

Jose Alvarez

List of Publications by Year in descending order

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58
papers

1,031
citations

471509

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434195

31
g-index

58
all docs

58
docs citations

58
times ranked

1218
citing authors

#	ARTICLE	IF	CITATIONS
1	Analytical model of the modulated photoluminescence in semiconductor materials. Journal Physics D: Applied Physics, 2022, 55, 105103.	2.8	0
2	On the equilibrium electrostatic potential and light-induced charge redistribution in halide perovskite structures. Progress in Photovoltaics: Research and Applications, 2022, 30, 994-1002.	8.1	2
3	Observation of photovoltaic effect within locally doped silicon nanojunctions using conductive probe AFM. Nano Energy, 2020, 76, 105072.	16.0	1
4	Recent Progress in Understanding the Properties of the Amorphous Silicon/Crystalline Silicon Interface. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800877.	1.8	3
5	Optoelectrical modeling of solar cells based on c-Si/a-Si:H nanowire array: focus on the electrical transport in between the nanowires. Nanotechnology, 2018, 29, 255401.	2.6	1
6	Tin dioxide nanoparticles as catalyst precursors for plasma-assisted vapor-liquid-solid growth of silicon nanowires with well-controlled density. Nanotechnology, 2018, 29, 435301.	2.6	3
7	GaAs microcrystals selectively grown on silicon: Intrinsic carbon doping during chemical beam epitaxy with trimethylgallium. Journal of Applied Physics, 2017, 121, 035704.	2.5	1
8	High current density GaAs/Si rectifying heterojunction by defect free Epitaxial Lateral overgrowth on Tunnel Oxide from nano-seed. Scientific Reports, 2016, 6, 25328.	3.3	7
9	Cross-Sectional Investigations on Epitaxial Silicon Solar Cells by Kelvin and Conducting Probe Atomic Force Microscopy: Effect of Illumination. Nanoscale Research Letters, 2016, 11, 55.	5.7	17
10	Explicit analytical modeling of the low frequency a-Si:H/c-Si heterojunction capacitance: Analysis and application to silicon heterojunction solar cells. Journal of Applied Physics, 2015, 118, 114507.	2.5	1
11	Wide-Bandgap Semiconductors: Nanostructures, Defects, and Applications. Journal of Nanomaterials, 2015, 2015, 1-2.	2.7	0
12	Revisiting the theory and usage of junction capacitance: Application to high efficiency amorphous/crystalline silicon heterojunction solar cells. Solar Energy Materials and Solar Cells, 2015, 135, 8-16.	6.2	21
13	InP-based nano solar cells. , 2014, , .		2
14	Temperature and bias dependence of hydrogenated amorphous silicon - crystalline silicon heterojunction capacitance: the link to band bending and band offsets. Canadian Journal of Physics, 2014, 92, 690-695.	1.1	2
15	Growth of high quality micrometer scale GaAs/Si crystals from (001) Si nano-areas in SiO ₂ . Journal of Crystal Growth, 2014, 401, 554-558.	1.5	6
16	Diamond dosimeter for small beam stereotactic radiotherapy. Diamond and Related Materials, 2013, 33, 63-70.	3.9	14
17	Understanding inversion layers and band discontinuities in hydrogenated amorphous silicon/crystalline silicon heterojunctions from the temperature dependence of the capacitance. Applied Physics Letters, 2013, 103, .	3.3	17
18	Characterization of graphene oxide reduced through chemical and biological processes. Journal of Physics: Conference Series, 2013, 433, 012001.	0.4	22

#	ARTICLE	IF	CITATIONS
19	Dislocation and antiphase domain free microscale GaAs crystals grown on SiO ₂ from (001) Si nano-areas. Applied Physics Letters, 2013, 102, 191915.	3.3	13
20	Comprehensive Investigation of Single Crystal Diamond Deep-Ultraviolet Detectors. Japanese Journal of Applied Physics, 2012, 51, 090115.	1.5	43
21	Space charge capacitance spectroscopy in amorphous silicon Schottky diodes: Theory, modeling, and experiments. Journal of Non-Crystalline Solids, 2012, 358, 2007-2010.	3.1	1
22	Amorphous silicon diamond based heterojunctions with high rectification ratio. Journal of Non-Crystalline Solids, 2012, 358, 2110-2113.	3.1	12
23	Study of traps in P3HT:PCBM based organic solar cells using fractional thermally stimulated current (FTSC) technique. Journal of Non-Crystalline Solids, 2012, 358, 2537-2540.	3.1	16
24	Modelling on c-Si/a-Si:H wire solar cells: some key parameters to optimize the photovoltaic performance. EPJ Photovoltaics, 2012, 3, 30102.	1.6	1
25	Nanowire solar cells using hydrogenated amorphous silicon: A modeling study. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1026-1030.	1.8	5
26	Modeling of capacitance spectroscopy of (p) a-Si:H/(n) c-Si interfaces. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1481-1483.	0.8	0
27	Comprehensive Investigation of Single Crystal Diamond Deep-Ultraviolet Detectors. Japanese Journal of Applied Physics, 2012, 51, 090115.	1.5	60
28	Giant and reversible enhancement of the electrical resistance of GaAs _{1-x} N _x by hydrogen irradiation. Physical Review B, 2011, 84, .	3.2	10
29	Conductive-probe atomic force microscopy characterization of silicon nanowire. Nanoscale Research Letters, 2011, 6, 110.	5.7	37
30	Characterization of silicon heterojunctions for solar cells. Nanoscale Research Letters, 2011, 6, 152.	5.7	19
31	Observation by conductive-probe atomic force microscopy of strongly inverted surface layers at the hydrogenated amorphous silicon/crystalline silicon heterojunctions. Applied Physics Letters, 2010, 97, .	3.3	29
32	Schottky photodiode using submicron thick diamond epilayer for flame sensing. Nano-Micro Letters, 2009, 1, 30-33.	27.0	12
33	Schottky-barrier photodiode using p-diamond epilayer grown on p+-diamond substrates. Diamond and Related Materials, 2009, 18, 296-298.	3.9	14
34	Persistent positive and transient absolute negative photoconductivity observed in diamond photodetectors. Physical Review B, 2008, 78, .	3.2	75
35	Vertical-type Schottky-barrier photodiode using p-diamond epilayer grown on heavily boron-doped p+-diamond substrate. Diamond and Related Materials, 2008, 17, 1916-1921.	3.9	7
36	Single Schottky-barrier photodiode with interdigitated-finger geometry: Application to diamond. Applied Physics Letters, 2007, 90, 123507.	3.3	96

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37	Submicron metal-semiconductor-metal diamond photodiodes toward improving the responsivity. Applied Physics Letters, 2007, 91, 163510.	3.3	13
38	Local photoconductivity on diamond metal-semiconductor-metal photodetectors measured by conducting probe atomic force microscopy. Diamond and Related Materials, 2007, 16, 1074-1077.	3.9	10
39	Thermally stable solar-blind diamond UV photodetector. Diamond and Related Materials, 2006, 15, 1962-1966.	3.9	69
40	Local electrical characterization of Schottky diodes on H-terminated diamond surfaces by conducting probe atomic force microscopy. Diamond and Related Materials, 2006, 15, 618-621.	3.9	5
41	Electrical characterization of Schottky diodes based on boron doped homoepitaxial diamond films by conducting probe atomic force microscopy. Superlattices and Microstructures, 2006, 40, 343-349.	3.1	13
42	Crystallographic and electrical characterization of tungsten carbide thin films for Schottky contact of diamond photodiode. Journal of Vacuum Science & Technology B, 2006, 24, 185.	1.3	14
43	Photovoltaic Schottky ultraviolet detectors fabricated on boron-doped homoepitaxial diamond layer. Applied Physics Letters, 2006, 88, 033504.	3.3	43
44	Development of Thermally Stable, Solar-Blind Deep-Ultraviolet Diamond Photosensor. Materials Transactions, 2005, 46, 1965-1968.	1.2	6
45	Thermal Stability of Diamond Photodiodes Using Tungsten Carbide as Schottky Contact. Japanese Journal of Applied Physics, 2005, 44, 7832-7838.	1.5	38
46	Thermally stable visible-blind diamond photodiode using tungsten carbide Schottky contact. Applied Physics Letters, 2005, 87, 022105.	3.3	94
47	Large deep-ultraviolet photocurrent in metal-semiconductor-metal structures fabricated on as-grown boron-doped diamond. Applied Physics Letters, 2005, 87, 113507.	3.3	28
48	Tungsten carbide Schottky contact to diamond toward thermally stable photodiode. Diamond and Related Materials, 2005, 14, 2003-2006.	3.9	9
49	Very high UV-visible selectivity in polycrystalline CVD diamond films. Diamond and Related Materials, 2004, 13, 881-885.	3.9	6
50	On the metastability of the surface conductivity in hydrogen-terminated polycrystalline CVD diamond. Diamond and Related Materials, 2004, 13, 751-754.	3.9	9
51	Development of imaging arrays for solar UV observations based on wide band gap materials. , 2004, ,		11
52	Study of deep defects in polycrystalline CVD diamond from thermally stimulated current and below-gap photocurrent experiments. Diamond and Related Materials, 2003, 12, 546-549.	3.9	10
53	New UV detectors for solar observations. , 2003, 4853, 419.		11
54	Recent progresses of the BOLD investigation towards UV detectors for the ESA Solar Orbiter. Diamond and Related Materials, 2002, 11, 427-432.	3.9	19

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55	Relaxation in undoped polycrystalline CVD diamond films under red illumination. <i>Diamond and Related Materials</i> , 2002, 11, 635-639.	3.9	6
56	Diamond UV detectors for future solar physics missions. <i>Diamond and Related Materials</i> , 2001, 10, 673-680.	3.9	37
57	Electronic properties of CVD polycrystalline diamond films. <i>Diamond and Related Materials</i> , 2001, 10, 588-592.	3.9	4
58	Ultraviolet Detectors Based on Ultravioletâ€“Ozone Modified Hydrogenated Diamond Surfaces. <i>Applied Physics Express</i> , 0, 2, 065501.	2.4	6