

Sergi Hernandez

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3461335/publications.pdf>

Version: 2024-02-01

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	Ultrafast All-Optical Switching in a Silicon-Nanocrystal-Based Silicon Slot Waveguide at Telecom Wavelengths. <i>Nano Letters</i> , 2010, 10, 1506-1511.	9.1	218
2	Effect of curing cycle on void distribution and interlaminar shear strength in polymer-matrix composites. <i>Composites Science and Technology</i> , 2011, 71, 1331-1341.	7.8	131
3	Optimization of curing cycle in carbon fiber-reinforced laminates: Void distribution and mechanical properties. <i>Composites Science and Technology</i> , 2013, 85, 73-82.	7.8	101
4	Raman-scattering study of the InGaN alloy over the whole composition range. <i>Journal of Applied Physics</i> , 2005, 98, 013511.	2.5	93
5	Linear and nonlinear optical properties of Si nanocrystals in SiO ₂ deposited by plasma-enhanced chemical-vapor deposition. <i>Journal of Applied Physics</i> , 2008, 103, .	2.5	78
6	Silicon nanocluster crystallization in SiO _x films studied by Raman scattering. <i>Journal of Applied Physics</i> , 2008, 104, .	2.5	71
7	Optical energies of AlInN epilayers. <i>Journal of Applied Physics</i> , 2008, 103, .	2.5	58
8	Far-infrared transmission in GaN, AlN, and AlGaIn thin films grown by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2008, 104, 033544.	2.5	43
9	Determining the crystalline degree of silicon nanoclusters/SiO ₂ multilayers by Raman scattering. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	39
10	Strain relaxation in stacked InAs/GaAs quantum dots studied by Raman scattering. <i>Applied Physics Letters</i> , 2003, 83, 3069-3071.	3.3	36
11	Up-conversion effect of Er- and Yb-doped ZnO thin films. <i>Thin Solid Films</i> , 2014, 562, 456-461.	1.8	36
12	Quantum-dot phonons in self-assembled InAs/GaAs quantum dots: Dependence on the coverage thickness. <i>Applied Physics Letters</i> , 2000, 77, 3556-3558.	3.3	34
13	Silicon nanocrystals in carbide matrix. <i>Solar Energy Materials and Solar Cells</i> , 2014, 128, 138-149.	6.2	34
14	Pushing the Composition Limit of Anisotropic Ge _{1-x} Sn _x Nanostructures and Determination of Their Thermal Stability. <i>Chemistry of Materials</i> , 2017, 29, 9802-9813.	6.7	33
15	Raman scattering by LO phonon-plasmon coupled modes in In _{0.53} Ga _{0.47} As. <i>Physical Review B</i> , 2001, 65, .	3.2	31
16	Blue luminescence at room temperature in defective MgO films. <i>Solid State Communications</i> , 2011, 151, 751-753.	1.9	28
17	Charge transport and electroluminescence of silicon nanocrystals/SiO ₂ superlattices. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	27
18	High-pressure Raman scattering in bulk HfS ₂ : comparison of density functional theory methods in layered MS ₂ compounds (M = Hf, Mo) under compression. <i>Scientific Reports</i> , 2018, 8, 12757.	3.3	26

#	ARTICLE	IF	CITATIONS
19	Direct observation of LO phonon-plasmon coupled modes in the infrared transmission spectra of n-GaAs and In _x Ga _{1-x} As epilayers. <i>Physical Review B</i> , 2004, 69, .	3.2	25
20	Annealing temperature and barrier thickness effect on the structural and optical properties of silicon nanocrystals/SiO ₂ superlattices. <i>Journal of Applied Physics</i> , 2014, 116, 133505.	2.5	24
21	Structural and optical properties of dilute InAsN grown by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2010, 108, .	2.5	20
22	Probing the intermixing in In(Ga)As/GaAs self-assembled quantum dots by Raman scattering. <i>Journal of Applied Physics</i> , 2006, 99, 043501.	2.5	19
23	Structural, optical and electrical properties of silicon nanocrystals embedded in Si _x C _{1-x} /SiC multilayer systems for photovoltaic applications. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2013, 178, 639-644.	3.5	19
24	Retrieving the electronic properties of silicon nanocrystals embedded in a dielectric matrix by low-loss EELS. <i>Nanoscale</i> , 2014, 6, 14971-14983.	5.6	18
25	High Quality Inkjet Printed Emissive Nanocrystalline Perovskite CsPbBr ₃ Layers for Color Conversion Layer and LEDs Applications. <i>Advanced Materials Technologies</i> , 2022, 7, .	5.8	18
26	The Design of a Chain of Spherical Stephenson Mechanisms for a Gearless Robotic Pitch-Roll Wrist. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2006, 128, 422-429.	2.9	17
27	Structural and optical characterization of size controlled silicon nanocrystals in SiO ₂ /SiO _x N _y multilayers. <i>Energy Procedia</i> , 2011, 10, 43-48.	1.8	16
28	Organosilane-functionalization of nanostructured indium tin oxide films. <i>Interface Focus</i> , 2016, 6, 20160056.	3.0	16
29	Influence of post annealing treatments on the luminescence of rare earth ions in ZnO:Tb,Eu/Si heterojunction. <i>Applied Surface Science</i> , 2021, 556, 149754.	6.1	16
30	Lattice dynamics study of cubic Tb ₂ O ₃ . <i>Journal of Raman Spectroscopy</i> , 2018, 49, 2021-2027.	2.5	15
31	Silicon nanocrystals from high-temperature annealing: Characterization on device level. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 669-675.	1.8	14
32	Electro-optical Properties of Non-stoichiometric Silicon Nitride Films for Photovoltaic Applications. <i>Energy Procedia</i> , 2014, 44, 145-150.	1.8	14
33	Structural parameters effect on the electrical and electroluminescence properties of silicon nanocrystals/SiO ₂ superlattices. <i>Nanotechnology</i> , 2015, 26, 185704.	2.6	13
34	Abellaite, NaPb ₂ (CO ₃) ₂ (OH), a new supergene mineral from the Eureka mine, Lleida province, Catalonia, Spain. <i>European Journal of Mineralogy</i> , 2017, 29, 915-922.	1.3	13
35	Toward RGB LEDs based on rare earth-doped ZnO. <i>Nanotechnology</i> , 2020, 31, 465207.	2.6	13
36	Resistive switching and charge transport mechanisms in ITO/ZnO/p-Si devices. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	12

#	ARTICLE	IF	CITATIONS
37	Activation of visible up-conversion luminescence in transparent and conducting ZnO:Er:Yb films by laser annealing. <i>Journal of Luminescence</i> , 2015, 167, 101-105.	3.1	11
38	Memristive behaviour of Si-Al oxynitride thin films: the role of oxygen and nitrogen vacancies in the electroforming process. <i>Nanotechnology</i> , 2018, 29, 235702.	2.6	11
39	Evidence of phosphorus incorporation into InGaAs/InP epilayers after thermal annealing. <i>Journal of Applied Physics</i> , 2003, 93, 9019-9023.	2.5	10
40	Silicon nanocrystals embedded in silicon carbide as a wide-band gap photovoltaic material. <i>Solar Energy Materials and Solar Cells</i> , 2016, 144, 551-558.	6.2	10
41	Light-activated electroforming in ITO/ZnO/Si resistive switching devices. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	10
42	Extended X-ray absorption fine structure studies of thulium doped GaN epilayers. <i>Superlattices and Microstructures</i> , 2004, 36, 729-736.	3.1	9
43	Extended X-ray absorption fine structure studies of GaN epilayers doped with Er. <i>Optical Materials</i> , 2006, 28, 785-789.	3.6	9
44	Comparative study of Si precipitation in silicon-rich oxide films. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2009, 41, 990-993.	2.7	9
45	Comparative study of the nonlinear optical properties of Si nanocrystals fabricated by e-beam evaporation, PECVD or LPCVD. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011, 8, 969-973.	0.8	9
46	Tailoring the surface density of silicon nanocrystals embedded in SiOx single layers. <i>Journal of Applied Physics</i> , 2013, 114, 233101.	2.5	9
47	Optical emission from SiO_2 embedded silicon nanocrystals: A high-pressure Raman and photoluminescence study. <i>Physical Review B</i> , 2015, 92, .	3.2	9
48	Investigation on the structural changes of ZnO:Er:Yb thin film during laser annealing to fabricate a transparent conducting upconverter. <i>Journal of Luminescence</i> , 2017, 185, 112-119.	3.1	9
49	Effect of Si_3N_4 -Mediated Inversion Layer on the Electroluminescence Properties of Silicon Nanocrystal Superlattices. <i>Advanced Electronic Materials</i> , 2018, 4, 1700666.	5.1	9
50	Structural and High-Pressure Properties of Rheniite (ReS_2) and $(\text{Re},\text{Mo})\text{S}_2$. <i>Minerals (Basel)</i> , 2019, 9, 222.	2.0	9
51	Optical properties of high-temperature annealed Eu-implanted GaN. <i>Optical Materials</i> , 2006, 28, 797-801.	3.6	8
52	Silicon nanocrystals-based electroluminescent resistive switching device. <i>Journal of Applied Physics</i> , 2019, 126, .	2.5	8
53	Study of the electrical activation of Si^+ -implanted InGaAs by means of Raman scattering. <i>Journal of Applied Physics</i> , 2003, 93, 2659-2662.	2.5	7
54	Electrochemical characterization of organosilane-functionalized nanostructured ITO surfaces. <i>Applied Physics Letters</i> , 2016, 109, 063109.	3.3	7

#	ARTICLE	IF	CITATIONS
55	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
56	Lattice order in thulium-doped GaN epilayers: In situ doping versus ion implantation. Optical Materials, 2006, 28, 771-774.	3.6	6
57	Electrical and Optical Characterisation of Silicon Nanocrystals Embedded in SiC. Solid State Phenomena, 0, 205-206, 480-485.	0.3	6
58	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
59	Lattice damage study of implanted InGaAs by means of Raman spectroscopy. Journal of Luminescence, 2000, 87-89, 721-723.	3.1	5
60	Non-Linear Optical Properties of Si Nanocrystals. , 2006, , .		5
61	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
62	Structural and optical properties of MOCVD InAlN epilayers. Materials Research Society Symposia Proceedings, 2005, 892, 502.	0.1	4
63	Optical nonlinearities in Si-nanocrystals at 1064 nm excited by nanosecond-pulses. Journal of Applied Physics, 2010, 108, .	2.5	4
64	Structural and optical properties of Al-Tb/SiO ₂ multilayers fabricated by electron beam evaporation. Journal of Applied Physics, 2016, 120, .	2.5	4
65	Heterogeneous distribution of B-site cations in BaZr _x Ti _{1-x} O ₃ epitaxial thin films grown on (001) SrTiO ₃ by pulsed laser deposition. Applied Surface Science, 2016, 381, 12-16.	6.1	4
66	Pathways of carrier recombination in Si/SiO ₂ nanocrystal superlattices. Journal of Applied Physics, 2019, 126, 163101.	2.5	4
67	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
68	Non linear optical properties of Silicon nanocrystals for applications in photonic logic gates devices.. , 2008, , .		3
69	Bulk silica-based luminescent materials by sol-gel processing of non-conventional precursors. Applied Physics Letters, 2012, 101, 171908.	3.3	3
70	New strategies in laser processing of TCOs for light management improvement in thin-film silicon solar cells. Proceedings of SPIE, 2014, , .	0.8	3
71	Transparent Conducting Oxides for Optoelectronics and Biosensing Applications. , 2018, , .		3
72	Nonlinear Optical Properties of Si Nanocrystals. Materials Research Society Symposia Proceedings, 2006, 958, 1.	0.1	2

#	ARTICLE	IF	CITATIONS
73	High quality coupled ring resonators based on silicon clusters slot waveguide. , 2008, , .		2
74	Observation of Room Temperature Photoluminescence from Asymmetric CuGaO ₂ /ZnO/ZnMgO Multiple Quantum Well Structures. Journal of Nanoscience and Nanotechnology, 2015, 15, 3944-3950.	0.9	2
75	Size-Controlled Si Nanocrystals Fabricated by Electron Beam Evaporation. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800619.	1.8	2
76	Photoelectrical reading in ZnO/Si NCs/p-Si resistive switching devices. Applied Physics Letters, 2020, 116, 193503.	3.3	2
77	Ultraviolet, visible and near infrared photoresponse of SiO ₂ /Si/SiO ₂ multilayer system into a MOS capacitor. Materials Science in Semiconductor Processing, 2021, 134, 106009.	4.0	2
78	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
79	Raman scattering and cathodoluminescence characterization of near lattice-matched In _x Al _{1-x} N epilayers. Semiconductor Science and Technology, 2008, 23, 105002.	2.0	1
80	Effect of the annealing treatments on the transport and electroluminescence properties of SiO ₂ layers doped with Er and Si nanoclusters.. Materials Research Society Symposia Proceedings, 2011, 1289, 511.	0.1	1
81	Luminescence yield in Al and Tb ³⁺ -doped oxide thin films fabricated by electron beam evaporation. , 2015, , .		1
82	Green Electroluminescence of Al/Tb/Al/SiO ₂ Devices Fabricated by Electron Beam Evaporation. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700451.	1.8	1
83	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
84	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
85	Extended X-ray Absorption Fine Structure Studies of InGaN Epilayers. Materials Research Society Symposia Proceedings, 2004, 831, 421.	0.1	0
86	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
87	Anomalous dispersion with excitation wavelength of longitudinal optical phonon-plasmon coupled modes in n-InGaAs. Journal of Physics Condensed Matter, 2004, 16, 971-978.	1.8	0
88	Non-linear optical properties of PECVD Si-nc under nanosecond excitation. , 2007, , .		0
89	Quantum phenomena during electron transport in InAs nanowires. , 2010, , .		0
90	Electrical and electroluminescence properties of silicon nanocrystals/SiO ₂ superlattices. Proceedings of SPIE, 2014, , .	0.8	0

#	ARTICLE	IF	CITATIONS
91	(Invited) Transport and Electroluminescence Properties of Size-Controlled Silicon Nanocrystals Embedded in SiO ₂ Matrix Following the Superlattice Approach. ECS Transactions, 2014, 61, 133-139.	0.5	0
92	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