J-M Chauveau

List of Publications by Year
in descending order

100 papers	1,711 citations	236925 25 h-index	330143 37 g-index
100 all docs	100 docs citations	100 times ranked	1537 citing authors

#	Article	IF	Citations
1	Benefits of homoepitaxy on the properties of nonpolar (Zn,Mg)O/ZnO quantum wells on a-plane ZnO substrates. Applied Physics Letters, 2010, 97, .	3.3	68
2	Exciton radiative properties in nonpolar homoepitaxial ZnO/(Zn,Mg)O quantum wells. Physical Review B, 2011, 84, .	3.2	66
3	Annealing effects on the crystal structure of GaInNAs quantum wells with large In and N content grown by molecular beam epitaxy. Journal of Applied Physics, 2003, 94, 2319-2324.	2.5	60
4	Non-polara-plane ZnMgO1/ZnO quantum wells grown by molecular beam epitaxy. Semiconductor Science and Technology, 2008, 23, 035005.	2.0	59
5	Nanoscale analysis of the In and N spatial redistributions upon annealing of GaInNAs quantum wells. Applied Physics Letters, 2004, 84, 2503-2505.	3.3	57
6	Interface structure and anisotropic strain relaxation of nonpolar wurtzite (112Â¯) and (101Â¯) orientations: ZnO epilayers grown on sapphire. Journal of Applied Physics, 2008, 104, .	2.5	57
7	Indium content measurements in metamorphic high electron mobility transistor structures by combination of x-ray reciprocal space mapping and transmission electron microscopy. Journal of Applied Physics, 2003, 93, 4219-4225.	2.5	53
8	Interfacial structure and defect analysis of nonpolar ZnO films grown on R-plane sapphire by molecular beam epitaxy. Journal of Applied Physics, 2008, 103, .	2.5	52
9	Residual and nitrogen doping of homoepitaxial nonpolar m-plane ZnO films grown by molecular beam epitaxy. Applied Physics Letters, 2011, 98, .	3.3	43
10	Growth of non-polar ZnO/(Zn,Mg)O quantum well structures on R-sapphire by plasma-assisted molecular beam epitaxy. Journal of Crystal Growth, 2007, 301-302, 366-369.	1.5	41
11	GaInNAs/GaAs quantum wells grown by molecular-beam epitaxy emitting above 1.5 Î¼m. Applied Physics Letters, 2003, 82, 1845-1847.	3.3	38
12	Interplay between the growth temperature, microstructure, and optical properties of GaInNAs quantum wells. Applied Physics Letters, 2003, 82, 3451-3453.	3.3	36
13	Correlation between interface structure and light emission at 1.3â€“1.55 Î¼m of (Ga,In)(N,As) diluted nitride heterostructures on GaAs substrates. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 2195.	1.6	34
14	Structural and electronic properties of ZnMgO/ZnO quantum wells. Superlattices and Microstructures, 2005, 38, 455-463.	3.1	33
15	Optical investigation of the In<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">In</mml:mi><mml:mi mathvariant="normal">As</mml:mi><mml:mo>â^•</mml:mo><mml:mi mathvariant="normal">Ga</mml:mi><mml:mrow><mml:mo>(</mml:mo><mml:mi mathvariant="normal">	3.2	33
16	Low temperature reflectivity study of nonpolar ZnO/(Zn,Mg)O quantum wells grown on M-plane ZnO substrates. Applied Physics Letters, 2011, 98, 101913.	3.3	33
17	Polarization-sensitive Schottky photodiodes based on a-plane ZnO/ZnMgO multiple quantum-wells. Applied Physics Letters, 2011, 99, .	3.3	32
18	Well-ordered ZnO nanowires with controllable inclination on semipolar ZnO surfaces by chemical bath deposition. Nanotechnology, 2018, 29, 475601.	2.6	32

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19	Homoepitaxy of non-polar ZnO/(Zn,Mg)O multi-quantum wells: From a precise growth control to the observation of intersubband transitions. Applied Physics Letters, 2017, 111, .	3.3	32
20	Correlations between structural and optical properties of GaInNAs quantum wells grown by MBE. Journal of Crystal Growth, 2003, 251, 383-387.	1.5	31
21	Residual strain in nonpolar a-plane Zn1âˆ'xMgxO (0<x<0.55) and its effect on the band structure of (Zn,Mg)O/ZnO quantum wells. Applied Physics Letters, 2008, 93, 231911.	3.3	31
22	Demonstrating the decoupling regime of the electron-phonon interaction in a quantum dot using chirped optical excitation. Physical Review B, 2017, 95, .	3.2	31
23	Single phase a-plane MgZnO epilayers for UV optoelectronics: substitutional behaviour of Mg at large contents. CrystEngComm, 2012, 14, 1637-1640.	2.6	29
24	Growth and characterization of A-plane ZnO and ZnCoO based heterostructures. Applied Physics A: Materials Science and Processing, 2007, 88, 65-69.	2.3	28
25	The influence of various MOCVD parameters on the growth of Al1âˆ'xInxN ternary alloy on GaN templates. Journal of Crystal Growth, 2011, 316, 30-36.	1.5	27
26	Interplay between relaxation, surface morphology and composition modulation in InAlAs graded buffer layers. Journal of Crystal Growth, 2003, 251, 112-117.	1.5	26
27	Transmission electron microscopy investigation of microtwins and double positioning domains in (111) 3C-SiC in relation with the carbonization conditions. Applied Physics Letters, 2009, 95, .	3.3	25
28	Growth of GaN based structures on Si(110) by molecular beam epitaxy. Journal of Crystal Growth, 2010, 312, 2683-2688.	1.5	25
29	On the origin of basal stacking faults in nonpolar wurtzite films epitaxially grown on sapphire substrates. Journal of Applied Physics, 2012, 112, .	2.5	25
30	Nitrogen-dependent optimum annealing temperature of Ga(As,N). Journal of Crystal Growth, 2004, 267, 60-66.	1.5	24
31	Blue-shift mechanisms in annealed(Ga,In)(N,As)âˆ•GaAsquantum wells. Physical Review B, 2007, 75, .	3.2	24
32	Three-dimensional atomic-scale investigation of ZnO-MgxZn1âˆ'xO m-plane heterostructures. Applied Physics Letters, 2017, 111, .	3.3	24
33	Short infrared wavelength quantum cascade detectors based on m-plane ZnO/ZnMgO quantum wells. Applied Physics Letters, 2018, 113, .	3.3	24
34	Deep levels in a-plane, high Mg-content MgxZn1âˆ'xO epitaxial layers grown by molecular beam epitaxy. Journal of Applied Physics, 2012, 112, 123709.	2.5	22
35	Composition Metrology of Ternary Semiconductor Alloys Analyzed by Atom Probe Tomography. Journal of Physical Chemistry C, 2018, 122, 16704-16714.	3.1	22
36	Anisotropic strain effects on the photoluminescence emission from heteroepitaxial and homoepitaxial nonpolar (Zn,Mg)O/ZnO quantum wells. Journal of Applied Physics, 2011, 109, .	2.5	21

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37	Surface morphology and strain relaxation of InAlAs buffer layers grown lattice mismatched on GaAs with inverse steps. Applied Surface Science, 2000, 166, 442-445.	6.1	20
38	(Zn, Mg)O/ZnO-based heterostructures grown by molecular beam epitaxy on sapphire: Polar vs. non-polar. Microelectronics Journal, 2009, 40, 512-516.	2.0	20
39	Multisubband Plasmons in Doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Zn</mml:mi><mml:mrow><mml:mrow><mml:mi mathvariant="normal">O</mml:mi></mml:mrow></mml:mrow></mml:math> Quantum Wells. Physical Review Applied, 2018, 10, .	3.8	20
40	Influence of MBE growth conditions on the quality of InAlAs/InGaAs metamorphic HEMTs on GaAs. Journal of Crystal Growth, 2003, 251, 822-826.	1.5	18
41	Light polarization sensitive photodetectors with m- and r-plane homoepitaxial ZnO/ZnMgO quantum wells. Applied Physics Letters, 2015, 106, .	3.3	17
42	Transport of indirect excitons in ZnO quantum wells. Optics Letters, 2015, 40, 3667.	3.3	17
43	A photonic atom probe coupling 3D atomic scale analysis with in situ photoluminescence spectroscopy. Review of Scientific Instruments, 2020, 91, 083704.	1.3	16
44	Comparison of In[sub 0.33]Al[sub 0.67]As/In[sub 0.34]Ga[sub 0.66]As on GaAs metamorphic high electron mobility transistors grown by molecular beam epitaxy with normal and inverse step on linear graded buffer layers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 2513.	1.6	15
45	Optical Phase Transition in Semiconductor Quantum Metamaterials. Physical Review Letters, 2019, 123, 117401.	7.8	15
46	Evidence of Piezoelectric Potential and Screening Effect in Single Highly Doped ZnO:Ga and ZnO:Al Nanowires by Advanced Scanning Probe Microscopy. Journal of Physical Chemistry C, 2021, 125, 15373-15383.	3.1	15
47	Blue Light-Emitting Diodes Grown on ZnO Substrates. Applied Physics Express, 2013, 6, 042101.	2.4	14
48	Non-metal to metal transition in n-type ZnO single crystal materials. Journal of Applied Physics, 2017, 121, .	2.5	14
49	Donor and acceptor levels in ZnO homoepitaxial thin films grown by molecular beam epitaxy and doped with plasma-activated nitrogen. Applied Physics Letters, 2012, 101, .	3.3	12
50	Built-in electric field in ZnO based semipolar quantum wells grown on (101Â¯2) ZnO substrates. Applied Physics Letters, 2013, 103, .	3.3	11
51	Inversion of absorption anisotropy and bowing of crystal field splitting in wurtzite MgZnO. Applied Physics Letters, 2016, 108, .	3.3	11
52	Observation of Intersubband Absorption in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mrow><mml:mi>Zn</mml:mi><mml:mi mathvariant="normal">O</mml:mi></mml:mrow></mml:math> Coupled Quantum Wells. Physical Review Applied, 2019, 12, .	3.8	11
53	Growth optimization and characterization of lattice-matched Al0.82In0.18N optical confinement layer for edge emitting nitride laser diodes. Journal of Crystal Growth, 2012, 338, 20-29.	1.5	10
54	Growth of Ga- and N-polar GaN layers on O face ZnO substrates by molecular beam epitaxy. Journal of Crystal Growth, 2014, 388, 35-41.	1.5	10

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55	Access to residual carrier concentration in ZnO nanowires by calibrated scanning spreading resistance microscopy. Applied Physics Letters, 2016, 108, .	3.3	10
56	As-mediated stacking fault in wurtzite GaN epilayers. Applied Physics Letters, 2002, 81, 3407-3409.	3.3	9
57	Characterization of carrier concentration in ZnO nanowires by scanning capacitance microscopy. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 576-580.	0.8	9
58	Evidence of exciton complexes in non polar ZnO/(Zn,Mg)O A-plane quantum well. Superlattices and Microstructures, 2018, 120, 410-418.	3.1	9
59	Induced structural modifications in ZnS nanowires via physical state of catalyst: Highlights of 15R crystal phase. Nano Research, 2022, 15, 377.	10.4	9
60	Stacking of metamorphic InAlAs/InGaAs heterostructures on GaAs substrate. Journal of Applied Physics, 2001, 90, 5774-5777.	2.5	8
61	Super-resolution Optical Spectroscopy of Nanoscale Emitters within a Photonic Atom Probe. Nano Letters, 2020, 20, 8733-8738.	9.1	8
62	Impact of Mg content on native point defects in Mg_xZn_{1â^'x}O (0 â‰¤ x â‰¤ 0.56). APL Materials, 2015, 3, 062801.	5.1	7
63	Nanoscale calibration of n-type ZnO staircase structures by scanning capacitance microscopy. Applied Physics Letters, 2015, 107, .	3.3	6
64	Optimized In composition and quantum well thickness for yellow-emitting (Ga,In)N/GaN multiple quantum wells. Journal of Crystal Growth, 2016, 434, 25-29.	1.5	6
65	Deep-level spectroscopy in metalâ€“insulatorâ€“semiconductor structures. Journal Physics D: Applied Physics, 2017, 50, 065104.	2.8	6
66	Identification by deuterium diffusion of a nitrogen-related deep donor preventing the p-type doping of ZnO. Applied Physics Letters, 2021, 118, .	3.3	6
67	Correlation between quantum well morphology, carrier localization and the optoelectronic properties of GaInNAs/GaAs light emitting diodes. Semiconductor Science and Technology, 2006, 21, 1047-1052.	2.0	5
68	Ga-doping of nonpolar m-plane ZnMgO with high Mg contents. Journal of Alloys and Compounds, 2018, 766, 436-441.	5.5	5
69	ZnMgO-based UV photodiodes: a comparison of films grown by spray pyrolysis and MBE. , 2016, , .		4
70	Why is it difficult to grow spontaneous ZnO nanowires using molecular beam epitaxy?. Nanotechnology, 2020, 31, 385601.	2.6	4
71	Characterization of the GaN/GaAs/GaN structure grown by molecular beam epitaxy. Solid-State Electronics, 2003, 47, 539-542.	1.4	3
72	Optical properties of a-plane (Al, Ga)N/GaN multiple quantum wells grown on strain engineered Zn1â^'xMgxO layers by molecular beam epitaxy. Applied Physics Letters, 2011, 99, 261910.	3.3	3

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73	Optical investigations of nonpolar homoepitaxial ZnO/(Zn,Mg)O quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1320-1324.	0.8	3
74	Native point defect energies, densities, and electrostatic repulsion across (Mg,Zn)O alloys. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 1448-1454.	1.8	3
75	Breaking the Intersubband Selection Rules for Absorption with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Zn</mml:mi><mml:mrow><mml:mrow><mml:mi mathvariant="normal">O</mml:mi></mml:mrow></mml:mrow></mml:math> Quantum Wells: Light Polarization Sensitivity under Normal Incidence. Physical Review Applied, 2018, 10, .	3.8	3
76	Assessing the electrical activity of individual ZnO nanowires thermally annealed in air. Nanoscale Advances, 2022, 4, 1125-1135.	4.6	3
77	Arsenic incorporation and its influence on microstructure of wurtzite GaN grown by molecular-beam epitaxy. Journal of Applied Physics, 2003, 94, 7193-7200.	2.5	2
78	Optimization of InAs/(Ga,In)As quantum dots in view of efficient emission at 1.5 Âµm. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 3979-3982.	0.8	2
79	Investigation of Non-Radiative Processes in InAs/(Ga,In)(N,As) Quantum Dots. Japanese Journal of Applied Physics, 2007, 46, L317-L319.	1.5	2
80	On the growth of Zn_{1â€“x}Mn_xO thin films by plasmaâ€assisted MBE. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1322-1324.	0.8	2
81	Intersubband absorption in m-plane ZnO/ZnMgO MQWs. Proceedings of SPIE, 2017, , .	0.8	2
82	Time-resolved photoluminescence investigation of (Mg, Zn) O alloy growth on a non-polar plane. Superlattices and Microstructures, 2018, 116, 105-113.	3.1	2
83	Interplays between plastic relaxation, surface morphology and composition modulation in InAlAs graded buffer layers under various growth conditions. , 0, , .		1
84	Influence of growth conditions on the structural, optical and electrical quality of MBE grown InAlAs/InGaAs metamorphic HEMTs on GaAs. , 0, , .		1
85	Electrical mechanisms for carrier compensation in homoepitaxial nonpolar m-ZnO doped with nitrogen. Semiconductor Science and Technology, 2016, 31, 035010.	2.0	1
86	Growth and Characterization of Non-Polar (Zn,Mg)O/ZnO Quantum Wells and Multiple Quantum Wells. Journal of the Korean Physical Society, 2008, 53, 2934-2938.	0.7	1
87	In situ analysis of the nucleation of O- and Zn-polar ZnO nanowires using synchrotron-based X-ray diffraction. Nanoscale, 2022, 14, 680-690.	5.6	1
88	Polarization-resolved photoluminescence study of an atom probe tip containing a ZnO-(Mg,Zn)O heterostructure. , 2022, , .		1
89	Correlations between growth mode and structural and optical properties of GaInNAs quantum wells grown by MBE. , 0, , .		0
90	Zinc Oxide and Related Materials. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1258-1260.	0.8	0

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91	GaN-based heterostructures grown on ZnO substrates: from polarity control to the fabrication of blue LEDs. , 2014, , .		0
92	Optical spectroscopy of a-plane-oriented ZnO epilayers grown by plasma-assisted molecular beam epitaxy. Applied Physics A: Materials Science and Processing, 2014, 115, 257-261.	2.3	0
93	ZnO/ZnMgO multiple quantum well light polarization sensitive photodetectors. , 2015, , .		0
94	Intersubband plasmons induced negative refraction at mid-IR frequency in heterostructured semiconductor metamaterials. Journal of Physics: Conference Series, 2018, 1092, 012034.	0.4	0
95	Use of interface phonon-polaritons for the alloy determination in ZnO/(Zn,Mg)O multiple quantum wells. Applied Surface Science, 2021, 567, 150816.	6.1	0
96	Non Polar GaN and (Ga,In)N/GaN Heterostructures Grown On A-Plane (1 1 -2 0) ZnO Subtrates. , 2014, , .		0
97	Intersubband transitions and many body effects in ZnMgO/ZnO quantum wells. , 2018, , .		0
98	Short infrared wavelength quantum cascade detectors based on non-polar ZnO/ZnMgO quantum wells. , 2019, , .		0
99	Intersubband absorption at normal incidence by m-plane ZnO/MgZnO quantum wells. , 2019, , .		0
100	Exciton ionization induced by intersubband absorption in nonpolar ZnO-ZnMgO quantum wells at room temperature. Physical Review B, 2022, 105, .	3.2	0