

Fernando Araujo de Castro

List of Publications by Year in descending order

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73
papers

1,925
citations

236912

25
h-index

265191

42
g-index

74
all docs

74
docs citations

74
times ranked

3434
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards reliable charge-mobility benchmark measurements for organic semiconductors. Organic Electronics, 2014, 15, 1263-1272.	2.6	249
2	Organic photovoltaic cells “promising indoor light harvesters for self-sustainable electronics. Journal of Materials Chemistry A, 2018, 6, 5618-5626.	10.3	189
3	Integrated contact lens sensor system based on multifunctional ultrathin MoS2 transistors. Matter, 2021, 4, 969-985.	10.0	80
4	Woven Electrodes for Flexible Organic Photovoltaic Cells. Advanced Materials, 2011, 23, 1015-1019.	21.0	78
5	Rational Design of Preintercalated Electrodes for Rechargeable Batteries. ACS Energy Letters, 2019, 4, 771-778.	17.4	77
6	Organic photovoltaics: principles and techniques for nanometre scale characterization. Nanotechnology, 2010, 21, 492001.	2.6	74
7	Origin of the Kink in Current-Density Versus Voltage Curves and Efficiency Enhancement of Polymer-C ₆₀ Heterojunction Solar Cells. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1690-1699.	2.9	57
8	Spray printing of organic semiconducting single crystals. Nature Communications, 2016, 7, 13531.	12.8	57
9	Photochemical Transformations in Fullerene and Molybdenum Oxide Affect the Stability of Bilayer Organic Solar Cells. Advanced Energy Materials, 2015, 5, 1400734.	19.5	55
10	Nanostructured Organic Layers via Polymer Demixing for Interface-Enhanced Photovoltaic Cells. Chemistry of Materials, 2006, 18, 5504-5509.	6.7	53
11	Poly(3-hexylthiophene)/C ₆₀ heterojunction solar cells: Implication of morphology on performance and ambipolar charge collection. Solar Energy Materials and Solar Cells, 2008, 92, 464-473.	6.2	51
12	Improved performance of cyanine solar cells with polyaniline anodes. Journal of Materials Chemistry, 2010, 20, 2952.	6.7	44
13	An in-depth analysis of the modelling of organic solar cells using multiple-diode circuits. Solar Energy, 2016, 135, 590-597.	6.1	44
14	High performing doped cyanine bilayer solar cell. Organic Electronics, 2010, 11, 583-588.	2.6	41
15	On the use of cyanine dyes as low-bandgap materials in bulk heterojunction photovoltaic devices. Synthetic Metals, 2006, 156, 973-978.	3.9	37
16	Strategies to improve cyanine dye multi layer organic solar cells. Progress in Photovoltaics: Research and Applications, 2011, 19, 851-857.	8.1	36
17	Multi-scale characterisation of a ferroelectric polymer reveals the emergence of a morphological phase transition driven by temperature. Nature Communications, 2021, 12, 152.	12.8	34
18	Enhanced Optical Properties of Layer-by-Layer Films of Poly(p-phenylenevinylene) Alternated with a Long Chain Counterion and Converted at Low Temperatures. Macromolecules, 2002, 35, 9105-9109.	4.8	33

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19	Transient photocurrent and photovoltage mapping for characterisation of defects in organic photovoltaics. <i>Solar Energy Materials and Solar Cells</i> , 2017, 161, 89-95.	6.2	32
20	Surface and subsurface morphology of operating nanowire:fullerene solar cells revealed by photoconductive-AFM. <i>Energy and Environmental Science</i> , 2011, 4, 3646.	30.8	30
21	Ionic Space Charge Driven Organic Photovoltaic Devices. <i>Chimia</i> , 2007, 61, 787-791.	0.6	27
22	Analysing impact of oxygen and water exposure on roll-coated organic solar cell performance using impedance spectroscopy. <i>Solar Energy Materials and Solar Cells</i> , 2018, 176, 397-404.	6.2	27
23	Crossover from capacitive to pseudoinductive charge-relaxation in organicâ••polymeric light-emitting diodes. <i>Applied Physics Letters</i> , 2005, 87, 013505.	3.3	26
24	A highly sensitive molecular structural probe applied to in situ biosensing of metabolites using PEDOT:PSS. <i>Biotechnology and Bioengineering</i> , 2020, 117, 291-299.	3.3	26
25	Simultaneous Tunable Selection and Self-Assembly of Si Nanowires from Heterogeneous Feedstock. <i>ACS Nano</i> , 2016, 10, 4384-4394.	14.6	25
26	Simultaneous topographical, electrical and optical microscopy of optoelectronic devices at the nanoscale. <i>Nanoscale</i> , 2017, 9, 2723-2731.	5.6	25
27	Assessing the Validity of Transient Photovoltage Measurements and Analysis for Organic Solar Cells. <i>Physical Review Applied</i> , 2018, 10, .	3.8	24
28	Photoinduced hole-transfer in semiconducting polymer/low-bandgap cyanine dye blends: evidence for unit charge separation quantum yield. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 8886.	2.8	23
29	Worldwide outdoor round robin study of organic photovoltaic devices and modules. <i>Solar Energy Materials and Solar Cells</i> , 2014, 130, 281-290.	6.2	23
30	Interface morphology snapshots of vertically segregated thin films of semiconducting polymer/polystyrene blends. <i>Polymer</i> , 2007, 48, 2380-2386.	3.8	22
31	Fabrication of air-stable, large-area, PCDTBT:PC70BM polymer solar cell modules using a custom built slot-die coater. <i>Solar Energy Materials and Solar Cells</i> , 2017, 161, 388-396.	6.2	22
32	Nanoscale Charge Accumulation and Its Effect on Carrier Dynamics in Tri-cation Perovskite Structures. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 48057-48066.	8.0	21
33	Electrically detected magnetic resonance of organic and polymeric light emitting diodes. <i>Journal of Non-Crystalline Solids</i> , 2004, 338-340, 622-625.	3.1	20
34	Interlaboratory indoor ageing of roll-to-roll and spin coated organic photovoltaic devices: Testing the ISOS tests. <i>Polymer Degradation and Stability</i> , 2014, 109, 162-170.	5.8	17
35	Oligothiophene dendron-decorated squaraine dyes: Synthesis, thin film formation, and performance in organic solar cells. <i>Organic Electronics</i> , 2012, 13, 1204-1212.	2.6	16
36	Self-assembly of poly(p-phenylene vinylene) using long chain counter-ion: a new process for fabrication of multilayer thin films heterostructures. <i>Synthetic Metals</i> , 2001, 121, 1447-1448.	3.9	15

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37	Screening of Photoactive Dyes on TiO ₂ Surfaces Using Scanning Electrochemical Microscopy. <i>Journal of Physical Chemistry C</i> , 2012, 116, 17384-17392.	3.1	15
38	Round robin performance testing of organic photovoltaic devices. <i>Renewable Energy</i> , 2014, 63, 376-387.	8.9	15
39	Precise Characterisation of Molecular Orientation in a Single Crystal Field-Effect Transistor Using Polarised Raman Spectroscopy. <i>Scientific Reports</i> , 2016, 6, 33057.	3.3	15
40	Transparent, flexible and low-resistive precision fabric electrode for organic solar cells. <i>Physica Status Solidi - Rapid Research Letters</i> , 2009, 3, 278-280.	2.4	13
41	Kinetics of interface state-limited hole injection in 1,1'-naphthylphenylbiphenyl diamine (1,1'-NPD) thin layers. <i>Synthetic Metals</i> , 2009, 159, 480-486.	3.9	13
42	Ultra-Low Dark Current Organic-Inorganic Hybrid X-Ray Detectors. <i>Advanced Functional Materials</i> , 2021, 31, 2008482.	14.9	12
43	Influence of doping on spin-dependent exciton formation in Alq ₃ based OLEDs. <i>Organic Electronics</i> , 2007, 8, 249-255.	2.6	10
44	Morphology-performance relationships in polymer/fullerene blends probed by complementary characterisation techniques – effects of nanowire formation and subsequent thermal annealing. <i>Journal of Materials Chemistry C</i> , 2015, 3, 9224-9232.	5.5	10
45	Molecular Weight Tuning of Organic Semiconductors for Curved Organic-Inorganic Hybrid X-Ray Detectors. <i>Advanced Science</i> , 2022, 9, e2101746.	11.2	10
46	Two-Dimensional Photocurrent and Transmission Mapping of Aqueous Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2012, 116, 22253-22260.	3.1	9
47	Towards non-destructive individual cell I-V characteristic curve extraction from photovoltaic module measurements. <i>Solar Energy</i> , 2020, 202, 342-357.	6.1	9
48	Flexible nanogap polymer light-emitting diodes fabricated via adhesion lithography (a-Lith). <i>JPhys Materials</i> , 2018, 1, 01LT01.	4.2	8
49	Molecular relaxation temperature effects on emission efficiency of Organic Light-Emitting Diodes. <i>Organic Electronics</i> , 2012, 13, 2935-2939.	2.6	7
50	Challenges Found When Patterning Semiconducting Polymers with Electric Fields for Organic Solar Cell Applications. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-6.	2.7	6
51	Spatially resolved photocurrent mapping of efficient organic solar cells fabricated on a woven mesh electrode. <i>Progress in Photovoltaics: Research and Applications</i> , 2013, 21, 652-657.	8.1	6
52	<i>In situ</i> contactless thermal characterisation and imaging of encapsulated photovoltaic devices using phosphor thermometry. <i>Progress in Photovoltaics: Research and Applications</i> , 2019, 27, 673-681.	8.1	6
53	AlO _x surface passivation of black silicon by spatial ALD: Stability under light soaking and damp heat exposure. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, 022401.	2.1	6
54	Ion-driven nanograin formation in early-stage degradation of tri-cation perovskite films. <i>Nanoscale</i> , 2022, 14, 2605-2616.	5.6	6

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55	On the origin of exciton formation in dye doped Alq3 OLEDs. Applied Physics A: Materials Science and Processing, 2012, 108, 727-731.	2.3	5
56	Signal Amplification Gains of Compressive Sampling for Photocurrent Response Mapping of Optoelectronic Devices. Sensors, 2019, 19, 2870.	3.8	5
57	Simulating photoconductive atomic-force microscopy on disordered photovoltaic materials. Physical Review B, 2015, 91, .	3.2	4
58	Nanoscale 3D characterisation of soft organic material using conductive scanning probe tomography. AIP Advances, 2019, 9, .	1.3	4
59	Environmental Stability of Organic Semiconductors for Use in Optoelectronic Devices. , 2016, , 73-81.		3
60	Dataset on the absorption of PCDTBT:PC 70 BM layers and the electro-optical characteristics of air-stable, large-area PCDTBT:PC 70 BM-based polymer solar cell modules, deposited with a custom built slot-die coater. Data in Brief, 2017, 11, 44-48.	1.0	3
61	Stability of the surface passivation properties of atomic layer deposited aluminum oxide in damp heat conditions. AIP Conference Proceedings, 2019, , .	0.4	3
62	Electrically detected and conventional magnetic resonance investigation of surface and bulk states in polyaniline thin films. Journal of Applied Physics, 2007, 101, 083903.	2.5	2
63	Focus issue on organic and hybrid photovoltaics. Science and Technology of Advanced Materials, 2019, 20, 42-43.	6.1	2
64	High-speed digital light source photocurrent mapping system. Measurement Science and Technology, 2019, 30, 095902.	2.6	2
65	Compact multifunctional source-meter system for characterisation of laboratory-scale solar cell devices. Measurement Science and Technology, 2019, 30, 035901.	2.6	2
66	Optical Properties of Self-Assembled Poly(p -Phenylene Vinylene) Converted at Low Temperatures. Molecular Crystals and Liquid Crystals, 2002, 374, 421-426.	0.9	1
67	Enlarged bilayer interfaces from liquid-liquid dewetting for photovoltaic applications. , 2008, , .		1
68	Tip-enhanced Raman spectroscopy applications: from graphene to heterogeneous catalysis. , 2018, , .		1
69	Title is missing!. , 0, , .		1
70	Interface control in organic heterojunction photovoltaic cells by phase separation processes. Proceedings of SPIE, 2007, , .	0.8	0
71	Flexible Mesh Electrodes: Woven Electrodes for Flexible Organic Photovoltaic Cells (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock	21.0	0
72	Exciton formation in dye doped OLEDs using electrically detected magnetic resonance. , 2011, , .		0

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73	Analytical techniques for precise characterization of nanomaterials. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 253-254.	0.8	0