

Caterina Summonte

List of Publications by Year in descending order

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331538

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docs citations

101
times ranked

1446
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly Stable Thin Films Based on Novel Hybrid 1D (PRSH)PbX ₃ Pseudo-Perovskites. <i>Nanomaterials</i> , 2021, 11, 2765.	1.9	0
2	Simulation of the optical properties of gold nanoparticles on sodium alginate. <i>EPJ Web of Conferences</i> , 2021, 255, 08002.	0.1	1
3	A ternary 3D analysis of the optical properties of amorphous hydrogenated silicon-rich carbide. <i>Materials Chemistry and Physics</i> , 2019, 221, 301-310.	2.0	0
4	Local epitaxy from the silicon substrate in silicon-rich SiC during Si nanocrystals formation. <i>Thin Solid Films</i> , 2017, 628, 54-60.	0.8	1
5	Optical bandgap of semiconductor nanostructures: Methods for experimental data analysis. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	37
6	Monolithic Si nanocrystal/crystalline Si tandem cells involving Si nanocrystals in SiC. <i>Progress in Photovoltaics: Research and Applications</i> , 2016, 24, 1165-1177.	4.4	6
7	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.	3.0	10
8	Charge transport in nanocrystalline SiC with and without embedded Si nanocrystals. <i>Physical Review B</i> , 2015, 91, .	1.1	8
9	Absorption and emission of silicon nanocrystals embedded in SiC: Eliminating Fabry-Pérot interference. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	10
10	Graphene as transparent conducting layer for high temperature thin film device applications. <i>Solar Energy Materials and Solar Cells</i> , 2015, 138, 35-40.	3.0	18
11	Electrical properties of silicon carbide/silicon rich carbide multilayers for photovoltaic applications. <i>Solar Energy Materials and Solar Cells</i> , 2015, 135, 29-34.	3.0	10
12	Boron diffusion in nanocrystalline 3C-SiC. <i>Applied Physics Letters</i> , 2014, 104, 213108.	1.5	3
13	Tail absorption in the determination of optical constants of silicon rich carbides. <i>Thin Solid Films</i> , 2014, 556, 105-111.	0.8	11
14	Transparent Conducting Oxides for High Temperature Processing. <i>Energy Procedia</i> , 2014, 44, 23-31.	1.8	5
15	Nanocrystalline SiC formed by annealing of a-SiC:H on Si substrates: A study of dopant interdiffusion. <i>Journal of Applied Physics</i> , 2014, 116, 024315.	1.1	5
16	Progress towards a high-performing a-Si:H-based electro-optic modulator. <i>Journal of Optics (United Kingdom)</i> , 2014, 16, 142001.	1.0	4
17	Silicon nanocrystals in carbide matrix. <i>Solar Energy Materials and Solar Cells</i> , 2014, 128, 138-149.	3.0	34
18	High-Bandgap Silicon Nanocrystal Solar Cells: Device Fabrication, Characterization, and Modeling. <i>Springer Series in Materials Science</i> , 2014, , 165-194.	0.4	3

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19	Boron doping of silicon rich carbides: Electrical properties. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 551-558.	1.7	18
20	Identification and tackling of a parasitic surface compound in SiC and Si-rich carbide films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 623-629.	1.7	11
21	Silicon nanocrystals embedded in silicon carbide: Investigation of charge carrier transport and recombination. Applied Physics Letters, 2013, 102, 033507.	1.5	26
22	Electro-optical effect in hydrogenated amorphous silicon-based waveguide-integrated p-i-p and p-i-n configurations. Optical Engineering, 2013, 52, 087110.	0.5	8
23	Influence of boron doping and hydrogen passivation on recombination of photoexcited charge carriers in silicon nanocrystal/SiC multilayers. Journal of Applied Physics, 2013, 114, .	1.1	7
24	Analytical Expression for the Imaginary Part of the Dielectric Constant of Microcrystalline Silicon. Research and Application of Material, 2013, 1, 9.	0.4	2
25	Amorphous silicon waveguides grown by PECVD on an Indium Tin Oxide buried contact. Optics Communications, 2012, 285, 3088-3092.	1.0	8
26	Optical And Electrical Properties Of Si Nanocrystals Embedded In SiC Matrix. Advanced Materials Letters, 2012, 3, 297-304.	0.3	22
27	Characterization of an electrically induced refractive index change in a hydrogenated amorphous silicon multistack waveguide. , 2011, , .		1
28	Electro-optical modulation at 1550 nm in an as-deposited hydrogenated amorphous silicon p-i-n waveguiding device. Optics Express, 2011, 19, 2941.	1.7	33
29	TMAH-textured, a-Si/c-Si, heterojunction solar cells with 10% reflectance. Solar Energy Materials and Solar Cells, 2011, 95, 2987-2987.	3.0	20
30	Heterojunction solar cells on multi- crystalline silicon: surface treatments. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 928-931.	0.8	0
31	Optical properties of silicon rich oxides. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 996-1001.	0.8	1
32	Electro-Optical Modulating Multistack Device Based on the CMOS-Compatible Technology of Amorphous Silicon. Lecture Notes in Electrical Engineering, 2011, , 285-289.	0.3	0
33	Electrooptical Modulating Device Based on a CMOS-Compatible α -Si:H/SiCN Multistack Waveguide. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 173-178.	1.9	16
34	Experimental determination of the sensitivity of Bloch Surface Waves based sensors. Optics Express, 2010, 18, 8087.	1.7	96
35	Amorphous silicon waveguides grown by PECVD on an Indium Tin Oxide buried contact. , 2010, , .		0
36	Fluorescence emission enhanced by surface electromagnetic waves on one-dimensional photonic crystals. Applied Physics Letters, 2009, 94, .	1.5	54

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37	Electro-optically induced absorption in $\hat{I}\pm$ -Si:H/ $\hat{I}\pm$ -SiCN waveguiding multistacks. Optics Express, 2008, 16, 7540.	1.7	32
38	Photoinduced absorption in B-doped hydrogenated amorphous silicon alloys applied to all-optical modulators. Journal of Applied Physics, 2008, 103, 023107.	1.1	5
39	Design, fabrication, and characterization of an $\hat{I}\pm$ -Si:H/ $\hat{I}\pm$ -SiCN multistack waveguide for electro optical modulation. , 2008, , .		0
40	Design study of micromachined thermal emitters for NDIR gas sensing in the 9-12 μm wavelength range. Proceedings of IEEE Sensors, 2007, , .	1.0	5
41	Study of in-gap defects in intrinsic and B-doped a-Si $\hat{I}\pm$:Cx:H by photo-induced optical absorption and photoluminescence. Journal of Non-Crystalline Solids, 2006, 352, 2647-2651.	1.5	1
42	Influence of the sputtering system's vacuum level on the properties of indium tin oxide films. Thin Solid Films, 2006, 500, 203-208.	0.8	28
43	In-guide pump and probe characterization of photoinduced absorption in hydrogenated amorphous silicon thin films. Journal of Applied Physics, 2006, 100, 033104.	1.1	9
44	All-optical modulation in thin film silicon-based waveguiding structures. , 2005, , .		0
45	Silicon nanograins with aluminum contacts studied by the Density Functional method. Materials Science and Engineering C, 2005, 25, 695-697.	3.8	1
46	Wide band-gap silicon-carbon alloys deposited by very high frequency plasma enhanced chemical vapor deposition. Journal of Applied Physics, 2004, 96, 3987-3997.	1.1	36
47	Laser induced crystallization of hydrogenated amorphous silicon-carbon alloys. Journal of Applied Physics, 2004, 96, 3998-4005.	1.1	6
48	Silicon heterojunction solar cells with p nanocrystalline thin emitter on monocrystalline substrate. Thin Solid Films, 2004, 451-452, 350-354.	0.8	15
49	In-guide measurement of the infra red absorption variation induced in hydrogenated amorphous silicon by visible radiation. Journal of Non-Crystalline Solids, 2004, 338-340, 249-253.	1.5	6
50	Silicon heterojunction solar cells with microcrystalline emitter. Journal of Non-Crystalline Solids, 2004, 338-340, 706-709.	1.5	5
51	Microcrystalline silicon $\hat{I}\pm$ photodetectors for telecommunications and photovoltaic applications. Journal of Non-Crystalline Solids, 2004, 338-340, 784-787.	1.5	1
52	Optimization of ITO layers for applications in a-Si/c-Si heterojunction solar cells. Thin Solid Films, 2003, 425, 185-192.	0.8	85
53	Application of nanotechnologies in high energy physics. Nuclear Physics, Section B, Proceedings Supplements, 2003, 125, 164-168.	0.5	8
54	Low-cost VLSI-compatible resonant-cavity-enhanced p-i-n in micron-Si operating at the VCSEL wavelengths around 850 nm. , 2003, , .		1

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55	Amorphous silicon thin film for all-optical micromodulator. , 2003, , .		0
56	Parametrization of optical properties of indium-tin oxide thin films by spectroscopic ellipsometry: Substrate interfacial reactivity. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 37-42.	0.9	65
57	Open circuit voltage in homojunction and heterojunction silicon solar cells grown by VHF-PECVD. Journal of Non-Crystalline Solids, 2002, 299-302, 1203-1207.	1.5	18
58	Low-cost chip-integrable silicon-based all-optical infrared light micromodulator. Journal of Non-Crystalline Solids, 2002, 299-302, 1300-1303.	1.5	5
59	Stopping power of SiO ₂ for 0.2-3.0 MeV He ions. Nuclear Instruments & Methods in Physics Research B, 2002, 196, 209-214.	0.6	13
60	Homojunction and heterojunction silicon solar cells deposited by low temperature-high frequency plasma enhanced chemical vapour deposition. Thin Solid Films, 2002, 405, 248-255.	0.8	25
61	Ultrathin 1/4c-Si films deposited by PECVD. Thin Solid Films, 2001, 383, 7-10.	0.8	13
62	Photoelectrical characterization of Schottky junctions between poly(4h-cyclopenta[2,1-b:3,4-b']dithiophene) and aluminium: effect of hexadecyl groups in 4 position. Thin Solid Films, 2000, 366, 211-215.	0.8	43
63	Anatomy of 1/4c-Si thin films by plasma enhanced chemical vapor deposition: An investigation by spectroscopic ellipsometry. Journal of Applied Physics, 2000, 88, 2408-2414.	1.1	40
64	Very high frequency hydrogen plasma treatment of growing surfaces: a study of the p-type amorphous to microcrystalline silicon transition. Journal of Non-Crystalline Solids, 2000, 266-269, 624-629.	1.5	18
65	a-SiN:H multilayer versus bulk structure: a real improvement of radiative efficiency?. Journal of Non-Crystalline Solids, 2000, 266-269, 1062-1066.	1.5	7
66	Plasma-enhanced chemical vapour deposition of microcrystalline silicon: On the dynamics of the amorphous-microcrystalline interface by optical methods. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 459-473.	0.6	13
67	Photocurrent collection in a-SiC:H/c-Si heterojunction solar cells. Journal of Non-Crystalline Solids, 1998, 227-230, 1291-1294.	1.5	26
68	Photoluminescence and electroluminescence properties of a-Si _{1-x} N _x :H based superlattice structures. Journal of Non-Crystalline Solids, 1998, 227-230, 1127-1131.	1.5	5
69	Optical, structural and electrical properties of device-quality hydrogenated amorphous silicon-nitrogen films deposited by plasma-enhanced chemical vapour deposition. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1998, 77, 925-944.	0.6	75
70	Effect of Hydrogen Plasma Treatments at very High Frequency on p-Type Amorphous and Microcrystalline Silicon Films. Materials Research Society Symposia Proceedings, 1998, 536, 517.	0.1	5
71	Photoluminescence and Optical Characterization of a-Si _x N _{1-x} :H based Multilayers Grown by PECVD. Materials Research Society Symposia Proceedings, 1997, 467, 489.	0.1	1
72	Influence of Front Contact Material on Silicon Heterojunction Solar Cell Performance. Materials Research Society Symposia Proceedings, 1997, 467, 807.	0.1	5

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73	Optoelectronic properties, structure and composition of a-SiC:H films grown in undiluted and H ₂ diluted silane-methane plasma. Journal of Applied Physics, 1997, 81, 7973-7980.	1.1	53
74	Compositional, optoelectronic and structural properties of amorphous silicon-nitrogen alloys deposited by plasma enhanced chemical vapor deposition. Journal of Non-Crystalline Solids, 1996, 198-200, 596-600.	1.5	7
75	The sign of the Hall effect in hydrogenated amorphous and disordered crystalline silicon. Philosophical Magazine Letters, 1996, 74, 455-464.	0.5	14
76	Study of a-Si:H / c-Si Heterojunctions for PV Applications. Materials Research Society Symposia Proceedings, 1996, 420, 45.	0.1	5
77	Hall-Effect and Sign Properties in Hydrogenated Amorphous and Disordered Crystalline Silicon. Materials Research Society Symposia Proceedings, 1996, 420, 813.	0.1	0
78	Optimization of relevant deposition parameters for high quality a-SiC:H films. Solar Energy Materials and Solar Cells, 1995, 37, 315-321.	3.0	8
79	Boron and phosphorus doping of a-SiC:H thin films by means of ion implantation. Thin Solid Films, 1995, 265, 113-118.	0.8	5
80	Powder Dissipation in PECVD for SiH ₄ -CH ₄ -H ₂ Gas Mixtures. European Physical Journal Special Topics, 1995, 05, C5-1125-C5-1132.	0.2	0
81	Defect Distribution and Bonding Structure in High Band Gap a-Si _{1-x} C _x :H Films Deposited in H ₂ Dilution. Materials Research Society Symposia Proceedings, 1994, 336, 517.	0.1	6
82	Boron and Phosphorus Ion Implantation In a-SiC _{1-x} :H Thin Films. Materials Research Society Symposia Proceedings, 1994, 336, 571.	0.1	0
83	The influence of hydrogen dilution on the optoelectronic and structural properties of hydrogenated amorphous silicon carbide films. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1994, 69, 377-386.	0.6	35
84	Photoluminescence and photothermal deflection spectroscopy in potassium doped a-Si:H. Journal of Non-Crystalline Solids, 1993, 164-166, 635-638.	1.5	0
85	Light scattering by acoustic phonons in unhydrogenated and hydrogenated amorphous silicon. Journal of Non-Crystalline Solids, 1993, 164-166, 927-930.	1.5	2
86	Spectral behavior of solar cells based on the p-n junction near local defect layer design. Applied Physics Letters, 1993, 63, 785-787.	1.5	20
87	A Quasi-Exact Invertible Equation for Absorption Coefficient from Reflectance and Transmittance Measurements. Materials Research Society Symposia Proceedings, 1993, 297, 395.	0.1	9
88	Excimer Laser Amorphous Silicon Film Crystallization: A Study of Time Resolved Reflectivity Measurements. Materials Research Society Symposia Proceedings, 1993, 297, 539.	0.1	3
89	Optimization of Optoelectronic Properties of a-SiC:H Films. Materials Research Society Symposia Proceedings, 1993, 297, 681.	0.1	1
90	A study on excimer laser amorphous silicon film crystallization. Journal of Non-Crystalline Solids, 1991, 137-138, 725-728.	1.5	5

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91	Surface doping of semiconductors by pulsed-laser irradiation in reactive atmosphere. Applied Physics A: Solids and Surfaces, 1988, 45, 317-324.	1.4	45
92	Strain and surface damage induced by proton exchange in LiNbO_3 . Journal of Applied Physics, 1985, 58, 4521-4524.	1.1	46
93	Properties of TiN obtained by N ² implantation on Ti-coated Si wafers. Applied Physics Letters, 1982, 41, 446-448.	1.5	14
94	Amorphous silicon based active photonic devices. , 0, , .		0
95	Electro-optically induced absorption in $\alpha\text{-Si:H}/\alpha\text{-SiCN}$ waveguiding multistacks. Journal of the European Optical Society-Rapid Publications, 0, 5, .	0.9	6
96	Low-loss amorphous silicon waveguides grown by PECVD on indium tin oxide. Journal of the European Optical Society-Rapid Publications, 0, 5, .	0.9	12
97	Electrical and Optical Characterisation of Silicon Nanocrystals Embedded in SiC. Solid State Phenomena, 0, 205-206, 480-485.	0.3	6