

James S Harris Jr

List of Publications by Year in descending order

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187
papers

6,733
citations

76196

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64668

79
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191
docs citations

191
times ranked

7212
citing authors

#	ARTICLE	IF	CITATIONS
1	Real-time point-of-care total protein measurement with a miniaturized optoelectronic biosensor and fast fluorescence-based assay. <i>Biosensors and Bioelectronics</i> , 2021, 180, 112823.	5.3	9
2	A miniaturized optoelectronic biosensor for real-time point-of-care total protein analysis. <i>MethodsX</i> , 2021, 8, 101414.	0.7	3
3	Vertical-junction photodiodes for smaller pixels in retinal prostheses. <i>Journal of Neural Engineering</i> , 2021, 18, 036015.	1.8	24
4	Gallium Oxide for High-Power Optical Applications. <i>Advanced Optical Materials</i> , 2020, 8, 1901522.	3.6	25
5	Strain-Induced Enhancement of Electroluminescence from Highly Strained Germanium Light-Emitting Diodes. <i>ACS Photonics</i> , 2019, 6, 915-923.	3.2	21
6	Improving characterization capabilities in new single-photon avalanche diode research. <i>Review of Scientific Instruments</i> , 2019, 90, 043108.	0.6	1
7	Carrier-selective interlayer materials for silicon solar cell contacts. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	20
8	Epsilon-Near-Zero Si Slot-Waveguide Modulator. <i>ACS Photonics</i> , 2018, 5, 4484-4490.	3.2	59
9	Pile-up correction in characterizing single-photon avalanche diodes of high dark count rate. <i>Optical and Quantum Electronics</i> , 2018, 50, 1.	1.5	1
10	Multifunctional, inexpensive, and reusable nanoparticle-printed biochip for cell manipulation and diagnosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E1306-E1315.	3.3	55
11	Passivation of multiple-quantum-well Ge _{0.97} Sn _{0.03} /Ge p-i-n photodetectors. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	24
12	High-sensitivity silicon ultraviolet p-i-n avalanche photodiode using ultra-shallow boron gradient doping. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	12
13	Silicon single-photon avalanche diodes with nano-structured light trapping. <i>Nature Communications</i> , 2017, 8, 628.	5.8	69
14	Contact Selectivity Engineering in a 2 μ m Thick Ultrathin c-Si Solar Cell Using Transition-Metal Oxides Achieving an Efficiency of 10.8%. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 41863-41870.	4.0	25
15	Germanium Quantum Well QCSE Waveguide Modulator With Tapered Coupling in Distributed Modulator-Detector System. <i>Journal of Lightwave Technology</i> , 2017, 35, 4629-4633.	2.7	9
16	Tensile-strained Ge/SiGe multiple quantum well microdisks. <i>Photonics Research</i> , 2017, 5, B7.	3.4	9
17	Nanostructured Dielectric Layer for Ultrathin Crystalline Silicon Solar Cells. <i>International Journal of Photoenergy</i> , 2017, 2017, 1-6.	1.4	2
18	Characterization of a Ge _{1-x} Si _y Sn _x /Ge _{1-x} Sn _x multiple quantum well structure grown by sputtering epitaxy. <i>Optics Letters</i> , 2017, 42, 1608.	1.7	10

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19	Sub-optical-cycle control of free electrons by optical near-fields. , 2017, , .		1
20	Analysis of luminescent coupling effects in series-connected multijunction solar cells. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 941-946.	0.8	7
21	Optimizing undercut in highly-stressed Ge _{0.934} /Sn _{0.066} microdisk resonators. , 2016, , .		0
22	Tensile-strained GeSn photodetectors with conformal nitride stressor. , 2016, , .		2
23	Accurate characterization of luminescent coupling effects with voltage and light bias adjustment. , 2016, , .		2
24	Strained Pseudomorphic Ge _{1-x} Sn _x Multiple Quantum Well Microdisk Using SiN _y Stressor Layer. ACS Photonics, 2016, 3, 2231-2236.	3.2	23
25	Core-Shell Germanium/Germanium-Tin Nanowires Exhibiting Room-Temperature Direct- and Indirect-Gap Photoluminescence. Nano Letters, 2016, 16, 7521-7529.	4.5	54
26	Solar water splitting by photovoltaic-electrolysis with a solar-to-hydrogen efficiency over 30%. Nature Communications, 2016, 7, 13237.	5.8	610
27	Dry-wet digital etching of Ge _{1-x} Sn _x . Applied Physics Letters, 2016, 108, .	1.5	12
28	Photovoltaic Pixels for Neural Stimulation: Circuit Models and Performance. IEEE Transactions on Biomedical Circuits and Systems, 2016, 10, 85-97.	2.7	55
29	Nanoelectronic three-dimensional (3D) nanotip sensing array for real-time, sensitive, label-free sequence specific detection of nucleic acids. Biomedical Microdevices, 2016, 18, 7.	1.4	15
30	Photoluminescence from suspended Ge/SiGe quantum-well microdisks. , 2015, , .		0
31	On-chip plasmonic waveguide optical waveplate. Scientific Reports, 2015, 5, 15794.	1.6	29
32	Efficiency Enhancement of Gallium Arsenide Photovoltaics Using Solution-Processed Zinc Oxide Nanoparticle Light Scattering Layers. Journal of Nanomaterials, 2015, 2015, 1-6.	1.5	2
33	Nanoscale Probing of Local Electrical Characteristics on MBE-Grown Bi ₂ Te ₃ Surfaces under Ambient Conditions. Nano Letters, 2015, 15, 4241-4247.	4.5	23
34	The bias-dependence of luminescent coupling efficiency in multijunction solar cells. , 2015, , .		0
35	Rapid, label free, high throughput, miniaturized, and inexpensive nanoelectronic array as a cancer diagnosis tool. , 2015, , .		2
36	Performance of photovoltaic arrays in-vivo and characteristics of prosthetic vision in animals with retinal degeneration. Vision Research, 2015, 111, 142-148.	0.7	79

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37	Microring bio-chemical sensor with integrated low dark current Ge photodetector. Applied Physics Letters, 2015, 106, .	1.5	23
38	Strained germanium-tin multiple quantum well microdisk resonators towards a light source on silicon. Proceedings of SPIE, 2015, , .	0.8	3
39	Enhanced surface treatment of Ge epitaxially grown on Si for heterogeneous Ge technology. , 2014, , .		0
40	Ultra-thin film nanostructured gallium arsenide solar cells. , 2014, , .		1
41	Enhanced photoluminescence from Ge/SiGe quantum wells by epitaxial growth induced strain. , 2014, , .		0
42	Effects of germanium incorporation on optical performances of silicon germanium passive devices for group-IV photonic integrated circuits. Photonics and Nanostructures - Fundamentals and Applications, 2014, 12, 54-68.	1.0	5
43	Matrix independent label-free nanoelectronic biosensor. , 2014, , .		3
44	Demonstration of a Ge/GeSn/Ge Quantum-Well Microdisk Resonator on Silicon: Enabling High-Quality Ge(Sn) Materials for Micro- and Nanophotonics. Nano Letters, 2014, 14, 37-43.	4.5	94
45	Electrically driven subwavelength optical nanocircuits. Nature Photonics, 2014, 8, 244-249.	15.6	219
46	Time-resolved photoluminescence studies of annealed 1.3- μ m GaInNAsSb quantum wells. Nanoscale Research Letters, 2014, 9, 81.	3.1	15
47	A new electro-absorption modulator structure based on Ge/SiGe coupled quantum wells for on-chip optical interconnects. , 2014, , .		2
48	Surface-Normal Ge/SiGe Asymmetric Fabry-Perot Optical Modulators Fabricated on Silicon Substrates. Journal of Lightwave Technology, 2013, 31, 3995-4003.	2.7	19
49	Highly Selective Dry Etching of Germanium over Germanium-Tin (Ge _{1-x} Sn _x): A Novel Route for Ge _{1-x} Sn _x Nanostructure Fabrication. Nano Letters, 2013, 13, 3783-3790.	4.5	83
50	Material characterization of high Sn-content, compressively-strained GeSn epitaxial films after rapid thermal processing. Journal of Crystal Growth, 2013, 365, 29-34.	0.7	72
51	High-Efficiency Nanostructured Window GaAs Solar Cells. Nano Letters, 2013, 13, 4850-4856.	4.5	118
52	Approaches for a viable Germanium laser: Tensile strain, GeSn alloys, and n-type doping. , 2013, , .		4
53	Ge/SiGe quantum well asymmetric Fabry-Perot modulators on silicon substrates. , 2013, , .		0
54	GaInNAs(Sb) Long-Wavelength VCSELs. Springer Series in Optical Sciences, 2013, , 353-377.	0.5	4

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55	Novel polarization rotator based on asymmetric hybrid plasmonic waveguide. , 2013, , .		0
56	Low-voltage broad-band electroabsorption from thin Ge/SiGe quantum wells epitaxially grown on silicon. Optics Express, 2013, 21, 867.	1.7	46
57	Mixed-Mode Simulation of Nanowire Ge/GaAs Heterojunction Tunneling Field-Effect Transistor for Circuit Applications. IEEE Journal of the Electron Devices Society, 2013, 1, 48-53.	1.2	9
58	Atomic layer deposition of Al ₂ O ₃ on germanium-tin (GeSn) and impact of wet chemical surface pre-treatment. Applied Physics Letters, 2013, 103, .	1.5	19
59	Thin Film Nanoelectronic Probe for Protein Detection. Materials Research Society Symposia Proceedings, 2013, 1572, 1.	0.1	5
60	Ultra-Compact and Low-Loss Polarization Rotator Based on Asymmetric Hybrid Plasmonic Waveguide. IEEE Photonics Technology Letters, 2013, 25, 2081-2084.	1.3	133
61	Optical characterization of orientation-patterned GaP structures by micro reflectance difference spectroscopy. Journal of Applied Physics, 2013, 114, 173504.	1.1	4
62	Label-free electronic probing of nucleic acids and proteins at the nanoscale using the nanoneedle biosensor. Biomicrofluidics, 2013, 7, 044114.	1.2	37
63	Silicon-compatible high-hole-mobility transistor with an undoped germanium channel for low-power application. Applied Physics Letters, 2013, 103, 222102.	1.5	7
64	Ge/SiGe asymmetric Fabry-Perot quantum well electroabsorption modulators. Optics Express, 2012, 20, 29164.	1.7	24
65	Room-temperature electroluminescence from germanium in an Al _{0.3} Ga _{0.7} As/Ge heterojunction light-emitting diode by Γ^c -valley transport. Optics Express, 2012, 20, 14921.	1.7	13
66	Optical properties of Ge _{1-x} Sn _z /Si _x Ge _{1-x} Sn _y heterostructures. , 2012, , .		0
67	Investigation of the direct band gaps in Ge _{1-x} Sn _x alloys with strain control by photoreflectance spectroscopy. Applied Physics Letters, 2012, 100, .	1.5	107
68	A new approach to Ge lasers with low pump power. , 2012, , .		2
69	Room Temperature Photoluminescence from Ge/SiGe Quantum Well Structure in Microdisk Resonator. , 2012, , .		1
70	Simulation study on scaling limit of silicon tunneling field-effect transistor under tunneling-predominance. IEICE Electronics Express, 2012, 9, 828-833.	0.3	2
71	Optical Absorption Enhancement: Optical Absorption Enhancement in Freestanding GaAs Thin Film Nanopyramid Arrays (Adv. Energy Mater. 10/2012). Advanced Energy Materials, 2012, 2, 1150-1150.	10.2	7
72	Simulation study on process conditions for high-speed silicon photodetector and quantum-well structuring for increased number of wavelength discriminations. , 2012, , .		0

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73	Electrically Driven Photonic Crystal Nanocavity Devices. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1700-1710.	1.9	23
74	Ge/SiGe Quantum Well Waveguide Modulator Monolithically Integrated With SOI Waveguides. IEEE Photonics Technology Letters, 2012, 24, 461-463.	1.3	78
75	Structural and optical characterization of SixGe1-xSny alloys grown by molecular beam epitaxy. Applied Physics Letters, 2012, 100, .	1.5	33
76	Temperature dependence of Ge quantum well light emitting diode on Si substrate. , 2012, , .		0
77	Selective-Area Growth of Ge and Ge/SiGe Quantum Wells in 3 Î¼m Silicon-on-Insulator Waveguides. , 2012, , .		0
78	Photovoltaic retinal prosthesis with high pixel density. Nature Photonics, 2012, 6, 391-397.	15.6	394
79	Electrical Detection of Protein Biomarkers Using Nanoneedle Biosensors. Materials Research Society Symposia Proceedings, 2012, 1414, 7.	0.1	10
80	Optical Absorption Enhancement in Freestanding GaAs Thin Film Nanopyramid Arrays. Advanced Energy Materials, 2012, 2, 1254-1260.	10.2	52
81	MBE growth of tensile-strained Ge quantum wells and quantum dots. Frontiers of Optoelectronics, 2012, 5, 112-116.	1.9	12
82	High speed optical modulation in Ge quantum wells using quantum confined stark effect. Frontiers of Optoelectronics, 2012, 5, 82-89.	1.9	3
83	Simple Electroabsorption Calculator for Designing 1310 nm and 1550 nm Modulators Using Germanium Quantum Wells. IEEE Journal of Quantum Electronics, 2012, 48, 187-197.	1.0	35
84	Low Power SiGe Electroabsorption Modulators for Optical Interconnects. , 2012, , .		0
85	Silicon-compatible bulk-type compound junctionless field-effect transistor. , 2011, , .		8
86	Ge quantum well resonator modulators. , 2011, , .		2
87	GeSn technology: Extending the Ge electronics roadmap. , 2011, , .		84
88	Fabrication and Analysis of Epitaxially Grown Ge _{1-x} Sn _x Microdisk Resonator With 20-nm Free-Spectral Range. IEEE Photonics Technology Letters, 2011, 23, 1535-1537.	1.3	12
89	A Ge/SiGe quantum well waveguide modulator monolithically integrated with SOI waveguides. , 2011, , .		8
90	Silicon-compatible compound semiconductor tunneling field-effect transistor for high performance and low standby power operation. Applied Physics Letters, 2011, 99, .	1.5	36

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91	X-ray diffraction analysis of step-graded In _x Ga _{1-x} As buffer layers grown by molecular beam epitaxy. Journal of Crystal Growth, 2011, 323, 17-20.	0.7	16
92	Increased photoluminescence of strain-reduced, high-Sn composition Ge _{1-x} Sn _x alloys grown by molecular beam epitaxy. Applied Physics Letters, 2011, 99, .	1.5	228
93	Simple electroabsorption calculator for germanium quantum well devices. , 2011, , .		0
94	Raman study of strained Ge _{1-x} Sn _x alloys. Applied Physics Letters, 2011, 98, .	1.5	99
95	Selective epitaxial growth of Ge/Si _{0.15} Ge _{0.85} quantum wells on Si substrate using reduced pressure chemical vapor deposition. Applied Physics Letters, 2011, 98, .	1.5	34
96	Strong enhancement of direct transition photoluminescence with highly tensile-strained Ge grown by molecular beam epitaxy. Applied Physics Letters, 2011, 98, 011111.	1.5	123
97	Quantum-Confined Stark Effect in Ge/SiGe Quantum Wells on Si Substrate for Modulators. , 2011, , .		0
98	Fabrication of Prototype Magnetic Coupled Spin-torque Devices for Non-volatile Logic Applications. Materials Research Society Symposia Proceedings, 2010, 1250, 1.	0.1	0
99	Fully transparent InGaZnO thin film transistors using indium tin oxide/graphene multilayer as source/drain electrodes. Applied Physics Letters, 2010, 97, .	1.5	21
100	Tuning the coherent interaction in an on-chip photonic-crystal waveguide-resonator system. Applied Physics Letters, 2010, 97, 101102.	1.5	49
101	Photoreflectance and photoluminescence study of GaInNAsSb layers lattice matched to InP. Journal of Applied Physics, 2010, 107, 043523.	1.1	3
102	Integration of germanium quantum well structures on a silicon-on-insulator waveguide platform for optical modulator applications. , 2010, , .		2
103	MBE growth of high Sn-percentage GeSn alloys with a composition-dependent absorption-edge shift. , 2010, , .		0
104	Multi-scale simulation of partially unzipped CNT hetero-junction Tunneling Field Effect Transistor. , 2010, , .		7
105	Nanobeam photonic crystal cavity quantum dot laser. Optics Express, 2010, 18, 8781.	1.7	96
106	Experimental demonstration of an all-optical analogue to the superradiance effect in an on-chip photonic crystal resonator system. Physical Review B, 2010, 81, .	1.1	41
107	Si-Ge surface-normal asymmetric fabry-perot quantum-confined stark effect electroabsorption modulator. , 2010, , .		0
108	Si-Ge surface-normal asymmetric Fabry-Perot quantum-confined stark effect electroabsorption modulator. , 2010, , .		4

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109	Contactless electroreflectance of GaInNAsSb/GaNAs/GaAs quantum wells emitting at 1.5–1.65 μm : Broadening of the fundamental transition. Applied Physics Letters, 2009, 94, .	1.5	7
110	High speed optical modulation in Ge quantum wells using quantum confined stark effect. , 2009, , .		0
111	Magnetic coupled spin-torque devices for nonvolatile logic applications. Journal of Applied Physics, 2009, 105, .	1.1	24
112	Fermi level depinning for the design of III–V FET source/drain contacts. , 2009, , .		4
113	Direct Band Gap Tensile-Strained Germanium. , 2009, , .		0
114	Low surface roughness and threading dislocation density Ge growth on Si (001). Journal of Crystal Growth, 2008, 310, 4273-4279.	0.7	79
115	Analysis of Active Hybrid Fiber-Semiconductor Devices for Optical Networks. IEEE Journal of Quantum Electronics, 2008, 44, 1042-1054.	1.0	0
116	Magnetic coupled spin-torque devices and magnetic ring oscillator. , 2008, , .		5
117	Fermi-Level Depinning of GaAs for Ohmic Contacts. , 2008, , .		3
118	Pre-atomic layer deposition surface cleaning and chemical passivation of (100) In _{0.2} Ga _{0.8} As and deposition of ultrathin Al ₂ O ₃ gate insulators. Applied Physics Letters, 2008, 93, .	1.5	60
119	Aligning microcavity resonances in silicon photonic-crystal slabs using laser-pumped thermal tuning. Applied Physics Letters, 2008, 92, 103114.	1.5	37
120	On the Fermi level pinning in as-grown GaInNAs(Sb)/GaAs quantum wells with indium content of 8%–32%. Journal of Applied Physics, 2008, 104, 033526.	1.1	9
121	Molecular-beam epitaxial growth of III–V semiconductors on Ge–Si for metal-oxide-semiconductor device fabrication. Applied Physics Letters, 2008, 92, .	1.5	16
122	GaAs-based integrated fluorescence bio-sensors: Progress towards high rejection of laser excitation light. , 2008, , .		0
123	Optical Characterization and Sensitivity Evaluation of Guided-Resonances in Photonic Crystal Slabs for Biosensing Applications. , 2007, , .		1
124	(GaIn)(NAsSb): MBE GROWTH, HETEROSTRUCTURE AND NANOPHOTONIC DEVICES. International Journal of Nanoscience, 2007, 06, 269-274.	0.4	0
125	Recent Advances in Germanium Quantum Well Structures - A New Modulation Mechanism for Silicon-Compatible Optics. , 2007, , .		0
126	Optical Link on Silicon Employing Ge/SiGe Quantum Well Structures. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	1

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127	High-intensity C-shaped nanoaperture vertical-cavity surface-emitting laser with controlled polarization. Applied Physics Letters, 2007, 90, 191110.	1.5	16
128	A high-intensity bowtie nano-aperture vertical-cavity surface-emitting laser for near-field optics. , 2007, , .		0
129	Contactless electroreflectance of GaInNAsSb $\tilde{\cdot}$ GaAs single quantum wells with indium content of 8% $\tilde{\cdot}$ 32%. Journal of Applied Physics, 2007, 101, 013504.	1.1	11
130	Effects of different plasma species (atomic N, metastable N 2^* , and ions) on the optical properties of dilute nitride materials grown by plasma-assisted molecular-beam epitaxy. Applied Physics Letters, 2007, 91, .	1.5	14
131	The Electrical Characterization of Molecular-Beam-Deposited LaAlO 3 on GaAs and its Annealing Effects. Materials Research Society Symposia Proceedings, 2007, 996, 1.	0.1	1
132	Optical modulator on silicon employing germanium quantum wells. Optics Express, 2007, 15, 5851.	1.7	187
133	Recent Progress on 1.55- μm Dilute-Nitride Lasers. IEEE Journal of Quantum Electronics, 2007, 43, 773-785.	1.0	83
134	Dilute nitride GaInNAs and GaInNAsSb solar cells by molecular beam epitaxy. Journal of Applied Physics, 2007, 101, 114916.	1.1	192
135	Temperature dependencies of annealing behaviors of GaInNAsSb $\tilde{\cdot}$ GaNAs quantum wells for long wavelength dilute-nitride lasers. Applied Physics Letters, 2007, 90, 231119.	1.5	10
136	The Quantum Confined Stark Effect in Ge/SiGe Quantum Wells: An efficient electroabsorption mechanism for silicon-based applications. , 2007, , .		0
137	Ge $\tilde{\cdot}$ SiGe Quantum-Well Waveguide Photodetectors on Silicon for the Near-Infrared. IEEE Photonics Technology Letters, 2007, 19, 1631-1633.	1.3	56
138	The influence of antimony on the optical quality of highly strained GaInNAs/GaAs QWs investigated by contactless electroreflectance. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 543-546.	0.8	1
139	Electromodulation spectroscopy of interband transitions in GaInNAsSb/GaAs quantum wells with high indium content. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 364-372.	0.8	5
140	Development of GaInNAsSb alloys: Growth, band structure, optical properties and applications. Physica Status Solidi (B): Basic Research, 2007, 244, 2707-2729.	0.7	57
141	Optical Modulator on Si Employing Ge Quantum Wells. , 2007, , .		1
142	Waveguide Electroabsorption Modulator on Si Employing Ge/SiGe Quantum Wells. , 2007, , .		0
143	A High-intensity Nano-aperture Vertical-Cavity Surface-Emitting Laser With Controlled Polarization. , 2006, , .		0
144	Biomedical terahertz imaging with a quantum cascade laser. Applied Physics Letters, 2006, 88, 153903.	1.5	133

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145	Band gap discontinuity in Ga _{0.9} In _{0.1} N _{0.027} As _{0.973} ^x Sb ^y GaAs single quantum wells with $0 \leq x < 0.06$ studied by contactless electroreflectance spectroscopy. Applied Physics Letters, 2006, 88, 221113.	1.5	22
146	Quantum-Confined Stark Effect in Ge/SiGe Quantum Wells on Si for Optical Modulators. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1503-1513.	1.9	150
147	GaNAsSb Solar Cells Grown by Molecular Beam Epitaxy. , 2006, , .		1
148	Photoreflectance spectroscopy of a Ga _{0.62} In _{0.38} N _{0.026} As _{0.954} Sb _{0.02} /GaAs single quantum well tailored at 1.5 μ m. Solid State Communications, 2006, 137, 138-141.	0.9	8
149	Comparative Analysis of Bio-Medical Imaging at 3.7 Terahertz with a High Power Quantum Cascade Laser. , 2006, , .		0
150	Enhanced luminescence in GaInAsSb quantum wells through variation of the arsenic and antimony fluxes. Applied Physics Letters, 2006, 88, 241923.	1.5	13
151	InSb and InSb:N multiple quantum dots. Applied Physics Letters, 2006, 89, 133115.	1.5	34
152	Monolithic GaInAsSb vertical cavity surface emitting lasers at 1534nm. , 2006, , .		0
153	Guided-resonance in photonic crystal slabs for biosensing applications. , 2006, , .		3
154	Integrated Semiconductor Optical Sensors for Chronic, Minimally-Invasive Imaging of Brain Function. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
155	Strong quantum-confined Stark effect in germanium quantum-well structures on silicon. Nature, 2005, 437, 1334-1336.	13.7	725
156	Near-Infrared Photodetection with Molecular Beam Epitaxy Grown Extended InGaAs. Materials Research Society Symposia Proceedings, 2005, 883, 1.	0.1	0
157	Molecular-beam epitaxy growth of low-threshold cw GaInAsSb lasers at 1.5 μ m. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 1337.	1.6	13
158	Photoluminescence from as-grown and annealed Ga _{0.027} As _{0.863} Sb _{0.11} GaAs single quantum wells. Journal of Applied Physics, 2005, 98, 063527.	1.1	10
159	Photoreflectance and photoluminescence investigations of a step-like GaInAsSb/GaAs quantum well tailored at 1.5 μ m: The energy level structure and the Stokes shift. Journal of Applied Physics, 2005, 97, 053515.	1.1	16
160	Nearest-neighbor distributions in Ga _{1-x} In _x NyAs _{1-y-z} Sbz thin films upon annealing. Physical Review B, 2005, 71, .	1.1	33
161	MBE Growth of GaAs on Si through Direct Ge Buffers. Materials Research Society Symposia Proceedings, 2005, 869, 451.	0.1	0
162	Multispectral operation of self-assembled InGaAs quantum-dot infrared photodetectors. Applied Physics Letters, 2004, 85, 4154-4156.	1.5	7

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163	Quantum-confined Stark effect of GaInNAs(Sb) quantum wells at 1300–1600nm. Applied Physics Letters, 2004, 85, 902-904.	1.5	24
164	Structural Characterization of Molecular Beam Epitaxy Grown GaInNAs and GaInNAsSb Quantum Wells by Transmission Electron Microscopy. Materials Research Society Symposia Proceedings, 2004, 817, 189.	0.1	0
165	Comparison of GaNAsSb and GaNAs as quantum-well barriers for GaInNAsSb optoelectronic devices operating at 1.3–1.55 μ m. Journal of Applied Physics, 2004, 96, 6375-6381.	1.1	41
166	The role of Sb in the MBE growth of (GaIn)(NAsSb). Journal of Crystal Growth, 2003, 251, 360-366.	0.7	69
167	Nearest-Neighbor Configuration in (GaIn)(NAs) Probed by X-Ray Absorption Spectroscopy. Physical Review Letters, 2003, 90, 145505.	2.9	116
168	Low Temperature Growth of GaAs on Si Substrates for Ultra-fast Photoconductive Switches. Materials Research Society Symposia Proceedings, 2003, 768, 3141.	0.1	2
169	GaInNAs: A New Material in the Quest for Communications Lasers. Materials Research Society Symposia Proceedings, 2002, 722, 411.	0.1	4
170	Ti-Island-Catalyzed Si Nanowire Growth by Gas-Source MBE: Morphology and Twinning. Materials Research Society Symposia Proceedings, 2002, 728, 8341.	0.1	0
171	GaInNAs Material Properties for Long Wavelength Opto-Electronic Devices. Materials Research Society Symposia Proceedings, 2001, 692, 1.	0.1	1
172	Incorporation of nitrogen in nitride-arsenides: Origin of improved luminescence efficiency after anneal. Journal of Applied Physics, 2001, 89, 4401-4406.	1.1	250
173	MBE Growth of Nitride-Arsenide Materials for long Wavelength Opto-electronics. MRS Internet Journal of Nitride Semiconductor Research, 2000, 5, 474-480.	1.0	5
174	Iron nitride mask and reactive ion etching of GaN films. Journal of Electronic Materials, 1998, 27, 185-189.	1.0	2
175	Calculation of Unstable Mixing Region In Wurtzite InGaN. Materials Research Society Symposia Proceedings, 1998, 512, 291.	0.1	4
176	Growth of thick gan films on rf sputtered ain buffer layer by hydride vapor phase epitaxy. Journal of Electronic Materials, 1997, 26, 898-902.	1.0	11
177	Photoluminescence Study of Chloride Vpe-Grown Gan. Materials Research Society Symposia Proceedings, 1996, 421, 189.	0.1	1
178	Thermodynamic Analysis and Growth Characterization of thick GaN films grown by Chloride VPE using GaCl ₃ /N ₂ and NH ₃ /N ₂ . Materials Research Society Symposia Proceedings, 1996, 423, 233.	0.1	4
179	Reactive ion etching of gallium nitride films. Journal of Electronic Materials, 1996, 25, 835-837.	1.0	8
180	GaAs-on-Ge Heteroepitaxy by Atomic Hydrogen-Assisted Molecular Beam Epitaxy (H-MBE). Materials Research Society Symposia Proceedings, 1995, 399, 203.	0.1	1

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181	Reactive ion etching of GaN using CHF ₃ /Ar and C ₂ ClF ₅ /Ar plasmas. Applied Physics Letters, 1995, 67, 1754-1756.	1.5	97
182	Interface Smoothing of High Indium Content InGaAs Layers on GaAs. Journal of the Electrochemical Society, 1995, 142, 1667-1670.	1.3	2
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