

# Gilles Patriarche

## List of Publications by Year in descending order

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650  
papers

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22153

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657  
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657  
docs citations

657  
times ranked

13735  
citing authors

#	ARTICLE	IF	CITATIONS
1	Why Does Wurtzite Form in Nanowires of III-V Zinc Blende Semiconductors?. Physical Review Letters, 2007, 99, 146101.	7.8	669
2	Core/Shell Colloidal Semiconductor Nanoplatelets. Journal of the American Chemical Society, 2012, 134, 18591-18598.	13.7	323
3	Band Alignment and Minigaps in Monolayer MoS <sub>2</sub> -Graphene van der Waals Heterostructures. Nano Letters, 2016, 16, 4054-4061.	9.1	288
4	Analysis of vapor-liquid-solid mechanism in Au-assisted GaAs nanowire growth. Applied Physics Letters, 2005, 87, 203101.	3.3	249
5	Crystal Phase Quantum Dots. Nano Letters, 2010, 10, 1198-1201.	9.1	233
6	Efficient Exciton Concentrators Built from Colloidal Core/Crown CdSe/CdS Semiconductor Nanoplatelets. Nano Letters, 2014, 14, 207-213.	9.1	224
7	Height dispersion control of InAs/InP quantum dots emitting at 1.55 $\mu$ m. Applied Physics Letters, 2001, 78, 1751-1753.	3.3	164
8	From Excitonic to Photonic Polariton Condensate in a ZnO-Based Microcavity. Physical Review Letters, 2013, 110, 196406.	7.8	162
9	Predictive modeling of self-catalyzed III-V nanowire growth. Physical Review B, 2013, 88, .	3.2	158
10	van der Waals Epitaxy of GaSe/Graphene Heterostructure: Electronic and Interfacial Properties. ACS Nano, 2016, 10, 9679-9686.	14.6	154
11	Type-II CdSe/CdTe Core/Crown Semiconductor Nanoplatelets. Journal of the American Chemical Society, 2014, 136, 16430-16438.	13.7	153
12	Infrared Photodetection Based on Colloidal Quantum-Dot Films with High Mobility and Optical Absorption up to THz. Nano Letters, 2016, 16, 1282-1286.	9.1	150
13	Ultra-low-threshold continuous-wave and pulsed lasing in tensile-strained GeSn alloys. Nature Photonics, 2020, 14, 375-382.	31.4	145
14	Gradient CdSe/CdS Quantum Dots with Room Temperature Biexciton Unity Quantum Yield. Nano Letters, 2015, 15, 3953-3958.	9.1	143
15	Au-assisted molecular beam epitaxy of InAs nanowires: Growth and theoretical analysis. Journal of Applied Physics, 2007, 102, 094313.	2.5	136
16	Silicon Nanowires Coated with Silver Nanostructures as Ultrasensitive Interfaces for Surface-Enhanced Raman Spectroscopy. ACS Applied Materials & Interfaces, 2009, 1, 1396-1403.	8.0	133
17	Arsenic Pathways in Self-Catalyzed Growth of GaAs Nanowires. Crystal Growth and Design, 2013, 13, 91-96.	3.0	133
18	Protein Transport through a Narrow Solid-State Nanopore at High Voltage: Experiments and Theory. ACS Nano, 2012, 6, 6236-6243.	14.6	126

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19	Sub-5nm FIB direct patterning of nanodevices. Microelectronic Engineering, 2007, 84, 779-783.	2.4	117
20	Synthesis and optical characterizations of Yb-doped CaF <sub>2</sub> ceramics. Optical Materials, 2009, 31, 750-753.	3.6	113
21	Atomic Step Flow on a Nanofacet. Physical Review Letters, 2018, 121, 166101.	7.8	113
22	Growth and Characterization of Wurtzite GaAs Nanowires with Defect-Free Zinc Blende GaAsSb Inserts. Nano Letters, 2008, 8, 4459-4463.	9.1	112
23	New progresses in transparent rare-earth doped glass-ceramics. Optical Materials, 2001, 16, 255-267.	3.6	110
24	Synthesis and optical characterizations of undoped and rare-earth-doped CaF <sub>2</sub> nanoparticles. Journal of Solid State Chemistry, 2006, 179, 2636-2644.	2.9	110
25	Growth and Characterization of InP Nanowires with InAsP Insertions. Nano Letters, 2007, 7, 1500-1504.	9.1	110
26	Growth of GaN free-standing nanowires by plasma-assisted molecular beam epitaxy: structural and optical characterization. Nanotechnology, 2007, 18, 385306.	2.6	109
27	Temperature conditions for GaAs nanowire formation by Au-assisted molecular beam epitaxy. Nanotechnology, 2006, 17, 4025-4030.	2.6	107
28	Colloidal CdSe/CdS Dot-in-Plate Nanocrystals with 2D-Polarized Emission. ACS Nano, 2012, 6, 6741-6750.	14.6	106
29	Large-Area Two-Dimensional Layered Hexagonal Boron Nitride Grown on Sapphire by Metalorganic Vapor Phase Epitaxy. Crystal Growth and Design, 2016, 16, 3409-3415.	3.0	106
30	Er <sup>3+</sup> -doped PbF <sub>2</sub> : Comparison between nanocrystals in glass-ceramics and bulk single crystals. Journal of Solid State Chemistry, 2006, 179, 1995-2003.	2.9	103
31	Nucleation Antibunching in Catalyst-Assisted Nanowire Growth. Physical Review Letters, 2010, 104, 135501.	7.8	100
32	Origin of light scattering in ytterbium doped calcium fluoride transparent ceramic for high power lasers. Journal of the European Ceramic Society, 2011, 31, 1619-1630.	5.7	98
33	Metal organic vapor phase epitaxy growth of GaAsN on GaAs using dimethylhydrazine and tertiarybutylarsine. Applied Physics Letters, 1997, 70, 2861-2863.	3.3	97
34	Subpicosecond pulse generation at 134GHz using a quantum-dash-based Fabry-Perot laser emitting at 1.5614μm. Applied Physics Letters, 2006, 88, 241105.	3.3	93
35	Mechanistic Insight and Optimization of InP Nanocrystals Synthesized with Aminophosphines. Chemistry of Materials, 2016, 28, 5925-5934.	6.7	93
36	Evidence for Flat Bands near the Fermi Level in Epitaxial Rhombohedral Multilayer Graphene. ACS Nano, 2015, 9, 5432-5439.	14.6	92

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37	Incorporation and redistribution of impurities into silicon nanowires during metal-particle-assisted growth. Nature Communications, 2014, 5, 4134.	12.8	91
38	Role of nonlinear effects in nanowire growth and crystal phase. Physical Review B, 2009, 80, .	3.2	90
39	Dynamics of Colloids in Single Solid-State Nanopores. Journal of Physical Chemistry B, 2011, 115, 2890-2898.	2.6	86
40	Composition profiling of InAs <sup>+</sup> GaAs quantum dots. Applied Physics Letters, 2004, 85, 3717-3719.	3.3	85
41	Selective CO <sub>2</sub> methanation on Ru/TiO <sub>2</sub> catalysts: unravelling the decisive role of the TiO <sub>2</sub> support crystal structure. Catalysis Science and Technology, 2016, 6, 8117-8128.	4.1	84
42	Growth kinetics of a single $\text{InP}$ nanowire. Physical Review B, 2010, 81, .	3.2	83
43	Synthesis of Zinc and Lead Chalcogenide Core and Core/Shell Nanoplatelets Using Sequential Cation Exchange Reactions. Chemistry of Materials, 2014, 26, 3002-3008.	6.7	83
44	Phase Selection in Self-catalyzed GaAs Nanowires. Nano Letters, 2020, 20, 1669-1675.	9.1	83
45	GaInAs/GaAs quantum-well growth assisted by Sb surfactant: Toward 1.3 $\mu\text{m}$ emission. Applied Physics Letters, 2004, 84, 3981-3983.	3.3	81
46	Rare-earth doped oxyfluoride glass-ceramics and fluoride ceramics: Synthesis and optical properties. Optical Materials, 2007, 29, 1263-1270.	3.6	81
47	In situ generation of indium catalysts to grow crystalline silicon nanowires at low temperature on ITO. Journal of Materials Chemistry, 2008, 18, 5187.	6.7	81
48	Carbon Nanotube Translocation to Distant Organs after Pulmonary Exposure: Insights from in Situ <sup>14</sup> C-Radiolabeling and Tissue Radioimaging. ACS Nano, 2014, 8, 5715-5724.	14.6	81
49	Structural and compositional characterization of MOVPE GaN thin films transferred from sapphire to glass substrates using chemical lift-off and room temperature direct wafer bonding and GaN wafer scale MOVPE growth on ZnO-buffered sapphire. Journal of Crystal Growth, 2013, 370, 63-67.	1.5	75
50	Effect of CeF <sub>3</sub> Addition on the Nucleation and Up-Conversion Luminescence in Transparent Oxyfluoride Glass <sup>+</sup> Ceramics. Chemistry of Materials, 2005, 17, 2216-2222.	6.7	74
51	GaAs nanowires formed by Au-assisted molecular beam epitaxy: Effect of growth temperature. Journal of Crystal Growth, 2007, 301-302, 853-856.	1.5	73
52	Synthesis of silicon nanocrystals in silane plasmas for nanoelectronics and large area electronic devices. Journal Physics D: Applied Physics, 2007, 40, 2258-2266.	2.8	72
53	Structural properties of epitaxial SrTiO <sub>3</sub> thin films grown by molecular beam epitaxy on Si(001). Journal of Applied Physics, 2006, 100, 124109.	2.5	67
54	Silicon <sup>+</sup> Microtube Scaffold Decorated with Anatase TiO <sub>2</sub> as a Negative Electrode for a 3D Lithium <sup>+</sup> Ion Microbattery. Advanced Energy Materials, 2014, 4, 1301612.	19.5	67

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55	Wurtzite to Zinc Blende Phase Transition in GaAs Nanowires Induced by Epitaxial Burying. Nano Letters, 2008, 8, 1638-1643.	9.1	63
56	Magnetic properties and domain structure of (Ga,Mn)As films with perpendicular anisotropy. Physical Review B, 2006, 73, .	3.2	62
57	Atomically Sharp Interface in an h-BN-epitaxial graphene van der Waals Heterostructure. Scientific Reports, 2015, 5, 16465.	3.3	62
58	Structure of the GaAs/InP interface obtained by direct wafer bonding optimised for surface emitting optical devices. Journal of Applied Physics, 1997, 82, 4892-4903.	2.5	61
59	Electrolyte-Gated Field Effect Transistor to Probe the Surface Defects and Morphology in Films of Thick CdSe Colloidal Nanoplatelets. ACS Nano, 2014, 8, 3813-3820.	14.6	61
60	Novel Heterostructured Ge Nanowires Based on Polytype Transformation. Nano Letters, 2014, 14, 4828-4836.	9.1	61
61	Thermodynamic analysis of Zn-Cd-Te, Zn-Hg-Te and Cd-Hg-Te: phase separation in $Zn_xCd_{1-x}Te$ and $Zn_xHg_{1-x}Te$ . Journal of Crystal Growth, 1992, 117, 10-15.	1.5	60
62	Growth and optical characterizations of InAs quantum dots on InP substrate: towards a 1.55 $\mu$ m quantum dot laser. Journal of Crystal Growth, 2003, 251, 230-235.	1.5	60
63	Sharpening the Interfaces of Axial Heterostructures in Self-Catalyzed AlGaAs Nanowires: Experiment and Theory. Nano Letters, 2016, 16, 1917-1924.	9.1	60
64	Morphology of self-catalyzed GaN nanowires and chronology of their formation by molecular beam epitaxy. Nanotechnology, 2011, 22, 245606.	2.6	59
65	Quantum cascade lasers grown on silicon. Scientific Reports, 2018, 8, 7206.	3.3	56
66	Measuring and Modeling the Growth Dynamics of Self-Catalyzed GaP Nanowire Arrays. Nano Letters, 2018, 18, 701-708.	9.1	55
67	Focused ion beam sculpted membranes for nanoscience tooling. Microelectronic Engineering, 2006, 83, 1474-1477.	2.4	54
68	Type II heterostructures formed by zinc-blende inclusions in InP and GaAs wurtzite nanowires. Applied Physics Letters, 2010, 97, 041910.	3.3	54
69	Gas sensors boosted by two-dimensional h-BN enabled transfer on thin substrate foils: towards wearable and portable applications. Scientific Reports, 2017, 7, 15212.	3.3	54
70	Monolithic integration of InP based heterostructures on silicon using crystalline Gd <sub>2</sub> O <sub>3</sub> buffers. Applied Physics Letters, 2007, 91, .	3.3	53
71	Zinc blende GaAsSb nanowires grown by molecular beam epitaxy. Nanotechnology, 2008, 19, 275605.	2.6	53
72	Multi-scale structuration of glasses: Observations of phase separation and nanoscale heterogeneities in glasses by Z-contrast scanning electron transmission microscopy. Journal of Non-Crystalline Solids, 2012, 358, 1257-1262.	3.1	53

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73	Strain in a silicon-on-insulator nanostructure revealed by 3D x-ray Bragg ptychography. Scientific Reports, 2015, 5, 9827.	3.3	52
74	Investigations on GaAsSbN/GaAs quantum wells for 1.3â€“1.55Î¼m emission. Journal of Crystal Growth, 2001, 227-228, 553-557.	1.5	51
75	Monodispersed MOF-808 Nanocrystals Synthesized via a Scalable Room-Temperature Approach for Efficient Heterogeneous Peptide Bond Hydrolysis. Chemistry of Materials, 2021, 33, 7057-7066.	6.7	51
76	Anisotropic etching of InP with low sidewall and surface induced damage in inductively coupled plasma etching using SiCl <sub>4</sub> . Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 626-632.	2.1	50
77	Investigations on GaInNAsSb quinary alloy for 1.5 Î¼m laser emission on GaAs. Applied Physics Letters, 2003, 83, 1298-1300.	3.3	50
78	Nucleation efficiency of erbium and ytterbium fluorides in transparent oxyfluoride glass-ceramics. Journal of Materials Research, 2005, 20, 472-481.	2.6	50
79	Metamorphic approach to single quantum dot emission at 1.55Î¼m on GaAs substrate. Journal of Applied Physics, 2008, 103, .	2.5	50
80	Morphology and composition of highly strained InGaAs and InGaAsN layers grown on GaAs substrate. Applied Physics Letters, 2004, 84, 203-205.	3.3	49
81	Determination of the Local Concentrations of Mn Interstitials and Antisite Defects inGaMnAs. Physical Review Letters, 2004, 93, 086107.	7.8	48
82	Fabrication and characterization of a room-temperature ZnO polariton laser. Applied Physics Letters, 2013, 102, .	3.3	48
83	Crystal growth of bullet-shaped magnetite in magnetotactic bacteria of the <i>Nitrospirae</i> phylum. Journal of the Royal Society Interface, 2015, 12, 20141288.	3.4	48
84	Transmission electron microscopy study of the InP/InGaAs and InGaAs/InP heterointerfaces grown by metalorganic vapor-phase epitaxy. Journal of Applied Physics, 2002, 92, 5749-5755.	2.5	47
85	Semibulk InGaN: A novel approach for thick, single phase, epitaxial InGaN layers grown by MOVPE. Journal of Crystal Growth, 2013, 370, 57-62.	1.5	47
86	Abrupt GaP/GaAs Interfaces in Self-Catalyzed Nanowires. Nano Letters, 2015, 15, 6036-6041.	9.1	47
87	Transmission electron microscopy observations of low-load indents in GaAs. Philosophical Magazine Letters, 1999, 79, 805-812.	1.2	46
88	Vapor-liquid-solid mechanisms: Challenges for nanosized quantum cluster/dot/wire materials. Journal of Applied Physics, 2006, 100, 044315.	2.5	46
89	Distributed Bragg reflectors based on diluted boron-based BAlN alloys for deep ultraviolet optoelectronic applications. Applied Physics Letters, 2012, 100, 051101.	3.3	44
90	Conductance Statistics from a Large Array of Sub-10 nm Molecular Junctions. ACS Nano, 2012, 6, 4639-4647.	14.6	44

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91	Boron distribution in the core of Si nanowire grown by chemical vapor deposition. Journal of Applied Physics, 2012, 111, 094909.	2.5	44
92	Uprooting defects to enable high-performance III-V optoelectronic devices on silicon. Nature Communications, 2019, 10, 4322.	12.8	44
93	Plastic deformation of III-V semiconductors under concentrated load. Progress in Crystal Growth and Characterization of Materials, 2003, 47, 1-43.	4.0	43
94	Hair Fiber as a Nanoreactor in Controlled Synthesis of Fluorescent Gold Nanoparticles. Nano Letters, 2012, 12, 6212-6217.	9.1	43
95	Universal description of III-V/Si epitaxial growth processes. Physical Review Materials, 2018, 2, .	2.4	43
96	Accommodation at the interface of highly dissimilar semiconductor/oxide epitaxial systems. Physical Review B, 2009, 80, .	3.2	42
97	Functionalized Solid-State Nanopore Integrated in a Reusable Microfluidic Device for a Better Stability and Nanoparticle Detection. ACS Applied Materials & Interfaces, 2017, 9, 41634-41640.	8.0	42
98	Reduced Lasing Thresholds in GeSn Microdisk Cavities with Defect Management of the Optically Active Region. ACS Photonics, 2020, 7, 2713-2722.	6.6	42
99	Structural characterisation of transparent oxyfluoride glass-ceramics. Journal of Materials Science, 2000, 35, 4849-4856.	3.7	41
100	Preparation and up-conversion luminescence of 8 nm rare-earth doped fluoride nanoparticles. Optics Express, 2008, 16, 14544.	3.4	41
101	Flexible metal-semiconductor-metal device prototype on wafer-scale thick boron nitride layers grown by MOVPE. Scientific Reports, 2017, 7, 786.	3.3	41
102	Mesoscopic scale description of nucleation processes in glasses. Applied Physics Letters, 2011, 99, .	3.3	40
103	Polarization dependence study of electroluminescence and absorption from InAs-GaAs columnar quantum dots. Applied Physics Letters, 2007, 91, .	3.3	39
104	Wet-Route Synthesis and Characterization of Yb:CaF <sub>2</sub> Optical Ceramics. Journal of the American Ceramic Society, 2016, 99, 1992-2000.	3.8	39
105	Structural and optical properties of low-density and In-rich InAs-GaAs quantum dots. Journal of Applied Physics, 2007, 101, 024918.	2.5	38
106	Growth-in-place deployment of in-plane silicon nanowires. Applied Physics Letters, 2011, 99, .	3.3	38
107	Multilayered InGaN/GaN structure vs. single InGaN layer for solar cell applications: A comparative study. Acta Materialia, 2013, 61, 6587-6596.	7.9	38
108	Sidewall passivation assisted by a silicon coverplate during Cl <sub>2</sub> -H <sub>2</sub> and HBr inductively coupled plasma etching of InP for photonic devices. Journal of Vacuum Science & Technology B, 2008, 26, 666-674.	1.3	37

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109	Photon Cascade from a Single Crystal Phase Nanowire Quantum Dot. Nano Letters, 2016, 16, 1081-1085.	9.1	37
110	Sidewall and surface induced damage comparison between reactive ion etching and inductive plasma etching of InP using a CH <sub>4</sub> /H <sub>2</sub> /O <sub>2</sub> gas mixture. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 1056-1061.	2.1	36
111	Indentation-induced crystallization and phase transformation of amorphous germanium. Journal of Applied Physics, 2004, 96, 1464-1468.	2.5	36
112	Spontaneous compliance of the InP/SrTiO <sub>3</sub> heterointerface. Applied Physics Letters, 2008, 92, .	3.3	36
113	Elastic anisotropy of polycrystalline Au films: Modeling and respective contributions of X-ray diffraction, nanoindentation and Brillouin light scattering. Acta Materialia, 2010, 58, 4998-5008.	7.9	36
114	FIB carving of nanopores into suspended graphene films. Microelectronic Engineering, 2012, 97, 311-316.	2.4	36
115	Strain and composition of capped Ge/Si self-assembled quantum dots grown by chemical vapor deposition. Applied Physics Letters, 2000, 77, 370-372.	3.3	35
116	Comparison of light- and heavy-ion-irradiated quantum-wells for use as ultrafast saturable absorbers. Applied Physics Letters, 2001, 79, 2722-2724.	3.3	34
117	Composition-Dependent Interfacial Abruptness in Au-Catalyzed Si <sub>1-x</sub> Ge <sub>x</sub> /Si <sub>1-x</sub> Ge <sub>x</sub> Nanowire Heterostructures. Nano Letters, 2014, 14, 5140-5147.	9.1	34
118	Metal-organic framework/graphene oxide composites for CO <sub>2</sub> capture by microwave swing adsorption. Journal of Materials Chemistry A, 2021, 9, 13135-13142.	10.3	34
119	Low-damage dry-etched grating on an MQW active layer and dislocation-free InP regrowth for 1.55-μm complex-coupled DFB lasers fabrication. IEEE Photonics Technology Letters, 1998, 10, 1070-1072.	2.5	33
120	Ultrafast saturable absorption at 1.55 μm in heavy-ion-irradiated quantum-well vertical cavity. Applied Physics Letters, 2000, 76, 1371-1373.	3.3	33
121	1.5-μm laser on GaAs with GaInNAsSb quinary quantum well. Electronics Letters, 2003, 39, 519.	1.0	33
122	InAs/InP(001) quantum dots emitting at 1.55 μm grown by low-pressure metalorganic vapor-phase epitaxy. Applied Physics Letters, 2005, 87, 2531-2534.	3.3	33
123	Scanning tunneling spectroscopy of cleaved InAs/GaAs quantum dots at low temperatures. Physical Review B, 2008, 77, .	3.2	33
124	Direct FIB fabrication and integration of single nanopore devices for the manipulation of macromolecules. Microelectronic Engineering, 2010, 87, 1300-1303.	2.4	33
125	Direct growth of GaAs-based structures on exactly (001)-oriented Ge/Si virtual substrates: reduction of the structural defect density and observation of electroluminescence at room temperature under CW electrical injection. Journal of Crystal Growth, 2004, 265, 53-59.	1.5	32
126	Pseudomorphic molecular beam epitaxy growth of β-Al <sub>2</sub> O <sub>3</sub> (001) on Si(001) and evidence for spontaneous lattice reorientation during epitaxy. Applied Physics Letters, 2006, 89, 2329-2331.	3.3	32

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127	Highly crystalline urchin-like structures made of ultra-thin zinc oxide nanowires. RSC Advances, 2014, 4, 47234-47239.	3.6	32
128	Ultrathin PECVD epitaxial Si solar cells on glass via low-temperature transfer process. Progress in Photovoltaics: Research and Applications, 2016, 24, 1075-1084.	8.1	32
129	Coupled HgSe Colloidal Quantum Wells through a Tunable Barrier: A Strategy To Uncouple Optical and Transport Band Gap. Chemistry of Materials, 2018, 30, 4065-4072.	6.7	32
130	Effect of layer stacking and p-type doping on the performance of InAs <sup>•</sup> InP quantum-dash-in-a-well lasers emitting at 1.55 $\mu$ m. Applied Physics Letters, 2006, 89, 241123.	3.3	31
131	Wetting layer states of InAs <sup>•</sup> GaAs self-assembled quantum dot structures: Effect of intermixing and capping layer. Journal of Applied Physics, 2007, 101, 063539.	2.5	31
132	Large Array of Sub $\mu$ m Single-Grain Au Nanodots for use in Nanotechnology. Small, 2011, 7, 2607-2613.	10.0	31
133	Deep structural analysis of novel BGaN material layers grown by MOVPE. Journal of Crystal Growth, 2011, 315, 288-291.	1.5	31
134	Structural and optical properties of nanodots, nanowires, and multi-quantum wells of III-nitride grown by MOVPE nano-selective area growth. Journal of Crystal Growth, 2011, 315, 160-163.	1.5	31
135	Growth of Vertical GaAs Nanowires on an Amorphous Substrate via a Fiber-Textured Si Platform. Nano Letters, 2013, 13, 2743-2747.	9.1	31
136	BAIN thin layers for deep UV applications. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 745-750.	1.8	31
137	Selective area heteroepitaxy of GaSb on GaAs (001) for in-plane InAs nanowire achievement. Nanotechnology, 2016, 27, 505301.	2.6	31
138	Atomic-plane-thick reconstruction across the interface during heteroepitaxial bonding of InP-clad quantum wells on silicon. Applied Physics Letters, 2013, 102, .	3.3	30
139	AlGaN-based MQWs grown on a thick relaxed AlGaN buffer on AlN templates emitting at 285 nm. Optical Materials Express, 2015, 5, 380.	3.0	30
140	Biomimetic Nanotubes Based on Cyclodextrins for Ion-Channel Applications. Nano Letters, 2015, 15, 7748-7754.	9.1	30
141	Oxide glass used as inorganic template for fluorescent fluoride nanoparticles synthesis. Optical Materials, 2006, 28, 1401-1404.	3.6	29
142	Submicron-diameter semiconductor pillar microcavities with very high quality factors. Applied Physics Letters, 2007, 90, 091120.	3.3	29
143	Metallic Functionalization of CdSe 2D Nanoplatelets and Its Impact on Electronic Transport. Journal of Physical Chemistry C, 2016, 120, 12351-12361.	3.1	29
144	Structural effects of the thermal treatment on a GaInNAs/GaAs superlattice. Applied Physics Letters, 2001, 79, 1795-1797.	3.3	28

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145	Thermal stability of ion-irradiated InGaAs with (sub-) picosecond carrier lifetime. Applied Physics Letters, 2003, 82, 856-858.	3.3	28
146	Influence of Ce <sup>3+</sup> doping on the structure and luminescence of Er <sup>3+</sup> -doped transparent glass-ceramics. Optical Materials, 2006, 28, 638-642.	3.6	28
147	Growth and characterization of InAs columnar quantum dots on GaAs substrate. Journal of Applied Physics, 2007, 102, 033502.	2.5	28
148	Band offsets at zincblende-wurtzite GaAs nanowire sidewall surfaces. Applied Physics Letters, 2013, 103, .	3.3	28
149	New insights into the Mo/Cu(In,Ga)Se <sub>2</sub> interface in thin film solar cells: Formation and properties of the MoSe <sub>2</sub> interfacial layer. Journal of Chemical Physics, 2016, 145, 154702.	3.0	28
150	Low temperature plasma enhanced CVD epitaxial growth of silicon on GaAs: a new paradigm for III-V/Si integration. Scientific Reports, 2016, 6, 25674.	3.3	28
151	Shear-driven phase transformation in silicon nanowires. Nanotechnology, 2018, 29, 125601.	2.6	28
152	Band-Gap Landscape Engineering in Large-Scale 2D Semiconductor van der Waals Heterostructures. ACS Nano, 2021, 15, 7279-7289.	14.6	28
153	Structural characterisation of transparent oxyfluoride glass-ceramics. Journal of Materials Science, 2000, 35, 4849-4856.	3.7	27
154	Subpicosecond pulse generation at 134â€¦GHz and low radiofrequency spectral linewidth in quantum dash-based Fabry-Perot lasers emitting at 1.5â€¦[micro sign]m. Electronics Letters, 2006, 42, 91.	1.0	27
155	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
156	Nanometer-scale, quantitative composition mappings of InGaN layers from a combination of scanning transmission electron microscopy and energy dispersive x-ray spectroscopy. Nanotechnology, 2012, 23, 455707.	2.6	27
157	Silicon surface preparation for III-V molecular beam epitaxy. Journal of Crystal Growth, 2015, 413, 17-24.	1.5	27
158	<i>In situ</i> passivation of GaAsP nanowires. Nanotechnology, 2017, 28, 495707.	2.6	27
159	Fast radiative quantum dots: From single to multiple photon emission. Applied Physics Letters, 2007, 90, 223118.	3.3	26
160	Synthesis and photoluminescence properties of silicon nanowires treated by high-pressure water vapor annealing. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 1302-1306.	1.8	26
161	A semiconductor laser device for the generation of surface-plasmons upon electrical injection. Optics Express, 2009, 17, 9391.	3.4	26
162	Encapsulation of Microperoxidase-8 in MIL-101(Cr)-X Nanoparticles: Influence of Metalâ€“Organic Framework Functionalization on Enzymatic Immobilization and Catalytic Activity. ACS Applied Nano Materials, 2020, 3, 3233-3243.	5.0	26

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163	Degradation Mechanism of Porous Metal-Organic Frameworks by In Situ Atomic Force Microscopy. <i>Nanomaterials</i> , 2021, 11, 722.	4.1	26
164	Bimodal distribution of Indium composition in arrays of low-pressure metalorganic-vapor-phase-epitaxy grown InGaAs/GaAs quantum dots. <i>Applied Physics Letters</i> , 2001, 79, 2157-2159.	3.3	25
165	Silicon-insulator waveguide photodetector with Ge/Si self-assembled islands. <i>Journal of Applied Physics</i> , 2002, 92, 1858-1861.	2.5	25
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