

Cristobal Voz Sanchez

List of Publications by Citations

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123
papers

2,605
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27
h-index

47
g-index

134
ext. papers

2,952
ext. citations

4.1
avg, IF

4.84
L-index

#	Paper	IF	Citations
123	Transition metal oxides as hole-selective contacts in silicon heterojunctions solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 145, 109-115	6.4	254
122	Improved equivalent circuit and analytical model for amorphous silicon solar cells and modules. <i>IEEE Transactions on Electron Devices</i> , 1998 , 45, 423-429	2.9	173
121	Accurate modeling and parameter extraction method for organic TFTs. <i>Solid-State Electronics</i> , 2005 , 49, 1009-1016	1.7	116
120	Pentacene thin-film transistors with polymeric gate dielectric. <i>Organic Electronics</i> , 2004 , 5, 67-71	3.5	112
119	Origin of passivation in hole-selective transition metal oxides for crystalline silicon heterojunction solar cells. <i>Journal of Materials Research</i> , 2017 , 32, 260-268	2.5	102
118	Superior performance of V ₂ O ₅ as hole selective contact over other transition metal oxides in silicon heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 168, 221-226	6.4	90
117	A prototype reactor for highly selective solar-driven CO ₂ reduction to synthesis gas using nanosized earth-abundant catalysts and silicon photovoltaics. <i>Energy and Environmental Science</i> , 2017 , 10, 2256-2266	35.4	87
116	V ₂ O _x -based hole-selective contacts for c-Si interdigitated back-contacted solar cells. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 9182-9189	13	78
115	Characterization of Transition Metal Oxide/Silicon Heterojunctions for Solar Cell Applications. <i>Applied Sciences (Switzerland)</i> , 2015 , 5, 695-705	2.6	66
114	Recombination rates in heterojunction silicon solar cells analyzed by impedance spectroscopy at forward bias and under illumination. <i>Solar Energy Materials and Solar Cells</i> , 2008 , 92, 505-509	6.4	55
113	Copper phthalocyanine thin-film transistors with polymeric gate dielectric. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 1778-1782	3.9	51
112	Optimization of KOH etching process to obtain textured substrates suitable for heterojunction solar cells fabricated by HWCVD. <i>Thin Solid Films</i> , 2009 , 517, 3578-3580	2.2	46
111	Surface passivation of n-type crystalline Si by plasma-enhanced-chemical-vapor-deposited amorphous SiC _x :H and amorphous SiC _x N _y :H films. <i>Applied Physics Letters</i> , 2002 , 81, 4461-4463	3.4	46
110	Pentacene thin-films obtained by thermal evaporation in high vacuum. <i>Thin Solid Films</i> , 2003 , 427, 367-370	3.0	45
109	Analysis of temperature dependent current-voltage and capacitance-voltage characteristics of an Au/V ₂ O ₅ /n-Si Schottky diode. <i>AIP Advances</i> , 2017 , 7, 085313	1.5	43
108	Laser-fired contact optimization in c-Si solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2012 , 20, 173-180	6.8	41
107	Optoelectronic properties of CuPc thin films deposited at different substrate temperatures. <i>Journal Physics D: Applied Physics</i> , 2009 , 42, 145102	3	40

106	Density-of-states in pentacene from the electrical characteristics of thin-film transistors. <i>Organic Electronics</i> , 2010 , 11, 1333-1337	3.5	37
105	Interdigitated back-contacted crystalline silicon solar cells with low-temperature dopant-free selective contacts. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 3977-3985	13	36
104	p-type c-Si solar cells based on rear side laser processing of Al ₂ O ₃ /SiC _x stacks. <i>Solar Energy Materials and Solar Cells</i> , 2012 , 106, 80-83	6.4	36
103	Experimental observation of oxygen-related defect state in pentacene thin films. <i>Applied Physics Letters</i> , 2007 , 90, 092112	3.4	36
102	IR-study of a-SiC _x :H and a-SiC _x N _y :H films for c-Si surface passivation. <i>Thin Solid Films</i> , 2004 , 451-452, 340-344	2.2	36
101	Pentacene thin-film transistors on polymeric gate dielectric: device fabrication and electrical characterization. <i>Journal of Non-Crystalline Solids</i> , 2004 , 338-340, 617-621	3.9	36
100	Optoelectronic devices based on evaporated pentacene films. <i>Solar Energy Materials and Solar Cells</i> , 2005 , 87, 567-573	6.4	31
99	Improvement of crystalline silicon surface passivation by hydrogen plasma treatment. <i>Applied Physics Letters</i> , 2004 , 84, 1474-1476	3.4	30
98	Transport mechanisms in silicon heterojunction solar cells with molybdenum oxide as a hole transport layer. <i>Solar Energy Materials and Solar Cells</i> , 2018 , 185, 61-65	6.4	29
97	N-type PTCDA/13H27 thin-film transistors deposited at different substrate temperature. <i>Thin Solid Films</i> , 2009 , 517, 6271-6274	2.2	27
96	Main properties of Al ₂ O ₃ thin films deposited by magnetron sputtering of an Al ₂ O ₃ ceramic target at different radio-frequency power and argon pressure and their passivation effect on p-type c-Si wafers. <i>Thin Solid Films</i> , 2016 , 619, 288-296	2.2	26
95	Effect of buffer layer on minority carrier lifetime and series resistance of bifacial heterojunction silicon solar cells analyzed by impedance spectroscopy. <i>Thin Solid Films</i> , 2006 , 514, 254-257	2.2	26
94	Stability of hydrogenated nanocrystalline silicon thin-film transistors. <i>Thin Solid Films</i> , 2001 , 395, 335-338	2.2	26
93	Near 5% DMSO is the best: A structural investigation of PEDOT: PSS thin films with strong emphasis on surface and interface for hybrid solar cell. <i>Applied Surface Science</i> , 2020 , 499, 143967	6.7	26
92	Study of a thiophene-based polymer for optoelectronic applications. <i>Thin Solid Films</i> , 2006 , 497, 16-19	2.2	25
91	Optimisation of doped microcrystalline silicon films deposited at very low temperatures by hot-wire CVD. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2000 , 69-70, 278-283	3.1	25
90	Passivating/hole-selective contacts based on V ₂ O ₅ /SiO _x stacks deposited at ambient temperature. <i>Energy Procedia</i> , 2017 , 124, 584-592	2.3	24
89	Surface passivation and optical characterization of Al ₂ O ₃ /a-SiC _x stacks on c-Si substrates. <i>Beilstein Journal of Nanotechnology</i> , 2013 , 4, 726-31	3	24

88	Thin film transistors obtained by hot wire CVD. <i>Journal of Non-Crystalline Solids</i> , 2000 , 266-269, 1304-1309	2.2	22
87	Crystalline silicon surface passivation with amorphous SiC _x :H films deposited by plasma-enhanced chemical-vapor deposition. <i>Journal of Applied Physics</i> , 2005 , 98, 114912	2.5	21
86	Back Junction n-type Silicon Heterojunction Solar Cells with V ₂ O ₅ Hole-selective Contact. <i>Energy Procedia</i> , 2016 , 92, 633-637	2.3	21
85	Large Stokes shift downshifting Eu(III) films as efficiency enhancing UV blocking layers for dye sensitized solar cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015 , 212, 203-210	1.6	20
84	PEDOT:PSS as an Alternative Hole Selective Contact for ITO-Free Hybrid Crystalline Silicon Solar Cell. <i>IEEE Journal of Photovoltaics</i> , 2016 , 6, 934-939	3.7	20
83	Bifacial heterojunction silicon solar cells by hot-wire CVD with open-circuit voltages exceeding 600 mV. <i>Thin Solid Films</i> , 2006 , 511-512, 415-419	2.2	20
82	Electrical characterization of pentacene thin-film transistors with polymeric gate dielectric. <i>Synthetic Metals</i> , 2004 , 146, 355-358	3.6	19
81	Analysis of bias stress on thin-film transistors obtained by Hot-Wire Chemical Vapour Deposition. <i>Thin Solid Films</i> , 2001 , 383, 307-309	2.2	19
80	Low level optical absorption measurements on organic semiconductors. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 1663-1667	3.9	17
79	Surface passivation of crystalline silicon by Cat-CVD amorphous and nanocrystalline thin silicon films. <i>Thin Solid Films</i> , 2003 , 430, 270-273	2.2	16
78	Photodiodes based on fullerene semiconductor. <i>Thin Solid Films</i> , 2007 , 515, 7675-7678	2.2	14
77	Very low surface recombination velocity of crystalline silicon passivated by phosphorus-doped a-Si _x Ny:H(n) alloys. <i>Progress in Photovoltaics: Research and Applications</i> , 2008 , 16, 123-127	6.8	13
76	Electronic properties of intrinsic and doped amorphous silicon carbide films. <i>Thin Solid Films</i> , 2006 , 511-512, 290-294	2.2	13
75	Microcrystalline silicon thin film transistors obtained by hot-wire CVD. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2000 , 69-70, 526-529	3.1	13
74	Fully low temperature interdigitated back-contacted c-Si(n) solar cells based on laser-doping from dielectric stacks. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 169, 107-112	6.4	12
73	Progress in a-Si:H/c-Si heterojunction emitters obtained by Hot-Wire CVD at 200 °C. <i>Thin Solid Films</i> , 2008 , 516, 761-764	2.2	12
72	High efficiency ITO-free hybrid solar cell using highly conductive PEDOT:PSS with co-solvent and surfactant treatments. <i>Materials Letters</i> , 2017 , 186, 165-167	3.3	11
71	Influence of the density of states on the open-circuit voltage in small-molecule solar cells. <i>Organic Electronics</i> , 2014 , 15, 2553-2560	3.5	11

70	The role of the buffer layer in the light of a new equivalent circuit for amorphous silicon solar cells. <i>Solar Energy Materials and Solar Cells</i> , 1999 , 57, 153-165	6.4	11
69	Low Surface Recombination in Silicon-Heterojunction Solar Cells With Rear Laser-Fired Contacts From Aluminum Foils. <i>IEEE Journal of Photovoltaics</i> , 2015 , 5, 805-811	3.7	10
68	Laser Induced Forward Transfer for front contact improvement in silicon heterojunction solar cells. <i>Applied Surface Science</i> , 2015 , 336, 89-95	6.7	10
67	Rear Contact Pattern Optimization based on 3D Simulations for IBC Solar Cells with Point-like Doped Contacts. <i>Energy Procedia</i> , 2014 , 55, 47-52	2.3	10
66	Analysis of the dynamic short-circuit resistance in organic bulk-heterojunction solar cells: relation to the charge carrier collection efficiency. <i>Organic Electronics</i> , 2013 , 14, 1643-1648	3.5	10
65	Improving the efficiency of light-emitting diode based on a thiophene polymer containing a cyano group. <i>Organic Electronics</i> , 2007 , 8, 641-647	3.5	10
64	Phosphorus-diffused silicon solar cell emitters with plasma enhanced chemical vapor deposited silicon carbide. <i>Solar Energy Materials and Solar Cells</i> , 2005 , 87, 667-674	6.4	10
63	Kelvin probe measurements of microcrystalline silicon on a nanometer scale using SFM. <i>Solar Energy Materials and Solar Cells</i> , 2001 , 66, 171-177	6.4	10
62	Thin-film transistors with polymorphous silicon active layer. <i>Journal of Non-Crystalline Solids</i> , 2002 , 299-302, 1345-1350	3.9	10
61	Germanium photovoltaic cells with MoOx hole-selective contacts. <i>Solar Energy</i> , 2019 , 181, 357-360	6.8	10
60	Defect states assisted charge conduction in Au/MoO ₃ /n-Si Schottky barrier diode. <i>Materials Research Express</i> , 2019 , 6, 036303	1.7	10
59	Comparison between the density-of-states of picene transistors measured in air and under vacuum. <i>Synthetic Metals</i> , 2012 , 161, 2554-2557	3.6	9
58	Characterization and application of a-SiC _x :H films for the passivation of the c-Si surface. <i>Thin Solid Films</i> , 2002 , 403-404, 476-479	2.2	9
57	Emitter formation using laser doping technique on n- and p-type c-Si substrates. <i>Applied Surface Science</i> , 2015 , 336, 182-187	6.7	8
56	Surface recombination analysis in silicon-heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2010 , 94, 282-286	6.4	8
55	Fullerene thin-film transistors fabricated on polymeric gate dielectric. <i>Thin Solid Films</i> , 2007 , 515, 7667-7670	6.7	8
54	Electronic transport in low temperature nanocrystalline silicon thin-film transistors obtained by hot-wire CVD. <i>Journal of Non-Crystalline Solids</i> , 2002 , 299-302, 400-404	3.9	8
53	Analysis of the role of mobility-lifetime products in the performance of amorphous silicon p-i-n solar cells. <i>Journal of Applied Physics</i> , 1999 , 85, 2939-2951	2.5	8

52	Defect states in pentacene thin films prepared by thermal evaporation and Langmuir-Blodgett technique. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 2888-2891	3.9	7
51	IBC c-Si(n) Solar Cells Based on Laser Doping Processing for Selective Emitter and Base Contact Formation. <i>Energy Procedia</i> , 2016 , 92, 956-961	2.3	7
50	Recovery of Indium-tin-oxide/silicon Heterojunction Solar Cells by Thermal Annealing. <i>Energy Procedia</i> , 2014 , 44, 3-9	2.3	6
49	Optimization of Laser Processes for Local Rear Contacting of Passivated Silicon Solar Cells. <i>Energy Procedia</i> , 2014 , 44, 234-243	2.3	6
48	2011 ,		6
47	Characterization of a-SiC _x :H Films for c-Si Surface Passivation. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 715, 2451		6
46	Microdoping compensation of microcrystalline silicon obtained by hot-wire chemical vapour deposition. <i>Solar Energy Materials and Solar Cells</i> , 2000 , 63, 237-246	6.4	6
45	Microscale Characterization of Surface Recombination at the Vicinity of Laser-Processed Regions in c-Si Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2016 , 6, 426-431	3.7	5
44	Low temperature back-surface-field contacts deposited by hot-wire CVD for heterojunction solar cells. <i>Thin Solid Films</i> , 2008 , 516, 6782-6785	2.2	5
43	Atomic layer deposition of vanadium oxide films for crystalline silicon solar cells.. <i>Materials Advances</i> , 2022 , 3, 337-345	3.3	5
42	Influence of a Gold Seed in Transparent V ₂ O ₅ /Ag/V ₂ O ₅ Selective Contacts for Dopant-Free Silicon Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 72-77	3.7	5
41	Low-Cost High-Sensitive Suns ₁ Measurement Instrument to Characterize c-Si Solar Cells. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020 , 69, 6429-6435	5.2	4
40	Improved Electron Selectivity in Silicon Solar Cells by Cathode Modification with a Dipolar Conjugated Polyelectrolyte Interlayer. <i>ACS Applied Energy Materials</i> , 2019 , 2, 5954-5959	6.1	4
39	Multicrystalline Silicon Thin-Film Solar Cells Based on Vanadium Oxide Heterojunction and Laser-Doped Contacts. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019 , 216, 1900393	1.6	4
38	Base contacts and selective emitters processed by laser doping technique for p-type IBC c-Si solar cells. <i>Energy Procedia</i> , 2015 , 77, 752-758	2.3	4
37	Parameterization of local laser doping and laser-fired contacts for high efficiency c-Si solar cells. <i>Physics Procedia</i> , 2012 , 39, 693-701		4
36	Characterization of bifacial heterojunction silicon solar cells obtained by hot-wire CVD. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 1953-1957	3.9	4
35	Substrate influence on the properties of doped thin silicon layers grown by Cat-CVD. <i>Thin Solid Films</i> , 2003 , 430, 157-160	2.2	4

34	Thin silicon films ranging from amorphous to nanocrystalline obtained by hot-wire CVD. <i>Thin Solid Films</i> , 2001 , 383, 189-191	2.2	4
33	Investigation of defect formation and electronic transport in microcrystalline silicon deposited by hot-wire CVD. <i>Physica B: Condensed Matter</i> , 1999 , 273-274, 540-543	2.8	4
32	Influence of Co-Sputtered Ag:Al Ultra-Thin Layers in Transparent VO/Ag:Al/AZO Hole-Selective Electrodes for Silicon Solar Cells. <i>Materials</i> , 2020 , 13,	3.5	4
31	Satisfying both interfacial- and bulk requirements for organic photovoltaics: Bridged-triphenylamines with extended π -conjugated systems as efficient new molecules. <i>Organic Electronics</i> , 2019 , 73, 137-145	3.5	3
30	Compositional influence on the electrical performance of zinc indium tin oxide transparent thin-film transistors. <i>Thin Solid Films</i> , 2014 , 555, 107-111	2.2	3
29	Study of the Surface Recombination Velocity for Ultraviolet and Visible Laser-Fired Contacts Applied to Silicon Heterojunction Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2015 , 5, 1006-1013	3.7	3
28	On the observation of electron-hole liquid luminescence under low excitation in Al ₂ O ₃ -passivated c-Si wafers. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014 , 8, 943-947	2.5	3
27	Optical stability of small-molecule thin-films determined by Photothermal Deflection Spectroscopy. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1154, 1		3
26	Stress in Hydrogenated Microcrystalline Silicon Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 557, 537		3
25	Old Process for IBC c-Si Solar Cells Fabrication. <i>Energy Procedia</i> , 2016 , 92, 652-660	2.3	3
24	Interdigitated back contacted c-Si(p) solar cells with photovoltaic efficiencies beyond 22% 2017 ,		2
23	Experimental determination of base resistance contribution for point-like contacted c-Si solar cells using impedance spectroscopy analysis. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 141, 350-355	6.4	2
22	Progress in silicon heterojunction solar cell fabrication with rear laser-fired contacts 2013 ,		2
21	High efficiency interdigitated back-contact c-Si(p) solar cells 2015 ,		2
20	Development of laser-fired contacts for amorphous silicon layers obtained by Hot-Wire CVD. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2009 , 159-160, 23-26 ^{3.1}		2
19	Influence of wavelength on laser doping and laser-fired contact processes for c-Si solar cells 2012 ,		2
18	Flexible Pentacene/PMMA Thin-Film Transistors Fabricated on Aluminium Foil Substrates. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 871, 1		2
17	Structure of microcrystalline silicon films deposited at very low temperatures by hot-wire CVD. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2000 , 69-70, 536-541 ^{3.1}		2

16	Comparative study of microcrystalline silicon films prepared in low or high pressure regime by hot-wire chemical vapor deposition. <i>Journal of Non-Crystalline Solids</i> , 2000 , 266-269, 385-390	3.9	2
15	Deposition and characterisation of sputtered molybdenum oxide thin films with hydrogen atmosphere. <i>Applied Surface Science</i> , 2021 , 563, 150285	6.7	2
14	Interdigitated back-contacted crystalline silicon solar cells fully manufactured with atomic layer deposited selective contacts. <i>Solar Energy Materials and Solar Cells</i> , 2022 , 240, 111731	6.4	2
13	Shedding Light on the Negative Differential Resistance Effect Observed in Organic Thin-Film Transistors. <i>ACS Applied Electronic Materials</i> , 2020 , 2, 1574-1582	4	1
12	Restrains in low dimensional organic semiconductor devices at high current densities. <i>Organic Electronics</i> , 2014 , 15, 211-215	3.5	1
11	New laser-based approaches to improve the passivation and rear contact quality in high efficiency crystalline silicon solar cells 2013 ,		1
10	Development of LASER fired contacts on silicon heterojunction solar cells for the application to rear contact structures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010 , 7, NA-NA		1
9	Optical and electrical characteristics of LEDs based on a single organic layer		1
8	Organic electronic devices: overview and future trends		1
7	Optoelectronic studies in nanocrystalline silicon Schottky diodes obtained by hot-wire CVD. <i>Thin Solid Films</i> , 2001 , 383, 258-260	2.2	1
6	Influence of wavelength and pulse duration on the selective laser ablation of WO _x , VO _x and MoO _x thin films.. <i>Surfaces and Interfaces</i> , 2021 , 101613	4.1	1
5	Ultrathin Wide-Bandgap a-Si:H-Based Solar Cells for Transparent Photovoltaic Applications. <i>Solar Rrl</i> , 2022 , 6, 2100909	7.1	0
4	Hole Transport Layer based on atomic layer deposited V ₂ O _x films: Paving the road to semi-transparent CZTSe solar cells. <i>Solar Energy</i> , 2021 , 226, 64-71	6.8	0
3	Determination of the Density of States on N-type Ptcdi-c13 Organic Thin-film Semiconductor. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1435, 36		
2	Transverse Electrical Transport in Pentacene Photodiodes. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 871, 1		
1	Thin c-Si Solar Cells Based on VO _x Heterojunctions With Texturized Rear Surface. <i>IEEE Journal of Photovoltaics</i> , 2021 , 1-5	3.7	