Joaquim Puigdollers

List of Publications by Year in Descending Order

137 papers	2,946 citations	29 h-index	49 g-index
149 ext. papers	3,373 ext. citations	4.2 avg, IF	5.27 L-index

#	Paper	IF	Citations
137	Ultrathin Wide-Bandgap a-Si:H-Based Solar Cells for Transparent Photovoltaic Applications. *Solar Rrl*, **2022**, 6, 2100909	7.1	0
136	Atomic layer deposition of vanadium oxide films for crystalline silicon solar cells.. *Materials Advances*, **2022**, 3, 337-345	3.3	5
135	Interdigitated back-contacted crystalline silicon solar cells fully manufactured with atomic layer deposited selective contacts. *Solar Energy Materials and Solar Cells*, **2022**, 240, 111731	6.4	2
134	Effect of the thickness of amorphous silicon carbide interlayer on the passivation of c-Ge surface by aluminium oxide films. *Surfaces and Interfaces*, **2022**, 31, 102070	4.1	1
133	Synergetic effect induced/tuned bimetallic nanoparticles (Pt-Ni) anchored graphene as a catalyst for oxygen reduction reaction and scalable SS-314L serpentine flow field proton exchange membrane fuel cells (PEMFCs). *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2022**, 282, 115780	3.1	0
132	Towards the Bisbenzothienocarbazole Core: A Route of Sulfurated Carbazole Derivatives with Assorted Optoelectronic Properties and Applications. *Materials*, **2021**, 14,	3.5	1
131	Hole Transport Layer based on atomic layer deposited V2Ox films: Paving the road to semi-transparent CZTSe solar cells. *Solar Energy*, **2021**, 226, 64-71	6.8	0
130	Shedding Light on the Negative Differential Resistance Effect Observed in Organic Thin-Film Transistors. *ACS Applied Electronic Materials*, **2020**, 2, 1574-1582	4	1
129	Transition-Metal Oxides for Kesterite Solar Cells Developed on Transparent Substrates. *ACS Applied Materials & Interfaces*, **2020**, 12, 33656-33669	9.5	21
128	Origin of the Negative Differential Resistance in the Output Characteristics of a Picene-Based Thin-Film Transistor. *IEEE Journal of the Electron Devices Society*, **2020**, 8, 391-395	2.3	
127	Low-Cost High-Sensitive Suns□$V_{text{oc}}$ Measurement Instrument to Characterize c-Si Solar Cells. *IEEE Transactions on Instrumentation and Measurement*, **2020**, 69, 6429-6435	5.2	4
126	Enhanced Chiral Sensing with Dielectric Nanoresonators. *Nano Letters*, **2020**, 20, 585-591	11.5	51
125	Influence of Co-Sputtered Ag:Al Ultra-Thin Layers in Transparent VO/Ag:Al/AZO Hole-Selective Electrodes for Silicon Solar Cells. *Materials*, **2020**, 13,	3.5	4
124	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. *Applied Surface Science*, **2020**, 499, 143967	6.7	26
123	Satisfying both interfacial- and bulk requirements for organic photovoltaics: Bridged-triphenylamines with extended □conjugated systems as efficient new molecules. *Organic Electronics*, **2019**, 73, 137-145	3.5	3
122	Improved Electron Selectivity in Silicon Solar Cells by Cathode Modification with a Dipolar Conjugated Polyelectrolyte Interlayer. *ACS Applied Energy Materials*, **2019**, 2, 5954-5959	6.1	4
121	Multicrystalline Silicon Thin-Film Solar Cells Based on Vanadium Oxide Heterojunction and Laser-Doped Contacts. *Physica Status Solidi (A) Applications and Materials Science*, **2019**, 216, 1900393	1.6	4

120	Influence of a Gold Seed in Transparent V2Ox/Ag/V2Ox Selective Contacts for Dopant-Free Silicon Solar Cells. *IEEE Journal of Photovoltaics*, **2019**, 9, 72-77	3.7	5
119	Defect states assisted charge conduction in Au/MoO3−x/n-Si Schottky barrier diode. *Materials Research Express*, **2019**, 6, 036303	1.7	10
118	Reduction of Charge Traps and Stability Enhancement in Solution-Processed Organic Field-Effect Transistors Based on a Blended n-Type Semiconductor. *ACS Applied Materials & Interfaces*, **2018**, 10, 15952-15961	9.5	36
117	Interdigitated back-contacted crystalline silicon solar cells with low-temperature dopant-free selective contacts. *Journal of Materials Chemistry A*, **2018**, 6, 3977-3985	13	36
116	Temperature dependent current-voltage characteristics of Au/n-Si Schottky barrier diodes and the effect of transition metal oxides as an interface layer. *Physica B: Condensed Matter*, **2018**, 530, 327-335	2.8	39
115	Transport mechanisms in silicon heterojunction solar cells with molybdenum oxide as a hole transport layer. *Solar Energy Materials and Solar Cells*, **2018**, 185, 61-65	6.4	29
114	Static and dynamic modeling of organic thin film transistors: effect of channel length on the Mayer–Neldel rule energy and quasistatic capacitances. *EPJ Applied Physics*, **2018**, 81, 30202	1.1	1
113	Air stable organic semiconductors based on diindolo[3,2-a:3?,2?-c]carbazole. *Organic Electronics*, **2018**, 62, 35-42	3.5	5
112	Interface engineering and solid-state organization for triindole-based p-type organic thin-film transistors. *Physical Chemistry Chemical Physics*, **2018**, 20, 17889-17898	3.6	12
111	Solid-state organization of n-type carbazole-based semiconductors for organic thin-film transistors. *Physical Chemistry Chemical Physics*, **2018**, 20, 1142-1149	3.6	15
110	Enantiomer-Selective Molecular Sensing Using Racemic Nanoplasmonic Arrays. *Nano Letters*, **2018**, 18, 6279-6285	11.5	83
109	Rapid room temperature crystallization of TiO2 nanotubes. *CrystEngComm*, **2017**, 19, 1585-1589	3.3	12
108	V2Ox-based hole-selective contacts for c-Si interdigitated back-contacted solar cells. *Journal of Materials Chemistry A*, **2017**, 5, 9182-9189	13	78
107	Superior performance of V 2 O 5 as hole selective contact over other transition metal oxides in silicon heterojunction solar cells. *Solar Energy Materials and Solar Cells*, **2017**, 168, 221-226	6.4	90
106	Interdigitated back contacted c-Si(p) solar cells with photovoltaic efficiencies beyond 22% **2017**,		2
105	Origin of passivation in hole-selective transition metal oxides for crystalline silicon heterojunction solar cells. *Journal of Materials Research*, **2017**, 32, 260-268	2.5	102
104	Passivating/hole-selective contacts based on V2O5/SiOx stacks deposited at ambient temperature. *Energy Procedia*, **2017**, 124, 584-592	2.3	24
103	Analysis of temperature dependent current-voltage and capacitance-voltage characteristics of an Au/V2O5/n-Si Schottky diode. *AIP Advances*, **2017**, 7, 085313	1.5	43

102	High efficiency ITO-free hybrid solar cell using highly conductive PEDOT:PSS with co-solvent and surfactant treatments. *Materials Letters*, **2017**, 186, 165-167	3.3	11
101	Transition metal oxides as hole-selective contacts in silicon heterojunctions solar cells. *Solar Energy Materials and Solar Cells*, **2016**, 145, 109-115	6.4	254
100	Fabrication of cost-effective, highly reproducible large area arrays of nanotriangular pillars for surface enhanced Raman scattering substrates. *Nano Research*, **2016**, 9, 3075-3083	10	21
99	PEDOT:PSS as an Alternative Hole Selective Contact for ITO-Free Hybrid Crystalline Silicon Solar Cell. *IEEE Journal of Photovoltaics*, **2016**, 6, 934-939	3.7	20
98	Characterization and modeling of organic thin-film transistors based π-conjugated small molecule tetraphenyldibenzoperiflanthene: Effects of channel length. *Microelectronic Engineering*, **2016**, 160, 39-48	2.5	18
97	Temperature dependence of the electrical properties of organic thin-film transistors based on tetraphenyldibenzoperiflanthene deposited at different substrate temperatures: Experiment and modeling. *Microelectronic Engineering*, **2016**, 150, 47-56	2.5	18
96	A Rapid, Low-Cost, and Scalable Technique for Printing State-of-the-Art Organic Field-Effect Transistors. *Advanced Materials Technologies*, **2016**, 1, 1600090	6.8	65
95	Intermittent chaos for ergodic light trapping in a photonic fiber plate. *Light: Science and Applications*, **2016**, 5, e16216	16.7	15
94	Back Junction n-type Silicon Heterojunction Solar Cells with V2O5 Hole-selective Contact. *Energy Procedia*, **2016**, 92, 633-637	2.3	21
93	Experimental determination of base resistance contribution for point-like contacted c-Si solar cells using impedance spectroscopy analysis. *Solar Energy Materials and Solar Cells*, **2015**, 141, 350-355	6.4	2
92	Experimental study and analytical modeling of the channel length influence on the electrical characteristics of small-molecule thin-film transistors. *Superlattices and Microstructures*, **2015**, 83, 224-236	2.8	23
91	Large Stokes shift downshifting Eu(III) films as efficiency enhancing UV blocking layers for dye sensitized solar cells. *Physica Status Solidi (A) Applications and Materials Science*, **2015**, 212, 203-210	1.6	20
90	Reversibility of humidity effects in pentacene based organic thin-film transistor: Experimental data and electrical modeling. *Synthetic Metals*, **2015**, 199, 303-309	3.6	29
89	Molecular order of air-stable p-type organic thin-film transistors by tuning the extension of the π-conjugated core: the cases of indolo[3,2-b]carbazole and triindole semiconductors. *Journal of Materials Chemistry C*, **2015**, 3, 506-513	7.1	65
88	Characterization of Transition Metal Oxide/Silicon Heterojunctions for Solar Cell Applications. *Applied Sciences (Switzerland)*, **2015**, 5, 695-705	2.6	66
87	High efficiency interdigitated back-contact c-Si(p) solar cells **2015**,		2
86	Compositional influence on the electrical performance of zinc indium tin oxide transparent thin-film transistors. *Thin Solid Films*, **2014**, 555, 107-111	2.2	3
85	A compact tetrathiafulvalene-benzothiadiazole dyad and its highly symmetrical charge-transfer salt: ordered donor π-stacks closely bound to their acceptors. *Chemistry - A European Journal*, **2014**, 20, 7136-43	4.8	23

84	Restraints in low dimensional organic semiconductor devices at high current densities. *Organic Electronics*, **2014**, 15, 211-215	3.5	1
83	Influence of the density of states on the open-circuit voltage in small-molecule solar cells. *Organic Electronics*, **2014**, 15, 2553-2560	3.5	11
82	HOMO stabilisation in -extended dibenzotetrathiafulvalene derivatives for their application in organic field-effect transistors. *Chemistry - A European Journal*, **2014**, 20, 16672-9	4.8	13
81	Vertically aligned ZnO nanorod array/CuO heterojunction for UV detector application. *Physica Status Solidi (A) Applications and Materials Science*, **2014**, 211, 2493-2498	1.6	15
80	Degradation study and calculation of density-of-states in PTCDI-C8 channel layer from the electrical characteristics of thin-film transistors. *Journal of Applied Physics*, **2014**, 116, 024507	2.5	9
79	Progress in silicon heterojunction solar cell fabrication with rear laser-fired contacts **2013**,		2
78	Analysis of the dynamic short-circuit resistance in organic bulk-heterojunction solar cells: relation to the charge carrier collection efficiency. *Organic Electronics*, **2013**, 14, 1643-1648	3.5	10
77	Simulation of organic inverter. *Solid-State Electronics*, **2012**, 68, 18-21	1.7	5
76	Organic metal rganic semiconductor blended contacts in single crystal field-effect transistors. *Journal of Materials Chemistry*, **2012**, 22, 16011		13
75	Comparison between the density-of-states of picene transistors measured in air and under vacuum. *Synthetic Metals*, **2012**, 161, 2554-2557	3.6	9
74	Evidence of intrinsic ambipolar charge transport in a high band gap organic semiconductor. *Journal of Materials Chemistry*, **2012**, 22, 345-348		8
73	Determination of the Density of States on N-type Ptcdi-c13 Organic Thin-film Semiconductor. *Materials Research Society Symposia Proceedings*, **2012**, 1435, 36		
72	Electronic and structural characterisation of a tetrathiafulvalene compound as a potential candidate for ambipolar transport properties. *CrystEngComm*, **2011**, 13, 6597	3.3	16
71	Electron-Withdrawing Substituted Tetrathiafulvalenes as Ambipolar Semiconductors *Chemistry of Materials*, **2011**, 23, 851-861	9.6	29
70	**2011**,		6
69	CURRENT AND VOLTAGE SIMULATION OF AN ORGANIC INVERTER. *International Journal of High Speed Electronics and Systems*, **2011**, 20, 843-851	0.5	1
68	Interchain and intrachain emission branching in polymer light-emitting diode doped by organic molecules. *Applied Physics Letters*, **2010**, 96, 033301	3.4	9
67	Density-of-states in pentacene from the electrical characteristics of thin-film transistors. *Organic Electronics*, **2010**, 11, 1333-1337	3.5	37

66	Optical stability of small-molecule thin-films determined by Photothermal Deflection Spectroscopy. *Materials Research Society Symposia Proceedings*, **2009**, 1154, 1		3
65	A comparative study of hydrogen- and hydroxyl-related pentacene defect formation in thin films prepared by LangmuirBlodgett technique and thermal evaporation. *Physica Status Solidi (A) Applications and Materials Science*, **2009**, 206, 1404-1409	1.6	4
64	N-type PTCDIC13H27 thin-film transistors deposited at different substrate temperature. *Thin Solid Films*, **2009**, 517, 6271-6274	2.2	27
63	Optoelectronic properties of CuPc thin films deposited at different substrate temperatures. *Journal Physics D: Applied Physics*, **2009**, 42, 145102	3	40
62	**2009**,		2
61	Defect states in pentacene thin films prepared by thermal evaporation and LangmuirBlodgett technique. *Journal of Non-Crystalline Solids*, **2008**, 354, 2888-2891	3.9	7
60	Optical and Morphological Characterization of PTCDI-C13. *Materials Research Society Symposia Proceedings*, **2008**, 1091, 1		0
59	Recombination rates in heterojunction silicon solar cells analyzed by impedance spectroscopy at forward bias and under illumination. *Solar Energy Materials and Solar Cells*, **2008**, 92, 505-509	6.4	55
58	Progress in a-Si:H/c-Si heterojunction emitters obtained by Hot-Wire CVD at 200 C. *Thin Solid Films*, **2008**, 516, 761-764	2.2	12
57	Very low surface recombination velocity of crystalline silicon passivated by phosphorus-doped a-SicxNy:H(n) alloys. *Progress in Photovoltaics: Research and Applications*, **2008**, 16, 123-127	6.8	13
56	Fullerene thin-film transistors fabricated on polymeric gate dielectric. *Thin Solid Films*, **2007**, 515, 7667-7670	2.2	8
55	Improving the efficiency of light-emitting diode based on a thiophene polymer containing a cyano group. *Organic Electronics*, **2007**, 8, 641-647	3.5	10
54	Photodiodes based on fullerene semiconductor. *Thin Solid Films*, **2007**, 515, 7675-7678	2.2	14
53	Optical study of polymer infiltration into porous Si based structures **2007**,		3
52	Experimental observation of oxygen-related defect state in pentacene thin films. *Applied Physics Letters*, **2007**, 90, 092112	3.4	36
51	Bifacial heterojunction silicon solar cells by hot-wire CVD with open-circuit voltages exceeding 600 mV. *Thin Solid Films*, **2006**, 511-512, 415-419	2.2	20
50	Effect of buffer layer on minority carrier lifetime and series resistance of bifacial heterojunction silicon solar cells analyzed by impedance spectroscopy. *Thin Solid Films*, **2006**, 514, 254-257	2.2	26
49	Characterization of bifacial heterojunction silicon solar cells obtained by hot-wire CVD. *Journal of Non-Crystalline Solids*, **2006**, 352, 1953-1957	3.9	4

48	Low level optical absorption measurements on organic semiconductors. *Journal of Non-Crystalline Solids*, **2006**, 352, 1663-1667	3.9	17
47	Copper phthalocyanine thin-film transistors with polymeric gate dielectric. *Journal of Non-Crystalline Solids*, **2006**, 352, 1778-1782	3.9	51
46	Study of a thiophene-based polymer for optoelectronic applications. *Thin Solid Films*, **2006**, 497, 16-19	2.2	25
45	Electronic properties of intrinsic and doped amorphous silicon carbide films. *Thin Solid Films*, **2006**, 511-512, 290-294	2.2	13
44	Optoelectronic devices based on evaporated pentacene films. *Solar Energy Materials and Solar Cells* , **2005**, 87, 567-573	6.4	31
43	Phosphorus-diffused silicon solar cell emitters with plasma enhanced chemical vapor deposited silicon carbide. *Solar Energy Materials and Solar Cells*, **2005**, 87, 667-674	6.4	10
42	Accurate modeling and parameter extraction method for organic TFTs. *Solid-State Electronics*, **2005**, 49, 1009-1016	1.7	116
41	Crystalline silicon surface passivation with amorphous SiCx:H films deposited by plasma-enhanced chemical-vapor deposition. *Journal of Applied Physics*, **2005**, 98, 114912	2.5	21
40	Flexible Pentacene/PMMA Thin-Film Transistors Fabricated on Aluminium Foil Substrates. *Materials Research Society Symposia Proceedings*, **2005**, 871, 1		2
39	Transverse Electrical Transport in Pentacene Photodiodes. *Materials Research Society Symposia Proceedings*, **2005**, 871, 1		
38	Improvement of crystalline silicon surface passivation by hydrogen plasma treatment. *Applied Physics Letters*, **2004**, 84, 1474-1476	3.4	30
37	IR-study of a-SiCx:H and a-SiCxNy:H films for c-Si surface passivation. *Thin Solid Films*, **2004**, 451-452, 340-344	2.2	36
36	Pentacene thin-film transistors with polymeric gate dielectric. *Organic Electronics*, **2004**, 5, 67-71	3.5	112
35	Electrical characterization of pentacene thin-film transistors with polymeric gate dielectric. *Synthetic Metals*, **2004**, 146, 355-358	3.6	19
34	Pentacene thin-film transistors on polymeric gate dielectric: device fabrication and electrical characterization. *Journal of Non-Crystalline Solids*, **2004**, 338-340, 617-621	3.9	36
33	Surface passivation of crystalline silicon by Cat-CVD amorphous and nanocrystalline thin silicon films. *Thin Solid Films*, **2003**, 430, 270-273	2.2	16
32	Pentacene thin-films obtained by thermal evaporation in high vacuum. *Thin Solid Films*, **2003**, 427, 367-370	2.2	45
31	Characterization and application of a-SiCx:H films for the passivation of the c-Si surface. *Thin Solid Films*, **2002**, 403-404, 476-479	2.2	9

30	Surface passivation of n-type crystalline Si by plasma-enhanced-chemical-vapor-deposited amorphous SiCx:H and amorphous SiCxNy:H films. *Applied Physics Letters*, **2002**, 81, 4461-4463	3.4	46
29	Characterization of a-SiCx:H Films for c-Si Surface Passivation. *Materials Research Society Symposia Proceedings*, **2002**, 715, 2451		6
28	Electronic transport in low temperature nanocrystalline silicon thin-film transistors obtained by hot-wire CVD. *Journal of Non-Crystalline Solids*, **2002**, 299-302, 400-404	3.9	8
27	Thin-film transistors with polymorphous silicon active layer. *Journal of Non-Crystalline Solids*, **2002**, 299-302, 1345-1350	3.9	10
26	Analysis of bias stress on thin-film transistors obtained by Hot-Wire Chemical Vapour Deposition. *Thin Solid Films*, **2001**, 383, 307-309	2.2	19
25	Stability of hydrogenated nanocrystalline silicon thin-film transistors. *Thin Solid Films*, **2001**, 395, 335-338	2.2	26
24	Surface passivation of p-type crystalline Si by plasma enhanced chemical vapor deposited amorphous SiCx:H films. *Applied Physics Letters*, **2001**, 79, 2199-2201	3.4	115
23	Effects of thermal annealing in the properties of PECVD a-SiC layers. *Materials Research Society Symposia Proceedings*, **2000**, 609, 2371		
22	Fabrication and characterization of in situ-doped a-Si0.8C0.2 emitter bipolar transistors. *Solid-State Electronics*, **2000**, 44, 1543-1548	1.7	5
21	Microcrystalline silicon thin film transistors obtained by hot-wire CVD. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2000**, 69-70, 526-529	3.1	13
20	Thin film transistors obtained by hot wire CVD. *Journal of Non-Crystalline Solids*, **2000**, 266-269, 1304-1309	3.9	22
19	Large grid-connected hybrid PV system integrated in a public building. *Progress in Photovoltaics: Research and Applications*, **1998**, 6, 453-464	6.8	8
18	Infrared characterization of interfaces. *Applied Surface Science*, **1997**, 108, 211-217	6.7	
17	Study of post-deposition contamination in low-temperature deposited polysilicon films. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **1996**, 36, 96-99	3.1	3
16	Study of post-deposition contamination in low-temperature deposited polysilicon films **1996**, 96-99		
15	P-doped polycrystalline silicon films obtained at low temperature by hot-wire chemical vapor deposition. *Applied Surface Science*, **1995**, 86, 600-603	6.7	13
14	Deposition of Polysilicon Films by Hot-Wire CVD at Low Temperatures for Photovoltaic Applications. *Materials Research Society Symposia Proceedings*, **1995**, 377, 63		8
13	Comparative study of trimethylboron doping of hot filament chemically vapour deposited and microwave plasma chemically vapour deposited diamond films. *Thin Solid Films*, **1994**, 253, 136-140	2.2	6

12	Polycrystalline silicon films obtained by hot-wire chemical vapour deposition. *Applied Physics A: Solids and Surfaces*, **1994**, 59, 645-651		81
11	Trimethylboron doping of CVD diamond thin films. *Diamond and Related Materials*, **1994**, 3, 628-631	3.5	41
10	Influence of Substrate Temperature on the Properties of A-Si:H P-Layers Obtained from Trimethylboron. *Materials Research Society Symposia Proceedings*, **1994**, 336, 565		1
9	On the determination of the interface density of states in a?Si:H/a?Si1⊠CX:H multilayers. *Journal of Non-Crystalline Solids*, **1993**, 164-166, 861-864	3.9	1
8	Carrier Injection in a-Si:H P-I-N Devices: Hydrogen Redistribution and Defect Creation. *Materials Research Society Symposia Proceedings*, **1993**, 297, 315		1
7	Fast Degradation with Pulsed Light of a-Si:H P-I-N Photodiodes. *Materials Research Society Symposia Proceedings*, **1993**, 297, 613		
6	Parallel Conduction in a-Si:H/a-Si1-xCx:H Multilayers. *Materials Research Society Symposia Proceedings*, **1993**, 297, 699		
5	Structural characterization of a-SiC:H by thermal desorption spectroscopy. *Applied Surface Science*, **1993**, 70-71, 768-771	6.7	4
4	Structure of a-Si: H/a-Si1⊠Cx: H multilayers deposited in a reactor with automated substrate holder. *Vacuum*, **1993**, 44, 129-134	3.7	8
3	Persistent photoconductivity in undoped a-Si:H/a-SiC:H multilayers. *Thin Solid Films*, **1993**, 228, 165-168	2.2	
2	Optical and electrical characteristics of LEDs based on a single organic layer		1
1	Organic electronic devices: overview and future trends		1