Sergi HernÃ¡ndez

List of Publications by Year
in descending order

92 papers	1,684 citations	361413 20 h-index	315739 38 g-index
94 all docs	94 docs citations	94 times ranked	2028 citing authors

#	Article	IF	Citations
1	High Quality Inkjet Printedâ€Emissive Nanocrystalline Perovskite CsPbBr₃ Layers for Color Conversion Layer and LEDs Applications. Advanced Materials Technologies, 2022, 7, .	5.8	18
2	Structural and High-Pressure Properties of Rheniite (ReS2) and (Re,Mo)S2. Minerals (Basel,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702 To	2.0	9
3	Influence of post annealing treatments on the luminescence of rare earth ions in ZnO:Tb,Eu/Si heterojunction. Applied Surface Science, 2021, 556, 149754.	6.1	16
4	Electroforming of Si NCs/p-Si photovoltaic devices: Enhancement of the conversion efficiency through resistive switching. Solar Energy Materials and Solar Cells, 2021, 230, 111252.	6.2	1
5	Ultraviolet, visible and near infrared photoresponse of SiO2/Si/SiO2 multilayer system into a MOS capacitor. Materials Science in Semiconductor Processing, 2021, 134, 106009.	4.0	2
6	Photoelectrical reading in ZnO/Si NCs/p-Si resistive switching devices. Applied Physics Letters, 2020, 116, 193503.	3.3	2
7	Toward RGB LEDs based on rare earth-doped ZnO. Nanotechnology, 2020, 31, 465207.	2.6	13
8	Silicon nanocrystals-based electroluminescent resistive switching device. Journal of Applied Physics, 2019, 126, .	2.5	8
9	Pathways of carrier recombination in Si/SiO2 nanocrystal superlattices. Journal of Applied Physics, 2019, 126, 163101.	2.5	4
10	Sizeâ€Controlled Si Nanocrystals Fabricated by Electron Beam Evaporation. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800619.	1.8	2
11	Light-activated electroforming in ITO/ZnO/p-Si resistive switching devices. Applied Physics Letters, 2019, 115, .	3.3	10
12	Effect of Si₃N₄â€Mediated Inversion Layer on the Electroluminescence Properties of Silicon Nanocrystal Superlattices. Advanced Electronic Materials, 2018, 4, 1700666.	5.1	9
13	Memristive behaviour of Si-Al oxynitride thin films: the role of oxygen and nitrogen vacancies in the electroforming process. Nanotechnology, 2018, 29, 235702.	2.6	11
14	Green Electroluminescence of Al/Tb/Al/SiO₂ Devices Fabricated by Electron Beam Evaporation. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700451.	1.8	1
15	Transparent Conducting Oxides for Optoelectronics and Biosensing Applications. , 2018, , .		3
16	Lattice dynamics study of cubic Tb₂O₃. Journal of Raman Spectroscopy, 2018, 49, 2021-2027.	2.5	15
17	Resistive switching and charge transport mechanisms in ITO/ZnO/p-Si devices. Applied Physics Letters, 2018, 113, .	3.3	12
18	High-pressure Raman scattering in bulk HfS2: comparison of density functional theory methods in layered MS2 compounds (Mâ€‰=â€‰Hf, Mo) under compression. Scientific Reports, 2018, 8, 12757.	3.3	26

#	Article	IF	Citations
19	Investigation on the structural changes of ZnO:Er:Yb thin film during laser annealing to fabricate a transparent conducting upconverter. Journal of Luminescence, 2017, 185, 112-119.	3.1	9
20	Abellaite, NaPb2 (CO3)2 (OH), a new supergene mineral from the Eureka mine, Lleida province, Catalonia, Spain. European Journal of Mineralogy, 2017, 29, 915-922.	1.3	13
21	Modulation of the electroluminescence emission from ZnO/Si NCs/p-Si light-emitting devices via pulsed excitation. Applied Physics Letters, 2017, 110, .	3.3	6
22	Discrimination of polar order extent in BaZr x Ti 1-x O 3 epitaxial thin films by Raman spectroscopy. Applied Surface Science, 2017, 424, 374-377.	6.1	7
23	Pushing the Composition Limit of Anisotropic Ge_{1â€“x}Sn_x Nanostructures and Determination of Their Thermal Stability. Chemistry of Materials, 2017, 29, 9802-9813.	6.7	33
24	Electrochemical characterization of organosilane-functionalized nanostructured ITO surfaces. Applied Physics Letters, 2016, 109, 063109.	3.3	7
25	Organosilane-functionalization of nanostructured indium tin oxide films. Interface Focus, 2016, 6, 20160056.	3.0	16
26	Structural and optical properties of Al-Tb/SiO2 multilayers fabricated by electron beam evaporation. Journal of Applied Physics, 2016, 120, .	2.5	4
27	Heterogeneous distribution of B-site cations in BaZrxTi1âˆ'xO3 epitaxial thin films grown on (001) SrTiO3 by pulsed laser deposition. Applied Surface Science, 2016, 381, 12-16.	6.1	4
28	Silicon nanocrystals embedded in silicon carbide as a wide-band gap photovoltaic material. Solar Energy Materials and Solar Cells, 2016, 144, 551-558.	6.2	10
29	Optical emission from<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Si</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>-embedded silicon nanocrystals: A high-pressure Raman and photoluminescence study. Physical Review B, 2015, 92,	3.2	9
30	Observation of Room Temperature Photoluminescence from Asymmetric CuGaO₂/ZnO/ZnMgO Multiple Quantum Well <I>Structures</I>. Journal of Nanoscience and Nanotechnology, 2015, 15, 3944-3950.	0.9	2
31	Activation of visible up-conversion luminescence in transparent and conducting ZnO:Er:Yb films by laser annealing. Journal of Luminescence, 2015, 167, 101-105.	3.1	11
32	Structural parameters effect on the electrical and electroluminescence properties of silicon nanocrystals/SiO2 superlattices. Nanotechnology, 2015, 26, 185704.	2.6	13
33	Luminescence yield in Al and Tb3+delta-doped oxide thin films fabricated by electron beam evaporation. , 2015, , .		1
34	Electrical and electroluminescence properties of silicon nanocystals/SiO₂superlattices. Proceedings of SPIE, 2014, , .	0.8	0
35	Annealing temperature and barrier thickness effect on the structural and optical properties of silicon nanocrystals/SiO2 superlattices. Journal of Applied Physics, 2014, 116, 133505.	2.5	24
36	New strategies in laser processing of TCOs for light management improvement in thin-film silicon solar cells. Proceedings of SPIE, 2014, , .	0.8	3

#	Article	IF	Citations
37	Retrieving the electronic properties of silicon nanocrystals embedded in a dielectric matrix by low-loss EELS. Nanoscale, 2014, 6, 14971-14983.	5.6	18
38	(Invited) Transport and Electroluminescence Properties of Size-Controlled Silicon Nanocrystals Embedded in SiO2 Matrix Following the Superlattice Approach. ECS Transactions, 2014, 61, 133-139.	0.5	0
39	Determining the crystalline degree of silicon nanoclusters/SiO2 multilayers by Raman scattering. Journal of Applied Physics, 2014, 115, .	2.5	39
40	Electro-optical Properties of Non-stoichiometric Silicon Nitride Films for Photovoltaic Applications. Energy Procedia, 2014, 44, 145-150.	1.8	14
41	Up-conversion effect of Er- and Yb-doped ZnO thin films. Thin Solid Films, 2014, 562, 456-461.	1.8	36
42	Silicon nanocrystals in carbide matrix. Solar Energy Materials and Solar Cells, 2014, 128, 138-149.	6.2	34
43	Optimization of curing cycle in carbon fiber-reinforced laminates: Void distribution and mechanical properties. Composites Science and Technology, 2013, 85, 73-82.	7.8	101
44	Structural, optical and electrical properties of silicon nanocrystals embedded in SixC1â^'x/SiC multilayer systems for photovoltaic applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 639-644.	3.5	19
45	Silicon nanocrystals from highâ€temperature annealing: Characterization on device level. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 669-675.	1.8	14
46	Tailoring the surface density of silicon nanocrystals embedded in SiOx single layers. Journal of Applied Physics, 2013, 114, 233101.	2.5	9
47	Charge transport and electroluminescence of silicon nanocrystals/SiO2 superlattices. Journal of Applied Physics, 2013, 114, .	2.5	27
48	Investigating the electro-optical properties of non-stoichiometric silicon nitride thin films for photovoltaic applications. Optica Pura Y Aplicada, 2013, 46, 309-314.	0.1	0
49	Bulk silica-based luminescent materials by sol-gel processing of non-conventional precursors. Applied Physics Letters, 2012, 101, 171908.	3.3	3
50	Structural and optical characterization of size controlled silicon nanocrystals in SiO2/SiOxNy multilayers. Energy Procedia, 2011, 10, 43-48.	1.8	16
51	Effect of curing cycle on void distribution and interlaminar shear strength in polymer-matrix composites. Composites Science and Technology, 2011, 71, 1331-1341.	7.8	131
52	Comparative study of the nonlinear optical properties of Si nanocrystals fabricated by eâ€beam evaporation, PECVD or LPCVD. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 969-973.	0.8	9
53	Blue luminescence at room temperature in defective MgO films. Solid State Communications, 2011, 151, 751-753.	1.9	28
54	Effect of the annealing treatments on the transport and electroluminescence properties of SiO2 layers doped with Er and Si nanoclusters.. Materials Research Society Symposia Proceedings, 2011, 1289, 511.	0.1	1

#	Article	IF	Citations
55	Optical nonlinearities in Si-nanocrystals at 1064 nm excited by nanosecond-pulses. Journal of Applied Physics, 2010, 108, .	2.5	4
56	Structural and optical properties of dilute InAsN grown by molecular beam epitaxy. Journal of Applied Physics, 2010, 108, .	2.5	20
57	Quantum phenomena during electron transport in InAs nanowires. , 2010, , .		0
58	Ultrafast All-Optical Switching in a Silicon-Nanocrystal-Based Silicon Slot Waveguide at Telecom Wavelengths. Nano Letters, 2010, 10, 1506-1511.	9.1	218
59	Two-photon absorption in Si-nanocrystals deposited by plasma-enhanced chemical-vapor deposition. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 1002-1005.	2.7	5
60	Comparative study of Si precipitation in silicon-rich oxide films. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 990-993.	2.7	9
61	Far-infrared transmission in GaN, AlN, and AlGaN thin films grown by molecular beam epitaxy. Journal of Applied Physics, 2008, 104, 033544.	2.5	43
62	Silicon nanocluster crystallization in SiOx films studied by Raman scattering. Journal of Applied Physics, 2008, 104, .	2.5	71
63	Non linear optical properties of Silicon nanocrystals for applications in photonic logic gates devices.. , 2008, , .		3
64	Raman scattering and cathodoluminescence characterization of near lattice-matched InxAl1â^'xN epilayers. Semiconductor Science and Technology, 2008, 23, 105002.	2.0	1
65	Linear and nonlinear optical properties of Si nanocrystals in SiO2 deposited by plasma-enhanced chemical-vapor deposition. Journal of Applied Physics, 2008, 103, .	2.5	78
66	Optical energies of AlInN epilayers. Journal of Applied Physics, 2008, 103, .	2.5	58
67	High quality coupled ring resonators based on silicon clusters slot waveguide. , 2008, , .		2
68	Non-linear optical properties of PECVD Si-nc under nanosecond excitation. , 2007, , .		0
69	Non-Linear Optical Properties of Si Nanocrystals. , 2006, , .		5
70	The Design of a Chain of Spherical Stephenson Mechanisms for a Gearless Robotic Pitch-Roll Wrist. Journal of Mechanical Design, Transactions of the ASME, 2006, 128, 422-429.	2.9	17
71	Lattice order in thulium-doped GaN epilayers: In situ doping versus ion implantation. Optical Materials, 2006, 28, 771-774.	3.6	6
72	Extended X-ray absorption fine structure studies of GaN epilayers doped with Er. Optical Materials, 2006, 28, 785-789.	3.6	9

#	Article	IF	Citations
73	Optical properties of high-temperature annealed Eu-implanted GaN. Optical Materials, 2006, 28, 797-801.	3.6	8
74	UV-Raman scattering study of lattice recovery by thermal annealing of Eu+ -implanted GaN layers. Superlattices and Microstructures, 2006, 40, 440-444.	3.1	1
75	Nonlinear Optical Properties of Si Nanocrystals. Materials Research Society Symposia Proceedings, 2006, 958, 1.	0.1	2
76	Probing the intermixing in In(Ga)Asâˆ•GaAs self-assembled quantum dots by Raman scattering. Journal of Applied Physics, 2006, 99, 043501.	2.5	19
77	Raman-scattering study of the InGaN alloy over the whole composition range. Journal of Applied Physics, 2005, 98, 013511.	2.5	93
78	Structural and optical properties of MOCVD InAlN epilayers. Materials Research Society Symposia Proceedings, 2005, 892, 502.	0.1	4
79	Direct observation of LO phonon-plasmon coupled modes in the infrared transmission spectra ofn-GaAs andnâ”InxGa1â”xAsepilayers. Physical Review B, 2004, 69, .	3.2	25
80	Extended X-ray Absorption Fine Structure Studies of InGaN Epilayers. Materials Research Society Symposia Proceedings, 2004, 831, 421.	0.1	0
81	X-ray Excited Optical Luminescence Studies of InGaN and Rare-Earth Doped GaN Epilayers. Materials Research Society Symposia Proceedings, 2004, 831, 426.	0.1	0
82	The composition dependence of the optical properties of InN-rich InGaN grown by MBE. Materials Research Society Symposia Proceedings, 2004, 831, 479.	0.1	3
83	Extended X-ray absorption fine structure studies of thulium doped GaN epilayers. Superlattices and Microstructures, 2004, 36, 729-736.	3.1	9
84	Anomalous dispersion with excitation wavelength of longitudinal optical phononâ€“plasmon coupled modes in n-InGaAs. Journal of Physics Condensed Matter, 2004, 16, 971-978.	1.8	0
85	Study of the electrical activation of Si+-implanted InGaAs by means of Raman scattering. Journal of Applied Physics, 2003, 93, 2659-2662.	2.5	7
86	Strain relaxation in stacked InAs/GaAs quantum dots studied by Raman scattering. Applied Physics Letters, 2003, 83, 3069-3071.	3.3	36
87	Evidence of phosphorus incorporation into InGaAs/InP epilayers after thermal annealing. Journal of Applied Physics, 2003, 93, 9019-9023.	2.5	10
88	MICRO-RAMAN STUDY OF SURFACE ALTERATIONS IN InGaAs AFTER THERMAL ANNEALING TREATMENTS. International Journal of Modern Physics B, 2002, 16, 4401-4404.	2.0	0
89	Raman scattering by LO phonon-plasmon coupled modes inn-typeIn0.53Ga0.47As. Physical Review B, 2001, 65, .	3.2	31
90	Lattice damage study of implanted InGaAs by means of Raman spectroscopy. Journal of Luminescence, 2000, 87-89, 721-723.	3.1	5

#	Article	IF	Citations
91	Quantum-dot phonons in self-assembled InAs/GaAs quantum dots: Dependence on the coverage thickness. Applied Physics Letters, 2000, 77, 3556-3558.	3.3	34
92	Electrical and Optical Characterisation of Silicon Nanocrystals Embedded in SiC. Solid State Phenomena, 0, 205-206, 480-485.	0.3	6