

# Andrea Reale

## List of Publications by Year in descending order

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145  
papers

3,835  
citations

126708

33  
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143772

57  
g-index

150  
all docs

150  
docs citations

150  
times ranked

5267  
citing authors

#	ARTICLE	IF	CITATIONS
1	3D cellulose fiber networks modified by PEDOT:PSS/graphene nanoplatelets for thermoelectric applications. Applied Physics Letters, 2022, 120, .	1.5	13
2	The Golden Fig: A Plasmonic Effect Study of Organic-Based Solar Cells. Nanomaterials, 2022, 12, 267.	1.9	10
3	Graphene with Ni-Grid as Semitransparent Electrode for Bulk Heterojunction Solar Cells (BHJ-SCs). Polymers, 2022, 14, 1046.	2.0	3
4	Enhanced Thermoelectric Properties of Poly(3-hexylthiophene) through the Incorporation of Aligned Carbon Nanotube Forest and Chemical Treatments. ACS Omega, 2021, 6, 1073-1082.	1.6	8
5	The Interfacial Effect on the Open Circuit Voltage of Ionic Thermoelectric Devices with Conducting Polymer Electrodes. Advanced Electronic Materials, 2021, 7, 2100506.	2.6	20
6	Stable Semi-Transparent Dye-Sensitized Solar Modules and Panels for Greenhouse Application. Energies, 2021, 14, 6393.	1.6	40
7	Hybrid and organic photovoltaics for greenhouse applications. Applied Energy, 2020, 278, 115582.	5.1	75
8	A comparative study of organic photodetectors based on P3HT and PTB7 polymers for visible light communication. Organic Electronics, 2020, 81, 105666.	1.4	20
9	The Molecular Weight Dependence of Thermoelectric Properties of Poly (3-Hexylthiophene). Materials, 2020, 13, 1404.	1.3	19
10	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.	4.0	28
11	Developing printable thermoelectric materials based on graphene nanoplatelet/ethyl cellulose nanocomposites. Materials Research Express, 2020, 7, 085101.	0.8	16
12	Effect of Temperature Change on the Performance of Laser Diode at 450 nm for Submarine Optical Communications. , 2020, , .		0
13	Perovskite photo-detectors (PVSK-PDs) for visible light communication. Organic Electronics, 2019, 69, 220-226.	1.4	25
14	Thermal Model of High-Power Amplifiers Based on Time-Dependent Temperature Profiles Measured by Photoconductance. IEEE Transactions on Electron Devices, 2018, 65, 1739-1744.	1.6	1
15	Fully-sprayed flexible polymer solar cells with a cellulose-graphene electrode. Materials Today Energy, 2018, 7, 105-112.	2.5	51
16	Sprayed organic photovoltaic cells and mini-modules based on chemical vapor deposited graphene as transparent conductive electrode. Carbon, 2018, 129, 878-883.	5.4	41
17	Sustainable Electronics Based on Crop Plant Extracts and Graphene: A "Bioadvantaged" Approach. Advanced Sustainable Systems, 2018, 2, 1800069.	2.7	27
18	On the Role of PTB7:Th:[70]PCBM Blend Concentration in ortho-Xylene on Polymer Solar Cell Performance. Energy Technology, 2017, 5, 2168-2174.	1.8	10

#	ARTICLE	IF	CITATIONS
19	A universal drift-diffusion simulator and its application to OLED simulations. , 2017, , .		0
20	Laser-patterned functionalized CVD-graphene as highly transparent conductive electrodes for polymer solar cells. Nanoscale, 2017, 9, 62-69.	2.8	50
21	High efficiency photovoltaic module based on mesoscopic organometal halide perovskite. Progress in Photovoltaics: Research and Applications, 2016, 24, 436-445.	4.4	112
22	Diffusion Length Mapping for Dye-Sensitized Solar Cells. Energies, 2016, 9, 686.	1.6	4
23	Electrical properties of patterned photoactive layers in organic photovoltaic modules. Solar Energy Materials and Solar Cells, 2016, 144, 493-499.	3.0	7
24	Inverted Bulkâ€Heterojunction Solar Cells using Polyethylenimineâ€Ethoxylated Processed from a Fully Aqueous Dispersion as Electronâ€Transport Layer. Energy Technology, 2015, 3, 1152-1158.	1.8	3
25	Degradation mechanisms of dye-sensitized solar cells: Light, bias and temperature effects. , 2015, , .		2
26	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.	2.4	39
27	Spray Coating for Polymer Solar Cells: An Upâ€toâ€Date Overview. Energy Technology, 2015, 3, 385-406.	1.8	69
28	A simple approach for the fabrication of perovskite solar cells in air. Journal of Power Sources, 2015, 297, 504-510.	4.0	59
29	Perovskite solar cells and large area modules (100Åcm <sup>2</sup> ) based on an air flow-assisted Pbl <sub>2</sub> blade coating deposition process. Journal of Power Sources, 2015, 277, 286-291.	4.0	332
30	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.	4.4	38
31	Electrodeposited cobalt sulfide hole collecting layer for polymer solar cells. Applied Physics Letters, 2014, 105, 063304.	1.5	3
32	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.	1.5	13
33	Laser processing of TiO <sub>2</sub> films for dye solar cells: a thermal, sintering, throughput and embodied energy investigation. Progress in Photovoltaics: Research and Applications, 2014, 22, 308-317.	4.4	34
34	Outdoor and diurnal performance of large conformal flexible metal/plastic dye solar cells. Applied Energy, 2014, 113, 1155-1161.	5.1	24
35	Solid state dye solar cell modules. Journal of Power Sources, 2014, 246, 361-364.	4.0	16
36	Taking Temperature Processing Out of Dyeâ€Sensitized Solar Cell Fabrication: Fully Laserâ€Manufactured Devices. Advanced Energy Materials, 2014, 4, 1400421.	10.2	30

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37	Spray-Coated Polymer Solar Cells based on Low-Band-Gap Donors Processed with <i>ortho</i> -Xylene. Energy Technology, 2014, 2, 786-791.	1.8	11
38	Progress in flexible dye solar cell materials, processes and devices. Journal of Materials Chemistry A, 2014, 2, 10788-10817.	5.2	135
39	Estimation of Energy Production of Dye-Sensitized Solar Cell Modules for Building-Integrated Photovoltaic Applications. Energy Technology, 2014, 2, 531-541.	1.8	38
40	Micro-Raman analysis of reverse bias stressed dye-sensitized solar cells. RSC Advances, 2014, 4, 12366.	1.7	25
41	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.	2.2	13
42	Tetrakis erbium quinolate complexes, electronic structure investigation. Organic Electronics, 2014, 15, 1810-1814.	1.4	3
43	Realization of high performance large area $ZnO$ -interconnected opaque dye solar cell modules. Progress in Photovoltaics: Research and Applications, 2013, 21, 1653-1658.	4.4	40
44	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.	5.2	34
45	Integrated tandem dye solar cells. RSC Advances, 2013, 3, 20273.	1.7	21
46	Optical spectral resolved low frequency noise analysis of Dye Sensitized Solar Cells. , 2013, , .		0
47	Angular refractive path for optical enhancement and evaluation of dye solar cells. Solar Energy, 2013, 98, 553-560.	2.9	3
48	Acceleration factor for ageing measurement of dye solar cells. Microelectronics Reliability, 2013, 53, 279-281.	0.9	11
49	Fabrication of Fully-Spray-Processed Organic Photovoltaic Modules by using an Automated Process in Air. Energy Technology, 2013, 1, 757-762.	1.8	27
50	Study of the effects of UV-exposure on dye-sensitized solar cells. , 2013, , .		3
51	Fabrication of Spacer and Catalytic Layers in Monolithic Dye-Sensitized Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 1004-1011.	1.5	31
52	Fluoro-functionalization of vinylene units in a polyarylenevinylene for polymer solar cells. Journal of Materials Chemistry A, 2013, 1, 715-727.	5.2	27
53	Comparison between positive and negative constant current stress on dye-sensitized solar cells. Microelectronics Reliability, 2013, 53, 1804-1808.	0.9	4
54	Interferometric study of microchamber in large area dye solar cells. Solar Energy, 2013, 95, 246-254.	2.9	4

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55	Blocking layer optimisation of poly(3-hexylthiophene) based Solid State Dye Sensitized Solar Cells. Organic Electronics, 2013, 14, 1882-1890.	1.4	38
56	Formulations and processing of nanocrystalline TiO <sub>2</sub> films for the different requirements of plastic, metal and glass dye solar cell applications. Nanotechnology, 2013, 24, 255401.	1.3	20
57	Fully Plastic Dye Solar Cell Devices by Low-Temperature UV-Irradiation of both the Mesoporous TiO <sub>2</sub> Photo- and Platinized Counter-Electrodes. Advanced Energy Materials, 2013, 3, 1292-1298.	10.2	67
58	Emission spectra and transient photovoltage in dye-sensitized solar cells under stress tests. Journal of Applied Electrochemistry, 2013, 43, 209-215.	1.5	13
59	Interplay between transparency and efficiency in dye sensitized solar cells. Optics Express, 2013, 21, 3235.	1.7	33
60	Airbrush Spray Coating of Amorphous Titanium Dioxide for Inverted Polymer Solar Cells. International Journal of Photoenergy, 2012, 2012, 1-5.	1.4	16
61	Design and Implementation of a Scalable and QoS-aware Stream Processing Framework: The Quasit Prototype. , 2012, , .		4
62	Efficient Cosensitization Strategy for Dye-Sensitized Solar Cells. Applied Physics Express, 2012, 5, 022303.	1.1	17
63	Reverse Bias Degradation in Shadowed Devices in TiO <sub>2</sub> Dye-Sensitized Solar Cell Modules. Materials Research Society Symposia Proceedings, 2012, 1442, 40.	0.1	0
64	Raster Scanning Laser and UV Processing of nanocrystalline TiO <sub>2</sub> Films for Sintering in Dye Solar Cells: Device Performance, Throughput and Embodied Energy. Materials Research Society Symposia Proceedings, 2012, 1447, 33.	0.1	0
65	Reverse bias degradation in dye solar cells. Applied Physics Letters, 2012, 101, 123302.	1.5	24
66	Correlation between Cell Performance and Physical Transport Parameters in Dye Solar Cells. Journal of Physical Chemistry C, 2012, 116, 1151-1157.	1.5	25
67	Physical and Electrochemical Analysis of an Indoor-Outdoor Ageing Test of Large-Area Dye Solar Cell Devices. ChemPhysChem, 2012, 13, 2925-2936.	1.0	49
68	Time resolved temperature profiles of high power HEMTs by photocurrent spectral analysis. Microelectronics Reliability, 2012, 52, 2077-2080.	0.9	4
69	Reliability study of dye-sensitized solar cells by means of solar simulator and white LED. Microelectronics Reliability, 2012, 52, 2495-2499.	0.9	12
70	Fabrication and reliability of dye solar cells: A resonance Raman scattering study. Microelectronics Reliability, 2012, 52, 2487-2489.	0.9	15
71	Electrochemistry in Reverse Biased Dye Solar Cells and Dye/Electrolyte Degradation Mechanisms. ChemPhysChem, 2012, 13, 2964-2975.	1.0	34
72	Reliability Study of Ruthenium-Based Dye-Sensitized Solar Cells (DSCs). IEEE Journal of Photovoltaics, 2012, 2, 27-34.	1.5	16

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73	Time-Resolved Response of Polymer Bulk-Heterojunction Photodetectors. IEEE Photonics Technology Letters, 2011, 23, 780-782.	1.3	16
74	Optical stress and reliability study of ruthenium-based dye-sensitized solar cells (DSSC). , 2011, , .		0
75	Synthesis of a novel unsymmetrical Zn( <i>scp</i> ) phthalocyanine bearing a phenyl ethynyl moiety as sensitizer for dye-sensitized solar cells. Dalton Transactions, 2011, 40, 38-40.	1.6	16
76	Thermal stress effects on Dye-Sensitized Solar Cells (DSSCs). Microelectronics Reliability, 2011, 51, 1762-1766.	0.9	36
77	Series-Connection Designs for Dye Solar Cell Modules. IEEE Transactions on Electron Devices, 2011, 58, 2759-2764.	1.6	50
78	Laser-Sintered $\text{TiO}_2$ Films for Dye Solar Cell Fabrication: An Electrical, Morphological, and Electron Lifetime Investigation. IEEE Transactions on Electron Devices, 2011, 58, 3179-3188.	1.6	25
79	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.	2.4	471
80	Infrared photoluminescence of erbium-tris(8-hydroxyquinoline) in a distributed feedback cavity. Journal of Luminescence, 2011, 131, 682-685.	1.5	7
81	Airbrush spray-coating of polymer bulk-heterojunction solar cells. Solar Energy Materials and Solar Cells, 2011, 95, 1775-1778.	3.0	117
82	Angular response of dye solar cells to solar and spectrally resolved light. Applied Physics Letters, 2011, 99, .	1.5	27
83	Effective epidemic dissemination of multimedia metadata in Peer-to-Peer overlay networks: The Metis architecture and prototype. , 2011, , .		0
84	Carbon Nanotubes/Polydimethylsiloxanes Systems for Thermal Management of Miniaturized Electronic Components. Journal of Nanoscience and Nanotechnology, 2010, 10, 8336-8340.	0.9	4
85	Photocurrent enhancement of dye solar cells by efficient light management. Superlattices and Microstructures, 2010, 47, 197-201.	1.4	6
86	Multiscale Modeling of Dye Solar Cells and Comparison With Experimental Data. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1611-1618.	1.9	24
87	Analysis and simulation of incident photon to current efficiency in dye sensitized solar cells. Superlattices and Microstructures, 2010, 47, 192-196.	1.4	12
88	Bridged Phthalocyanine Systems for Sensitization of Nanocrystalline $\text{TiO}_2$ Films. International Journal of Photoenergy, 2010, 2010, 1-11.	1.4	13
89	Optimization of nanostructured titania photoanodes for dye-sensitized solar cells: Study and experimentation of $\text{TiCl}_4$ treatment. Journal of Non-Crystalline Solids, 2010, 356, 1958-1961.	1.5	88
90	Stability of dye-sensitized solar cells under light soaking test. Journal of Non-Crystalline Solids, 2010, 356, 2049-2052.	1.5	20

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91	Angular and prism coupling refractive enhancement in dye solar cells. Applied Physics Letters, 2010, 96, .	1.5	26
92	Thermal activation of mass transport and charge transfer at Pt in the I3 <sup>+</sup> /I <sup>-</sup> electrolyte of a dye-sensitized solar cell. Physical Chemistry Chemical Physics, 2010, 12, 10786.	1.3	10
93	Efficient sintering of nanocrystalline titanium dioxide films for dye solar cells via raster scanning laser. Applied Physics Letters, 2009, 95, 103312.	1.5	49
94	Piezoresistive behaviour of flexible PEDOT:PSS based sensors. Sensors and Actuators B: Chemical, 2009, 139, 304-309.	4.0	142
95	Using EIS for diagnosis of dye-sensitized solar cells performance. Journal of Applied Electrochemistry, 2009, 39, 2291-2295.	1.5	79
96	Hybrid organic active waveguide for C-band applications. , 2009, , .		0
97	Plasmon polaritons in the near infrared on fluorine doped tin oxide films. Optics Express, 2009, 17, 10155.	1.7	59
98	Optoelectronics materials and components characterization for organic inorganic laser assembling. , 2009, , .		1
99	On the effect of Al <sub>2</sub> O <sub>3</sub> blocking layer on the performance of dye solar cells with cobalt based electrolytes. Applied Physics Letters, 2009, 94, 173113.	1.5	36
100	Erbium doped organic compounds for integrated optics. , 2008, , .		1
101	Preparation and Thermal Characterization of Carbon Nanotubes-Based Composites for Applications in Electronics Packaging. , 2008, , .		2
102	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
103	Near-infrared photoluminescence of erbium tris(8-hydroxyquinoline) spin-coated thin films induced by low coherence light sources. Applied Physics Letters, 2007, 91, 021106.	1.5	23
104	Triple C, L and U-band wide amplification system by means of Rayleigh backscattering control. , 2007, , .		0
105	Carbon nanotubes for gas detection: materials preparation and device assembly. Journal of Physics Condensed Matter, 2007, 19, 225004.	0.7	20
106	Thermal Maps of GaAs P-HEMT: A Novel System Based on the Photocurrent Spectral Analysis. IEEE Transactions on Electron Devices, 2007, 54, 879-882.	1.6	6
107	Novel Infrared Emitter for Low Cost Optical Devices. , 2007, , .		0
108	All-Optical Wavelength Converter-Regenerator by Means of Out of Band Auxiliary Carrier Modulation Induced by Super-Continuum Generation. , 2006, , .		0

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109	Single and Multi-Channel 2R Regeneration: An Overview. , 2006, , .		0
110	Optimization of a NOx gas sensor based on single walled carbon nanotubes. Sensors and Actuators B: Chemical, 2006, 118, 226-231.	4.0	66
111	Experimental validation of GaN HEMTs thermal management by using photocurrent measurements. IEEE Transactions on Electron Devices, 2006, 53, 182-188.	1.6	35
112	Nanocomposites for organic and hybrid organic-inorganic solar cells. , 2006, 6334, 139.		4
113	Carbon nanotubes dispersions in polymer matrix for strain sensing applications. , 2005, , .		2
114	Towards the realization of a multielectrode field emission device: controlled growth of single wall carbon nanotube arrays. , 2005, , .		0
115	Gas sensing using single wall carbon nanotubes ordered with dielectrophoresis. Sensors and Actuators B: Chemical, 2005, 111-112, 181-186.	4.0	46
116	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.	0.9	4
117	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
118	All Optical 3R Regeneration and Wavelength Conversion. , 2005, , 537-544.		0
119	Thermal resistance measurement of GaAs MESFETs by means of photocurrent spectrum analysis and comparison with simulations. Semiconductor Science and Technology, 2005, 20, 135-139.	1.0	7
120	SWCNT aggregates for gas sensing applications. , 2005, 5838, 69.		1
121	Evaluation of the gauge factor for membranes assembled by single-walled carbon nanotubes. Applied Physics Letters, 2004, 85, 2812-2814.	1.5	7
122	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
123	Optical clock recovery from 10-Gb/s NRZ signal. Microwave and Optical Technology Letters, 2004, 42, 435-437.	0.9	2
124	Polarization field effects on the recombination dynamics in low-In-content InGaN multi-quantum wells. Superlattices and Microstructures, 2004, 36, 615-624.	1.4	7
125	Single wall carbon nanotube based aggregates and their electrical characterization. Synthetic Metals, 2004, 145, 171-176.	2.1	10
126	Comprehensive description of the dynamical screening of the internal electric fields of AlGaIn/GaN quantum wells in time-resolved photoluminescence experiments. Journal of Applied Physics, 2003, 93, 400-409.	1.1	36



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127	Modeling Nonlinear Propagation of Optical Signals in Semiconductor Optical Amplifiers. Journal of Computational Electronics, 2003, 2, 413-416.	1.3	3
128	Conductance modulation of single-walled carbon nanotubes. , 2003, 5118, 254.		3
129	Measurements of impairments of WDM signals in photonic devices. , 2003, 4876, 231.		0
130	Novel extended SOAs model for applications in very high-speed systems and its experimental validation. IEEE Photonics Technology Letters, 2002, 14, 905-907.	1.3	5
131	Resonant and Non-Resonant Dynamics of Excitons and Free Carriers in GaN/AlGaIn Quantum Wells. Physica Status Solidi A, 2002, 190, 87-92.	1.7	5
132	Static and dynamic screening of the polarization fields in nitride nanostructures: a theoretical and experimental study. Physica B: Condensed Matter, 2002, 314, 35-38.	1.3	3
133	Gain dynamics in traveling-wave semiconductor optical amplifiers. IEEE Journal of Selected Topics in Quantum Electronics, 2001, 7, 293-299.	1.9	28
134	Simulation of Optoelectronic Devices. VLSI Design, 2001, 13, 23-36.	0.5	0
135	Charge Screening of Polarization Fields in Nitride Nanostructures. Physica Status Solidi (B): Basic Research, 2001, 228, 553-558.	0.7	4
136	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
137	Recombination Dynamics in GaN/AlGaIn Quantum Wells: The Role of Built-in Fields. Physica Status Solidi A, 2001, 188, 851-855.	1.7	6
138	Charge storage and screening of the internal field in GaN/AlGaIn quantum wells. Journal of Crystal Growth, 2001, 230, 492-496.	0.7	11
139	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.	1.9	21
140	Study of the steady state and dynamical behavior of semiconductor optical amplifiers. Physica B: Condensed Matter, 1999, 272, 513-517.	1.3	0
141	Modelling of semiconductor nanostructured devices within the tight-binding approach. Journal of Physics Condensed Matter, 1999, 11, 6035-6043.	0.7	2
142	Study of gain compression mechanisms in multiple-quantum-well In <sub>1-x</sub> Ga <sub>x</sub> As semiconductor optical amplifiers. IEEE Journal of Quantum Electronics, 1999, 35, 1697-1703.	1.0	20
143	Polarization-independent $\Gamma$ -strained semiconductor optical amplifiers: a tight-binding study. IEEE Journal of Quantum Electronics, 1998, 34, 1730-1739.	1.0	25
144	3R all-optical regeneration with re-timing stage based on a clock auxiliary carrier. , 0, , .		2

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145	Dye Solar Cells: Basic and Photon Management Strategies. , 0 , , .		8