Nicolas Bertru

List of Publications by Year
in descending order

43 papers	941 citations	430874 18 h-index	454955 30 g-index
43 all docs	43 docs citations	43 times ranked	560 citing authors

#	Article	IF	Citations
1	Height dispersion control of InAs/InP quantum dots emitting at 1.55 Î¼m. Applied Physics Letters, 2001, 78, 1751-1753.	3.3	164
2	High-gain and low-threshold InAs quantum-dot lasers on InP. Applied Physics Letters, 2005, 87, 243107.	3.3	121
3	Growth and optical characterizations of InAs quantum dots on InP substrate: towards a 1.55Î¼m quantum dot laser. Journal of Crystal Growth, 2003, 251, 230-235.	1.5	60
4	Evaluation of InGaPN and GaAsPN materials lattice-matched to Si for multi-junction solar cells. Journal of Applied Physics, 2013, 113, .	2.5	46
5	Defects limitation in epitaxial GaP on bistepped Si surface using UHVCVDâ€“MBE growth cluster. Journal of Crystal Growth, 2013, 380, 157-162.	1.5	37
6	Comparison of InAs quantum dot lasers emitting at 1.55 Âµm under optical and electrical injection. Semiconductor Science and Technology, 2005, 20, 459-463.	2.0	36
7	Achievement of High Density InAs Quantum Dots on InP (311)B Substrate Emitting at 1.55 Âµm. Japanese Journal of Applied Physics, 2005, 44, L1069-L1071.	1.5	34
8	X-ray study of antiphase domains and their stability in MBE grown GaP on Si. Journal of Crystal Growth, 2011, 323, 409-412.	1.5	34
9	Quantitative investigations of optical absorption in InAsâˆ•InP(311)B quantum dots emitting at 1.55Î¼m wavelength. Applied Physics Letters, 2004, 85, 5685-5687.	3.3	31
10	Thermodynamic evolution of antiphase boundaries in GaP/Si epilayers evidenced by advanced X-ray scattering. Applied Surface Science, 2012, 258, 2808-2815.	6.1	29
11	Room temperature laser emission of 1.5 Âm from InAs/InP(311)B quantum dots. Semiconductor Science and Technology, 2002, 17, L5-L7.	2.0	27
12	Experimental and theoretical studies of electronic energy levels in InAs quantum dots grown on (001) and (113)B InP substrates. Journal of Physics Condensed Matter, 2002, 14, 12301-12309.	1.8	26
13	Room temperature photoluminescence of high density (In,Ga)As/GaP quantum dots. Applied Physics Letters, 2011, 99, .	3.3	24
14	A Stressâ€Free and Textured GaP Template on Silicon for Solar Water Splitting. Advanced Functional Materials, 2018, 28, 1801585.	14.9	22
15	Molecular beam epitaxy growth and characterizations of AlGaAsSb/AlAsSb Bragg reflectors on InP. Journal of Crystal Growth, 1998, 183, 15-22.	1.5	21
16	Formation of low-index facets in Ga0.2In0.8As and InAs islands on a InP(113)Bsubstrate. Applied Physics Letters, 1999, 74, 1680-1682.	3.3	20
17	InAsSbâˆ•InP quantum dots for midwave infrared emitters: A theoretical study. Journal of Applied Physics, 2005, 98, 126105.	2.5	20
18	Emission wavelength control of InAs quantum dots in a GaInAsP matrix grown on InP(311)B substrates. Journal of Crystal Growth, 2005, 273, 357-362.	1.5	18

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19	Nitrogenâ€“phosphorus competition in the molecular beam epitaxy of GaPN. Journal of Crystal Growth, 2013, 377, 17-21.	1.5	16
20	Quantitative evaluation of microtwins and antiphase defects in GaP/Si nanolayers for a IIIâ€“V photonics platform on silicon using a laboratory X-ray diffraction setup. Journal of Applied Crystallography, 2015, 48, 702-710.	4.5	16
21	Negative characteristic temperature of long wavelength InAsâˆ•AlGaInAs quantum dot lasers grown on InP substrates. Applied Physics Letters, 2007, 91, 261105.	3.3	15
22	Preferential incorporation of substitutional nitrogen near the atomic step edges in diluted nitride alloys. Applied Physics Letters, 2012, 101, .	3.3	14
23	Photoelectrochemical water oxidation of GaP_{1âˆ’x}Sb_x with a direct band gap of 1.65 eV for full spectrum solar energy harvesting. Sustainable Energy and Fuels, 2019, 3, 1720-1729.	4.9	14
24	Epitaxial IIIâ€“V/Si Vertical Heterostructures with Hybrid 2Dâ€Semimetal/Semiconductor Ambipolar and Photoactive Properties. Advanced Science, 2022, 9, e2101661.	11.2	13
25	Achievement of High Density InAs/GaInAsP Quantum Dots on Misoriented InP(001) Substrates Emitting at 1.55 Âµm. Japanese Journal of Applied Physics, 2009, 48, 070204.	1.5	10
26	Monolayer coverage effects on size and ordering of self-organized InAs islands grown on (113)B InP substrates. Journal of Crystal Growth, 2000, 209, 661-665.	1.5	9
27	Self-assembled InAs quantum dots grown on InP (3 1 1)B substrates: Role of buffer layer and amount of InAs deposited. Journal of Crystal Growth, 2006, 293, 263-268.	1.5	9
28	Synchrotron X-ray diffraction analysis for quantitative defect evaluation in GaP/Si nanolayers. Thin Solid Films, 2013, 541, 36-40.	1.8	8
29	Shape transition in InAs nanostructures formed by Stranski-Krastanow growth mode on InP (001) substrate. Applied Physics Letters, 2019, 114, .	3.3	8
30	Strong Electronâ€“Phonon Interaction in 2D Vertical Homovalent IIIâ€“V Singularities. ACS Nano, 2020, 14, 13127-13136.	14.6	8
31	Molecular beam epitaxy growth of quantum dot lasers emitting around 1.5Î¼m on InP(311)B substrates. Journal of Crystal Growth, 2005, 278, 329-334.	1.5	5
32	Theoretical and experimental studies of (In,Ga)As/GaP quantum dots. Nanoscale Research Letters, 2012, 7, 643.	5.7	4
33	Assessment of GaPSb/Si tandem material association properties for photoelectrochemical cells. Solar Energy Materials and Solar Cells, 2021, 221, 110888.	6.2	4
34	Quantitative study of microtwins in GaP/Si thin film and GaAsPN quantum wells grown on silicon substrates. Journal of Crystal Growth, 2013, 378, 25-28.	1.5	3
35	MBE growth and doping of AlGaP. Journal of Crystal Growth, 2017, 466, 6-15.	1.5	3
36	Formation of InAs islands on InP(311)B surface by molecular beam epitaxy. Journal of Crystal Growth, 2003, 257, 104-109.	1.5	2

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37	Low loss single line photonic crystal waveguide on InP membrane. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 472-474.	2.7	2
38	Critical thickness for InAs quantum dot formation on (311)B InP substrates. Journal of Crystal Growth, 2009, 311, 2626-2629.	1.5	2
39	Thermal conductivity of InAs quantum dot stacks using AlAs strain compensating layers on InP substrate. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 882-886.	3.5	2
40	Sb surfactant mediated growth of InAs/AlAs0.56Sb0.44 strained quantum well for intersubband absorption at 1.55â€‰<i>Î¼</i>m. Applied Physics Letters, 2015, 106, .	3.3	2
41	Achievement of InSb Quantum Dots on InP(100) Substrates. Japanese Journal of Applied Physics, 2010, 49, 060210.	1.5	1
42	Volmerâ€"Weber InAs quantum dot formation on InP (113)B substrates under the surfactant effect of Sb. Applied Physics Letters, 2014, 105, 033113.	3.3	1
43	Scattering of light by sound on a nanoscale. , 2004, , .		0