

Aldo Di Carlo

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

616
papers

17,433
citations

64
h-index

109
g-index

740
ext. papers

20,145
ext. citations

5.6
avg, IF

6.86
L-index

#	Paper	IF	Citations
616	In situ observation of heat-induced degradation of perovskite solar cells. <i>Nature Energy</i> , 2016 , 1,	62.3	484
615	Effects of macroscopic polarization in III-V nitride multiple quantum wells. <i>Physical Review B</i> , 1999 , 60, 8849-8858	3.3	432
614	Atomistic simulations of complex materials: ground-state and excited-state properties. <i>Journal of Physics Condensed Matter</i> , 2002 , 14, 3015-3047	1.8	384
613	Substrates for flexible electronics: A practical investigation on the electrical, film flexibility, optical, temperature, and solvent resistance properties. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011 , 49, 638-648	2.6	370
612	Consensus statement for stability assessment and reporting for perovskite photovoltaics based on ISOS procedures. <i>Nature Energy</i> , 2020 , 5, 35-49	62.3	369
611	Perovskite solar cells and large area modules (100cm ²) based on an air flow-assisted Pbl ₂ blade coating deposition process. <i>Journal of Power Sources</i> , 2015 , 277, 286-291	8.9	285
610	Atomistic theory of transport in organic and inorganic nanostructures. <i>Reports on Progress in Physics</i> , 2004 , 67, 1497-1561	14.4	246
609	Efficiency Drop in Green InGaN/GaN Light Emitting Diodes: The Role of Random Alloy Fluctuations. <i>Physical Review Letters</i> , 2016 , 116, 027401	7.4	244
608	Vegetable-based dye-sensitized solar cells. <i>Chemical Society Reviews</i> , 2015 , 44, 3244-94	58.5	241
607	Free-carrier screening of polarization fields in wurtzite GaN/InGaN laser structures. <i>Applied Physics Letters</i> , 1999 , 74, 2002-2004	3.4	233
606	Flexible Perovskite Photovoltaic Modules and Solar Cells Based on Atomic Layer Deposited Compact Layers and UV-Irradiated TiO ₂ Scaffolds on Plastic Substrates. <i>Advanced Energy Materials</i> , 2015 , 5, 1401808	21.8	216
605	Encapsulation for long-term stability enhancement of perovskite solar cells. <i>Nano Energy</i> , 2016 , 30, 162-172	17.2	200
604	Titanium-carbide MXenes for work function and interface engineering in perovskite solar cells. <i>Nature Materials</i> , 2019 , 18, 1228-1234	27	199
603	Efficient dye-sensitized solar cells using red turnip and purple wild sicilian prickly pear fruits. <i>International Journal of Molecular Sciences</i> , 2010 , 11, 254-67	6.3	190
602	Influence of grain sizes on the mobility of organic thin-film transistors. <i>Applied Physics Letters</i> , 2005 , 86, 263501	3.4	185
601	High efficiency CH ₃ NH ₃ PbI ₃ /Cl _x perovskite solar cells with poly(3-hexylthiophene) hole transport layer. <i>Journal of Power Sources</i> , 2014 , 251, 152-156	8.9	164
600	Graphene Interface Engineering for Perovskite Solar Modules: 12.6% Power Conversion Efficiency over 50 cm ² Active Area. <i>ACS Energy Letters</i> , 2017 , 2, 279-287	20.1	162

599	Vertical TiO ₂ Nanorods as a Medium for Stable and High-Efficiency Perovskite Solar Modules. <i>ACS Nano</i> , 2015 , 9, 8420-9	16.7	158
598	Spontaneous polarization and piezoelectric field in GaN/Al _{0.15} Ga _{0.85} N quantum wells: Impact on the optical spectra. <i>Physical Review B</i> , 2000 , 61, 2711-2715	3.3	158
597	Room-temperature polariton lasers based on GaN microcavities. <i>Applied Physics Letters</i> , 2002 , 81, 412-414	1.4	156
596	Efficiency and Stability Enhancement in Perovskite Solar Cells by Inserting Lithium-Neutralized Graphene Oxide as Electron Transporting Layer. <i>Advanced Functional Materials</i> , 2016 , 26, 2686-2694	15.6	154
595	Research Update: Large-area deposition, coating, printing, and processing techniques for the upscaling of perovskite solar cell technology. <i>APL Materials</i> , 2016 , 4, 091508	5.7	150
594	Performance analysis and SOH (state of health) evaluation of lithium polymer batteries through electrochemical impedance spectroscopy. <i>Energy</i> , 2015 , 89, 678-686	7.9	147
593	Solid-state solar modules based on mesoscopic organometal halide perovskite: a route towards the up-scaling process. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 3918-23	3.6	145
592	Polariton lasing by exciton-electron scattering in semiconductor microcavities. <i>Physical Review B</i> , 2002 , 65,	3.3	144
591	Effects of grain boundaries, field-dependent mobility, and interface trap States on the electrical Characteristics of pentacene TFT. <i>IEEE Transactions on Electron Devices</i> , 2004 , 51, 1997-2003	2.9	143
590	Reduced graphene oxide as efficient and stable hole transporting material in mesoscopic perovskite solar cells. <i>Nano Energy</i> , 2016 , 22, 349-360	17.1	142
589	MoS Quantum Dot/Graphene Hybrids for Advanced Interface Engineering of a CH ₃ NH ₃ PbI ₃ Perovskite Solar Cell with an Efficiency of over 20. <i>ACS Nano</i> , 2018 , 12, 10736-10754	16.7	138
588	GaN-based modulation doped FETs and UV detectors. <i>Solid-State Electronics</i> , 2002 , 46, 157-202	1.7	137
587	Few-Layer MoS ₂ Flakes as Active Buffer Layer for Stable Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2016 , 6, 1600920	21.8	135
586	Graphene-Perovskite Solar Cells Exceed 18 % Efficiency: A Stability Study. <i>ChemSusChem</i> , 2016 , 9, 2609-2619	8.19	133
585	Piezoelectric potential in vertically aligned nanowires for high output nanogenerators. <i>Nanotechnology</i> , 2011 , 22, 465401	3.4	132
584	Piezoresistive behaviour of flexible PEDOT:PSS based sensors. <i>Sensors and Actuators B: Chemical</i> , 2009 , 139, 304-309	8.5	124
583	Progress in flexible dye solar cell materials, processes and devices. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 10788-10817	13	121
582	Graphene-based large area dye-sensitized solar cell modules. <i>Nanoscale</i> , 2016 , 8, 5368-78	7.7	114

581	Resonant electron heating and molecular phonon cooling in single C60 junctions. <i>Physical Review Letters</i> , 2008 , 100, 136801	7.4	108
580	Gold and iodine diffusion in large area perovskite solar cells under illumination. <i>Nanoscale</i> , 2017 , 9, 4700-4706	7.7	103
579	Incoherent Electron-Phonon Scattering in Octanethiols. <i>Nano Letters</i> , 2004 , 4, 2109-2114	11.5	100
578	Interface and Composition Analysis on Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 26176-83	9.5	99
577	High efficiency photovoltaic module based on mesoscopic organometal halide perovskite. <i>Progress in Photovoltaics: Research and Applications</i> , 2016 , 24, 436-445	6.8	99
576	Airbrush spray-coating of polymer bulk-heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2011 , 95, 1775-1778	6.4	98
575	Understanding the inelastic electron-tunneling spectra of alkanedithiols on gold. <i>Journal of Chemical Physics</i> , 2006 , 124, 94704	3.9	96
574	Theory of Zener tunneling and Wannier-Stark states in semiconductors. <i>Physical Review B</i> , 1994 , 50, 8358-8377	9.1	91
573	Microscopic theory of nanostructured semiconductor devices: beyond the envelope-function approximation. <i>Semiconductor Science and Technology</i> , 2003 , 18, R1-R31	1.8	90
572	Efficient fully laser-patterned flexible perovskite modules and solar cells based on low-temperature solution-processed SnO ₂ /mesoporous-TiO ₂ electron transport layers. <i>Nano Research</i> , 2018 , 11, 2669-2681	10	90
571	Non-equilibrium Green's functions in density functional tight binding: method and applications. <i>New Journal of Physics</i> , 2008 , 10, 065022	2.9	87
570	High-Efficiency Perovskite Solar Cell Based on Poly(3-Hexylthiophene): Influence of Molecular Weight and Mesoscopic Scaffold Layer. <i>ChemSusChem</i> , 2017 , 10, 3854-3860	8.3	85
569	Two-Dimensional Material Interface Engineering for Efficient Perovskite Large-Area Modules. <i>ACS Energy Letters</i> , 2019 , 4, 1862-1871	20.1	84
568	Laser-Patterning Engineering for Perovskite Solar Modules With 95% Aperture Ratio. <i>IEEE Journal of Photovoltaics</i> , 2017 , 7, 1674-1680	3.7	83
567	Transition from strong to weak coupling and the onset of lasing in semiconductor microcavities. <i>Physical Review B</i> , 2002 , 65,	3.3	83
566	Mesoporous perovskite solar cells and the role of nanoscale compact layers for remarkable all-round high efficiency under both indoor and outdoor illumination. <i>Nano Energy</i> , 2016 , 30, 460-469	17.1	82
565	Thermography and the possibilities for its applications in clinical and experimental dermatology. <i>Clinics in Dermatology</i> , 1995 , 13, 329-36	3	82
564	Optimization of nanostructured titania photoanodes for dye-sensitized solar cells: Study and experimentation of TiCl ₄ treatment. <i>Journal of Non-Crystalline Solids</i> , 2010 , 356, 1958-1961	3.9	81

563	Theory of heat dissipation in molecular electronics. <i>Physical Review B</i> , 2007 , 75,	3.3	80
562	A priori method for propensity rules for inelastic electron tunneling spectroscopy of single-molecule conduction. <i>Physical Review B</i> , 2007 , 75,	3.3	77
561	Mechanically Stacked, Two-Terminal Graphene-Based Perovskite/Silicon Tandem Solar Cell with Efficiency over 26%. <i>Joule</i> , 2020 , 4, 865-881	27.8	76
560	Influence of carrier mobility and contact barrier height on the electrical characteristics of organic transistors. <i>Applied Physics Letters</i> , 2002 , 81, 4646-4648	3.4	75
559	Using EIS for diagnosis of dye-sensitized solar cells performance. <i>Journal of Applied Electrochemistry</i> , 2009 , 39, 2291-2295	2.6	73
558	Boosting Perovskite Solar Cells Performance and Stability through Doping a Poly-3(hexylthiophene) Hole Transporting Material with Organic Functionalized Carbon Nanostructures. <i>Advanced Functional Materials</i> , 2016 , 26, 7443-7453	15.6	72
557	. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 1425-1432	2.9	70
556	Synthesis and characterization of fused porphyrin-BODIPY dyads. <i>Tetrahedron</i> , 2004 , 60, 1099-1106	2.4	69
555	Tailorable acceptor C(60-n)B(n) and donor C(60-m)N(m) pairs for molecular electronics. <i>Physical Review Letters</i> , 2003 , 90, 206602	7.4	69
554	Spontaneous and piezoelectric polarization effects on the output characteristics of AlGaIn/GaN heterojunction modulation doped FETs. <i>IEEE Transactions on Electron Devices</i> , 2001 , 48, 450-457	2.9	69
553	The role of printing techniques for large-area dye sensitized solar cells. <i>Semiconductor Science and Technology</i> , 2015 , 30, 104003	1.8	65
552	Role of Ferroelectric Nanodomains in the Transport Properties of Perovskite Solar Cells. <i>Nano Letters</i> , 2016 , 16, 988-92	11.5	64
551	Design and Realization Aspects of 1-THz Cascade Backward Wave Amplifier Based on Double Corrugated Waveguide. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 1236-1243	2.9	64
550	Theoretical tools for transport in molecular nanostructures. <i>Physica B: Condensed Matter</i> , 2002 , 314, 86-90	2.8	63
549	Molecular Ordering at the Interface Between Liquid Water and Rutile TiO ₂ (110). <i>Advanced Materials Interfaces</i> , 2015 , 2, 1500246	4.6	61
548	Experimental investigation and simulation of hybrid organic/inorganic Schottky diodes. <i>Journal of Physics Condensed Matter</i> , 2003 , 15, S2719-S2728	1.8	61
547	TCO-free flexible organo metal trihalide perovskite planar-heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 140, 150-157	6.4	60
546	Graphene-Based Electron Transport Layers in Perovskite Solar Cells: A Step-Up for an Efficient Carrier Collection. <i>Advanced Energy Materials</i> , 2017 , 7, 1701349	21.8	60

545	Fully Plastic Dye Solar Cell Devices by Low-Temperature UV-Irradiation of both the Mesoporous TiO ₂ Photo- and Platinized Counter-Electrodes. <i>Advanced Energy Materials</i> , 2013 , 3, 1292-1298	21.8	60
544	Trap-assisted tunneling in InGaN/GaN single-quantum-well light-emitting diodes. <i>Applied Physics Letters</i> , 2014 , 105, 133504	3.4	59
543	Optimization of a NO _x gas sensor based on single walled carbon nanotubes. <i>Sensors and Actuators B: Chemical</i> , 2006 , 118, 226-231	8.5	59
542	Fused Oligoporphyrins: A Novel Approach to a New Type of Extended Aromatic System. <i>Journal of the American Chemical Society</i> , 2000 , 122, 11295-11302	16.4	59
541	Organic dyes with intense light absorption especially suitable for application in thin-layer dye-sensitized solar cells. <i>Chemical Communications</i> , 2014 , 50, 13952-5	5.8	57
540	Ion Migration-Induced Amorphization and Phase Segregation as a Degradation Mechanism in Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020 , 10, 2000310	21.8	56
539	A simple approach for the fabrication of perovskite solar cells in air. <i>Journal of Power Sources</i> , 2015 , 297, 504-510	8.9	55
538	Improved Stability of Inverted and Flexible Perovskite Solar Cells with Carbon Electrode. <i>ACS Applied Energy Materials</i> , 2020 , 3, 5126-5134	6.1	55
537	Spray Coating for Polymer Solar Cells: An Up-to-Date Overview. <i>Energy Technology</i> , 2015 , 3, 385-406	3.5	54
536	Graphene-Induced Improvements of Perovskite Solar Cell Stability: Effects on Hot-Carriers. <i>Nano Letters</i> , 2019 , 19, 684-691	11.5	53
535	Role of pH and pigment concentration for natural dye-sensitized solar cells treated with anthocyanin extracts of common fruits. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2016 , 316, 24-30	4.7	52
534	Plasmon polaritons in the near infrared on fluorine doped tin oxide films. <i>Optics Express</i> , 2009 , 17, 10155-67	3.6	51
533	Tetra-phenyl porphyrin based thin film transistors. <i>Synthetic Metals</i> , 2003 , 138, 261-266	3.6	51
532	Application of nitrogen-doped TiO ₂ nano-tubes in dye-sensitized solar cells. <i>Applied Surface Science</i> , 2017 , 399, 515-522	6.7	50
531	Strain evolution in GaN nanowires: From free-surface objects to coalesced templates. <i>Journal of Applied Physics</i> , 2013 , 114, 084307	2.5	50
530	It's not easy being green: Strategies for all-nitrides, all-colour solid state lighting. <i>Physica Status Solidi - Rapid Research Letters</i> , 2012 , 6, 49-52	2.5	50
529	Enhancement of the effective tunnel mass in ultrathin silicon dioxide layers. <i>Journal of Applied Physics</i> , 2003 , 93, 2681-2690	2.5	50
528	Doping screening of polarization fields in nitride heterostructures. <i>Applied Physics Letters</i> , 2000 , 76, 3950-3952	2.5	50

527	Geometric conductive filament confinement by nanotips for resistive switching of HfO ₂ -RRAM devices with high performance. <i>Scientific Reports</i> , 2016 , 6, 25757	4.9	50
526	Carrier-confinement effects in nanocolumnar GaN _{1-x} Ga _x N quantum disks grown by molecular-beam epitaxy. <i>Physical Review B</i> , 2005 , 72,	3.3	49
525	Facile synthesis of a SnO ₂ @rGO nanohybrid and optimization of its methane-sensing parameters. <i>Talanta</i> , 2018 , 181, 422-430	6.2	48
524	Efficient sintering of nanocrystalline titanium dioxide films for dye solar cells via raster scanning laser. <i>Applied Physics Letters</i> , 2009 , 95, 103312	3.4	48
523	Influence of the Source-Drain Distance on the AlGa _N /Ga _N HEMT Performance. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 1071-1075	2.9	48
522	Laser Processing in the Manufacture of Dye-Sensitized and Perovskite Solar Cell Technologies. <i>ChemElectroChem</i> , 2016 , 3, 9-30	4.3	48
521	Physical and electrochemical analysis of an indoor-outdoor ageing test of large-area dye solar cell devices. <i>ChemPhysChem</i> , 2012 , 13, 2925-36	3.2	47
520	Quasiparticle energies for large molecules: A tight-binding-based Green's-function approach. <i>Physical Review A</i> , 2005 , 71,	2.6	46
519	Laser-patterned functionalized CVD-graphene as highly transparent conductive electrodes for polymer solar cells. <i>Nanoscale</i> , 2017 , 9, 62-69	7.7	45
518	Introducing structural colour in DSCs by using photonic crystals: interplay between conversion efficiency and optical properties. <i>Energy and Environmental Science</i> , 2012 , 5, 8238	35.4	45
517	Microscopic Theory of Quantum-Transport Phenomena in Mesoscopic Systems: A Monte Carlo Approach. <i>Physical Review Letters</i> , 1998 , 80, 3348-3351	7.4	44
516	Photoluminescence Efficiency of Substituted Quaterthiophene Crystals. <i>Physical Review Letters</i> , 2001 , 86, 167-170	7.4	44
515	Photonic Bloch oscillations in laterally confined Bragg mirrors. <i>Physical Review B</i> , 2000 , 61, 4413-4416	3.3	44
514	Theory of photon Bloch oscillations in photonic crystals. <i>Physical Review B</i> , 2001 , 63,	3.3	44
513	AlN and GaN epitaxial heterojunctions on 6H-SiC(0001): Valence band offsets and polarization fields. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1999 , 17, 1674		44
512	. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 2759-2764	2.9	42
511	Stability and Dark Hysteresis Correlate in NiO-Based Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2019 , 9, 1901642	21.8	41
510	Schottky barrier height at an organic/metal junction: A first-principles study of PTCDA/X (X=Al,Ag) contacts. <i>Physical Review B</i> , 2003 , 68,	3.3	41

509	Beneficial Effect of Electron-Withdrawing Groups on the Sensitizing Action of Squaraines for p-Type Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 16340-16353	3.8	41
508	Comparison of the photoelectrochemical properties of RDS NiO thin films for p-type DSCs with different organic and organometallic dye-sensitizers and evidence of a direct correlation between cell efficiency and charge recombination. <i>Journal of Solid State Electrochemistry</i> , 2015 , 19, 975-986	2.6	40
507	Bulk heterojunction polymer solar cell and perovskite solar cell: Concepts, materials, current status, and opto-electronic properties. <i>Solar Energy</i> , 2018 , 173, 407-424	6.8	40
506	Gas sensing using single wall carbon nanotubes ordered with dielectrophoresis. <i>Sensors and Actuators B: Chemical</i> , 2005 , 111-112, 181-186	8.5	40
505	A crystal engineering approach for scalable perovskite solar cells and module fabrication: a full out of glove box procedure. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 659-671	13	40
504	On the importance of ferroelectric domains for the performance of perovskite solar cells. <i>Nano Energy</i> , 2018 , 48, 20-26	17.1	39
503	Low temperature, solution-processed perovskite solar cells and modules with an aperture area efficiency of 11%. <i>Solar Energy Materials and Solar Cells</i> , 2018 , 185, 136-144	6.4	39
502	Aging effects in interface-engineered perovskite solar cells with 2D nanomaterials: A depth profile analysis. <i>Materials Today Energy</i> , 2018 , 9, 1-10	7	38
501	Influence of TiO ₂ electronic structure and strong metal-support interaction on plasmonic Au photocatalytic oxidations. <i>Catalysis Science and Technology</i> , 2016 , 6, 3220-3229	5.5	38
500	Doping Strategy for Efficient and Stable Triple Cation Hybrid Perovskite Solar Cells and Module Based on Poly(3-hexylthiophene) Hole Transport Layer. <i>Small</i> , 2019 , 15, e1904399	11	38
499	Molecular origins of conduction channels observed in shot-noise measurements. <i>Nano Letters</i> , 2006 , 6, 2431-7	11.5	38
498	Well-width dependence of the ground level emission of GaN/AlGa _N quantum wells. <i>Journal of Applied Physics</i> , 2000 , 87, 2289-2292	2.5	38
497	Mesoscopic Perovskite Light-Emitting Diodes. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 26989-26997	9.7	38
496	Perovskite-Polymer Blends Influencing Microstructures, Nonradiative Recombination Pathways, and Photovoltaic Performance of Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 42542-42551	9.5	38
495	Fabrication and Morphological Characterization of High-Efficiency Blade-Coated Perovskite Solar Modules. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 25195-25204	9.5	37
494	8.7% Power conversion efficiency polymer solar cell realized with non-chlorinated solvents. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 134, 194-198	6.4	37
493	Prospective life cycle assessment of third-generation photovoltaics at the pre-industrial scale: A long-term scenario approach. <i>Renewable and Sustainable Energy Reviews</i> , 2020 , 121, 109703	16.2	37
492	Photoelectrochemical characterization of squaraine-sensitized nickel oxide cathodes deposited via screen-printing for p-type dye-sensitized solar cells. <i>Applied Surface Science</i> , 2015 , 356, 911-920	6.7	36

491	Electrodeposited ZnO with squaraine sensitizers as photoactive anode of DSCs. <i>Materials Research Express</i> , 2014 , 1, 015040	1.7	36
490	New Components for Dye-Sensitized Solar Cells. <i>International Journal of Photoenergy</i> , 2010 , 2010, 1-16	2.1	36
489	Elasticity theory of pseudomorphic heterostructures grown on substrates of arbitrary thickness. <i>Journal of Applied Physics</i> , 2006 , 100, 063514	2.5	36
488	Self-consistent tight-binding calculations of electronic and optical properties of semiconductor nanostructures. <i>Solid State Communications</i> , 1996 , 98, 803-806	1.6	36
487	Electrochemical and Photoelectrochemical Properties of Screen-Printed Nickel Oxide Thin Films Obtained from Precursor Pastes with Different Compositions. <i>Journal of the Electrochemical Society</i> , 2017 , 164, H137-H147	3.9	35
486	Interfacial Passivation Engineering of Perovskite Solar Cells with Fill Factor over 82% and Outstanding Operational Stability on n-i-p Architecture. <i>ACS Energy Letters</i> , 2021 , 6, 3916-3923	20.1	35
485	Blocking layer optimisation of poly(3-hexylthiophene) based Solid State Dye Sensitized Solar Cells. <i>Organic Electronics</i> , 2013 , 14, 1882-1890	3.5	34
484	Heating and cooling mechanisms in single-molecule junctions. <i>Physical Review B</i> , 2010 , 81,	3.3	34
483	On the effect of Al ₂ O ₃ blocking layer on the performance of dye solar cells with cobalt based electrolytes. <i>Applied Physics Letters</i> , 2009 , 94, 173113	3.4	34
482	Vibrational effects in the linear conductance of carbon nanotubes. <i>Europhysics Letters</i> , 2005 , 71, 438-444	1.6	34
481	Realization of high performance large area Z-series-interconnected opaque dye solar cell modules. <i>Progress in Photovoltaics: Research and Applications</i> , 2013 , 21, 1653-1658	6.8	33
480	Blending CoS and Pt for amelioration of electrodeposited transparent counterelectrodes and the efficiency of back-illuminated dye solar cells. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 12941	13	33
479	Thiazolo[5,4-d]thiazole-based organic sensitizers with strong visible light absorption for transparent, efficient and stable dye-sensitized solar cells. <i>RSC Advances</i> , 2015 , 5, 32657-32668	3.7	33
478	The symmetry of single-molecule conduction. <i>Journal of Chemical Physics</i> , 2006 , 125, 184702	3.9	33
477	Comprehensive description of the dynamical screening of the internal electric fields of AlGa _N /Ga _N quantum wells in time-resolved photoluminescence experiments. <i>Journal of Applied Physics</i> , 2003 , 93, 400-409	2.5	33
476	Comparative analysis of the outdoor performance of a dye solar cell mini-panel for building integrated photovoltaics applications. <i>Progress in Photovoltaics: Research and Applications</i> , 2015 , 23, 215-225	6.8	32
475	Improvement of the Extended One-Pot (EOP) Procedure To Form Poly(aryleneethynylene)s and Investigation of Their Electrical and Optical Properties. <i>Macromolecules</i> , 2003 , 36, 2215-2223	5.5	32
474	Transition metal carbides (MXenes) for efficient NiO-based inverted perovskite solar cells. <i>Nano Energy</i> , 2021 , 82, 105771	17.1	32

473	Influence of the interface material layers and semiconductor energetic disorder on the open circuit voltage in polymer solar cells. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2015 , 53, 690-699	2.6	31
472	Estimation of Energy Production of Dye-Sensitized Solar Cell Modules for Building-Integrated Photovoltaic Applications. <i>Energy Technology</i> , 2014 , 2, 531-541	3.5	31
471	Thermal stress effects on Dye-Sensitized Solar Cells (DSSCs). <i>Microelectronics Reliability</i> , 2011 , 51, 1762-1766	3.1	31
470	Experimental validation of GaN HEMTs thermal management by using photocurrent measurements. <i>IEEE Transactions on Electron Devices</i> , 2006 , 53, 182-188	2.9	31
469	Stability issues pertaining large area perovskite and dye-sensitized solar cells and modules. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 033001	3	30
468	Photoelectrochemical and spectrophotometric studies on dye-sensitized solar cells (DSCs) and stable modules (DSCMs) based on natural apocarotenoids pigments. <i>Dyes and Pigments</i> , 2018 , 155, 75-83	4.6	30
467	Laser processing of TiO ₂ films for dye solar cells: a thermal, sintering, throughput and embodied energy investigation. <i>Progress in Photovoltaics: Research and Applications</i> , 2014 , 22, 308-317	6.8	30
466	Electrochemistry in reverse biased dye solar cells and dye/electrolyte degradation mechanisms. <i>ChemPhysChem</i> , 2012 , 13, 2964-75	3.2	30
465	Conduction-band mixing in T- and V-shaped quantum wires. <i>Physical Review B</i> , 1997 , 56, R1668-R1671	3.3	30
464	Sprayed organic photovoltaic cells and mini-modules based on chemical vapor deposited graphene as transparent conductive electrode. <i>Carbon</i> , 2018 , 129, 878-883	10.4	30
463	From Bulk to Surface: Sodium Treatment Reduces Recombination at the Nickel Oxide/Perovskite Interface. <i>Advanced Materials Interfaces</i> , 2019 , 6, 1900789	4.6	29
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