

# Susana Fernández

## List of Publications by Year in descending order

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66  
papers

867  
citations

516710

16  
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552781

26  
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68  
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docs citations

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967  
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#	ARTICLE	IF	CITATIONS
1	Optimization of aluminum-doped zinc oxide films deposited at low temperature by radio-frequency sputtering on flexible substrates for solar cell applications. <i>Solar Energy Materials and Solar Cells</i> , 2010, 94, 157-163.	6.2	106
2	Radio frequency sputter deposition of high-quality conductive and transparent ZnO:Al films on polymer substrates for thin film solar cells applications. <i>Thin Solid Films</i> , 2009, 517, 3152-3156.	1.8	93
3	Resonant-cavity InGaN multiple-quantum-well green light-emitting diode grown by molecular-beam epitaxy. <i>Applied Physics Letters</i> , 2002, 80, 2198-2200.	3.3	43
4	High quality textured ZnO:Al surfaces obtained by a two-step wet-chemical etching method for applications in thin film silicon solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 2281-2286.	6.2	41
5	Effect of argon plasma-treated polyethylene terephthalate on ZnO:Al properties for flexible thin film silicon solar cells applications. <i>Solar Energy Materials and Solar Cells</i> , 2015, 133, 170-179.	6.2	28
6	High-quality distributed Bragg reflectors based on $\text{Al}_x\text{Ga}_{1-x}\text{N}/\text{GaN}$ multilayers grown by molecular-beam epitaxy. <i>Applied Physics Letters</i> , 2001, 79, 2136-2138.	3.3	25
7	In situ growth monitoring of distributed GaN/AlGaN Bragg reflectors by metalorganic vapor phase epitaxy. <i>Applied Physics Letters</i> , 2002, 80, 174-176.	3.3	23
8	Structural and optical characterization of thick InGaN layers and InGaN/GaN MQW grown by molecular beam epitaxy. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2002, 93, 131-134.	3.5	22
9	The influence of Ar pressure on the structure and optical properties of non-hydrogenated a-Si thin films grown by rf magnetron sputtering onto room-temperature glass substrates. <i>Journal of Non-Crystalline Solids</i> , 2019, 517, 32-43.	3.1	22
10	Resonant Raman scattering in strained and relaxed InGaN/GaN multi-quantum wells. <i>Applied Physics Letters</i> , 2005, 86, 061905.	3.3	21
11	Studies of optical properties of ZnO:MgO thin films fabricated by sputtering from home-made stable oversized targets. <i>Optik</i> , 2020, 216, 164934.	2.9	19
12	Preparation and quality assessment of CuS thin films encapsulated in glass. <i>Thin Solid Films</i> , 2012, 520, 4184-4189.	1.8	18
13	Experimental Characterisation of GaN-Based Resonant Cavity Light Emitting Diodes. <i>Physica Status Solidi A</i> , 2002, 192, 97-102.	1.7	17
14	Thermal stability of sputtered Mo/polyimide films and formation of MoSe <sub>2</sub> and MoS <sub>2</sub> layers for application in flexible Cu(In,Ga)(Se,S) <sub>2</sub> based solar cells. <i>Thin Solid Films</i> , 2012, 520, 4163-4168.	1.8	17
15	Etching process optimization using NH <sub>4</sub> Cl aqueous solution to texture ZnO:Al films for efficient light trapping in flexible thin film solar cells. <i>Thin Solid Films</i> , 2012, 520, 4144-4149.	1.8	17
16	MBE-grown high-quality (Al,Ga)N/GaN distributed Bragg reflectors for resonant cavity LEDs. <i>Semiconductor Science and Technology</i> , 2001, 16, 913-917.	2.0	16
17	Nitride RCLEDs Grown by MBE for POF Applications. <i>Physica Status Solidi A</i> , 2002, 192, 277-285.	1.7	16
18	Transport Mechanisms and Dielectric Features of Mg-Doped ZnO Nanocrystals for Device Applications. <i>Materials</i> , 2022, 15, 2265.	2.9	16

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19	Optimization of ZnO:Al based back reflectors for applications in thin film flexible solar cells. Vacuum, 2014, 99, 56-61.	3.5	15
20	Advanced Graphene-Based Transparent Conductive Electrodes for Photovoltaic Applications. Micromachines, 2019, 10, 402.	2.9	15
21	Development of CuO nanoporous material as a highly efficient optoelectronic device. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	2.3	14
22	Promising Cr-Doped ZnO Nanorods for Photocatalytic Degradation Facing Pollution. Applied Sciences (Switzerland), 2022, 12, 34.	2.5	14
23	Influence of deposition conditions on nanocrystalline InN layers synthesized on Si(111) and GaN templates by RF sputtering. Journal of Crystal Growth, 2010, 312, 2689-2694.	1.5	13
24	Processing and Study of Optical and Electrical Properties of (Mg, Al) Co-Doped ZnO Thin Films Prepared by RF Magnetron Sputtering for Photovoltaic Application. Materials, 2020, 13, 2146.	2.9	13
25	Effect of the implantation temperature on lattice damage of Be <sup>+</sup> -implanted GaN. Semiconductor Science and Technology, 2005, 20, 374-377.	2.0	12
26	Texture optimization process of ZnO:Al thin films using NH <sub>4</sub> Cl aqueous solution for applications as antireflective coating in thin film solar cells. Thin Solid Films, 2012, 520, 4698-4702.	1.8	11
27	Development of two-step etching approach for aluminium doped zinc oxide using a combination of standard HCl and NH <sub>4</sub> Cl etch steps. Thin Solid Films, 2012, 520, 4678-4684.	1.8	11
28	Graphene-Based Contacts for Optoelectronic Devices. Micromachines, 2020, 11, 919.	2.9	11
29	Plasma-assisted MBE growth of group-III nitrides: from basics to device applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 93, 189-196.	3.5	10
30	Low resistance Ti <sup>+</sup> •Al <sup>+</sup> •Ti <sup>+</sup> W <sup>+</sup> •Au Ohmic contact to n-GaN for high temperature applications. Applied Physics Letters, 2007, 90, 083504.	3.3	10
31	Selective ablation of photovoltaic materials with UV laser sources for monolithic interconnection of devices based on a-Si:H. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 159-160, 18-22.	3.5	10
32	Nanosecond laser ablation processes in aluminum-doped zinc-oxide for photovoltaic devices. Applied Surface Science, 2012, 258, 9447-9451.	6.1	10
33	Graphene-Based Electrodes for Silicon Heterojunction Solar Cell Technology. Materials, 2021, 14, 4833.	2.9	10
34	Study of (Al,Ga)N Bragg Mirrors Grown on Al <sub>2</sub> O <sub>3</sub> (0001) and Si(111) by Metalorganic Vapor Phase Epitaxy. Physica Status Solidi A, 2001, 188, 899-903.	1.7	9
35	Tailored amorphous ITAZO transparent conductive electrodes. Materials Science in Semiconductor Processing, 2019, 90, 252-258.	4.0	9
36	Evaluation of Cd <sub>x</sub> Zn <sub>1-x</sub> S as electron transport layer in superstrate and inverted configurations of Sb <sub>2</sub> Se <sub>3</sub> solar cells with n-i-p structure. Semiconductor Science and Technology, 2021, 36, 015016.	2.0	9

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37	Optical Characterization of H-Free a-Si Layers Grown by rf-Magnetron Sputtering by Inverse Synthesis Using Matlab: Taucâ€“Lorentzâ€“Urbach Parameterization. <i>Coatings</i> , 2021, 11, 1324.	2.6	9
38	Tailoring of microstructure and optoelectronic properties of Aluminum doped Zinc Oxide changing gun tilt. <i>Materials Science in Semiconductor Processing</i> , 2017, 63, 115-121.	4.0	8
39	Highâ€“surfaceâ€“quality nanocrystalline InN layers deposited on GaN templates by RF sputtering. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011, 208, 65-69.	1.8	6
40	Influence of the AlN interlayer thickness on the photovoltaic properties of in-rich AlInN on Si heterojunctions deposited by RF sputtering. <i>AIP Advances</i> , 2018, 8, .	1.3	6
41	Photon-collection improvement from laser-textured AZO front-contact in thin-film solar cells. <i>Applied Surface Science</i> , 2019, 463, 775-780.	6.1	6
42	High-Quality Distributed Bragg Reflectors for Resonant-Cavity Light-Emitting Diode Applications. <i>Physica Status Solidi A</i> , 2002, 192, 389-393.	1.7	5
43	Cause of the fill factor loss of a-Si:H pâ€“iâ€“n devices with ZnO:Al front electrode: Blocking contact vs. defect density. <i>Thin Solid Films</i> , 2013, 548, 617-622.	1.8	5
44	Further Increasing the Accuracy of Characterization of a Thin Dielectric or Semiconductor Film on a Substrate from Its Interference Transmittance Spectrum. <i>Materials</i> , 2021, 14, 4681.	2.9	5
45	From Ultraviolet to Green InGaN-Based Conventional and Resonant-Cavity Light-Emitting Diodes Grown by Molecular Beam Epitaxy. <i>Physica Status Solidi A</i> , 2002, 192, 341-347.	1.7	4
46	Growth and characterization of high-quality 10-period AlGaIn/GaN Bragg reflectors grown by molecular beam epitaxy. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2002, 93, 31-34.	3.5	4
47	Non-linear properties of nitride-based nanostructures for optically controlling the speed of light at 1.514 $\mu$ m. <i>Microelectronics Journal</i> , 2009, 40, 349-352.	2.0	4
48	Applications of ZnO:Al deposited by RF sputtering to InN lowâ€“cost technology. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2010, 207, 1717-1721.	1.8	4
49	Infrared photoluminescence of high Inâ€“content InN/InGaIn multipleâ€“quantumâ€“wells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012, 209, 17-20.	1.8	4
50	Influence of substrate biasing on the growth of c-axis oriented AlN thin films by RF reactive sputtering in pure nitrogen. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 1074-1078.	0.8	4
51	III-Nitrides Resonant Cavity Photodetector Devices. <i>Materials</i> , 2020, 13, 4428.	2.9	4
52	Sputtered Ultrathin TiO <sub>2</sub> as Electron Transport Layer in Silicon Heterojunction Solar Cell Technology. <i>Nanomaterials</i> , 2022, 12, 2441.	4.1	4
53	Performance enhancement of ohmic contact on n-GaN using Tiâ€“W as metal barrier. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2007, 143, 55-59.	3.5	3
54	Optimization of surface morphology and electrical properties of Ti/Al/Tiâ€“W/Au ohmic contacts to n-GaN by two-step annealing method. <i>Semiconductor Science and Technology</i> , 2008, 23, 045021.	2.0	3

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55	Non-treated low temperature indium tin oxide fabricated in oxygen-free environment to low-cost silicon-based solar technology. <i>Vacuum</i> , 2021, 184, 109783.	3.5	3
56	Sputtered Non-Hydrogenated Amorphous Silicon as Alternative Absorber for Silicon Photovoltaic Technology. <i>Materials</i> , 2021, 14, 6550.	2.9	3
57	Roles of Low Temperature Sputtered Indium Tin Oxide for Solar Photovoltaic Technology. <i>Materials</i> , 2021, 14, 7758.	2.9	3
58	Development of algorithm for computer drawing envelopes of interference reflectance spectra for thin film specimens. <i>Optik</i> , 2017, 132, 320-328.	2.9	2
59	Amorphous ITAZO films as advanced coatings for cost-effective silicon based photovoltaic device technology. <i>Materials Today: Proceedings</i> , 2018, 5, 13694-13702.	1.8	1
60	Resonant Raman Scattering in Strained and Relaxed In <sub>x</sub> Ga <sub>1-x</sub> N/GaN Multiple Quantum Wells. <i>Materials Science Forum</i> , 2005, 494, 19-24.	0.3	0
61	Resonant Raman Study of Strain and Composition in InGaN Multiquantum Wells. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	0
62	Novel nitride - based materials for nonlinear optical signal processing applications at 1.5 $\mu$ m. , 2007, , .		0
63	Development of ZnO:Al-based transparent contacts deposited at low-temperature by RF-sputtering on InN layers. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 1065-1069.	0.8	0
64	Laser texturing of ZnO:Al front contact for efficiency enhancement in thin-film silicon solar cells. , 2013, , .		0
65	Accurate characterization of film on substrate transmitting specimens by the envelope method. , 2016, , .		0
66	ITO-Based Selective Contacts for Silicon Solar Devices. , 2018, , .		0