Bianchi Mendez

List of Publications by Year
in descending order

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141	1,841	304743	361022
papers	citations	22 h-index	35 g-index

144	144	144	1658
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Cathodoluminescence from Î²â€Ga2O3 nanowires. Applied Physics Letters, 2005, 86, 113112.	3.3	89
2	Red luminescence of Cr in Î²â€Ga2O3 nanowires. Journal of Applied Physics, 2007, 101, 033517.	2.5	75
3	In-Doped Gallium Oxide Micro- and Nanostructures: Morphology, Structure, and Luminescence Properties. Journal of Physical Chemistry C, 2012, 116, 3935-3943.	3.1	61
4	Doped gallium oxide nanowires with waveguiding behavior. Applied Physics Letters, 2007, 91, 133108.	3.3	60
5	Nature of compensating luminescence centers in Teâ€diffused and â€doped GaSb. Journal of Applied Physics, 1996, 80, 1112-1115.	2.5	58
6	GeO2nanowires and nanoneedles grown by thermal deposition without a catalyst. Nanotechnology, 2005, 16, 2521-2524.	2.6	57
7	Europium doped gallium oxide nanostructures for room temperature luminescent photonic devices. Nanotechnology, 2009, 20, 115201.	2.6	56
8	Influence of Sn and Cr Doping on Morphology and Luminescence of Thermally Grown Ga₂O₃ Nanowires. Journal of Physical Chemistry C, 2013, 117, 3036-3045.	3.1	55
9	Î²-Ga₂O₃ nanowires for an ultraviolet light selective frequency photodetector. Journal Physics D: Applied Physics, 2014, 47, 415101.	2.8	42
10	Anisotropic magnetotransport in SrTiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>surface electron gases generated by Ar<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow /><mml:mrow><mml:mo>+</mml:mo></mml:mrow	3.2	40
11	Cathodoluminescence of rare earth implanted Ga2O3and GeO2nanostructures. Nanotechnology, 2011, 22, 285706.	2.6	39
12	Cathodoluminescence studies of growth and processâ€induced defects in bulk gallium antimonide. Applied Physics Letters, 1995, 67, 2648-2650.	3.3	33
13	Crossed Ga₂O₃/SnO₂ Multiwire Architecture: A Local Structure Study with Nanometer Resolution. Nano Letters, 2014, 14, 5479-5487.	9.1	33
14	High aspect ratio GeO2nano- and microwires with waveguiding behaviour. Nanotechnology, 2007, 18, 155203.	2.6	32
15	GeO₂ Nanowires Doped with Optically Active Ions. Journal of Physical Chemistry C, 2009, 113, 17200-17205.	3.1	32
16	Visible and infrared luminescence study of Er doped Î²-Ga₂O₃and Er₃Ga₅O₁₂. Journal Physics D: Applied Physics, 2008, 41, 065406.	2.8	29
17	Study of the relationship between crystal structure and luminescence in rare-earth-implanted Ga2O3 nanowires during annealing treatments. Journal of Materials Science, 2014, 49, 1279-1285.	3.7	29
18	Shape Engineering Driven by Selective Growth of SnO₂ on Doped Ga₂O₃ Nanowires. Nano Letters, 2017, 17, 515-522.	9.1	26

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19	Doping Î²-Ga₂O₃ with europium: influence of the implantation and annealing temperature. Journal Physics D: Applied Physics, 2017, 50, 325101.	2.8	26
20	Electronic structure of Si delta -doped GaAs in an electric field. Semiconductor Science and Technology, 1994, 9, 263-271.	2.0	24
21	Luminescence properties of transition-metal-doped GaSb. Physical Review B, 1998, 57, 6479-6484.	3.2	23
22	Synthesis and characterization of silicon-doped gallium oxide nanowires for optoelectronic UV applications. Journal of Nanoparticle Research, 2011, 13, 1833-1839.	1.9	23
23	Resonant cavity modes in gallium oxide microwires. Applied Physics Letters, 2012, 100, 261910.	3.3	23
24	Influence of Li doping on the morphology and luminescence of Ga₂O₃microrods grown by a vapor-solid method. Semiconductor Science and Technology, 2016, 31, 115003.	2.0	23
25	Influence of Te concentration on the infrared cathodoluminescence of GaAs:Te wafers. Journal of Applied Physics, 1991, 69, 2776-2779.	2.5	22
26	Visible cathodoluminescence of Er ions in Î²-Ga₂O₃nanowires and microwires. Nanotechnology, 2008, 19, 035713.	2.6	22
27	Micro- and nanostructures of Sb2O3 grown by evaporationâ€“deposition: Self assembly phenomena, fractal and dendritic growth. Materials Chemistry and Physics, 2012, 135, 1096-1103.	4.0	22
28	Enhanced red emission from praseodymium-doped GaN nanowires by defect engineering. Acta Materialia, 2013, 61, 3278-3284.	7.9	22
29	Synthesis and optical properties of Zn2GeO4 microrods. Acta Materialia, 2016, 104, 84-90.	7.9	21
30	Field emission properties of gallium oxide microâ€•and nanostructures in the scanning electron microscope. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 113-117.	1.8	20
31	Exciton trapping in one-dimensional systems with correlated disorder. Physical Review B, 1994, 49, 3839-3843.	3.2	19
32	Visible luminescence of erbium oxide layers grown on crystalline and amorphous silicon. Journal Physics D: Applied Physics, 2002, 35, 295-298.	2.8	18
33	Probing surface states in C₆₀decorated ZnO microwires: detailed photoluminescence and cathodoluminescence investigations. Nanoscale Advances, 2019, 1, 1516-1526.	4.6	18
34	Stark ladders in periodically Si-Î´-doped GaAs. Physical Review B, 1994, 49, 11471-11474.	3.2	17
35	Fibonacci superlattices of narrow-gap III-V semiconductors. Semiconductor Science and Technology, 1995, 10, 797-802.	2.0	17
36	A transfer matrix method for the determination of one-dimensional band structures. Journal of Physics A, 1993, 26, 171-177.	1.6	16

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37	Cathodoluminescence enhancement in porous silicon cracked in vacuum. Applied Physics Letters, 1999, 74, 1728-1730.	3.3	16
38	Cathodoluminescence from nanocrystalline silicon films and porous silicon. Applied Physics A: Materials Science and Processing, 1999, 68, 329-331.	2.3	16
39	Size-selective breaking of the coreâ€“shell structure of gallium nanoparticles. Nanotechnology, 2018, 29, 355707.	2.6	16
40	Quantum nanoconstrictions fabricated by cryo-etching in encapsulated graphene. Scientific Reports, 2019, 9, 13572.	3.3	16
41	Visible cathodoluminescence from mechanically milled germanium. Semiconductor Science and Technology, 2002, 17, 1267-1271.	2.0	15
42	Enhanced dynamic annealing and optical activation of Eu implanted a-plane GaN. Europhysics Letters, 2012, 97, 68004.	2.0	15
43	Study of luminescence and optical resonances in Sb2O3 micro- and nanotriangles. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	15
44	Raman and cathodoluminescence analysis of transition metal ion implanted Ga2O3 nanowires. Journal of Luminescence, 2017, 191, 56-60.	3.1	15
45	Eu Activation inÎ²-Ga2O3MOVPE Thin Films by Ion Implantation. ECS Journal of Solid State Science and Technology, 2019, 8, Q3097-Q3102.	1.8	15
46	Sn doped GeO₂nanowires with waveguiding behavior. Nanotechnology, 2008, 19, 455705.	2.6	13
47	Raman study of phase transitions induced by thermal annealing and laser irradiation in antimony oxide micro- and nanostructures. CrystEngComm, 2016, 18, 2541-2545.	2.6	13
48	Modal Analysis of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î²</mml:mi><mml:msub><mml:mrow><mml:mtext>â^'</mml:mtext><mml:mi>Ga</mml:mi></ mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mo>:</mml:mo><mml:mi>Cr</mml:mi></mml:mrow></ Widely Tunable Luminescent Optical Microcavities. Physical Review Applied, 2018, 9, .	3.8	13
49	Hybrid solar cells with Î²- and Î³- gallium oxide nanoparticles. Materials Letters, 2020, 261, 127088.	2.6	13
50	Relativistic particles in orthogonal electric and magnetic fields with confining scalar potentials. Societa Italiana Di Fisica Nuovo Cimento B-General Physics, Relativity Astronomy and Mathematical Physics and Methods, 1992, 107, 489-495.	0.2	12
51	Cathodoluminescence microscopy of doped GaSb crystals. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1996, 42, 38-42.	3.5	12
52	Effect of erbium doping on the defect structure of GaSb crystals. Semiconductor Science and Technology, 1998, 13, 1431-1433.	2.0	12
53	Doping of Ga₂O₃bulk crystals and NWs by ion implantation. Proceedings of SPIE, 2014, , .	0.8	12
54	Correlative Study of Vibrational and Luminescence Properties of Zn₂GeO₄ Microrods. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800270.	1.8	12

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55	Incorporation of Europium into GaN Nanowires by Ion Implantation. Journal of Physical Chemistry C, 2019, 123, 11874-11887.	3.1	12
56	Understanding the UV luminescence of zinc germanate: The role of native defects. Acta Materialia, 2020, 196, 626-634.	7.9	12
57	Sb2O3 microrods: self-assembly phenomena, luminescence and phase transition. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	11
58	Structural and Luminescence Properties of Ga₂O₃:Zn Microâ€•and Nanostructures. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800217.	1.8	11
59	Effect of Er dopant in GaSb bulk crystals grown by vertical Bridgman technique. Journal of Crystal Growth, 1999, 198-199, 379-383.	1.5	10
60	Cathodoluminescence study of isoelectronic doping of gallium oxide nanowires. Superlattices and Microstructures, 2009, 45, 156-160.	3.1	10
61	Doped gallium oxide nanowires for photonics. Proceedings of SPIE, 2012, , .	0.8	10
62	Study of mechanical resonances of Sb₂O₃micro- and nanorods. Nanotechnology, 2014, 25, 235701.	2.6	10
63	Non-local separable potential approach to multicentre interactions. Molecular Physics, 1991, 74, 1065-1069.	1.7	9
64	Electronic structure of Fibonacci Si Î´-doped GaAs. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 194, 184-190.	2.1	9
65	Numerical study of electron tunneling through heterostructures. American Journal of Physics, 1994, 62, 143-147.	0.7	9
66	Polishing, chemical etching and thermal treatment effects on surface and electrical properties of Er and Nd-doped GaSb substrates. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 71, 282-287.	3.5	9
67	Influence of growth temperature on the morphology and luminescence of Ga₂O₃:Mn nanowires. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 494-497.	1.8	9
68	Zn₂GeO₄/SnO₂ Nanowire Heterostructures Driven by Plateauâ€“Rayleigh Instability. Crystal Growth and Design, 2020, 20, 506-513.	3.0	9
69	A simple numerical method for the determination of relativistic one-dimensional band structures. Journal of Physics A, 1991, 24, L331-L336.	1.6	8
70	Assessment of waveguiding properties of gallium oxide nanostructures by angle resolved cathodoluminescence in a scanning electron microscope. Ultramicroscopy, 2011, 111, 1037-1042.	1.9	8
71	A comparative study of photo-, cathodo- and ionoluminescence of GaN nanowires implanted with rare earth ions. Nuclear Instruments & Methods in Physics Research B, 2013, 306, 201-206.	1.4	8
72	Towards the understanding of the intentionally induced yellow luminescence in GaN nanowires. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 667-672.	0.8	8

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73	Wide Dynamic Range Thermometer Based on Luminescent Optical Cavities in Ga₂O₃:Cr Nanowires. Small, 2022, 18, e2105355.	10.0	8
74	Analysis of Mexican obsidians by IBA techniques. Nuclear Instruments & Methods in Physics Research B, 1998, 136-138, 888-892.	1.4	7
75	Cathodoluminescence from Implanted and Anodized Polycrystalline Silicon Films. Journal of Porous Materials, 2000, 7, 291-294.	2.6	7
76	Hierarchical ZnGa₂O₄and Cr doped Zn_{1 â^'x}Mn_xGa₂O₄nanostructures for room temperature light-emitting devices. Materials Research Express, 2014, 1, 025017.	1.6	7
77	Spatial distribution of defects in GaAs:Te wafers studied by cathodoluminescence. Journal of Applied Physics, 1988, 64, 4466-4468.	2.5	6
78	Application of scanning electron acoustic microscopy to the characterization ofnâ€type and semiâ€insulating GaAs. Applied Physics Letters, 1992, 60, 1357-1359.	3.3	6
79	Scanning electron acoustic microscopy of indium-doped semi-insulating GaAs. Semiconductor Science and Technology, 1993, 8, 320-321.	2.0	6
80	Sawtooth superlattices in a two-band semiconductor. Semiconductor Science and Technology, 1994, 9, 1358-1362.	2.0	6
81	Scanning tunneling spectroscopy of transition-metal-doped GaSb. Physical Review B, 1999, 60, 10613-10615.	3.2	6
82	Scanning tunnelling microscopy and spectroscopy of nanocrystalline silicon films. Semiconductor Science and Technology, 2001, 16, 789-792.	2.0	6
83	Cathodoluminescence from Er2O3-doped n-type GaSb:Te crystals. Journal of Physics Condensed Matter, 2002, 14, 13211-13215.	1.8	6
84	3D and 2D growth of SnO₂ nanostructures on Ga₂O₃ nanowires: synthesis and structural characterization. CrystEngComm, 2017, 19, 6127-6132.	2.6	6
85	Chiral Microneedles from an Achiral Bis(boron dipyrromethene): Spontaneous Mirror Symmetry Breaking Leading to a Promising Photoluminescent Organic Material. Langmuir, 2019, 35, 5021-5028.	3.5	6
86	A solvable two-body Dirac equation in one space dimension. Canadian Journal of Physics, 1991, 69, 780-785.	1.1	5
87	Level shift under the influence of relativistic point interaction potentials. Journal of Physics A, 1992, 25, 2065-2070.	1.6	5
88	Effect of In doping in GaSb crystals studied by cathodoluminescence. Semiconductor Science and Technology, 1999, 14, 901-904.	2.0	5
89	Scanning tunneling spectroscopy study of erbium doped GaSb crystals. Journal of Applied Physics, 1999, 86, 1449-1451.	2.5	5
90	Visible cathodoluminescence from nanocrystalline GaSb obtained by mechanical milling. Journal of Applied Physics, 2003, 94, 7729.	2.5	5

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91	Resonant excitation of Er ion luminescence in a nanocrystalline silicon matrix. EPJ Applied Physics, 2004, 27, 75-79.	0.7	5
92	Rapid Synthesis of Undoped and Er Doped MoO₃ Layered Plates by Resistive Heating of Molybdenum: Structural and Optical Properties. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800471.	1.8	5
93	Ge incorporation in gallium oxide nanostructures grown by thermal treatment. Journal of Materials Science, 2020, 55, 11431-11438.	3.7	5
94	Compositional and structural analysis of Nd-doped GaSb bulk crystals grown by the vertical Bridgman technique. Journal of Crystal Growth, 2002, 241, 283-288.	1.5	4
95	Cathodoluminescence characterization of rare earth doped composite materials based on porous GaP. Journal of Materials Science, 2008, 43, 680-683.	3.7	4
96	Nanostructures and thin films of transparent conductive oxides studied by perturbed angular correlations. Physica Status Solidi (B): Basic Research, 2013, 250, 801-808.	1.5	4
97	Influence of an external electric field on the rapid synthesis of MoO₃ micro- and nanostructures by Joule heating of Mo wires. RSC Advances, 2020, 10, 11892-11897.	3.6	4
98	Intense cold-white emission due to native defects in Zn2GeO4 nanocrystals. Journal of Alloys and Compounds, 2022, 898, 162993.	5.5	4
99	Decoration of extended defects in GaSb by Al doping as evidenced by cathodoluminescence studies. Solid State Communications, 1998, 108, 997-1000.	1.9	3
100	Electrical and compositional properties on Bridgman-grown Gd-doped GaSb substrates. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 81, 157-160.	3.5	3
101	Electrical characterization of nanocrystalline Si films by scanning tunnelling spectroscopy and beam-induced current in the scanning tunnelling microscope. Nanotechnology, 2003, 14, 65-68.	2.6	3
102	Formation of porous layers on n-GaSb by electrochemical etching. Semiconductor Science and Technology, 2004, 19, 902-905.	2.0	3
103	Micro-Opto-Electro-Mechanical Device Based on Flexible Î²-Ga₂O₃ÂMicro-Lamellas. ECS Journal of Solid State Science and Technology, 2019, 8, Q3235-Q3241.	1.8	3
104	The role of surface properties in the cathodoluminescence of Zn2GeO4/SnO2 nanowire heterostructures. Materials Letters, 2020, 275, 128152.	2.6	3
105	Kinetic Study of the Thermal Quenching of the Ultraviolet Emission in Zn₂GeO₄ Microrods. Physica Status Solidi - Rapid Research Letters, 2022, 16, .	2.4	3
106	A relativistic equation for a slowly varying potential. Journal of Physics A, 1994, 27, 3539-3546.	1.6	2
107	Cathodoluminescence from Nanocrystalline Silicon Films in the Scanning Electron Microscope. Solid State Phenomena, 1998, 63-64, 191-198.	0.3	2
108	Effect of Erbidum on the Luminescence Properties of GaSb Crystals. Solid State Phenomena, 1998, 63-64, 215-220.	0.3	2

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109	Light Emitting Nanostructures in Implanted Silicon Layers. Materials Research Society Symposia Proceedings, 1998, 536, 63.	0.1	2
110	Study of Zn diffusion in n-type GaSb by cathodoluminescence and scanning tunneling spectroscopy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 80, 125-129.	3.5	2
111	Study of thermal treated a-Si implanted with Er and O ions. Journal of Physics Condensed Matter, 2002, 14, 13153-13159.	1.8	2
112	Direct observation of tunnelled intergrowth in SnO₂/Ga₂O₃ complex nanowires. Nanotechnology, 2019, 30, 054004.	2.6	2
113	New insights into the luminescence properties of a Na stabilized Gaâ€“Ti oxide homologous series. Journal of Materials Chemistry C, 2020, 8, 2725-2731.	5.5	2
114	Near-UV optical cavities in Ga2O3 nanowires. Optics Letters, 2021, 46, 278.	3.3	2
115	The role of impurities in the shape, structure and physical properties of semiconducting oxide nanostructures grown by thermal evaporation. AIMS Materials Science, 2016, 3, 425-433.	1.4	2
116	Study of NiGa2O4 microneedles grown by a thermal-evaporation method. Journal of Alloys and Compounds, 2022, , 165718.	5.5	2
117	Spatial distribution of recombination centers in GaAs:Te: Effects of the doping level. Journal of Applied Physics, 1994, 76, 987-992.	2.5	1
118	Luminescence from erbium oxide grown on silicon. Materials Research Society Symposia Proceedings, 2001, 692, 1.	0.1	1
119	Study of the defect structure, compositional and electrical properties of Er2O3-doped n-type GaSb:Te crystals grown by the vertical Bridgman technique. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 91-92, 529-533.	3.5	1
120	Cathodoluminescence study of ytterbium doped GaSb. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 121, 108-111.	3.5	1
121	Waveguiding and confinement of light in semiconductor oxide microstructures. Proceedings of SPIE, 2013, , .	0.8	1
122	Thermal growth and optical properties of zinc germanate microrods. , 2015, , .		1
123	Tailoring the shape of oxide complex nanostructures. Proceedings of SPIE, 2017, , .	0.8	1
124	Raman response of topologically protected surface states in subâ€micrometric Pb 0.77 Sn 0.23 Se flakes. Journal of Raman Spectroscopy, 2020, 51, 2489-2495.	2.5	1
125	Exciting and confining light in Cr doped gallium oxide. , 2019, , .		1
126	Exact Solutions of Twoâ€Band Models of Gradedâ€Gap Superlattices. Physica Status Solidi (B): Basic Research, 1994, 184, K53.	1.5	0

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127	Study of defects in implanted GaAs: Te by cathodoluminescence. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1994, 24, 138-140.	3.5	0
128	Application of cathodoluminescence microscopy to the study of native acceptors in gallium antimonide. , 0, , .		0
129	Correlative SEM/STM Study of Local Electronic Properties in Compound Semiconductors. Solid State Phenomena, 1998, 63-64, 273-282.	0.3	0
130	Growth mechanism of light emitting silicon nanostructures. , 0, , .		0
131	Impurity Segregation in Al Doped GaSb Studied by Cathodoluminescence Microscopy. Materials Research Society Symposia Proceedings, 1998, 510, 639.	0.1	0
132	Study of GaSb Junction Devices by Cathodoluminescence and Scanning Tunneling Spectroscopy. Materials Research Society Symposia Proceedings, 1999, 588, 239.	0.1	0
133	Cathodoluminescence investigation of the electronic states in nanocrystalline silicon. , 0, , .		0
134	STM-REBIC study of nanocrystalline and crystalline silicon.. Materials Research Society Symposia Proceedings, 2002, 738, 761.	0.1	0
135	Characterization of GaSb-based heterostructures by scanning electron microscope cathodoluminescence and scanning tunnelling microscope. Journal of Physics Condensed Matter, 2004, 16, S251-S260.	1.8	0
136	Epitaxial growth of luminescent Sn-Cr doped Î²-Ga2O3 nanowires. Materials Research Society Symposia Proceedings, 2014, 1707, 44.	0.1	0
137	Functional Nanowires: Synthesis, Characterization and Applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 313-314.	0.8	0
138	Electronic and Nanostructured Functional Materials Dedication to Professor Javier Piqueras. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800703.	1.8	0
139	GROWTH AND LUMINESCENCE OF ELONGATED MICRO- AND NANOSTRUCTURES OF OXIDE SEMICONDUCTORS. , 2005, , .		0
140	CHARACTERIZATION OF SEMIINSULATING GaAs : Cr BY SCANNING ELECTRON ACOUSTIC MICROSCOPY. European Physical Journal Special Topics, 1991, 01, C6-295-C6-296.	0.2	0
141	Efficient white-light emission from Zn2GeO4 nanomaterials. , 2019, , .		0