Andrea Reale

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Substrates for flexible electronics: A practical investigation on the electrical, film flexibility, optical, temperature, and solvent resistance properties. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 638-648.	2.1	471
2	Perovskite solar cells and large area modules (100Âcm 2) based on an air flow-assisted PbI 2 blade coating deposition process. Journal of Power Sources, 2015, 277, 286-291.	7.8	332
3	Piezoresistive behaviour of flexible PEDOT:PSS based sensors. Sensors and Actuators B: Chemical, 2009, 139, 304-309.	7.8	142
4	Progress in flexible dye solar cell materials, processes and devices. Journal of Materials Chemistry A, 2014, 2, 10788-10817.	10.3	135
5	Airbrush spray-coating of polymer bulk-heterojunction solar cells. Solar Energy Materials and Solar Cells, 2011, 95, 1775-1778.	6.2	117
6	High efficiency photovoltaic module based on mesoscopic organometal halide perovskite. Progress in Photovoltaics: Research and Applications, 2016, 24, 436-445.	8.1	112
7	Optimization of nanostructured titania photoanodes for dye-sensitized solar cells: Study and experimentation of TiCl4 treatment. Journal of Non-Crystalline Solids, 2010, 356, 1958-1961.	3.1	88
8	Using EIS for diagnosis of dye-sensitized solar cells performance. Journal of Applied Electrochemistry, 2009, 39, 2291-2295.	2.9	79
9	Hybrid and organic photovoltaics for greenhouse applications. Applied Energy, 2020, 278, 115582.	10.1	75
10	Spray Coating for Polymer Solar Cells: An Upâ€ŧoâ€Date Overview. Energy Technology, 2015, 3, 385-406.	3.8	69
11	Fully Plastic Dye Solar Cell Devices by Lowâ€Temperature UVâ€Irradiation of both the Mesoporous TiO ₂ Photoâ€and Platinized Counterâ€Electrodes. Advanced Energy Materials, 2013, 3, 1292-1298.	19.5	67
12	Optimization of a NOx gas sensor based on single walled carbon nanotubes. Sensors and Actuators B: Chemical, 2006, 118, 226-231.	7.8	66
13	Plasmon polaritons in the near infrared on fluorine doped tin oxide films. Optics Express, 2009, 17, 10155.	3.4	59
14	A simple approach for the fabrication of perovskite solar cells in air. Journal of Power Sources, 2015, 297, 504-510.	7.8	59
15	Fully-sprayed flexible polymer solar cells with a cellulose-graphene electrode. Materials Today Energy, 2018, 7, 105-112.	4.7	51
16	Series-Connection Designs for Dye Solar Cell Modules. IEEE Transactions on Electron Devices, 2011, 58, 2759-2764.	3.0	50
17	Laser-patterned functionalized CVD-graphene as highly transparent conductive electrodes for polymer solar cells. Nanoscale, 2017, 9, 62-69.	5.6	50
18	Efficient sintering of nanocrystalline titanium dioxide films for dye solar cells via raster scanning laser. Applied Physics Letters, 2009, 95, 103312.	3.3	49

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19	Physical and Electrochemical Analysis of an Indoor–Outdoor Ageing Test of Largeâ€Area Dye Solar Cell Devices. ChemPhysChem, 2012, 13, 2925-2936.	2.1	49
20	Gas sensing using single wall carbon nanotubes ordered with dielectrophoresis. Sensors and Actuators B: Chemical, 2005, 111-112, 181-186.	7.8	46
21	Sprayed organic photovoltaic cells and mini-modules based on chemical vapor deposited graphene as transparent conductive electrode. Carbon, 2018, 129, 878-883.	10.3	41
22	Realization of high performance large area Zâ€seriesâ€interconnected opaque dye solar cell modules. Progress in Photovoltaics: Research and Applications, 2013, 21, 1653-1658.	8.1	40
23	Stable Semi-Transparent Dye-Sensitized Solar Modules and Panels for Greenhouse Application. Energies, 2021, 14, 6393.	3.1	40
24	Influence of the interface material layers and semiconductor energetic disorder on the open circuit voltage in polymer solar cells. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 690-699.	2.1	39
25	Blocking layer optimisation of poly(3-hexylthiopene) based Solid State Dye Sensitized Solar Cells. Organic Electronics, 2013, 14, 1882-1890.	2.6	38
26	Estimation of Energy Production of Dye‣ensitized Solar Cell Modules for Buildingâ€Integrated Photovoltaic Applications. Energy Technology, 2014, 2, 531-541.	3.8	38
27	Comparative analysis of the outdoor performance of a dye solar cell miniâ€panel for building integrated photovoltaics applications. Progress in Photovoltaics: Research and Applications, 2015, 23, 215-225.	8.1	38
28	Comprehensive description of the dynamical screening of the internal electric fields of AlGaN/GaN quantum wells in time-resolved photoluminescence experiments. Journal of Applied Physics, 2003, 93, 400-409.	2.5	36
29	On the effect of Al2O3 blocking layer on the performance of dye solar cells with cobalt based electrolytes. Applied Physics Letters, 2009, 94, 173113.	3.3	36
30	Thermal stress effects on Dye-Sensitized Solar Cells (DSSCs). Microelectronics Reliability, 2011, 51, 1762-1766.	1.7	36
31	Experimental validation of GaN HEMTs thermal management by using photocurrent measurements. IEEE Transactions on Electron Devices, 2006, 53, 182-188.	3.0	35
32	Electrochemistry in Reverse Biased Dye Solar Cells and Dye/Electrolyte Degradation Mechanisms. ChemPhysChem, 2012, 13, 2964-2975.	2.1	34
33	Blending CoS and Pt for amelioration of electrodeposited transparent counterelectrodes and the efficiency of back-illuminated dye solar cells. Journal of Materials Chemistry A, 2013, 1, 12941.	10.3	34
34	Laser processing of TiO ₂ films for dye solar cells: a thermal, sintering, throughput and embodied energy investigation. Progress in Photovoltaics: Research and Applications, 2014, 22, 308-317.	8.1	34
35	Interplay between transparency and efficiency in dye sensitized solar cells. Optics Express, 2013, 21, 3235.	3.4	33
36	Fabrication of Spacer and Catalytic Layers in Monolithic Dye-Sensitized Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 1004-1011.	2.5	31

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37	Taking Temperature Processing Out of Dye‧ensitized Solar Cell Fabrication: Fully Laserâ€Manufactured Devices. Advanced Energy Materials, 2014, 4, 1400421.	19.5	30
38	Gain dynamics in traveling-wave semiconductor optical amplifiers. IEEE Journal of Selected Topics in Quantum Electronics, 2001, 7, 293-299.	2.9	28
39	Easy Strategy to Enhance Thermal Stability of Planar PSCs by Perovskite Defect Passivation and Low-Temperature Carbon-Based Electrode. ACS Applied Materials & Interfaces, 2020, 12, 32536-32547.	8.0	28
40	Angular response of dye solar cells to solar and spectrally resolved light. Applied Physics Letters, 2011, 99, .	3.3	27
41	Fabrication of Fully‧prayâ€Processed Organic Photovoltaic Modules by using an Automated Process in Air. Energy Technology, 2013, 1, 757-762.	3.8	27
42	Fluoro-functionalization of vinylene units in a polyarylenevinylene for polymer solar cells. Journal of Materials Chemistry A, 2013, 1, 715-727.	10.3	27
43	Sustainable Electronics Based on Crop Plant Extracts and Graphene: A "Bioadvantaged―Approach. Advanced Sustainable Systems, 2018, 2, 1800069.	5.3	27
44	Angular and prism coupling refractive enhancement in dye solar cells. Applied Physics Letters, 2010, 96, .	3.3	26
45	Polarization-independent δ-strained semiconductor optical amplifiers: a tight-binding study. IEEE Journal of Quantum Electronics, 1998, 34, 1730-1739.	1.9	25
46	Laser-Sintered \$hbox{TiO}_{2}\$ Films for Dye Solar Cell Fabrication: An Electrical, Morphological, and Electron Lifetime Investigation. IEEE Transactions on Electron Devices, 2011, 58, 3179-3188.	3.0	25
47	Correlation between Cell Performance and Physical Transport Parameters in Dye Solar Cells. Journal of Physical Chemistry C, 2012, 116, 1151-1157.	3.1	25
48	Micro-Raman analysis of reverse bias stressed dye-sensitized solar cells. RSC Advances, 2014, 4, 12366.	3.6	25
49	Perovskite photo-detectors (PVSK-PDs) for visible light communication. Organic Electronics, 2019, 69, 220-226.	2.6	25
50	Multiscale Modeling of Dye Solar Cells and Comparison With Experimental Data. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1611-1618.	2.9	24
51	Reverse bias degradation in dye solar cells. Applied Physics Letters, 2012, 101, 123302.	3.3	24
52	Outdoor and diurnal performance of large conformal flexible metal/plastic dye solar cells. Applied Energy, 2014, 113, 1155-1161.	10.1	24
53	Near-infrared photoluminescence of erbium tris(8-hydroxyquinoline) spin-coated thin films induced by low coherence light sources. Applied Physics Letters, 2007, 91, 021106.	3.3	23
54	Format conversion of optical data using four-wave mixing in semiconductor optical amplifiers. IEEE Journal of Selected Topics in Quantum Electronics, 2001, 7, 703-709.	2.9	21

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55	Integrated tandem dye solar cells. RSC Advances, 2013, 3, 20273.	3.6	21
56	Study of gain compression mechanisms in multiple-quantum-well In/sub 1-x/Ga/sub x/As semiconductor optical amplifiers. IEEE Journal of Quantum Electronics, 1999, 35, 1697-1703.	1.9	20
57	Carbon nanotubes for gas detection: materials preparation and device assembly. Journal of Physics Condensed Matter, 2007, 19, 225004.	1.8	20
58	Stability of dye-sensitized solar cells under light soaking test. Journal of Non-Crystalline Solids, 2010, 356, 2049-2052.	3.1	20
59	Formulations and processing of nanocrystalline TiO ₂ films for the different requirements of plastic, metal and glass dye solar cell applications. Nanotechnology, 2013, 24, 255401.	2.6	20
60	A comparative study of organic photodetectors based on P3HT and PTB7 polymers for visible light communication. Organic Electronics, 2020, 81, 105666.	2.6	20
61	The Interfacial Effect on the Open Circuit Voltage of Ionic Thermoelectric Devices with Conducting Polymer Electrodes. Advanced Electronic Materials, 2021, 7, 2100506.	5.1	20
62	The Molecular Weight Dependence of Thermoelectric Properties of Poly (3-Hexylthiophene). Materials, 2020, 13, 1404.	2.9	19
63	Efficient Cosensitization Strategy for Dye-Sensitized Solar Cells. Applied Physics Express, 2012, 5, 022303.	2.4	17
64	Time-Resolved Response of Polymer Bulk-Heterojunction Photodetectors. IEEE Photonics Technology Letters, 2011, 23, 780-782.	2.5	16
65	Synthesis of a novel unsymmetrical Zn(<scp>ii</scp>) phthalocyanine bearing a phenyl ethynyl moiety as sensitizer for dye-sensitized solar cells. Dalton Transactions, 2011, 40, 38-40.	3.3	16
66	Airbrush Spray Coating of Amorphous Titanium Dioxide for Inverted Polymer Solar Cells. International Journal of Photoenergy, 2012, 2012, 1-5.	2.5	16
67	Reliability Study of Ruthenium-Based Dye-Sensitized Solar Cells (DSCs). IEEE Journal of Photovoltaics, 2012, 2, 27-34.	2.5	16
68	Solid state dye solar cell modules. Journal of Power Sources, 2014, 246, 361-364.	7.8	16
69	Developing printable thermoelectric materials based on graphene nanoplatelet/ethyl cellulose nanocomposites. Materials Research Express, 2020, 7, 085101.	1.6	16
70	Fabrication and reliability of dye solar cells: A resonance Raman scattering study. Microelectronics Reliability, 2012, 52, 2487-2489.	1.7	15
71	Bridged Phthalocyanine Systems for Sensitization of Nanocrystalline TiO2Films. International Journal of Photoenergy, 2010, 2010, 1-11.	2.5	13
72	Emission spectra and transient photovoltage in dye-sensitized solar cells under stress tests. Journal of Applied Electrochemistry, 2013, 43, 209-215.	2.9	13

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73	Large-Area Electrodeposition of Counterelectrodes Utilizing the Same Integrated Conductive Grid for Fabrication of Parallel Flexible Dye Solar Cell Modules. IEEE Journal of Photovoltaics, 2014, 4, 1552-1559.	2.5	13
74	Influence of encapsulation materials on the optical properties and conversion efficiency of heat-sealed flexible polymer solar cells. Surface and Coatings Technology, 2014, 255, 69-73.	4.8	13
75	3D cellulose fiber networks modified by PEDOT:PSS/graphene nanoplatelets for thermoelectric applications. Applied Physics Letters, 2022, 120, .	3.3	13
76	Analysis and simulation of incident photon to current efficiency in dye sensitized solar cells. Superlattices and Microstructures, 2010, 47, 192-196.	3.1	12
77	Reliability study of dye-sensitized solar cells by means of solar simulator and white LED. Microelectronics Reliability, 2012, 52, 2495-2499.	1.7	12
78	Charge storage and screening of the internal field in GaN/AlGaN quantum wells. Journal of Crystal Growth, 2001, 230, 492-496.	1.5	11
79	Acceleration factor for ageing measurement of dye solar cells. Microelectronics Reliability, 2013, 53, 279-281.	1.7	11
80	Spray oated Polymer Solar Cells based on Lowâ€Bandâ€Gap Donors Processed with <i>ortho</i> â€Xylene. Energy Technology, 2014, 2, 786-791.	3.8	11
81	Single wall carbon nanotube based aggregates and their electrical characterization. Synthetic Metals, 2004, 145, 171-176.	3.9	10
82	Thermal activation of mass transport and charge transfer at Pt in the I3â^'/Iâ^' electrolyte of a dye-sensitized solar cell. Physical Chemistry Chemical Physics, 2010, 12, 10786.	2.8	10
83	On the Role of PTB7â€Th:[70]PCBM Blend Concentration in <i>ortho</i> â€Xylene on Polymer Solarâ€Cell Performance. Energy Technology, 2017, 5, 2168-2174.	3.8	10
84	The Golden Fig: A Plasmonic Effect Study of Organic-Based Solar Cells. Nanomaterials, 2022, 12, 267.	4.1	10
85	Dye Solar Cells: Basic and Photon Management Strategies. , 0, , .		8
86	Enhanced Thermoelectric Properties of Poly(3-hexylthiophene) through the Incorporation of Aligned Carbon Nanotube Forest and Chemical Treatments. ACS Omega, 2021, 6, 1073-1082.	3.5	8
87	Optical and Electronic Properties of GaN Based Heterostructures: A Self-Consistent Time-Dependent Approach. Physica Status Solidi A, 2001, 183, 121-124.	1.7	7
88	Evaluation of the gauge factor for membranes assembled by single-walled carbon nanotubes. Applied Physics Letters, 2004, 85, 2812-2814.	3.3	7
89	Polarization field effects on the recombination dynamics in low-In-content InGaN multi-quantum wells. Superlattices and Microstructures, 2004, 36, 615-624.	3.1	7
90	Thermal resistance measurement of GaAs MESFETs by means of photocurrent spectrum analysis and comparison with simulations. Semiconductor Science and Technology, 2005, 20, 135-139.	2.0	7

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91	Infrared photoluminescence of erbium-tris(8-hydroxyquinoline) in a distributed feedback cavity. Journal of Luminescence, 2011, 131, 682-685.	3.1	7
92	Electrical properties of patterned photoactive layers in organic photovoltaic modules. Solar Energy Materials and Solar Cells, 2016, 144, 493-499.	6.2	7
93	Recombination Dynamics in GaN/AlGaN Quantum Wells: The Role of Built-in Fields. Physica Status Solidi A, 2001, 188, 851-855.	1.7	6
94	Thermal Maps of GaAs P-HEMT: A Novel System Based on the Photocurrent Spectral Analysis. IEEE Transactions on Electron Devices, 2007, 54, 879-882.	3.0	6
95	Photocurrent enhancement of dye solar cells by efficient light management. Superlattices and Microstructures, 2010, 47, 197-201.	3.1	6
96	Novel extended SOAs model for applications in very high-speed systems and its experimental validation. IEEE Photonics Technology Letters, 2002, 14, 905-907.	2.5	5
97	Resonant and Non-Resonant Dynamics of Excitons and Free Carriers in GaN/AlGaN Quantum Wells. Physica Status Solidi A, 2002, 190, 87-92.	1.7	5
98	Charge Screening of Polarization Fields in Nitride Nanostructures. Physica Status Solidi (B): Basic Research, 2001, 228, 553-558.	1.5	4
99	Optical clock recovery from 10-Gb/s NRZ signal after propagation on 100 km of DS, NZD or SR installed fiber. Microwave and Optical Technology Letters, 2005, 44, 264-266.	1.4	4
100	Nanocomposites for organic and hybrid organic-inorganic solar cells. , 2006, 6334, 139.		4
101	Carbon Nanotubes/Polydimethylsiloxanes Systems for Thermal Management of Miniaturized Electronic Components. Journal of Nanoscience and Nanotechnology, 2010, 10, 8336-8340.	0.9	4
102	Design and Implementation of a Scalable and QoS-aware Stream Processing Framework: The Quasit Prototype. , 2012, , .		4
103	Time resolved temperature profiles of high power HEMTs by photocurrent spectral analysis. Microelectronics Reliability, 2012, 52, 2077-2080.	1.7	4
104	Comparison between positive and negative constant current stress on dye-sensitized solar cells. Microelectronics Reliability, 2013, 53, 1804-1808.	1.7	4
105	Interferometric study of microchamber in large area dye solar cells. Solar Energy, 2013, 95, 246-254.	6.1	4
106	Diffusion Length Mapping for Dye-Sensitized Solar Cells. Energies, 2016, 9, 686.	3.1	4
107	Static and dynamic screening of the polarization fields in nitride nanostructures: a theoretical and experimental study. Physica B: Condensed Matter, 2002, 314, 35-38.	2.7	3
108	Modeling Nonlinear Propagation of Optical Signals in Semiconductor Optical Amplifiers. Journal of Computational Electronics, 2003, 2, 413-416.	2.5	3

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109	Conductance modulation of single-walled carbon nanotubes. , 2003, 5118, 254.		3
110	Angular refractive path for optical enhancement and evaluation of dye solar cells. Solar Energy, 2013, 98, 553-560.	6.1	3
111	Study of the effects of UV-exposure on dye-sensitized solar cells. , 2013, , .		3
112	Electrodeposited cobalt sulfide hole collecting layer for polymer solar cells. Applied Physics Letters, 2014, 105, 063304.	3.3	3
113	Tetrakis erbium quinolinate complexes, electronic structure investigation. Organic Electronics, 2014, 15, 1810-1814.	2.6	3
114	Inverted Bulkâ€Heterojunction Solar Cells using Polyethylenimineâ€Ethoxylated Processed from a Fully Aqueous Dispersion as Electronâ€Transport Layer. Energy Technology, 2015, 3, 1152-1158.	3.8	3
115	Graphene with Ni-Grid as Semitransparent Electrode for Bulk Heterojunction Solar Cells (BHJ-SCs). Polymers, 2022, 14, 1046.	4.5	3
116	Modelling of semiconductor nanostructured devices within the tight-binding approach. Journal of Physics Condensed Matter, 1999, 11, 6035-6043.	1.8	2
117	Recombination dynamics in InGaN/GaN quantum wells: role of the piezoelectric field versus carrier localization. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 1397-1402.	0.8	2
118	Optical clock recovery from 10-Gb/s NRZ signal. Microwave and Optical Technology Letters, 2004, 42, 435-437.	1.4	2
119	Carbon nanotubes dispersions in polymer matrix for strain sensing applications. , 2005, , .		2
120	3R all-optical regeneration with re-timing stage based on a clock auxiliary carrier. , 0, , .		2
121	Preparation and Thermal Characterization of Carbon Nanotubes-Based Composites for Applications in Electronics Packaging. , 2008, , .		2
122	The impact of outdoor meteorological parameters on the performance of dye-sensitized solar cells. Conference Record of the IEEE Photovoltaic Specialists Conference, 2008, , .	0.0	2
123	Degradation mechanisms of dye-sensitized solar cells: Light, bias and temperature effects. , 2015, , .		2
124	Investigation of the recombination dynamics in low In-content InGaN MQWs by means of cathodoluminescence and photoluminescence excitation. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 817-821.	0.8	1
125	SWCNT aggregates for gas sensing applications. , 2005, 5838, 69.		1

126 Erbium doped organic compounds for integrated optics. , 2008, , .

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127	Optoelectronics materials and components characterization for organic inorganic laser assembling. , 2009, , .		1
128	Thermal Model of High-Power Amplifiers Based on Time-Dependent Temperature Profiles Measured by Photoconductance. IEEE Transactions on Electron Devices, 2018, 65, 1739-1744.	3.0	1
129	Study of the steady state and dynamical behavior of semiconductor optical amplifiers. Physica B: Condensed Matter, 1999, 272, 513-517.	2.7	0
130	Simulation of Optoelectronic Devices. VLSI Design, 2001, 13, 23-36.	0.5	0
131	Measurements of impairments of WDM signals in photonic devices. , 2003, 4876, 231.		0
132	Towards the realization of a multielectrode field emission device: controlled growth of single wall carbon nanotube arrays. , 2005, , .		0
133	All Optical 3R Regeneration and Wavelength Convertion. , 2005, , 537-544.		0
134	All-Optical Wavelength Converter-Regenerator by Means of Out of Band Auxiliary Carrier Modulation Induced by Super-Continuum Generation. , 2006, , .		0
135	Single and Multi-Channel 2R Regeneration: An Overview. , 2006, , .		0
136	Triple C, L and U-band wide amplification system by means of Rayleigh backscattering control. , 2007, , .		0
137	Novel Infrared Emitter for Low Cost Optical Devices. , 2007, , .		0
138	Hybrid organic active waveguide for C-band applications. , 2009, , .		0
139	Optical stress and reliability study of ruthenium-based dye-sensitized solar cells (DSSC). , 2011, , .		0
140	Effective epidemic dissemination of multimedia metadata in Peer-to-Peer overlay networks: The Metis architecture and prototype. , 2011, , .		0
141	Reverse Bias Degradation in Shadowed Devices in TiO2 Dye-Sensitized Solar Cell Modules. Materials Research Society Symposia Proceedings, 2012, 1442, 40.	0.1	0
142	Raster Scanning Laser and UV Processing of nanocrystalline TiO2 Films for Sintering in Dye Solar Cells: Device Performance, Throughput and Embodied Energy. Materials Research Society Symposia Proceedings, 2012, 1447, 33.	0.1	0
143	Optical spectral resolved low frequency noise analysis of Dye Sensitized Solar Cells. , 2013, , .		0
144	A universal drift-diffusion simulator and its application to OLED simulations. , 2017, , .		0

A universal drift-diffusion simulator and its application to OLED simulations. , 2017, , . 144

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145	Effect of Temperature Change on the Performance of Laser Diode at 450 nm for Submarine Optical Communications. , 2020, , .		0