Infrared, Millimeter and Terahertz Waves, 1983, 4, 561-574.	0.6	10
75	The U.k. Free Electron Laser Project. IEEE Transactions on Nuclear Science, 1983, 30, 3091-3093.	1.2	10
76	Electronic self-defocusing of nanosecond laser pulses in bulk ZnSe. Journal of Applied Physics, 1991, 69, 7351-7353.	1.1	10
77	Auger recombination dynamics of In _x Ga _{1-x} Sb. Semiconductor Science and Technology, 1999, 14, 1026-1030.	1.0	10
78	Quantum oscillations and pump depletion effects in an efficient high-power tunable spin-flip laser. Journal of Physics C: Solid State Physics, 1973, 6, L144-L149.	1.5	9
79	Interband Magneto-Optics in Small Band Gap Semiconductors and Semimetals. , 1969, , 47-67.		9
80	Low-energy electronic excitations of the ferrous ion in (Fe(H ₂ O) ₆)(NH ₄) ₂ (SO ₄) ₂ by far-infrared radiation. Journal of Physics C: Solid State Physics, 1986, 19, 3005-3011.	1.5	8
81	Pump-probe measurement of lifetime engineering in SiGe quantum wells below the optical phonon energy. Semiconductor Science and Technology, 2005, 20, L50-L52.	1.0	8
82	Spin Dynamics in Narrow-Gap Semiconductor Epitaxial Layers. Journal of Superconductivity and Novel Magnetism, 2007, 20, 461-465.	0.8	8
83	Recent developments in tunable lasers for spectroscopy. Nature, 1979, 279, 377-381.	13.7	7
84	Infrared free-electron laser measurement of power limiting by two-photon absorption in InSb. Optical and Quantum Electronics, 1993, 25, 171-175.	1.5	7
85	Competition between homogeneous and inhomogeneous broadening of orbital transitions in Si:Bi. Physical Review B, 2017, 96, .	1.1	7
86	Landau level electron scattering and lifetimes in n-GaAs and n-InP. Journal of Physics C: Solid State Physics, 1987, 20, 5217-5223.	1.5	6
87	The multi-photon induced Fano effect. Nature Communications, 2021, 12, 454.	5.8	6
88	Direct measurement of the effective-mass renormalization in n-type modulation-doped Al _{0.23} Ga _{0.77} As/In _{0.08} Ga _{0.92} As/GaAs quantum wells. Physical Review B, 1992, 46, 13611-13614.	1.1	5
89	Suppression of Auger recombination in long-wavelength quantum well W-structure lasers. Physical Review B, 2000, 62, 10297-10300.	1.1	5
90	High-field impurity magneto-optics of Si:Se. Physical Review B, 2014, 90, .	1.1	5

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91	Photon assisted tunneling in pairs of silicon donors. Physical Review B, 2014, 89, .	1.1	5
92	Electric dipole contributions to resonant far-infrared difference-frequency mixing in InSb. Physical Review B, 1974, 9, 711-715.	1.1	4
93	Terahertz Emission From Silicon-Germanium Quantum Cascades. , 2003, , 367-382.		4
94	Direct determination of ultrafast intersubband hole relaxation times in voltage biased SiGe quantum wells by a density matrix interpretation of femtosecond resolved photocurrent experiments. New Journal of Physics, 2007, 9, 128-128.	1.2	4
95	Quantitative analysis of electrically detected Ramsey fringes in P-doped Si. Physical Review B, 2015, 92, .	1.1	4
96	Magnetic Ordering Effects in the Reflectance of EuO, EuS, EuSe, and EuTe. Journal of Applied Physics, 1970, 41, 1085-1085.	1.1	3
97	Dynamical Nonlinearity and Bistability of Narrow Gap Semiconductors. Physica Status Solidi (B): Basic Research, 1988, 150, 719-727.	0.7	3
98	Direct evidence for the role of streaming motion in the hot-hole p-Ge laser. Semiconductor Science and Technology, 1993, 8, 2053-2057.	1.0	3
99	Third-order nonlinearities and coherent transient grating effects of narrow-gap semiconductors in the midinfrared. Journal of Applied Physics, 1995, 78, 3371-3375.	1.1	3
100	Auger Recombination Dynamics in Highly Excited HgCdTe. Physica Status Solidi (B): Basic Research, 1997, 204, 121-124.	0.7	3
101	The quadratic Zeeman effect used for state-radius determination in neutral donors and donor bound excitons in Si:P. Semiconductor Science and Technology, 2016, 31, 045007.	1.0	3
102	Crossed-field hot-hole cyclotron resonance in p-Ge: nonparabolic and quantum effects. Semiconductor Science and Technology, 1993, 8, S313-S316.	1.0	2
103	Landau Level Lifetimes in an InAs/AlSb Quantum Well Determined by a Picosecond Far-Infrared Pump-Probe Technique. Physica Status Solidi (B): Basic Research, 1997, 204, 155-158.	0.7	2
104	Intersubband Dynamics below the Optical Phonon Energy for Single and Coupled Quantum Well Systems. Physica Status Solidi (B): Basic Research, 1997, 204, 208-211.	0.7	2
105	Vibrational relaxation pathways in porous silicon: A time-resolved infrared spectroscopic study. Physical Review B, 2006, 74, .	1.1	2
106	Weak probe readout of coherent impurity orbital superpositions in silicon. Physical Review B, 2016, 94, .	1.1	2
107	Time-Resolved Studies of Intersubband Relaxation Using the free Electron Laser. , 1996, , 31-36.		2
108	Electron cooling times in PbTe Landau quantized wires and dots. Semiconductor Science and Technology, 1999, 14, 809-816.	1.0	1

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109	Free-electron lasers: Past the visible light barrier. <i>Nature</i> , 1984, 308, 772-773.	13.7	0
110	Kilowatt Spin-Flip Outputs in the 5 μm Region: Application to Chemical Spectroscopy and Resonant Non-Linear Mixing. , 1974, , 523-532.		0
111	Quantum Effects in Spin-Flip Scattering. , 1974, , 793-797.		0
112	Spin preservation during THz orbital pumping of shallow donors in silicon. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 435401.	0.7	0
113	Density and Well-Width Dependence of the Spin Relaxation in n-InSb/AlInSb Quantum Wells. <i>Springer Proceedings in Physics</i> , 2008, , 19-21.	0.1	0