SÃ©bastien Sauvage

List of Publications by Year
in descending order

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110	3,809	109321	133252
papers	citations	35	59
		h-index	g-index

110	110	110	2516
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reduced Lasing Thresholds in GeSn Microdisk Cavities with Defect Management of the Optically Active Region. ACS Photonics, 2020, 7, 2713-2722.	6.6	42
2	Ultra-low-threshold continuous-wave and pulsed lasing in tensile-strained GeSn alloys. Nature Photonics, 2020, 14, 375-382.	31.4	145
3	The Strong Confinement Regime in HgTe Two-Dimensional Nanoplatelets. Journal of Physical Chemistry C, 2020, 124, 23460-23468.	3.1	29
4	Effect of Pressure on Interband and Intraband Transition of Mercury Chalcogenide Quantum Dots. Journal of Physical Chemistry C, 2019, 123, 13122-13130.	3.1	18
5	Demonstration of critical coupling in an active III-nitride microdisk photonic circuit on silicon. Scientific Reports, 2019, 9, 18095.	3.3	11
6	Increasing the angular sensitivity of two-dimensional photonic crystal based sensors to arbitrary values. Optics Express, 2019, 27, 1578.	3.4	2
7	III-nitride on silicon electrically injected microrings for nanophotonic circuits. Optics Express, 2019, 27, 11800.	3.4	20
8	Nonlinearities in GaAs cavities with high CW input powers enabled by photo-oxidation quenching through ALD encapsulation. Optics Express, 2018, 26, 6400.	3.4	1
9	Blue Microlasers Integrated on a Photonic Platform on Silicon. ACS Photonics, 2018, 5, 3643-3648.	6.6	32
10	Germanium microlasers on metallic pedestals. APL Photonics, 2018, 3, .	5.7	46
11	Solving thermal issues in tensile-strained Ge microdisks. Optics Express, 2018, 26, 28376.	3.4	6
12	Q factor limitation at short wavelength (around 300â€‰nm) in III-nitride-on-silicon photonic crystal cavities. Applied Physics Letters, 2017, 111, 131103.	3.3	7
13	Phase-matched second harmonic generation with on-chip GaN-on-Si microdisks. Scientific Reports, 2016, 6, 34191.	3.3	58
14	Near-infrared III-nitride-on-silicon nanophotonic platform with microdisk resonators. Optics Express, 2016, 24, 9602.	3.4	23
15	Tensile-strained germanium microdisks with circular Bragg reflectors. Applied Physics Letters, 2016, 108, .	3.3	20
16	Imaging of Photonic Crystal Localized Modes through Third-Harmonic Generation. ACS Photonics, 2016, 3, 1240-1247.	6.6	14
17	Direct Band Gap Germanium Microdisks Obtained with Silicon Nitride Stressor Layers. ACS Photonics, 2016, 3, 443-448.	6.6	54
18	Surface-sensitive diamond photonic crystals for high-performance gas detection. Optics Letters, 2016, 41, 4360.	3.3	15

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19	Analysis of optical gain threshold in n-doped and tensile-strained germanium heterostructure diodes. Journal of Applied Physics, 2015, 118, 125704.	2.5	12
20	Resonant second harmonic generation in a gallium nitride two-dimensional photonic crystal on silicon. Applied Physics Letters, 2015, 106, .	3.3	23
21	Allâ€Around SiN Stressor for High and Homogeneous Tensile Strain in Germanium Microdisk Cavities. Advanced Optical Materials, 2015, 3, 353-358.	7.3	72
22	Tensile-strained germanium microdisk electroluminescence. Optics Express, 2015, 23, 6722.	3.4	20
23	Strain engineering in germanium microdisks. , 2014, , .		4
24	Effective thermal resistance of a photonic crystal microcavity. Optics Letters, 2014, 39, 458.	3.3	2
25	Near-infrared gallium nitride two-dimensional photonic crystal platform on silicon. Applied Physics Letters, 2014, 105, .	3.3	33
26	Aluminum nitride photonic crystals and microdiscs for ultra-violet nanophotonics. Advances in Natural Sciences: Nanoscience and Nanotechnology, 2014, 5, 023001.	1.5	14
27	Highly-Doped, Highly-Strained Germanium and Schottky Electroluminescent Diodes. ECS Transactions, 2014, 64, 359-364.	0.5	0
28	High tensile strain transfer into germanium microdisks using all-around strained SiN. , 2014, , .		0
29	Effect of increasing thickness on tensile-strained germanium grown on InGaAs buffer layers. Journal of Applied Physics, 2013, 113, 183508.	2.5	19
30	Light emission from strained germanium. Nature Photonics, 2013, 7, 162-162.	31.4	22
31	Recent advances in germanium emission [Invited]. Photonics Research, 2013, 1, 102.	7.0	76
32	Tensile-strained germanium microdisks. Applied Physics Letters, 2013, 102, 221112.	3.3	75
33	(Invited) Strain Engineering for Optical Gain in Germanium. ECS Transactions, 2013, 50, 363-370.	0.5	4
34	Two-color femtosecond strobe lighting of coherent acoustic phonons emitted by quantum dots. Applied Physics Letters, 2013, 102, 043107.	3.3	8
35	Control of tensile strain in germanium waveguides through silicon nitride layers. Applied Physics Letters, 2012, 100, 201104.	3.3	54
36	High quality tensile-strained n-doped germanium thin films grown on InGaAs buffer layers by metal-organic chemical vapor deposition. Applied Physics Letters, 2011, 98, .	3.3	58

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37	Optical gain in single tensile-strained germanium photonic wire. Optics Express, 2011, 19, 17925.	3.4	83
38	Homogeneous broadening of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>S</mml:mi></mml:mrow></mml:math>to<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>P</mml:mi></mml:mrow></mml:math>transition in InGaAs/GaAs quantum dots measured by infrared absorption imaging with nanoscale resolution. Physical Review B, 2011, 83, .	3.2	22
39	Interference effects on bound-to-continuum quantum dot absorption. Journal of Applied Physics, 2010, 107, 083102.	2.5	7
40	Control of direct band gap emission of bulk germanium by mechanical tensile strain. Applied Physics Letters, 2010, 96, .	3.3	129
41	Band structure and optical gain of tensile-strained germanium based on a 30 band kâ‹…p formalism. Journal of Applied Physics, 2010, 107, .	2.5	197
42	Mott transition in Cr-doped V 2 O 3 studied by ultrafast reflectivity: Electron correlation effects on the transient response. Europhysics Letters, 2010, 92, 37007.	2.0	15
43	Direct and indirect band gap room temperature electroluminescence of Ge diodes. Journal of Applied Physics, 2010, 108, 023105.	2.5	51
44	Resonant coupling of quantum dot intersublevel transitions with midinfrared photonic crystal modes. Applied Physics Letters, 2009, 95, 041108.	3.3	7
45	Twoâ€dimensional photonic crystals for midâ€infrared quantum dot intersublevel emission. Physica Status Solidi (B): Basic Research, 2009, 246, 816-819.	1.5	0
46	Midinfrared absorption measured at a Î»/400 resolution with an atomic force microscope. Optics Express, 2009, 17, 10887.	3.4	28
47	Intersublevel transitions in self-assembled quantum dots. Comptes Rendus Physique, 2008, 9, 840-849.	0.9	14
48	Germanium-based nanophotonic devices: Two-dimensional photonic crystals and cavities. Thin Solid Films, 2008, 517, 121-124.	1.8	15
49	Ultrafast resonant terahertz response of excitons in semiconductor quantum dots. Physical Review B, 2008, 77, .	3.2	10
50	Metal organic vapor phase epitaxy of InAsP/InP(001) quantum dots for 1.55Î¼m applications: Growth, structural, and optical properties. Journal of Applied Physics, 2008, 104, 043504.	2.5	27
51	A passive all-optical semiconductor device for level amplitude stabilization based on fast saturable absorber. Applied Physics Letters, 2008, 92, 111107.	3.3	14
52	Thermal emission of midinfrared GaAs photonic crystals. Physical Review B, 2008, 78, .	3.2	9
53	Ultraweak-Absorption Microscopy of a Single Semiconductor Quantum Dot in the Midinfrared Range. Physical Review Letters, 2007, 99, 217404.	7.8	44
54	Two-Dimensional Photonic Crystals Coupled to One-Dimensional Bragg Mirrors. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1534-1538.	2.9	1

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55	Band-edge alignment ofSiGeâˆ•Siquantum wells andSiGeâˆ•Siself-assembled islands. Physical Review B, 2006, 73, .	3.2	73
56	Towards a mid-infrared polaron laser using InAs/GaAs self-assembled quantum dots. Physica Status Solidi (B): Basic Research, 2006, 243, 3895-3899.	1.5	0
57	Si-based two-dimensional photonic crystals coupled to one-dimensional Bragg mirrors. Journal of Luminescence, 2006, 121, 286-289.	3.1	0
58	Ge/Si self-assembled Islands for Photonics Applications. Materials Research Society Symposia Proceedings, 2006, 958, 1.	0.1	0
59	Intersublevel polaron laser with InAsâˆ•GaAs self-assembled quantum dots. Applied Physics Letters, 2006, 88, 063106.	3.3	16
60	Quality factor control of Si-based two-dimensional photonic crystals with a Bragg mirror. Applied Physics Letters, 2006, 88, 091122.	3.3	16
61	Ge islands and photonic crystals for Si-based photonics. Optical Materials, 2005, 27, 792-798.	3.6	10
62	Pumpâ€“probe analysis of polaron decay in InAs/GaAs self-assembled quantum dots. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 26, 59-62.	2.7	9
63	Fast decoherence of slowly relaxing polarons in semiconductor InAs quantum dots. Europhysics Letters, 2005, 70, 390-396.	2.0	7
64	Electroabsorption spectroscopy of Geâˆ•Si self-assembled islands. Journal of Applied Physics, 2005, 97, 083525.	2.5	1
65	Mid-infrared intersublevel absorption of vertically electronically coupled InAs quantum dots. Applied Physics Letters, 2005, 87, 173113.	3.3	21
66	Pumpâ€“probe analysis of polaron decay in InAs/GaAs self-assembled quantum dots. Semiconductor Science and Technology, 2005, 20, L10-L13.	2.0	0
67	Strong 1.3â€“1.5 Î¼m luminescence from Ge/Si self-assembled islands in highly confining microcavities on silicon on insulator. Journal of Applied Physics, 2004, 96, 997-1000.	2.5	22
68	Ge/Si self-assembled islands integrated in 2D photonic crystals microcavities for realisation of silicon-based light-emitting devices. , 2004, 5450, 369.		9
69	Infrared photodetection with semiconductor self-assembled quantum dots. Comptes Rendus Physique, 2003, 4, 1133-1154.	0.9	61
70	Non-linear infrared properties of InAs/GaAs self-assembled quantum dots. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 507, 569-571.	1.6	0
71	Photoconductivity of Ge/Si quantum dot photodetectors. Infrared Physics and Technology, 2003, 44, 513-516.	2.9	11
72	Electromodulation of the interband and intraband absorption of Ge/Si self-assembled islands. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 450-454.	2.7	7

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73	Silicon-on-insulator and SiGe waveguide photodetectors with Ge/Si self-assembled islands. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 523-527.	2.7	14
74	Polaron relaxation in InAs/GaAs self-assembled quantum dots. Physica Status Solidi (B): Basic Research, 2003, 238, 254-257.	1.5	3
75	Comparison between 6-band and 14-bandkâ‹…pformalisms in SiGe/Si heterostructures. Physical Review B, 2003, 68, .	3.2	32
76	Siliconâ€“onâ€“insulator waveguide photodetector with Ge/Si self-assembled islands. Journal of Applied Physics, 2002, 92, 1858-1861.	2.5	25
77	Dephasing of intersublevel polarizations in InAs/GaAs self-assembled quantum dots. Physical Review B, 2002, 66, .	3.2	17
78	Near-infrared waveguide photodetector with Ge/Si self-assembled quantum dots. Applied Physics Letters, 2002, 80, 509-511.	3.3	72
79	Long Polaron Lifetime in InAs/GaAs Self-Assembled Quantum Dots. Physical Review Letters, 2002, 88, 177402.	7.8	119
80	Temperature dependence of intersublevel absorption in InAs/GaAs self-assembled quantum dots. Applied Physics Letters, 2002, 80, 4620-4622.	3.3	51
81	Aspects of Ge/Si self-assembled quantum dots. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 89, 36-44.	3.5	13
82	Normal-incidence (001) second-harmonic generation in ordered Ga_05In_05P. Journal of the Optical Society of America B: Optical Physics, 2001, 18, 81.	2.1	6
83	Optical recombination from excited states in Ge/Si self-assembled quantum dots. Physical Review B, 2001, 64, .	3.2	51
84	Enhancement of second-harmonic generation in a one-dimensional semiconductor photonic band gap. Applied Physics Letters, 2001, 78, 3021-3023.	3.3	161
85	Second-harmonic generation resonant withs-ptransition in InAs/GaAs self-assembled quantum dots. Physical Review B, 2001, 63, .	3.2	56
86	Midinfrared absorption and photocurrent spectroscopy of InAs/GaAs self-assembled quantum dots. Applied Physics Letters, 2001, 78, 2327-2329.	3.3	78
87	Second-harmonic generation in InAs/GaAs self-assembled quantum dots. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 7, 155-158.	2.7	3
88	Midinfrared photoconductivity of Ge/Si self-assembled quantum dots. Applied Physics Letters, 2000, 77, 3224-3226.	3.3	57
89	Infrared second-order optical susceptibility in InAs/GaAs self-assembled quantum dots. Physical Review B, 2000, 61, 5562-5570.	3.2	74
90	Electroluminescence of Ge/Si self-assembled quantum dots grown by chemical vapor deposition. Applied Physics Letters, 2000, 77, 1822.	3.3	65

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91	Midinfrared unipolar photoluminescence in InAs/GaAs self-assembled quantum dots. Physical Review B, 1999, 60, 15589-15592.	3.2	17
92	Ge/Si self-assembled quantum dots grown on Si(001) in an industrial high-pressure chemical vapor deposition reactor. Journal of Applied Physics, 1999, 86, 1145-1148.	2.5	23
93	Midinfrared second-harmonic generation in p-type InAs/GaAs self-assembled quantum dots. Applied Physics Letters, 1999, 75, 835-837.	3.3	30
94	Intraband absorption in Ge/Si self-assembled quantum dots. Applied Physics Letters, 1999, 74, 401-403.	3.3	79
95	Third-harmonic generation in InAs/GaAs self-assembled quantum dots. Physical Review B, 1999, 59, 9830-9833.	3.2	140
96	Quantum fountain infrared light sources based on intersubband emissions in quantum wells. European Physical Journal Special Topics, 1999, 09, Pr2-161.	0.2	0
97	Photoluminescence of self-assembled Ge dots grown by ultra-high-vacuum chemical vapor deposition. Thin Solid Films, 1998, 336, 240-243.	1.8	9
98	The effects of composition and doping on the response of GeC-Si photodiodes. IEEE Journal of Selected Topics in Quantum Electronics, 1998, 4, 964-969.	2.9	2
99	Resonant excitation of intraband absorption in InAs/GaAs self-assembled quantum dots. Journal of Applied Physics, 1998, 84, 4356-4362.	2.5	18
100	In-plane polarized intraband absorption in InAs/GaAs self-assembled quantum dots. Physical Review B, 1998, 58, 10562-10567.	3.2	83
101	Long-wavelength (15.5-Î¼m) quantum fountain intersubband laser InGaAs/AlGaAs quantum wells. , 1998, , .		0
102	Investigation of mid-infrared intersubband stimulated gain under optical pumping in GaAs/AlGaAs quantum wells. Journal of Applied Physics, 1998, 83, 2920-2926.	2.5	35
103	Saturation of intraband absorption and electron relaxation time in n-doped InAs/GaAs self-assembled quantum dots. Applied Physics Letters, 1998, 73, 3818-3821.	3.3	48
104	Intersubband photoluminescence of GaAs quantum wells under selective interband excitation. Applied Physics Letters, 1997, 71, 1183-1185.	3.3	12
105	Intraband absorption in n-doped InAs/GaAs quantum dots. Applied Physics Letters, 1997, 71, 2785-2787.	3.3	142
106	Room temperature infrared intersubband photoluminescence in GaAs quantum wells. Applied Physics Letters, 1997, 70, 1345-1347.	3.3	17
107	Intersubband stimulated emission in GaAs/AlGaAs quantum wells: Pump-probe experiments using a two-color free-electron laser. Applied Physics Letters, 1997, 70, 3197-3199.	3.3	47
108	Long-wavelength (â‰ˆ15.5â€‰Î¼m) unipolar semiconductor laser in GaAs quantum wells. Applied Physics Letters, 1997, 71, 3619-3621.	3.3	134

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109	Infrared spectroscopy of intraband transitions in self-organized InAs/GaAs quantum dots. Journal of Applied Physics, 1997, 82, 3396-3401.	2.5	99
110	Reliability studies of polycrystalline La-Sr-Co-O/Pb-La-Zr-Ti-O/La-Sr-Co-O capacitors on silicon. Integrated Ferroelectrics, 1996, 12, 53-62.	0.7	2