

Bianchi Mendez

List of Publications by Year in descending order

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141
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1,841
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304368

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35
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144
all docs

144
docs citations

144
times ranked

1658
citing authors

#	ARTICLE	IF	CITATIONS
1	Cathodoluminescence from In^{2+} -Ga ₂ O ₃ nanowires. Applied Physics Letters, 2005, 86, 113112.	1.5	89
2	Red luminescence of Cr in In^{2+} -Ga ₂ O ₃ nanowires. Journal of Applied Physics, 2007, 101, 033517.	1.1	75
3	In-Doped Gallium Oxide Micro- and Nanostructures: Morphology, Structure, and Luminescence Properties. Journal of Physical Chemistry C, 2012, 116, 3935-3943.	1.5	61
4	Doped gallium oxide nanowires with waveguiding behavior. Applied Physics Letters, 2007, 91, 133108.	1.5	60
5	Nature of compensating luminescence centers in Te-diffused and δ -doped GaSb. Journal of Applied Physics, 1996, 80, 1112-1115.	1.1	58
6	GeO ₂ nanowires and nanoneedles grown by thermal deposition without a catalyst. Nanotechnology, 2005, 16, 2521-2524.	1.3	57
7	Europium doped gallium oxide nanostructures for room temperature luminescent photonic devices. Nanotechnology, 2009, 20, 115201.	1.3	56
8	Influence of Sn and Cr Doping on Morphology and Luminescence of Thermally Grown Ga ₂ O ₃ Nanowires. Journal of Physical Chemistry C, 2013, 117, 3036-3045.	1.5	55
9	In^{2+} -Ga ₂ O ₃ nanowires for an ultraviolet light selective frequency photodetector. Journal Physics D: Applied Physics, 2014, 47, 415101.	1.3	42
10	Anisotropic magnetotransport in SrTiO ₃ surface electron gases generated by Ar ₃ ions. Journal of Applied Physics, 2011, 110, 044307.	1.1	40
11	Cathodoluminescence of rare earth implanted Ga ₂ O ₃ and GeO ₂ nanostructures. Nanotechnology, 2011, 22, 285706.	1.3	39
12	Cathodoluminescence studies of growth and process-induced defects in bulk gallium antimonide. Applied Physics Letters, 1995, 67, 2648-2650.	1.5	33
13	Crossed Ga ₂ O ₃ /SnO ₂ Multiwire Architecture: A Local Structure Study with Nanometer Resolution. Nano Letters, 2014, 14, 5479-5487.	4.5	33
14	High aspect ratio GeO ₂ nano- and microwires with waveguiding behaviour. Nanotechnology, 2007, 18, 155203.	1.3	32
15	GeO ₂ Nanowires Doped with Optically Active Ions. Journal of Physical Chemistry C, 2009, 113, 17200-17205.	1.5	32
16	Visible and infrared luminescence study of Er doped In^{2+} -Ga ₂ O ₃ and Er ₃ Ga ₅ O ₁₂ . Journal Physics D: Applied Physics, 2008, 41, 065406.	1.3	29
17	Study of the relationship between crystal structure and luminescence in rare-earth-implanted Ga ₂ O ₃ nanowires during annealing treatments. Journal of Materials Science, 2014, 49, 1279-1285.	1.7	29
18	Shape Engineering Driven by Selective Growth of SnO ₂ on Doped Ga ₂ O ₃ Nanowires. Nano Letters, 2017, 17, 515-522.	4.5	26

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19	Doping $\text{In}^{2-}\text{Ga}_{2}\text{O}_{3}$ with europium: influence of the implantation and annealing temperature. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 325101.	1.3	26
20	Electronic structure of Si delta -doped GaAs in an electric field. <i>Semiconductor Science and Technology</i> , 1994, 9, 263-271.	1.0	24
21	Luminescence properties of transition-metal-doped GaSb. <i>Physical Review B</i> , 1998, 57, 6479-6484.	1.1	23
22	Synthesis and characterization of silicon-doped gallium oxide nanowires for optoelectronic UV applications. <i>Journal of Nanoparticle Research</i> , 2011, 13, 1833-1839.	0.8	23
23	Resonant cavity modes in gallium oxide microwires. <i>Applied Physics Letters</i> , 2012, 100, 261910.	1.5	23
24	Influence of Li doping on the morphology and luminescence of $\text{Ga}_{2}\text{O}_{3}$ microrods grown by a vapor-solid method. <i>Semiconductor Science and Technology</i> , 2016, 31, 115003.	1.0	23
25	Influence of Te concentration on the infrared cathodoluminescence of GaAs:Te wafers. <i>Journal of Applied Physics</i> , 1991, 69, 2776-2779.	1.1	22
26	Visible cathodoluminescence of Er ions in $\text{In}^{2-}\text{Ga}_{2}\text{O}_{3}$ nanowires and microwires. <i>Nanotechnology</i> , 2008, 19, 035713.	1.3	22
27	Micro- and nanostructures of $\text{Sb}_{2}\text{O}_{3}$ grown by evaporation deposition: Self assembly phenomena, fractal and dendritic growth. <i>Materials Chemistry and Physics</i> , 2012, 135, 1096-1103.	2.0	22
28	Enhanced red emission from praseodymium-doped GaN nanowires by defect engineering. <i>Acta Materialia</i> , 2013, 61, 3278-3284.	3.8	22
29	Synthesis and optical properties of $\text{Zn}_{2}\text{GeO}_{4}$ microrods. <i>Acta Materialia</i> , 2016, 104, 84-90.	3.8	21
30	Field emission properties of gallium oxide micro and nanostructures in the scanning electron microscope. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012, 209, 113-117.	0.8	20
31	Exciton trapping in one-dimensional systems with correlated disorder. <i>Physical Review B</i> , 1994, 49, 3839-3843.	1.1	19
32	Visible luminescence of erbium oxide layers grown on crystalline and amorphous silicon. <i>Journal Physics D: Applied Physics</i> , 2002, 35, 295-298.	1.3	18
33	Probing surface states in C_{60} decorated ZnO microwires: detailed photoluminescence and cathodoluminescence investigations. <i>Nanoscale Advances</i> , 2019, 1, 1516-1526.	2.2	18
34	Stark ladders in periodically Si- δ -doped GaAs. <i>Physical Review B</i> , 1994, 49, 11471-11474.	1.1	17
35	Fibonacci superlattices of narrow-gap III-V semiconductors. <i>Semiconductor Science and Technology</i> , 1995, 10, 797-802.	1.0	17
36	A transfer matrix method for the determination of one-dimensional band structures. <i>Journal of Physics A</i> , 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.	1.5	16
38	Cathodoluminescence from nanocrystalline silicon films and porous silicon. Applied Physics A: Materials Science and Processing, 1999, 68, 329-331.	1.1	16
39	Size-selective breaking of the core-shell structure of gallium nanoparticles. Nanotechnology, 2018, 29, 355707.	1.3	16
40	Quantum nanoconstrictions fabricated by cryo-etching in encapsulated graphene. Scientific Reports, 2019, 9, 13572.	1.6	16
41	Visible cathodoluminescence from mechanically milled germanium. Semiconductor Science and Technology, 2002, 17, 1267-1271.	1.0	15
42	Enhanced dynamic annealing and optical activation of Eu implanted a-plane GaN. Europhysics Letters, 2012, 97, 68004.	0.7	15
43	Study of luminescence and optical resonances in Sb ₂ O ₃ micro- and nanotriangles. Journal of Nanoparticle Research, 2012, 14, 1.	0.8	15
44	Raman and cathodoluminescence analysis of transition metal ion implanted Ga ₂ O ₃ nanowires. Journal of Luminescence, 2017, 191, 56-60.	1.5	15
45	Eu Activation in In^{2+} -Ga ₂ O ₃ MOVPE Thin Films by Ion Implantation. ECS Journal of Solid State Science and Technology, 2019, 8, Q3097-Q3102.	0.9	15
46	Sn doped GeO ₂ nanowires with waveguiding behavior. Nanotechnology, 2008, 19, 455705.	1.3	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.	1.3	13
48	Modal Analysis of GaCrO_3 Widely Tunable Luminescent Optical Microcavities. Physical Review Applied, 2018, 9, .	1.3	13
49	Hybrid solar cells with In^{2-} and In^{3-} gallium oxide nanoparticles. Materials Letters, 2020, 261, 127088.	1.3	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.	1.7	12
52	Effect of erbium doping on the defect structure of GaSb crystals. Semiconductor Science and Technology, 1998, 13, 1431-1433.	1.0	12
53	Doping of Ga ₂ O ₃ bulk crystals and NWs by ion implantation. Proceedings of SPIE, 2014, .	0.8	12
54	Correlative Study of Vibrational and Luminescence Properties of Zn ₂ GeO ₄ Microrods. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800270.	0.8	12

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55	Incorporation of Europium into GaN Nanowires by Ion Implantation. Journal of Physical Chemistry C, 2019, 123, 11874-11887.	1.5	12
56	Understanding the UV luminescence of zinc germanate: The role of native defects. Acta Materialia, 2020, 196, 626-634.	3.8	12
57	Sb ₂ O ₃ microrods: self-assembly phenomena, luminescence and phase transition. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	11
58	Structural and Luminescence Properties of Ga ₂ O ₃ :Zn Micro- and Nanostructures. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800217.	0.8	11
59	Effect of Er dopant in GaSb bulk crystals grown by vertical Bridgman technique. Journal of Crystal Growth, 1999, 198-199, 379-383.	0.7	10
60	Cathodoluminescence study of isoelectronic doping of gallium oxide nanowires. Superlattices and Microstructures, 2009, 45, 156-160.	1.4	10
61	Doped gallium oxide nanowires for photonics. Proceedings of SPIE, 2012, , .	0.8	10
62	Study of mechanical resonances of Sb ₂ O ₃ micro- and nanorods. Nanotechnology, 2014, 25, 235701.	1.3	10
63	Non-local separable potential approach to multicentre interactions. Molecular Physics, 1991, 74, 1065-1069.	0.8	9
64	Electronic structure of Fibonacci Si ⁻ -doped GaAs. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 194, 184-190.	0.9	9
65	Numerical study of electron tunneling through heterostructures. American Journal of Physics, 1994, 62, 143-147.	0.3	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.	1.7	9
67	Influence of growth temperature on the morphology and luminescence of Ga ₂ O ₃ :Mn nanowires. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 494-497.	0.8	9
68	Zn ₂ GeO ₄ /SnO ₂ Nanowire Heterostructures Driven by Plateau-Rayleigh Instability. Crystal Growth and Design, 2020, 20, 506-513.	1.4	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.	0.8	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.	0.6	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 Ga ₂ O ₃ :Cr Nanowires. <i>Small</i> , 2022, 18, e2105355.	5.2	8
74	Analysis of Mexican obsidians by IBA techniques. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1998, 136-138, 888-892.	0.6	7
75	Cathodoluminescence from Implanted and Anodized Polycrystalline Silicon Films. <i>Journal of Porous Materials</i> , 2000, 7, 291-294.	1.3	7
76	Hierarchical ZnGa ₂ O ₄ and Cr doped Zn _{1-x} Mn _x Ga ₂ O ₄ nanostructures for room temperature light-emitting devices. <i>Materials Research Express</i> , 2014, 1, 025017.	0.8	7
77	Spatial distribution of defects in GaAs:Te wafers studied by cathodoluminescence. <i>Journal of Applied Physics</i> , 1988, 64, 4466-4468.	1.1	6
78	Application of scanning electron acoustic microscopy to the characterization of n-type and semi-insulating GaAs. <i>Applied Physics Letters</i> , 1992, 60, 1357-1359.	1.5	6
79	Scanning electron acoustic microscopy of indium-doped semi-insulating GaAs. <i>Semiconductor Science and Technology</i> , 1993, 8, 320-321.	1.0	6
80	Sawtooth superlattices in a two-band semiconductor. <i>Semiconductor Science and Technology</i> , 1994, 9, 1358-1362.	1.0	6
81	Scanning tunneling spectroscopy of transition-metal-doped GaSb. <i>Physical Review B</i> , 1999, 60, 10613-10615.	1.1	6
82	Scanning tunnelling microscopy and spectroscopy of nanocrystalline silicon films. <i>Semiconductor Science and Technology</i> , 2001, 16, 789-792.	1.0	6
83	Cathodoluminescence from Er ₂ O ₃ -doped n-type GaSb:Te crystals. <i>Journal of Physics Condensed Matter</i> , 2002, 14, 13211-13215.	0.7	6
84	3D and 2D growth of SnO ₂ nanostructures on Ga ₂ O ₃ nanowires: synthesis and structural characterization. <i>CrystEngComm</i> , 2017, 19, 6127-6132.	1.3	6
85	Chiral Microneedles from an Achiral Bis(boron dipyrromethene): Spontaneous Mirror Symmetry Breaking Leading to a Promising Photoluminescent Organic Material. <i>Langmuir</i> , 2019, 35, 5021-5028.	1.6	6
86	A solvable two-body Dirac equation in one space dimension. <i>Canadian Journal of Physics</i> , 1991, 69, 780-785.	0.4	5
87	Level shift under the influence of relativistic point interaction potentials. <i>Journal of Physics A</i> , 1992, 25, 2065-2070.	1.6	5
88	Effect of In doping in GaSb crystals studied by cathodoluminescence. <i>Semiconductor Science and Technology</i> , 1999, 14, 901-904.	1.0	5
89	Scanning tunneling spectroscopy study of erbium doped GaSb crystals. <i>Journal of Applied Physics</i> , 1999, 86, 1449-1451.	1.1	5
90	Visible cathodoluminescence from nanocrystalline GaSb obtained by mechanical milling. <i>Journal of Applied Physics</i> , 2003, 94, 7729.	1.1	5

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91	Resonant excitation of Er ion luminescence in a nanocrystalline silicon matrix. EPJ Applied Physics, 2004, 27, 75-79.	0.3	5
92	Rapid Synthesis of Undoped and Er Doped MoO ₃ Layered Plates by Resistive Heating of Molybdenum: Structural and Optical Properties. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800471.	0.8	5
93	Ge incorporation in gallium oxide nanostructures grown by thermal treatment. Journal of Materials Science, 2020, 55, 11431-11438.	1.7	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.	0.7	4
95	Cathodoluminescence characterization of rare earth doped composite materials based on porous GaP. Journal of Materials Science, 2008, 43, 680-683.	1.7	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.	0.7	4
97	Influence of an external electric field on the rapid synthesis of MoO ₃ micro- and nanostructures by Joule heating of Mo wires. RSC Advances, 2020, 10, 11892-11897.	1.7	4
98	Intense cold-white emission due to native defects in Zn ₂ GeO ₄ nanocrystals. Journal of Alloys and Compounds, 2022, 898, 162993.	2.8	4
99	Decoration of extended defects in GaSb by Al doping as evidenced by cathodoluminescence studies. Solid State Communications, 1998, 108, 997-1000.	0.9	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.	1.7	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.	1.3	3
102	Formation of porous layers on n-GaSb by electrochemical etching. Semiconductor Science and Technology, 2004, 19, 902-905.	1.0	3
103	Micro-Opto-Electro-Mechanical Device Based on Flexible I ² -Ga ₂ O ₃ Micro-Lamellas. ECS Journal of Solid State Science and Technology, 2019, 8, Q3235-Q3241.	0.9	3
104	The role of surface properties in the cathodoluminescence of Zn ₂ GeO ₄ /SnO ₂ nanowire heterostructures. Materials Letters, 2020, 275, 128152.	1.3	3
105	Kinetic Study of the Thermal Quenching of the Ultraviolet Emission in Zn ₂ GeO ₄ Microrods. Physica Status Solidi - Rapid Research Letters, 2022, 16, .	1.2	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 Erbium 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.	1.7	2
111	Study of thermal treated a-Si implanted with Er and O ions. Journal of Physics Condensed Matter, 2002, 14, 13153-13159.	0.7	2
112	Direct observation of tunnelled intergrowth in $\text{SnO}_2/\text{Ga}_2\text{O}_3$ complex nanowires. Nanotechnology, 2019, 30, 054004.	1.3	2
113	New insights into the luminescence properties of a Na stabilized Ga-Ti oxide homologous series. Journal of Materials Chemistry C, 2020, 8, 2725-2731.	2.7	2
114	Near-UV optical cavities in Ga_2O_3 nanowires. Optics Letters, 2021, 46, 278.	1.7	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.	0.7	2
116	Study of NiGa_2O_4 microneedles grown by a thermal-evaporation method. Journal of Alloys and Compounds, 2022, , 165718.	2.8	2
117	Spatial distribution of recombination centers in GaAs:Te: Effects of the doping level. Journal of Applied Physics, 1994, 76, 987-992.	1.1	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 Er_2O_3 -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.	1.7	1
120	Cathodoluminescence study of ytterbium doped GaSb. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 121, 108-111.	1.7	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 submicrometric $\text{Pb}_{0.77}\text{Sn}_{0.23}\text{Se}$ flakes. Journal of Raman Spectroscopy, 2020, 51, 2489-2495.	1.2	1
125	Exciting and confining light in Cr doped gallium oxide. , 2019, , .		1
126	Exact Solutions of Two-Band Models of Graded-Cap Superlattices. Physica Status Solidi (B): Basic Research, 1994, 184, K53.	0.7	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.	1.7	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.	0.7	0
136	Epitaxial growth of luminescent Sn-Cr doped $\hat{1}^2$ -Ga ₂ O ₃ 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.	0.8	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 Zn ₂ GeO ₄ nanomaterials. , 2019, , .		0