Edith Bellet-Amalric

List of Publications by Year
in descending order

117 papers	3,610 citations	147801 31 h-index	144013 57 g-index
121 all docs	121 docs citations	121 times ranked	3184 citing authors

#	Article	IF	Citations
1	High-Curie-temperature ferromagnetism in self-organized Ge1âˆ'xMnx nanocolumns. Nature Materials, 2006, 5, 653-659.	27.5	341
2	Systematic experimental and theoretical investigation of intersubband absorption inGaNâˆ•AlNquantum wells. Physical Review B, 2006, 73, .	3.2	239
3	Adsorbed and free lipid bilayers at the solid-liquid interface. European Physical Journal B, 1999, 8, 583-593.	1.5	174
4	GaN/AlN short-period superlattices for intersubband optoelectronics: A systematic study of their epitaxial growth, design, and performance. Journal of Applied Physics, 2008, 104, 093501.	2.5	165
5	Structure and fluctuations of a single floating lipid bilayer. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11639-11644.	7.1	144
6	A fluid floating bilayer. Europhysics Letters, 2001, 53, 100-106.	2.0	102
7	Phonon deformation potentials of wurtzite AlN. Journal of Applied Physics, 2003, 93, 2065-2068.	2.5	93
8	Terahertz intersubband absorption in GaN/AlGaN step quantum wells. Applied Physics Letters, 2010, 97, .	3.3	87
9	Intersubband spectroscopy of doped and undoped GaN/AlN quantum wells grown by molecular-beam epitaxy. Applied Physics Letters, 2003, 83, 5196-5198.	3.3	85
10	Interaction of the Third Helix of Antennapedia Homeodomain with a Deposited Phospholipid Bilayer:Â A Neutron Reflectivity Structural Study. Langmuir, 2000, 16, 4581-4588.	3.5	83
11	Interaction of the third helix of Antennapedia homeodomain and a phospholipid monolayer, studied by ellipsometry and PM-IRRAS at the airâ€"water interface. Biochimica Et Biophysica Acta - Biomembranes, 2000, 1467, 131-143.	2.6	82
12	Surfactant effect of In for AlGaN growth by plasma-assisted molecular beam epitaxy. Journal of Applied Physics, 2003, 93, 1550-1556.	2.5	77
13	Si-doped GaNâˆ•AlN quantum dot superlattices for optoelectronics at telecommunication wavelengths. Journal of Applied Physics, 2006, 100, 044326.	2.5	77
14	Ultrafast Room Temperature Single-Photon Source from Nanowire-Quantum Dots. Nano Letters, 2012, 12, 2977-2981.	9.1	70
15	Plastic strain relaxation of nitride heterostructures. Journal of Applied Physics, 2004, 95, 1127-1133.	2.5	66
16	Effects of phosphorus doping on structural and optical properties of silicon nanocrystals in a SiO2 matrix. Thin Solid Films, 2009, 517, 5646-5652.	1.8	66
17	Growth kinetics of N-face polarity GaN by plasma-assisted molecular-beam epitaxy. Applied Physics Letters, 2004, 84, 3684-3686.	3.3	65
18	Optical properties of GaN quantum dots grown on nonpolar (11-20) SiC by molecular-beam epitaxy. Applied Physics Letters, 2005, 86, 171901.	3.3	62

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19	Molecular-beam epitaxial growth and characterization of quaternary IIIâ€“nitride compounds. Journal of Applied Physics, 2003, 94, 3121-3127.	2.5	60
20	High-quality AlNâˆ•GaN-superlattice structures for the fabrication of narrow-band 1.4â€‰Î¼m photovoltaic intersubband detectors. Applied Physics Letters, 2006, 88, 121112.	3.3	60
21	Plasma-assisted molecular beam epitaxy growth of GaN nanowires using indium-enhanced diffusion. Applied Physics Letters, 2008, 93, 183109.	3.3	57
22	Plasma-assisted molecular-beam epitaxy of AlN(112Â¯2) on m sapphire. Applied Physics Letters, 2007, 90, 131909.	3.3	56
23	Evidence for multiple chemical ordering in AlGaN grown by metalorganic chemical vapor deposition. Applied Physics Letters, 2001, 78, 344-346.	3.3	53
24	Swelling of Phospholipid Floating Bilayers:Â The Effect of Chain Lengthâ€. Langmuir, 2003, 19, 7695-7702.	3.5	45
25	Ferromagnetic Ga 1 âˆ' x Mn x N epilayers vs. antiferromagnetic GaMn 3 N clusters. Europhysics Letters, 2004, 65, 553-559.	2.0	45
26	Strong influence of Ga/N flux ratio on Mn incorporation into Ga1âˆ'xMnxN epilayers grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2003, 83, 4580-4582.	3.3	40
27	Structural properties of undoped and doped cubic GaN grown on SiC(001). Journal of Applied Physics, 2002, 91, 4983-4987.	2.5	38
28	Modification of GaN(0001) growth kinetics by Mg doping. Applied Physics Letters, 2004, 84, 2554-2556.	3.3	38
29	Electrically adjustable intersubband absorption of a GaNâˆ•AlN superlattice grown on a transistorlike structure. Applied Physics Letters, 2006, 89, 101121.	3.3	37
30	High In-content InGaN layers synthesized by plasma-assisted molecular-beam epitaxy: Growth conditions, strain relaxation, and In incorporation kinetics. Journal of Applied Physics, 2014, 116, .	2.5	36
31	Comparison of the structural quality in Ga-face and N-face polarity GaN/AlN multiple-quantum-well structures. Semiconductor Science and Technology, 2006, 21, 612-618.	2.0	33
32	Plasma-assisted MBE growth of quaternary InAlGaN quantum well heterostructures with room temperature luminescence. Journal of Crystal Growth, 2003, 251, 476-480.	1.5	31
33	In incorporation during the growth of quaternary III-nitride compounds by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2003, 82, 2242-2244.	3.3	31
34	Quantitative Reconstructions of 3D Chemical Nanostructures in Nanowires. Nano Letters, 2016, 16, 1637-1642.	9.1	30
35	Structure and ordering of GaN quantum dot multilayers. Applied Physics Letters, 2001, 79, 1971-1973.	3.3	29
36	Strain relaxation in GaN/AlxGa1-xN superlattices grown by plasma-assisted molecular-beam epitaxy. Journal of Applied Physics, 2011, 110, .	2.5	29

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37	Towards vertical coupling of CdTe/ZnTe quantum dots formed by a high temperature tellurium induced process. Journal of Crystal Growth, 2011, 335, 28-30.	1.5	27
38	Terahertz absorbing AlGaN/GaN multi-quantum-wells: Demonstration of a robust 4-layer design. Applied Physics Letters, 2013, 103, 091108.	3.3	27
39	Structure and Morphology in Diffusion-Driven Growth of Nanowires: The Case of ZnTe. Nano Letters, 2014, 14, 1877-1883.	9.1	26
40	Intersubband transitions in nonpolar GaN/Al(Ga)N heterostructures in the short- and mid-wavelength infrared regions. Journal of Applied Physics, 2015, 118, 014309.	2.5	26
41	Mechanism ofGaNquantum dots capped withAlN: An AFM, electron microscopy, and x-ray anomalous diffraction study. Physical Review B, 2006, 74, .	3.2	25
42	Pseudo-square AlGaN/GaN quantum wells for terahertz absorption. Applied Physics Letters, 2014, 105, 131106.	3.3	25
43	Light-hole exciton in a nanowire quantum dot. Physical Review B, 2017, 95, .	3.2	24
44	Effect of doping on the intersubband absorption in Si- and Ge-doped GaN/AlN heterostructures. Nanotechnology, 2017, 28, 405204.	2.6	24
45	Plant sterols: a neutron diffraction study of sitosterol and stigmasterol in soybean phosphatidylcholine membranes. Biophysical Chemistry, 1998, 75, 45-55.	2.8	21
46	Optimization of the growth of Ga1âˆ’xMnxN epilayers using plasma-assisted MBE. Physica Status Solidi (B): Basic Research, 2003, 240, 443-446.	1.5	20
47	Molecular beam epitaxy of CdSe epilayers and quantum wells on ZnTe substrate. Applied Surface Science, 2007, 253, 6946-6950.	6.1	20
48	Optical properties of single ZnTe nanowires grown at low temperature. Applied Physics Letters, 2013, 103, .	3.3	20
49	Optical properties of m-plane GaN quantum dots and quantum wires. Journal of Applied Physics, 2008, 104, .	2.5	18
50	Fabrication and characterization of tin-based nanocrystals. Journal of Applied Physics, 2007, 102, 114304.	2.5	17
51	On the driving forces for the vertical alignment in nitride quantum dot multilayers. Europhysics Letters, 2003, 63, 268-274.	2.0	16
52	Control of the two-dimensionalâ€“three-dimensional transition of self-organized CdSe/ZnSe quantum dots. Nanotechnology, 2005, 16, 1116-1118.	2.6	16
53	Effect of doping on the far-infrared intersubband transitions in nonpolar<i>m</i>-plane GaN/AlGaN heterostructures. Nanotechnology, 2016, 27, 145201.	2.6	16
54	Intersubband absorption in Siâ€•and Geâ€doped GaN/AlN heterostructures in selfâ€assembled nanowire and 2D layers. Physica Status Solidi (B): Basic Research, 2017, 254, 1600734.	1.5	16

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55	Enhanced room-temperature mid-ultraviolet emission from AlGaN/AlN Stranski-Krastanov quantum dots. Journal of Applied Physics, 2014, 116, 023502.	2.5	14
56	Assessment of AlGaN/AlN superlattices on GaN nanowires as active region of electron-pumped ultraviolet sources. Nanotechnology, 2020, 31, 204001.	2.6	14
57	Ordering in undoped hexagonal AlxGa1xN grown on sapphire (0001) with 0.09 < x < 0.247. Physica Status Solidi (B): Basic Research, 2003, 236, 729-739.	1.5	13
58	Formation of a nanocomposite from plasma enhanced chemical vapour deposition multilayer structures. Journal of Crystal Growth, 2008, 310, 3685-3689.	1.5	13
59	Diffusion-driven growth of nanowires by low-temperature molecular beam epitaxy. Journal of Applied Physics, 2016, 119, .	2.5	13
60	Enhanced Photon Extraction from a Nanowire Quantum Dot Using a Bottom-Up Photonic Shell. Physical Review Applied, 2017, 8, .	3.8	13
61	Recent progress in growth and physics of GaN/AlN quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 1445-1450.	0.8	12
62	New method to induce 2Dâ€“3D transition of strained CdSe/ZnSe layers. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 26, 119-123.	2.7	12
63	Growth of GaN quantum dots on nonpolarA -plane SiC by molecular-beam epitaxy. Physica Status Solidi (B): Basic Research, 2006, 243, 3968-3971.	1.5	12
64	Observation of hot luminescence and slow inter-sub-band relaxation in Si-doped GaNâˆ•AlxGa1âˆ'xN (x=0.11, 0.25) multi-quantum-well structures. Journal of Applied Physics, 2006, 99, 093513.	2.5	12
65	Epitaxial growth of ZnSe and ZnSe/CdSe nanowires on ZnSe. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1526-1529.	0.8	12
66	Pre-edge features in X-ray absorption structure of Mn in GaMnN, GaMnAs and GeMn. Journal of Magnetism and Magnetic Materials, 2006, 300, 144-147.	2.3	10
67	Insertion of CdSe quantum dots in ZnSe nanowires: Correlation of structural and chemical characterization with photoluminescence. Journal of Applied Physics, 2011, 110, .	2.5	10
68	Characteristics of AlN growth on vicinal SiC(0001) substrates by molecular beam epitaxy. Physica Status Solidi (B): Basic Research, 2003, 240, 314-317.	1.5	9
69	CdSe quantum dot formation: alternative paths to relaxation of a strained CdSe layer and influence of the capping conditions. Nanotechnology, 2007, 18, 265701.	2.6	9
70	Molecular beam epitaxy of semipolar AlN($$11ar{2}2$$) and GaN($$11ar{2}2$$) on m-sapphire. Journal of Materials Science: Materials in Electronics, 2008, 19, 805-809.	2.2	9
71	CdSe quantum dots in ZnSe nanowires as efficient source for single photons up to 220K. Journal of Crystal Growth, 2009, 311, 2123-2127.	1.5	9
72	Exciton-phonon coupling efficiency in CdSe quantum dots embedded in ZnSe nanowires. Physical Review B, 2012, 85, .	3.2	9

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73	Short-wavelength, mid- and far-infrared intersubband absorption in nonpolar GaN/Al(Ga)N heterostructures. Japanese Journal of Applied Physics, 2016, 55, 05FG05.	1.5	9
74	Achieving visible light-driven hydrogen evolution at positive bias with a hybrid copperâ€“iron oxide|TiO2-cobaloxime photocathode. Green Chemistry, 2020, 22, 3141-3149.	9.0	9
75	Nanowire growth and sublimation: CdTe quantum dots in ZnTe nanowires. Physical Review Materials, 2018, 2, .	2.4	9
76	Effect of Si doping on GaN/AlN multiple-quantum-well structures for intersubband optoelectronics at telecommunication wavelengths. Superlattices and Microstructures, 2006, 40, 306-312.	3.1	8
77	Boron-doped superlattices and Bragg mirrors in diamond. Applied Physics Letters, 2014, 105, 081109.	3.3	8
78	Assessment of AlGaN Growth by Plasma Assisted MBE Using In as a Surfactant. Physica Status Solidi (B): Basic Research, 2002, 234, 726-729.	1.5	7
79	MBE growth of nitride-based photovoltaic intersubband detectors. Superlattices and Microstructures, 2006, 40, 418-425.	3.1	7
80	Growth of IIâ€“VI ZnSe/CdSe nanowires for quantum dot luminescence. Journal of Crystal Growth, 2013, 378, 233-237.	1.5	7
81	Solubility Limit of Ge Dopants in AlGaN: A Chemical and Microstructural Investigation Down to the Nanoscale. ACS Applied Materials & Interfaces, 2021, 13, 4165-4173.	8.0	7
82	Strain effects in GaN/AlN multi-quantum-well structures for infrared optoelectronics. Microelectronics Journal, 2009, 40, 336-338.	2.0	6
83	Strain relaxation in GaN/Al0.1Ga0.9N superlattices for mid-infrared intersubband absorption. Journal of Crystal Growth, 2011, 323, 64-67.	1.5	6
84	Unraveling the strain state of GaN down to single nanowires. Journal of Applied Physics, 2016, 120, .	2.5	6
85	Effect of Al incorporation in nonpolar <i>m</i> -plane GaN/AlGaN multi-quantum-wells using plasma-assisted molecular-beam epitaxy. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600849.	1.8	6
86	Internal quantum efficiency of AlGaN/AlN quantum dot superlattices for electron-pumped ultraviolet sources. Nanotechnology, 2020, 31, 505205.	2.6	6
87	Growth of Two-Dimensional Solids in Alcohol Monolayers in the Presence of Soluble Amphiphilic Molecules. Langmuir, 2000, 16, 2306-2310.	3.5	5
88	Field-compensated quaternary InAlGaN/GaN quantum wells. Physica Status Solidi (B): Basic Research, 2003, 240, 301-304.	1.5	5
89	Highly uniform zinc blende GaAs nanowires on Si(111) using a controlled chemical oxide template. Nanotechnology, 2017, 28, 255602.	2.6	5
90	Three-phase metal-insulator transition and structural alternative for a VO2 film epitaxially grown on Al2O3(0001). Journal of Applied Physics, 2019, 126, 165306.	2.5	5

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91	Near- and mid-infrared intersubband absorption in top-down GaN/AlN nano- and micro-pillars. Nanotechnology, 2019, 30, 054002.	2.6	5
92	AlGaN/GaN asymmetric graded-index separate confinement heterostructures designed for electron-beam pumped UV lasers. Optics Express, 2021, 29, 13084.	3.4	5
93	Regulated Dynamics with Two Monolayer Steps in Vaporâ€“Solidâ€“Solid Growth of Nanowires. ACS Nano, 2022, 16, 4397-4407.	14.6	5
94	An X-ray and TEM study of inhomogeneous ordering in AlxGa1â^’xN layers grown by MOCVD. Journal of Physics and Chemistry of Solids, 2003, 64, 1653-1656.	4.0	4
95	Undoped and rare-earth doped GaN quantum dots on AlGaN. Physica Status Solidi (B): Basic Research, 2006, 243, 1472-1475.	1.5	4
96	Polarity determination in ZnSe nanowires by HAADF STEM. Journal of Physics: Conference Series, 2011, 326, 012044.	0.4	4
97	Insertion of CdSe quantum dots in ZnSe nanowires: MBE growth and microstructure analysis. Journal of Crystal Growth, 2011, 323, 330-333.	1.5	4
98	Bottom-up approach to control the photon outcoupling of a II-VI quantum dot with a photonic wire. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 1263-1266.	0.8	4
99	Control of the incubation time in the vapor-solid-solid growth of semiconductor nanowires. Applied Physics Letters, 2017, 110, 263107.	3.3	4
100	Design of AlGaN/AlN Dotâ€inâ€aâ€Wire Heterostructures for Electronâ€Pumped UV Emitters. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900714.	1.8	4
101	Fabrication of self-organized dots of GaN:Mn using plasma-assisted MBE. Journal of Crystal Growth, 2005, 275, e2229-e2232.	1.5	3
102	Deterministic radiative coupling between plasmonic nanoantennas and semiconducting nanowire quantum dots. Nanotechnology, 2016, 27, 185201.	2.6	3
103	Controlling the shape of a tapered nanowire: lessons from the Burton-Cabrera-Frank model. Nanotechnology, 2020, 31, 274004.	2.6	3
104	A high throughput study of both compositionally graded and homogeneous Feâ€“Pt thin films. Journal of Materials Research and Technology, 2022, 18, 1245-1255.	5.8	3
105	Structure and ordering of GaN quantum dot multilayer investigated by X-ray grazing incidence techniques. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 1115-1118.	2.7	2
106	Anomalous diffraction in grazing incidence to study the strain induced by GaN quantum dots stacked in an AlN multilayer. Nuclear Instruments & Methods in Physics Research B, 2003, 200, 95-99.	1.4	2
107	Lattice dynamics of a strained GaNâ€“AlN quantum well structure. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 557-558.	2.7	2
108	Plasma-assisted molecular beam epitaxy of wurtzite GaMnN displaying ferromagnetism assessed by means of X-ray magnetic circular dichroism. Superlattices and Microstructures, 2006, 40, 239-245.	3.1	2

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109	Probing the light hole/heavy hole switching with correlated magneto-optical spectroscopy and chemical analysis on a single quantum dot. Nanotechnology, 2019, 30, 175301.	2.6	2
110	Radio-frequency stress-induced modulation of CdTe/ZnTe quantum dots. Journal of Applied Physics, 2020, 127, .	2.5	2
111	The onset of tapering in the early stage of growth of a nanowire. Nanotechnology, 2022, 33, 255601.	2.6	2
112	Investigation of GaN quantum dot stacking in multilayers with X-ray grazing incidence techniques. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 93, 24-27.	3.5	1
113	GaN quantum dots grown on non-polar a-plane SiC by plasma-assisted molecular beam epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 2341-2344.	0.8	1
114	On intrinsic Stokes shift in wide GaN/AlGaN polar quantum wells. Semiconductor Science and Technology, 2019, 34, 075021.	2.0	1
115	200 mm-scale growth of 2D layered GaSe with preferential orientation. APL Materials, 2022, 10, 051106.	5.1	1
116	GaN/AlGaN superlattices for optoelectronics in the mid-infrared. Physica Status Solidi (B): Basic Research, 2006, 243, 1669-1673.	1.5	0
117	Coupling Semiconducting Nanowires to Plasmonic Nanoantennas. NATO Science for Peace and Security Series B: Physics and Biophysics, 2017, , 517-518.	0.3	0