

Jean-Louis J-L Lazzari

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101
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#	Paper	IF	Citations
92	Ab initio modeling of the structural, electronic, and optical properties of AlIBIVC ₂ V semiconductors. <i>Physical Review B</i> , 2012 , 85,	3.3	101
91	Theoretical study of defect impact on two-dimensional MoS ₂ . <i>Journal of Semiconductors</i> , 2015 , 36, 122002,	2.5	35
90	2.5 μm GaInAsSb lattice-matched to GaSb by liquid phase epitaxy. <i>Journal of Applied Physics</i> , 1990 , 68, 5936-5938	2.5	33
89	Chemical vapor deposition of silicon-germanium heterostructures. <i>Journal of Crystal Growth</i> , 2000 , 216, 171-184	1.6	27
88	Structural, electronic and optical properties of III _{IV} 2 compounds (II = Be, Zn; IV = Si, Ge). <i>Physica Status Solidi (B): Basic Research</i> , 2008 , 245, 142-148	1.3	26
87	Growth limitations by the miscibility gap in liquid phase epitaxy of Ga _{1-x} In _x As _y Sb _{1-y} on GaSb. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1991 , 9, 125-128	3.1	26
86	Deep and shallow electronic states at ultrathin InAs insertions in GaAs investigated by capacitance spectroscopy. <i>Journal of Applied Physics</i> , 1998 , 84, 6135-6140	2.5	25
85	Stark effect modeling in strained n-type Si/Si _{1-x} Ge _x resonant tunneling heterostructures. <i>Journal of Applied Physics</i> , 2002 , 91, 9170-9176	2.5	24
84	GaInAsSb/GaSb pn photodiodes for detection to 2.4 μm . <i>Electronics Letters</i> , 1991 , 27, 1237	1.1	24
83	Electroluminescence of GaInSb/GaSb strained single quantum well structures grown by molecular beam epitaxy. <i>Semiconductor Science and Technology</i> , 1996 , 11, 1185-1188	1.8	20
82	Liquid phase epitaxy and characterization of InAs _{1-x-y} Sb _x P _y on (100) InAs. <i>Journal of Crystal Growth</i> , 1992 , 121, 463-472	1.6	20
81	Liquid phase epitaxial growth of AlGaAsSb on GaSb. <i>Journal of Crystal Growth</i> , 1992 , 123, 465-478	1.6	19
80	Strain-balanced Si _{1-x} Ge _x /Si type II quantum wells for 1.55 μm detection and emission. <i>European Physical Journal B</i> , 2005 , 48, 151-156	1.2	17
79	Wave-function engineering and absorption spectra in Si _{0.16} Ge _{0.84} /Ge _{0.94} Sn _{0.06} /Si _{0.16} Ge _{0.84} strained on relaxed Si _{0.10} Ge _{0.90} type I quantum well. <i>Journal of Applied Physics</i> , 2014 , 115, 033109	2.5	16
78	Controlled growth of aluminum oxide thin films on hydrogen terminated Si(0 0 1) surface. <i>Journal of Crystal Growth</i> , 2007 , 305, 26-29	1.6	16
77	High temperature operation of GaInAsSb/AlGaAsSb double-heterostructure lasers emitting near 2.1 μm . <i>Applied Physics Letters</i> , 1994 , 65, 616-617	3.4	16
76	Intersubband transitions in quantum well mid-infrared photodetectors. <i>Infrared Physics and Technology</i> , 2013 , 60, 137-144	2.7	15

75	Electronic and magnetic properties of Mn-doped BeSiAs(2) and BeGeAs(2) compounds. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 045507	1.8	15
74	Silicon quantum integrated circuits – an attempt to fabricate silicon-based quantum devices using CMOS fabrication techniques. <i>Thin Solid Films</i> , 1998 , 336, 130-136	2.2	15
73	Electrical determination of band offsets in a p-Ga _{0.77} In _{0.23} As _{0.20} Sb _{0.80} / n-GaSb type-II heterojunction. <i>Journal of Applied Physics</i> , 1993 , 73, 2360-2363	2.5	13
72	Performance evaluation of high-detectivity p-i-n infrared photodetector based on compressively-strained Ge _{0.964} Sn _{0.036} /Ge multiple quantum wells by quantum modelling. <i>Semiconductor Science and Technology</i> , 2015 , 30, 085016	1.8	12
71	Inter-diffusion of cobalt and silicon through an ultra thin aluminum oxide layer. <i>Applied Surface Science</i> , 2010 , 256, 2731-2734	6.7	11
70	Interfacial solid phase reactions in cobalt/aluminum oxide/silicon(001) system. <i>Thin Solid Films</i> , 2010 , 518, 5992-5994	2.2	11
69	InAsN/GaSb/InAsN MQW quantum well laser for mid-infrared emission: from electronic structure to threshold current density calculations. <i>Journal Physics D: Applied Physics</i> , 2008 , 41, 215106	3	11
68	Prospects on Mn-doped ZnGeP ₂ for spintronics. <i>Microelectronics Reliability</i> , 2006 , 46, 1747-1749	1.2	11
67	Electronic structure and optical properties of Si _{1-x} Gex alloys. <i>Physica B: Condensed Matter</i> , 2002 , 322, 225-235	2.8	11
66	Wave function engineering in W designed strained-compensated Si/Si _{1-x} Gex/Si type II quantum wells for 1.55 μ m optical properties. <i>Optical Materials</i> , 2005 , 27, 859-863	3.3	11
65	Critical layer thickness in AlGaAsSbGaSb heterostructures determined by X-ray diffraction. <i>Journal of Crystal Growth</i> , 1993 , 130, 96-100	1.6	11
64	A theoretical study of laser structures based on dilute-nitride InAsN for mid-infrared operation. <i>Semiconductor Science and Technology</i> , 2009 , 24, 085010	1.8	10
63	Electron transport through cubic InGaN/AlGaIn resonant tunneling diodes. <i>Computer Physics Communications</i> , 2014 , 185, 3119-3126	4.2	9
62	Band engineering and absorption spectra in compressively strained Ge _{0.92} Sn _{0.08} /Ge (001) double quantum well for infrared photodetection. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014 , 11, 1561-1565		9
61	A multi-color quantum well photodetector for mid- and long-wavelength infrared detection. <i>Semiconductor Science and Technology</i> , 2011 , 26, 125019	1.8	9
60	Determination of electrical and optical parameters of Ga _{1-x} In _x As _y Sb _{1-y} and Ga _{1-x} Al _x As _y Sb _{1-y} thin layers grown on GaSb substrates by IR reflectivity. <i>Thin Solid Films</i> , 1992 , 221, 196-202	2.2	9
59	Impact of spatial separation of type-II GaSb quantum dots from the depletion region on the conversion efficiency limit of GaAs solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2015 , 23, 1003-1016	6.8	8
58	Self-consistent vertical transport calculations in Al _x Ga _{1-x} N/GaN based resonant tunneling diode. <i>Superlattices and Microstructures</i> , 2016 , 91, 37-50	2.8	8

57	Surface morphology and structure of ultra-thin magnesium oxide grown on (100) silicon by atomic layer deposition oxidation. <i>Thin Solid Films</i> , 2011 , 519, 6302-6306	2.2	8
56	Resonant tunneling versus thermally activated transport through strained Si _{1-x} GexBiSi _{1-x} Gex quantum wells. <i>Physical Review B</i> , 2007 , 75,	3.3	8
55	Nitrogen effect on optical gain and radiative current density for mid-infrared InAs(N)/GaSb/InAs(N) quantum-well laser. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008 , 40, 489-493	3	8
54	Modelling of visible and near infrared wavelength quantum well devices made of zinc-blende In _x Ga _{1-x} N. <i>Journal of Physics Condensed Matter</i> , 2004 , 16, 511-519	1.8	8
53	Growth by liquid phase epitaxy and characterization of GaInAsSb and InAsSbP alloys for mid-infrared applications (2-3 um) 1991 ,		8
52	Contribution of a single quantum dots layer in intermediate band solar cells: A capacitance analysis. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 159, 633-639	6.4	7
51	Enhancement of physical properties of stain-etched porous silicon by integration of WO ₃ nanoparticles. <i>Thin Solid Films</i> , 2018 , 645, 51-56	2.2	7
50	Computation of the electronic structure and direct-gap absorption spectra in Ge-rich Si _{1-x} Gex/Ge/Si _{1-x} Gex type-I quantum wells. <i>European Physical Journal B</i> , 2013 , 86, 1	1.2	7
49	Band gap modifications of two-dimensional defected MoS ₂ . <i>International Journal of Nanotechnology</i> , 2015 , 12, 654	1.5	7
48	Different architectures of relaxed Si _{1-x} Gex/Si pseudo-substrates grown by low-pressure chemical vapor deposition: Structural and morphological characteristics. <i>Journal of Crystal Growth</i> , 2011 , 328, 18-24	1.6	7
47	Structural characterization of Si _{1-x} Gex/Si strained superlattices and relaxed virtual substrates grown by chemical vapor deposition. <i>Applied Surface Science</i> , 2000 , 164, 35-41	6.7	7
46	Resonant tunneling transport in Al _x Ga _{1-x} N/In _x Ga _{1-x} N/Al _x Ga _{1-x} N/In _y Ga _{1-y} N quantum structures. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 385102	3	6
45	Elaboration and characterization of CuInSe ₂ thin films using one-step electrodeposition method on silicon substrate for photovoltaic application. <i>Materials Research Express</i> , 2018 , 5, 016414	1.7	6
44	Stark shift of the absorption spectra in Ge/Ge _{1-x} Sn _x /Ge type-I single QW cell for mid-wavelength infra-red modulators. <i>Superlattices and Microstructures</i> , 2015 , 85, 629-637	2.8	5
43	Magnetic properties of Al _{1-x} Bi _x Te ₂ chalcopyrite semiconductors doped with 3d-elements. <i>Physica Status Solidi (B): Basic Research</i> , 2014 , 251, 1007-1019	1.3	5
42	Temperature and excitation power dependencies of the photoluminescence of planar and vertically self-organized Si _{0.70} Ge _{0.30} /Si strained superlattices. <i>Thin Solid Films</i> , 2000 , 380, 130-133	2.2	5
41	Multiscale in modelling and validation for solar photovoltaics. <i>EPJ Photovoltaics</i> , 2018 , 9, 10	0.7	5
40	Energy band gap tuning in Te-doped WS ₂ /WSe ₂ heterostructures. <i>Journal of Materials Science</i> , 2020 , 55, 9695-9702	4.3	4

39	Low-defect metamorphic Si (Ge) epilayers on Si (001) with a buried template of nanocavities for multiple-junction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 144, 775-780	6.4	4
38	Computer simulation of electronic and magnetic properties of ternary chalcopyrites doped with transition metals 2008 ,		4
37	Band offset calculations applied to III \bar{V} nitride quantum well device engineering. <i>Superlattices and Microstructures</i> , 2004 , 36, 799-806	2.8	4
36	Electric field effect on the spatially separated electron-hole recombination in an Si/Si $\bar{1}\bar{x}$ Gex resonant tunneling heterostructure. <i>Physica B: Condensed Matter</i> , 2002 , 322, 37-41	2.8	4
35	High-power low-threshold Ga $\bar{0.88}$ In $\bar{0.12}$ As $\bar{0.10}$ Sb $\bar{0.90}$ / Al $\bar{0.47}$ Ga $\bar{0.53}$ As $\bar{0.04}$ Sb $\bar{0.96}$ double heterostructure lasers grown by liquid phase epitaxy. <i>Electronics Letters</i> , 1994 , 30, 312-314	1.1	4
34	Study of n-WO $\bar{3}$ /p-porous silicon structures for gas-sensing applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2020 , 31, 7862-7870	2.1	3
33	Releasing confined holes from type-II quantum dots by inelastic scattering with hot photoelectrons. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 144, 767-774	6.4	3
32	Study of WO $\bar{3}$ -decorated porous silicon and Al $\bar{2}$ O $\bar{3}$ -ALD encapsulation. <i>Journal of Materials Science: Materials in Electronics</i> , 2018 , 29, 17731-17736	2.1	3
31	Optical gain calculation of mid-infrared InAsN/GaSb quantum-well laser for tunable absorption spectroscopy applications. <i>Materials Science and Engineering C</i> , 2008 , 28, 751-754	8.3	3
30	Interfacial deep-level defects as probes for ultrathin InAs insertions in GaAs. <i>Journal of Crystal Growth</i> , 1999 , 201-202, 267-270	1.6	3
29	High sensitivity 2.5 $\bar{\mu}$ m photodiodes with metastable GaInAsSb absorbing layer. <i>Solid-State Electronics</i> , 1996 , 39, 39-41	1.7	3
28	Optical properties and fluctuations of composition in Ga $\bar{0.77}$ In $\bar{0.23}$ As $\bar{0.19}$ Sb $\bar{0.81}$ alloys. <i>Solid State Communications</i> , 1993 , 85, 177-181	1.6	3
27	Modelling of the Quantum Transport in Strained Si/SiGe/Si Superlattices Based P-i-n Infrared Photodetectors for 1.3 - 1.55 $\bar{\mu}$ m Optical Communication. <i>Modeling and Numerical Simulation of Material Science</i> , 2014 , 04, 37-52	0.7	3
26	Composition dependence of the band offsets in wurtzite nitride-based heterojunctions. <i>Materials Science in Semiconductor Processing</i> , 2016 , 41, 121-131	4.3	2
25	Growth of magnetic tunnel junctions on Si(001) substrates. <i>Thin Solid Films</i> , 2007 , 515, 6501-6506	2.2	2
24	Nanocavity Buffer Induced by Gas Ion Implantation in Silicon Substrate for Strain Relaxation of Heteroepitaxial Si $\bar{1-x}$ Gex/Si Thin Layers. <i>Materials Research Society Symposia Proceedings</i> , 2007 , 994, 1		2
23	Direct band gap In \bar{x} Ga $\bar{1-x}$ As/Ge type II strained quantum wells for short-wave infrared p $\bar{\bar{n}}$ photodetector. <i>Optical Materials</i> , 2015 , 46, 472-480	3.3	1
22	Si/Si $\bar{1}\bar{x}$ Gex/Si-based quantum wells infrared photodetector operating at 1.55 $\bar{\mu}$ m. <i>Superlattices and Microstructures</i> , 2012 , 52, 901-912	2.8	1

21	Modification of band alignment at interface of $\text{Al}_y\text{Ga}_{1-y}\text{Sb}/\text{Al}_x\text{Ga}_{1-x}\text{As}$ type-II quantum dots by concentrated sunlight in intermediate-band solar cells with separated absorption and depletion regions 2013 ,		1
20	A theoretical study of band structure properties for III ν nitrides quantum wells. <i>Superlattices and Microstructures</i> , 2011 , 50, 277-288	2.8	1
19	Electrical field and temperature effects in 2D-2D resonant tunneling diodes based on cubic InGaN/AlGaIn. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011 , 8, 1544-1547		1
18	Mn concentration and quantum size effects on spin-polarized transport through CdMnTe based magnetic resonant tunneling diode. <i>Journal of Nanoscience and Nanotechnology</i> , 2012 , 12, 8791-6	1.3	1
17	Carrier Concentration Control of GaSb/GaInAsSb System. <i>AIP Conference Proceedings</i> , 2007 ,	0	1
16	Simulation of p ν heterojunctions built on strain-compensated Si/Si $_{0.40}\text{Ge}_{0.60}$ /Si multiple quantum wells for photodetection near 1.55 μm . <i>Thin Solid Films</i> , 2008 , 517, 388-390	2.2	1
15	Coulomb interaction of electron gas in MQWs Si/Si $_{1-x}\text{Ge}_x$ /Si. <i>Materials Science and Engineering C</i> , 2008 , 28, 939-942	8.3	1
14	Induced electrostatic confinement of electron gas in W-designed strain-compensated Si/Si $_{1-x}\text{Ge}_x$ /Si type-II quantum wells. <i>Journal of Luminescence</i> , 2006 , 121, 421-425	3.8	1
13	Investigation of Si/SiGe heterostructure material using non-destructive optical techniques. <i>Thin Solid Films</i> , 2000 , 364, 75-79	2.2	1
12	Does the 1.25 eV Luminescence of Coherently Strained InGaAs Insertions in GaAs Originate from Quantum Dots?. <i>Materials Research Society Symposia Proceedings</i> , 1995 , 417, 199		1
11	Low Temperature Photoluminescence Spectra of Ga $_{0.77}\text{In}_{0.23}\text{As}_{0.19}\text{Sb}_{0.81}$ Compounds. <i>Physica Status Solidi (B): Basic Research</i> , 1993 , 180, K87-K91	1.3	1
10	Electronic Properties of WS $_2$ /WSe $_2$ Heterostructure Containing Te Impurity: The Role of Substituting Position. <i>International Journal of Nanoscience</i> , 2019 , 18, 1940007	0.6	0
9	Spin polarization and spin-dependent transmittance in II ν I diluted magnetic semiconductor heterostructure. <i>Journal of Magnetism and Magnetic Materials</i> , 2011 , 323, 334-339	2.8	
8	Engineering of Ga $_{1-x}\text{In}_x\text{As}_y\text{Sb}_{1-y}$ /GaSb quantum well for III-V based devices emitting near 2.7 μm . <i>IOP Conference Series: Materials Science and Engineering</i> , 2010 , 13, 012005	0.4	
7	A novel quantum laser structure based on InAsN/GaSb system. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007 , 4, 592-594		
6	Field effect on electron-hole recombination in Si/Si $_{1-x}\text{Ge}_x$ /Si quantum wells having a W-like type II potential profile. <i>Materials Science and Engineering C</i> , 2006 , 26, 214-217	8.3	
5	Modeling of the Stark effect in strained Ge $_{0.6}\text{Si}_{0.4}$ /Si/Ge $_{0.6}\text{Si}_{0.4}$ resonant tunneling diodes with graded Ge $_x\text{Si}_{1-x}$ (0.3). <i>Materials Science in Semiconductor Processing</i> , 2006 , 9, 737-740	4.3	
4	Electronic structure calculations for Si/Si $_{1-x}\text{Ge}_x$ multi-quantum well devices. <i>Materials Science and Engineering C</i> , 2003 , 23, 959-963	8.3	

- 3 Field effect on optical recombination in Si/SiGe quantum heterostructures having U, W and M type II potential designs. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2005**, 124-125, 470-474 3.1
- 2 X, I, and Π lines in low temperature photoluminescence spectra of $\text{Al}_{0.47}\text{Ga}_{0.53}\text{As}_{0.035}\text{Sb}_{0.965}$ alloys. *Physica Status Solidi (B): Basic Research*, **1996**, 196, 453-460 1.3
- 1 Modelization of electrical and optical characteristics of short-wave infrared type I InGaAsBi/InGaAs/InP quantum wells p-i-n detector. *Physica Scripta*, **2021**, 96, 035802 2.6