Jose Alvarez

List of Publications by Year
in descending order

58 papers	1,031 citations	471509 17 h-index	434195 31 g-index
58 all docs	58 docs citations	58 times ranked	1218 citing authors

#	Article	IF	Citations
1	Single Schottky-barrier photodiode with interdigitated-finger geometry: Application to diamond. Applied Physics Letters, 2007, 90, 123507.	3.3	96
2	Thermally stable visible-blind diamond photodiode using tungsten carbide Schottky contact. Applied Physics Letters, 2005, 87, 022105.	3.3	94
3	Persistent positive and transient absolute negative photoconductivity observed in diamond photodetectors. Physical Review B, 2008, 78, .	3.2	75
4	Thermally stable solar-blind diamond UV photodetector. Diamond and Related Materials, 2006, 15, 1962-1966.	3.9	69
5	Comprehensive Investigation of Single Crystal Diamond Deep-Ultraviolet Detectors. Japanese Journal of Applied Physics, 2012, 51, 090115.	1.5	60
6	Photovoltaic Schottky ultraviolet detectors fabricated on boron-doped homoepitaxial diamond layer. Applied Physics Letters, 2006, 88, 033504.	3.3	43
7	Comprehensive Investigation of Single Crystal Diamond Deep-Ultraviolet Detectors. Japanese Journal of Applied Physics, 2012, 51, 090115.	1.5	43
8	Thermal Stability of Diamond Photodiodes Using Tungsten Carbide as Schottky Contact. Japanese Journal of Applied Physics, 2005, 44, 7832-7838.	1.5	38
9	Diamond UV detectors for future solar physics missions. Diamond and Related Materials, 2001, 10, 673-680.	3.9	37
10	Conductive-probe atomic force microscopy characterization of silicon nanowire. Nanoscale Research Letters, 2011, 6, 110.	5.7	37
11	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
12	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
13	Characterization of graphene oxide reduced through chemical and biological processes. Journal of Physics: Conference Series, 2013, 433, 012001.	0.4	22
14	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
15	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
16	Characterization of silicon heterojunctions for solar cells. Nanoscale Research Letters, 2011, 6, 152.	5.7	19
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	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

#	Article	IF	Citations
19	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
20	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
21	Schottky-barrier photodiode using p-diamond epilayer grown on p+-diamond substrates. Diamond and Related Materials, 2009, 18, 296-298.	3.9	14
22	Diamond dosimeter for small beam stereotactic radiotherapy. Diamond and Related Materials, 2013, 33, 63-70.	3.9	14
23	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
24	Submicron metal-semiconductor-metal diamond photodiodes toward improving the responsivity. Applied Physics Letters, 2007, 91, 163510.	3.3	13
25	Dislocation and antiphase domain free microscale GaAs crystals grown on SiO2 from (001) Si nano-areas. Applied Physics Letters, 2013, 102, 191915.	3.3	13
26	Schottky photodiode using submicron thick diamond epilayer for flame sensing. Nano-Micro Letters, 2009, 1, 30-33.	27.0	12
27	Amorphous silicon diamond based heterojunctions with high rectification ratio. Journal of Non-Crystalline Solids, 2012, 358, 2110-2113.	3.1	12
28	New UV detectors for solar observations. , 2003, 4853, 419.		11
29	Development of imaging arrays for solar UV observations based on wide band gap materials. , 2004, , .		11
30	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
31	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
32	Giant and reversible enhancement of the electrical resistance of GaAs1â˘'xNxby hydrogen irradiation. Physical Review B, 2011, 84, .	3.2	10
33	On the metastability of the surface conductivity in hydrogen-terminated polycrystalline CVD diamond. Diamond and Related Materials, 2004, 13, 751-754.	3.9	9
34	Tungsten carbide Schottky contact to diamond toward thermally stable photodiode. Diamond and Related Materials, 2005, 14, 2003-2006.	3.9	9
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	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

#	Article	IF	Citations
37	Relaxation in undoped polycrystalline CVD diamond films under red illumination. Diamond and Related Materials, 2002, 11, 635-639.	3.9	6
38	Very high UV-visible selectivity in polycrystalline CVD diamond films. Diamond and Related Materials, 2004, 13, 881-885.	3.9	6
39	Development of Thermally Stable, Solar-Blind Deep-Ultraviolet Diamond Photosensor. Materials Transactions, 2005, 46, 1965-1968.	1.2	6
40	Ultraviolet Detectors Based on Ultravioletâ€"Ozone Modified Hydrogenated Diamond Surfaces. Applied Physics Express, 0, 2, 065501.	2.4	6
41	Growth of high quality micrometer scale GaAs/Si crystals from (001) Si nano-areas in SiO2. Journal of Crystal Growth, 2014, 401, 554-558.	1.5	6
42	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
43	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
44	Electronic properties of CVD polycrystalline diamond films. Diamond and Related Materials, 2001, 10, 588-592.	3.9	4
45	Tin dioxide nanoparticles as catalyst precursors for plasma-assisted vaporâ€"liquidâ€"solid growth of silicon nanowires with well-controlled density. Nanotechnology, 2018, 29, 435301.	2.6	3
46	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
47	InP-based nano solar cells. , 2014, , .		2
48	Temperature and bias dependence of hydrogenated amorphous silicon â€" crystalline silicon heterojunction capacitance: the link to band bending and band offsets. Canadian Journal of Physics, 2014, 92, 690-695.	1.1	2
49	On the equilibrium electrostatic potential and lightâ€induced charge redistribution in halide perovskite structures. Progress in Photovoltaics: Research and Applications, 2022, 30, 994-1002.	8.1	2
50	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
51	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
52	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
53	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
54	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

#	Article	IF	Citations
55	Observation of photovoltaic effect within locally doped silicon nanojunctions using conductive probe AFM. Nano Energy, 2020, 76, 105072.	16.0	1
56	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
57	Wide-Bandgap Semiconductors: Nanostructures, Defects, and Applications. Journal of Nanomaterials, 2015, 2015, 1-2.	2.7	0
58	Analytical model of the modulated photoluminescence in semiconductor materials. Journal Physics D: Applied Physics, 2022, 55, 105103.	2.8	0