Review on dye-sensitized solar cells (DSSCs): Fundamer

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Citation Report

#	Article	IF	Citations
1	A study on the mechanism for the interaction of light with noble metal-metal oxide semiconductor nanostructures for various photophysical applications. Chemical Society Reviews, 2013, 42, 8467.	18.7	509
2	Impact of hydroxy and octyloxy substituents of phenothiazine based dyes on the photovoltaic performance. Dyes and Pigments, 2013, 99, 299-307.	2.0	33
3	Grapheneâ€“anthocyanin mixture as photosensitizer for dye-sensitized solar cell. Solar Energy, 2013, 98, 392-399.	2.9	55
4	CoS2â€“graphene composite as efficient catalytic counter electrode for dye-sensitized solar cell. Electrochimica Acta, 2013, 114, 173-179.	2.6	71
5	Application of graphene-based nanostructures in dye-sensitized solar cells. Physica Status Solidi (B): Basic Research, 2013, 250, 2643-2648.	0.7	26
6	Synthesis of two-dimensional ZnO nanosheet-structures for the application in dye-sensitized solar cells. Journal of Materials Science: Materials in Electronics, 2013, 24, 5117-5121.	1.1	12
7	A review of PV/T technologies: Effects of control parameters. International Journal of Heat and Mass Transfer, 2013, 64, 483-500.	2.5	108
8	Understanding TiO₂ Sizeâ€Dependent Electron Transport Properties of a Grapheneâ€TiO₂ Photoanode in Dyeâ€Sensitized Solar Cells Using Conducting Atomic Force Microscopy. Advanced Materials, 2013, 25, 6900-6904.	11.1	43
9	Effect of amount of dye in the TiO₂photoanode on electron transport, recombination, J_{sc}and V_{oc}of dye-sensitized solar cells. RSC Advances, 2013, 3, 2655-2661.	1.7	19
10	Triplet photosensitizers: from molecular design to applications. Chemical Society Reviews, 2013, 42, 5323.	18.7	1,234
11	Analytical model for solar PV and CSP electricity costs: Present LCOE values and their future evolution. Renewable and Sustainable Energy Reviews, 2013, 20, 119-132.	8.2	353
12	Oneâ€pot Synthesis of Mesoporous TiO₂ from Selfâ€Assembled Sol Particles and Its Application as Mesoscopic Photoanodes of Dyeâ€Sensitized Solar Cells. ChemPlusChem, 2013, 78, 647-655.	1.3	2
13	Exploiting Nanocarbons in Dye-Sensitized Solar Cells. Topics in Current Chemistry, 2013, 348, 53-93.	4.0	29
14	First Pseudohalogen Polymer Electrolyte for Dye-Sensitized Solar Cells Promising for In Situ Photopolymerization. Journal of Physical Chemistry C, 2013, 117, 20421-20430.	1.5	71
15	A Highly Conjugated Benzimidazole Carbeneâ€Based Ruthenium Sensitizer for Dyeâ€Sensitized Solar Cells. Chemistry - an Asian Journal, 2013, 8, 2196-2203.	1.7	9
16	Fabrication of Dye-sensitized Solar Cells Using Electrostatic Inkjet Printing. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2013, 26, 383-385.	0.1	6
17	Recent Advances in Dye Sensitized Solar Cells. Advances in Materials Science and Engineering, 2014, 2014, 1-12.	1.0	143
18	Research and Development Aspects on Chemical Preparation Techniques of Photoanodes for Dye Sensitized Solar Cells. International Journal of Photoenergy, 2014, 2014, 1-21.	1.4	56

#	Article	IF	Citations
19	ZnTe Semiconductor-Polymer Gel Composited Electrolyte for Conversion of Solar Energy. Journal of Nanomaterials, 2014, 2014, 1-6.	1.5	15
20	Performance of dye-sensitized solar cells based on varied dye thermal extraction. , 2014, , .		0
21	Effect of varied extracting solvent on stability and reliability of DSSCs using natural dyes as photosensitizer. , 2014, , .		2
22	Design of a Climate Adaptable Solar Energy system using biomimetic inspiration from a lichen symbiosis. , 2014, , .		1
23	Development and integration of innovative low-cost PV windows based on dye sensitized solar cells technology: Application in Morocco. , 2014, , .		4
24	Stepwise co-sensitization as a useful tool for enhancement of power conversion efficiency of dye-sensitized solar cells: The case of an unsymmetrical porphyrin dyad and a metal-free organic dye. Organic Electronics, 2014, 15, 1324-1337.	1.4	39
25	Synthesis of hierarchical nanoparticles-based ZnO spheres for their application as the light blocking layers in dye-sensitized solar cells. Journal of Materials Science: Materials in Electronics, 2014, 25, 1072-1079.	1.1	6
26	Light harvesting and photocurrent generation by nanostructured photoelectrodes sensitized with a photosynthetic pigment: A new application for microalgae. Bioresource Technology, 2014, 163, 1-5.	4.8	21
27	One-dimensional titania nanostructures: Synthesis and applications in dye-sensitized solar cells. Thin Solid Films, 2014, 558, 1-19.	0.8	45
28	An investigation on the photoelectrochemical properties of dye-sensitized solar cells based on grapheneâ€“TiO2 composite photoanodes. Journal of Power Sources, 2014, 262, 349-355.	4.0	96
29	Conducting polymer/in-situ generated platinum nanoparticle nanocomposite electrodes for low-cost dye-sensitized solar cells. Electrochimica Acta, 2014, 116, 518-523.	2.6	20
30	Functionalized porphyrin derivatives for solar energy conversion. Polyhedron, 2014, 82, 19-32.	1.0	45
31	Low-Temperature Processed Electron Collection Layers of Graphene/TiO₂ Nanocomposites in Thin Film Perovskite Solar Cells. Nano Letters, 2014, 14, 724-730.	4.5	999
32	Synthesis of two tri-arylamine derivatives as sensitizers in dye-sensitized solar cells: Electron injection studies and photovoltaic characterization. Synthetic Metals, 2014, 188, 77-85.	2.1	8
33	Electrodeposition for the synthesis of ZnO nanorods modified by surface attachment with ZnO nanoparticles and their dye-sensitized solar cell applications. Ceramics International, 2014, 40, 1693-1698.	2.3	37
34	Tuning the electron donating ability in the triphenylamine-based D-Ï€-A architecture for highly efficient dye-sensitized solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2014, 273, 8-16.	2.0	57
35	Concerted charge and energy transfer processes in a highly flexible fullereneâ€“dye system: a mixed quantumâ€“classical study. Physical Chemistry Chemical Physics, 2014, 16, 12949.	1.3	3
36	Directional charge transfer and highly reducing and oxidizing excited states of new dirhodium(<scp>ii</scp>,<scp>ii</scp>) complexes: potential applications in solar energy conversion. Chemical Science, 2014, 5, 727-737.	3.7	31

#	Article	IF	Citations
37	Template free titiania photoanodes modified with carbon black or multi-wall carbon nanotubes: Thermal treatment at low and high temperature for the fabrication of quasi-solid state dye sensitized solar cells. Materials Science in Semiconductor Processing, 2014, 27, 634-642.	1.9	2
38	TiO2 nanocrystalline layer as a bridge linking TiO2 sub-microspheres layer and substrates for high-efficiency dye-sensitized solar cells. Journal of Power Sources, 2014, 272, 1046-1052.	4.0	32
39	pH-Responsive Switchable Aggregation Phenomena of Xanthene Dyes Adsorbed on Tungsten(VI) Oxide Colloid Surface. Industrial & Engineering Chemistry Research, 2014, 53, 13046-13057.	1.8	28
40	High efficiency inverted polymer solar cells with room-temperature titanium oxide/polyethylenimine films as electron transport layers. Journal of Materials Chemistry A, 2014, 2, 17281-17285.	5.2	66
41	Synthesis, optical and electrochemical properties of new ferrocenyl substituted triphenylamine based donorâ€“acceptor dyes for dye sensitized solar cells. RSC Advances, 2014, 4, 34904-34911.	1.7	47
42	The evolution of the dye sensitized solar cells from GrÃtzel prototype to up-scaled solar applications: A life cycle assessment approach. Renewable and Sustainable Energy Reviews, 2014, 39, 124-138.	8.2	138
43	Excited State Geometries and Vertical Emission Energies of Solvated Dyes for DSSC: A PCM/TD-DFT Benchmark Study. Journal of Chemical Theory and Computation, 2014, 10, 3925-3933.	2.3	80
44	Organic sensitizers with modified di(thiophen-2-yl)phenylamine donor units for dye-sensitized solar cells: a computational study. Theoretical Chemistry Accounts, 2014, 133, 1.	0.5	9
45	Effect of titanium isopropoxide addition in low-temperature cured TiO2 photoanode for a flexible DSSC. Journal of Sol-Gel Science and Technology, 2014, 72, 67-73.	1.1	16
46	Experimental considerations for temperature controlled measurements of fast charge recombination times in dye sensitized solar cells using open circuit voltage decay and impedance spectroscopy. Measurement: Journal of the International Measurement Confederation, 2014, 53, 71-82.	2.5	14
47	Poly(ethylene-co-acrylic acid)-g-poly(ethylene glycol) graft copolymer templated synthesis of mesoporous TiO2 thin films for quasi-solid-state dye sensitized solar cells. Thin Solid Films, 2014, 552, 68-74.	0.8	7
48	Design Aspects of Luminescent Organic Crystals. Proceedings of the National Academy of Sciences India Section A - Physical Sciences, 2014, 84, 131-149.	0.8	18
49	Performance evaluation of two solar photovoltaic technologies under atmospheric exposure using artificial neural network models. Solar Energy, 2014, 107, 260-271.	2.9	24
50	Electrospun coaxial titanium dioxide/carbon nanofibers for use in anodes of dye-sensitized solar cells. Electrochimica Acta, 2014, 142, 144-151.	2.6	19
51	Innovation compared with materials production: current trends in green energy production and materials. Current Opinion in Chemical Engineering, 2014, 3, 125-129.	3.8	3
52	Enhanced performance of dye-sensitized solar cells with TiO2 blocking layers and Pt counter electrodes prepared by physical vapor deposition (PVD). Electrochimica Acta, 2014, 116, 334-342.	2.6	15
53	Parallel and Combinatorial Liquid-Phase Synthesis of Alkylbiphenyls Using Pentaerythritol Support. ACS Combinatorial Science, 2014, 16, 225-231.	3.8	1
54	Oxidative fluorescence quenching of Mg-phthalocyanine by quinones. Journal of Molecular Liquids, 2014, 194, 188-192.	2.3	3

#	Article	IF	Citations
55	Counter electrodes from polyanilineâ"carbon nanotube complex/graphene oxide multilayers for dye-sensitized solar cell application. Electrochimica Acta, 2014, 125, 510-515.	2.6	32
56	A review of semiconductor materials as sensitizers for quantum dot-sensitized solar cells. Renewable and Sustainable Energy Reviews, 2014, 37, 397-407.	8.2	163
57	Improved solar efficiency by introducing graphene oxide in purple cabbage dye sensitized TiO2 based solar cell. Solid State Communications, 2014, 183, 56-59.	0.9	51
58	Effect of Harum Manis mango as natural photosensitizer at different extracting temperature on performance of dye-sensitized solar cells (DSSCs). , 2015, , .		2
59	Comparison of the DSSC Efficiency on Synthetic N3 Dyes. Advanced Materials Research, 0, 1131, 165-168.	0.3	4
60	Spray pyrolysis deposition of Cu-ZnO and Zn-SnO2 solar cells. AIP Conference Proceedings, 2015, , .	0.3	1
61	A Photoelectrochemical Solar Cell Consisting of a Cadmium Sulfide Photoanode and a Rutheniumâ€"2,2â€²â€Bipyridine Redox Shuttle in a Nonâ€aqueous Electrolyte. Angewandte Chemie, 2015, 127, 7988-7992.	1.6	3
62	A Photoelectrochemical Solar Cell Consisting of a Cadmium Sulfide Photoanode and a Rutheniumâ€"2,2â€²â€Bipyridine Redox Shuttle in a Nonâ€aqueous Electrolyte. Angewandte Chemie - International Edition, 2015, 54, 7877-7881.	7.2	11
63	Carbonaceous Materials and Their Advances as a Counter Electrode in Dyeâ€Sensitized Solar Cells: Challenges and Prospects. ChemSusChem, 2015, 8, 1510-1533.	3.6	77
64	Assessing Rare Metal Availability Challenges for Solar Energy Technologies. Sustainability, 2015, 7, 11818-11837.	1.6	49
65	Recent Progress in Dye-Sensitized Solar Cells for Improving Efficiency: TiO₂Nanotube Arrays in Active Layer. Journal of Nanomaterials, 2015, 2015, 1-17.	1.5	47
66	Spacer Thickness-Dependent Electron Transport Performance of Titanium Dioxide Thick Film for Dye-Sensitized Solar Cells. Journal of Nanomaterials, 2015, 2015, 1-9.	1.5	3
67	PV glazing technologies. Renewable and Sustainable Energy Reviews, 2015, 49, 306-322.	8.2	137
68	The effect of additional electron donating group on the photophysics and photovoltaic performance of two new metal free D-Ï€-A sensitizers. Dyes and Pigments, 2015, 121, 316-327.	2.0	13
69	CuAlO2 powder dispersed in composite gel electrolyte for application in quasi-solid state dye-sensitized solar cells. Materials Science in Semiconductor Processing, 2015, 39, 348-354.	1.9	9
70	Ag nanoparticle-deposited TiO2 nanotube arrays for electrodes of Dye-sensitized solar cells. Nanoscale Research Letters, 2015, 10, 219.	3.1	33
71	Tailored Synthesis of Porous TiO₂ Nanocubes and Nanoparallelepipeds with Exposed {111} Facets and Mesoscopic Void Space: A Superior Candidate for Efficient Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 26022-26035.	4.0	36
72	Impacts of dye extracting solvents and pH on the stability of the oxalis triangularis as dye sensitizer by time-varying on DSSCs. , 2015, , .		0

#	Article	IF	Citations
73	Photophysical Study of a Self-Assembled Donorâ€“Acceptor Two-Layer Film on TiO₂. Langmuir, 2015, 31, 944-952.	1.6	19
74	Electronic properties and Schottky barriers at ZnOâ€“metal interfaces from first principles. Journal of Physics Condensed Matter, 2015, 27, 015006.	0.7	16
75	Structural, morphological, electrical and electron transport studies in ZnOâ€“rGO (wt%Â=Â0.01, 0.05) Tj ETQq0 0 0 rgBT /Overlock 10 T 2263-2270.	1.1	22
76	Hydrogen Bonding for Molecular, Macromolecular, and Supramolecular Materials. Lecture Notes in Quantum Chemistry II, 2015, , 185-231.	0.3	4
77	Anthocyanin from Vitis labrusca grape used as sensitizer in DSSC solar cells. Journal of Materials Science: Materials in Electronics, 2015, 26, 2257-2262.	1.1	6
78	Mixed binder of silica nanoparticles and titanium isopropoxide for low-temperature cured titanium oxide photoanode of dye-sensitized solar cell. Journal of Sol-Gel Science and Technology, 2015, 74, 143-150.	1.1	2
79	Single-Walled Carbon Nanotubes â€“ Graphene Mixture as a Dye Monolayer for Dye-Sensitized Solar Cells. Materials Science Forum, 2015, 819, 185-188.	0.3	0
80	Review on natural dye sensitized solar cells: Operation, materials and methods. Renewable and Sustainable Energy Reviews, 2015, 51, 1306-1325.	8.2	236
81	Enhanced power conversion efficiency of dye-sensitized solar cells with Li2SiO3-modified photoelectrode. Applied Surface Science, 2015, 333, 134-140.	3.1	23
82	Potential active materials for photo-supercapacitor: A review. Journal of Power Sources, 2015, 296, 169-185.	4.0	97
83	Enhancement of photocatalytic properties of transitional metal oxides using conducting polymers: A mini review. Materials Research Bulletin, 2015, 71, 75-90.	2.7	107
84	Characteristics of SnO2 nanofiber/TiO2 nanoparticle composite for dye-sensitized solar cells. AIP Advances, 2015, 5, .	0.6	34
85	Metal oxide semiconducting interfacial layers for photovoltaic and photocatalytic applications. Materials for Renewable and Sustainable Energy, 2015, 4, 1.	1.5	82
86	One pot synthesis of multi-functional tin oxide nanostructures forÂhigh efficiency dye-sensitized solar cells. Journal of Alloys and Compounds, 2015, 646, 32-39.	2.8	13
87	Characterization of sprayed TiO2 on ITO substrates for solar cell applications. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 149, 904-912.	2.0	34
88	Review on Metallic and Plastic Flexible Dye Sensitized Solar Cell. IOP Conference Series: Materials Science and Engineering, 2015, 78, 012003.	0.3	25
89	Hybrid TiO2â€“multiwall carbon nanotube (MWCNTs) photoanodes for efficient dye sensitized solar cells (DSSCs). Solar Energy Materials and Solar Cells, 2015, 140, 174-179.	3.0	81
90	Recent Progress in Nonâ€Platinum Counter Electrode Materials for Dyeâ€Sensitized Solar Cells. ChemElectroChem, 2015, 2, 928-945.	1.7	147

#	Article	IF	Citations
91	Tuning of Electrical and Optical Properties of Highly Conducting and Transparent Ta-Doped TiO₂Polycrystalline Films. Journal of Physical Chemistry C, 2015, 119, 6988-6997.	1.5	46
92	Review on polymer electrolyte in dye-sensitized solar cells (DSSCs). Solar Energy, 2015, 115, 452-470.	2.9	248
93	Thiolate/Disulfide Based Electrolytes for p-type and Tandem Dye-Sensitized Solar Cells. Electrochimica Acta, 2015, 182, 458-463.	2.6	33
94	Copper(I) thiocyanate (CuSCN) as a hole-transport material for large-area opto/electronics. Semiconductor Science and Technology, 2015, 30, 104002.	1.0	83
95	Influence of Poly(N-vinylcarbazole) as a Photoanode Component in Enhancing the Performance of a Dye-Sensitized Solar Cell. Journal of Physical Chemistry C, 2015, 119, 23830-23838.	1.5	20
96	Bio-nano hybrid materials based on bacteriorhodopsin: Potential applications and future strategies. Advances in Colloid and Interface Science, 2015, 225, 194-202.	7.0	34
97	Graphene-Based Dye-Sensitized Solar Cells: A Review. Science of Advanced Materials, 2015, 7, 1863-1912.	0.1	103
98	Frontiers of photovoltaic technology: A review. , 2015, , .		11
99	Increased Power Conversion Efficiency of Dye-Sensitized Solar Cells with Surface-Modified Photoelectrode. Molecular Crystals and Liquid Crystals, 2015, 617, 171-178.	0.4	0
100	Transition metal complex redox shuttles for dye-sensitized solar cells. RSC Advances, 2015, 5, 94814-94848.	1.7	61
101	Effects of multilayer coating and calcination procedures on the morphology of dye-sensitized solar cell semiconductor photoelectrodes. Thin Solid Films, 2015, 590, 230-240.	0.8	4
102	Joint Effects of Photoactive TiO₂ and Fluoride-Doping on SnO₂ Inverse Opal Nanoarchitecture for Solar Water Splitting. ACS Applied Materials & Interfaces, 2015, 7, 20292-20303.	4.0	72
103	Controllable dye adsorption behavior on amorphous tungsten oxide nanosheet surfaces. RSC Advances, 2015, 5, 100898-100904.	1.7	27
104	TiO2 electrode with three-dimensional interweaved network structure for effective electrons transport and electrolyte diffusion in dye-sensitized solar cell. Journal of Alloys and Compounds, 2015, 626, 264-268.	2.8	4
105	Can elongation of the Ï€-system in triarylamine derived sensitizers with either benzothiadiazole and/or ortho-fluorophenyl moieties enrich their light harvesting efficiency? â€“ a theoretical study. RSC Advances, 2015, 5, 3978-3998.	1.7	32
106	Spatially Confined Functionalization of Transparent NiO Thin Films with a Luminescent (1,10â€Phenanthroline)tris(2â€thenoyltrifluoroacetonato)europium Monolayer. European Journal of Inorganic Chemistry, 2015, 2015, 1261-1268.	1.0	7
107	SrTiO3 Nanocube-Doped Polyaniline Nanocomposites with Enhanced Photocatalytic Degradation of Methylene Blue under Visible Light. Polymers, 2016, 8, 27.	2.0	148
108	Recent progresses in solar cells: Insight into hollow micro/nanoâ€“structures. Renewable and Sustainable Energy Reviews, 2016, 64, 543-568.	8.2	25

#	Article	IF	Citations
109	Nanoscale Tailored Plasmonic Material for Optimum Broadband Solar Harvesting. Advanced Optical Materials, 2016, 4, 413-418.	3.6	3
110	Porous silicon Bragg reflectors on multi-crystalline silicon wafer with p-n junction. Journal of Physics: Conference Series, 2016, 709, 012006.	0.3	2
111	Synthesis of TiO2 nanoparticle using solâ€“gel route and testing its photovoltaic performance in dye-sensitized solar cell. Applied Solar Energy (English Translation of Geliotekhnika), 2016, 52, 309-314.	0.2	6
112	Activated graphene nanoplatelets as a counter electrode for dye-sensitized solar cells. Journal of Applied Physics, 2016, 119, .	1.1	37
114	Content variation of particle size in TiO₂ paste as medium for electron transportation in dye sensitized solar cell. , 2016, , .		0
115	An analysis of DSSC performance based on nanosphere, nanorod, and nanoparticle anode morphologies. Journal of Applied Physics, 2016, 120, .	1.1	2
116	SnO2â€“TiO2 hybrid nanofibers for efficient dye-sensitized solar cells. Solar Energy, 2016, 132, 395-404.	2.9	44
117	Strategies for modulating the luminescence properties of pyronin Y dyeâ€“clay films: an experimental and theoretical study. Physical Chemistry Chemical Physics, 2016, 18, 8730-8738.	1.3	18
118	Fe 3 O 4 â€“carbon black nanocomposite as a highly efficient counter electrode material for dye-sensitized solar cell. Ceramics International, 2016, 42, 13190-13198.	2.3	43
119	A broad spectrum photon responsive, paramagnetic Î²-NaGdF₄:Yb³⁺,Er³⁺â€“ mesoporous anatase titania nanocomposite. RSC Advances, 2016, 6, 53504-53518.	1.7	16
120	Photoelectrochemical Solar Cells Consisting of a Pt-Modified CdS Photoanode and an Fe(ClO₄)₂/Fe(ClO₄)₃ Redox Shuttle in a Nonaqueous Electrolyte. Journal of Physical Chemistry C, 2016, 120, 10781-10790.	1.5	7
121	Binary Indiumâ€“Zinc Oxide Photoanodes for Efficient Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2016, 6, 1501075.	10.2	19
122	Copper Phenanthroline as a Fast and High-Performance Redox Mediator for Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2016, 120, 9595-9603.	1.5	140
123	Enhancing the photovoltaic performance of dye-sensitized solar cells by modifying TiO2 photoanodes with exfoliated graphene sheets. RSC Advances, 2016, 6, 41092-41102.	1.7	10
124	Synthesis and characterization of Co₃O₄ nanocube-doped polyaniline nanocomposites with enhanced methyl orange adsorption from aqueous solution. RSC Advances, 2016, 6, 43388-43400.	1.7	119
125	Graphene oxide/poly(3,4-ethylenedioxythiophene):polystyrenesulfonate layers on silver nanowire working electrodes enhance the power conversion efficiencies of dye-sensitized solar cells in a low temperature process. RSC Advances, 2016, 6, 47185-47191.	1.7	7
126	Efficiency enhancement of dye-sensitized solar cells by use of ZrO 2 -doped TiO 2 nanofibers photoanode. Journal of Colloid and Interface Science, 2016, 476, 9-19.	5.0	38
127	Flexible, Low Cost, and Platinum-Free Counter Electrode for Efficient Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 25353-25360.	4.0	21

#	Article	IF	Citations
128	Improving energy relay dyes for dye-sensitized solar cells by use of a group of uniform materials based on organic salts (GUMBOS). RSC Advances, 2016, 6, 95273-95282.	1.7	19
129	Effect of graphene nanoplatelet thickness on electrochemical performance of dye-sensitized solar cell. , 2016, , .		2
130	Exploring the main function of reduced graphene oxide nano-flakes in a nickel cobalt sulfide counter electrode for dye-sensitized solar cell. Journal of Power Sources, 2016, 332, 281-289.	4.0	30
131	Nanoscale tailored plasmonic material for optimum broadband solar harvesting. Proceedings of SPIE, 2016, , .	0.8	0
132	Microwave-assisted synthesis of Bi2Se3/reduced graphene oxide nanocomposite as efficient catalytic counter electrodefordye-sensitized solar cell. Fullerenes Nanotubes and Carbon Nanostructures, 2016, 24, 622-629.	1.0	10
133	Supramolecular Hemicage Cobalt Mediators for Dyeâ€Sensitized Solar Cells. ChemPhysChem, 2016, 17, 3845-3852.	1.0	15
134	Titania sensitized with SPADNS dye for dye sensitized solar cell. Journal of Materials Science: Materials in Electronics, 2016, 27, 12446-12451.	1.1	5
135	Absorbency and conductivity of quasi-solid-state polymer electrolytes for dye-sensitized solar cells: A characterization review. Journal of Power Sources, 2016, 329, 57-71.	4.0	45
136	Regulating ancillary ligands of Ru(<scp>ii</scp>) complexes with square-planar quadridentate ligands for more efficient sensitizers in dye-sensitized solar cells: insights from theoretical investigations. Physical Chemistry Chemical Physics, 2016, 18, 29591-29599.	1.3	9
137	Bi-layer photoanode films of hierarchical carbon-doped brookite-rutile TiO 2 composite and anatase TiO 2 beads for efficient dye-sensitized solar cells. Electrochimica Acta, 2016, 216, 429-437.	2.6	15
138	Sol-gel spin coated well adhered MoO3 thin films as an alternative counter electrode for dye sensitized solar cells. Solid State Sciences, 2016, 61, 84-88.	1.5	32
139	Progress in plasmonic solar cell efficiency improvement: A status review. Renewable and Sustainable Energy Reviews, 2016, 65, 537-552.	8.2	123
140	Dye-sensitised solar cells: Development, structure, operation principles, electron kinetics, characterisation, synthesis materials and natural photosensitisers. Renewable and Sustainable Energy Reviews, 2016, 65, 183-213.	8.2	139
141	Influence of an Al-blended TiO2 photoanode on the photovoltaic properties of n-DSSCs. Molecular Crystals and Liquid Crystals, 2016, 637, 96-104.	0.4	0
142	Fast and Low-Temperature (70 Â°C) Mineralization of Inkjet Printed Mesoporous TiO₂ Photoanodes Using Ambient Air Plasma. ACS Applied Materials & Interfaces, 2016, 8, 33562-33571.	4.0	28
143	Reduced interfacial recombination in dye-sensitized solar cells assisted with NiO:Eu3+,Tb3+ coated TiO2 film. Scientific Reports, 2016, 6, 31123.	1.6	49
144	Hybrid Energy Cell with Hierarchical Nano/Micro-Architectured Polymer Film to Harvest Mechanical, Solar, and Wind Energies Individually/Simultaneously. ACS Applied Materials & Interfaces, 2016, 8, 30165-30175.	4.0	46
145	Building of a PV DSSC small scale prototype based TiO<inf>2</inf> nano coating with natural pigment. , 2016, , .		2

#	Article	IF	Citations
146	Metalâ€“Organic Frameworks as Highly Active Electrocatalysts for High-Energy Density, Aqueous Zinc-Polyiodide Redox Flow Batteries. Nano Letters, 2016, 16, 4335-4340.	4.5	79
147	Facile hydrothermal synthesis of graphene-ZnSe electro-catalytic electrodes for dye sensitized solar cells. Fullerenes Nanotubes and Carbon Nanostructures, 2016, 24, 324-331.	1.0	4
148	High performance arylamine-based metallated and metal-free organic photosensitizers for dye-sensitized solar cells. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2016, 28, 138-158.	5.6	21
149	Electron transport study of indium oxide as photoanode in DSSCs: A review. Renewable and Sustainable Energy Reviews, 2016, 63, 245-255.	8.2	62
150	Suppression of charge recombination by application of Cu2ZnSnS4-graphene counter electrode to thin dye-sensitized solar cells. Science Bulletin, 2016, 61, 1221-1230.	4.3	7
151	Nitrogen-doped&SnO2-incoportaed TiO2 nanofibers as novel and effective photoanode for enhanced efficiency dye-sensitized solar cells. Chemical Engineering Journal, 2016, 304, 48-60.	6.6	36
152	A simplified electrical model of the dye-sensitised photoelectrochemical cell. International Journal of Sustainable Energy, 2016, 35, 75-87.	1.3	10
153	A pilot facility for analysis and simulation of smart microgrids feeding smart buildings. Renewable and Sustainable Energy Reviews, 2016, 58, 1247-1255.	8.2	35
154	Advances in nanostructured thin film materials for solar cell applications. Renewable and Sustainable Energy Reviews, 2016, 59, 726-737.	8.2	133
155	Tuning optical absorption in pyran derivatives for DSSC. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 321, 79-89.	2.0	24
156	Thiophene-bithiazole based metal-free dye as DSSC sensitizer: Effect of co-adsorbents on photovoltaic efficiency. Journal of Chemical Sciences, 2016, 128, 101-110.	0.7	8
157	Influence of Graphene (0.01 wt. %) on Structural, Morphological and Photovoltaic Properties of TiO₂-Based DSSC Using Electrolyte Gel. Materials Science Forum, 2016, 846, 298-307.	0.3	1
158	Extremely enhanced photovoltaic properties of dye-sensitized solar cells by sintering mesoporous TiO2 photoanodes with crystalline titania chelated by acetic acid. Journal of Power Sources, 2016, 310, 79-84.	4.0	19
159	Novel Alizarin palladacyclic complexes as sensitizers in high durable dye-sensitized solar cells. Polyhedron, 2016, 109, 40-46.	1.0	6
160	Comparative study between dye-synthesized solar cells prepared by electrophoretic and doctor blade techniques. Optik, 2016, 127, 4400-4404.	1.4	15
161	Modification of photoelectrode with thiol-functionalized Calix[4]arenes as interface energy barrier for high efficiency in dye-sensitized solar cells. Journal of Power Sources, 2016, 307, 796-805.	4.0	52
162	Synthesis and Characterization of Porphyrin-Based GUMBOS and NanoGUMBOS as Improved Photosensitizers. Journal of Physical Chemistry C, 2016, 120, 5155-5163.	1.5	26
163	Graphene-beaded carbon nanofibers with incorporated Ni nanoparticles as efficient counter-electrode for dye-sensitized solar cells. Nano Energy, 2016, 22, 558-563.	8.2	66

#	Article	IF	Citations
164	Graphene in perovskite solar cells: device design, characterization and implementation. Journal of Materials Chemistry A, 2016, 4, 6185-6235.	5.2	185
165	Reporting performance in MoS2â€“TiO2 bilayer and heterojunction films based dye-sensitized photovoltaic devices. Journal of Alloys and Compounds, 2016, 672, 481-488.	2.8	18
166	Semi-transparent ordered TiO2 nanostructures prepared by anodization of titanium thin films deposited onto the FTO substrate. Applied Surface Science, 2016, 381, 36-41.	3.1	21
167	Aluminum-doped zinc oxide thin film as seeds layer effects on the alignment of zinc oxide nanorods synthesized in the chemical bath deposition. Thin Solid Films, 2016, 605, 37-43.	0.8	21
168	Dye-sensitized solar cells based on nanocomposite of polyaniline/graphene quantum dots. Journal of Materials Science, 2016, 51, 2964-2971.	1.7	101
169	Fabrication of CdSe sensitized SnO 2 nanofiber quantum dot solar cells. Materials Science in Semiconductor Processing, 2016, 41, 370-377.	1.9	14
170	Synthesis, characterization and performance as a Counter Electrode for dye-sensitized solar cells of CoCr-decorated carbon nanofibers. Ceramics International, 2016, 42, 146-153.	2.3	34
171	Recent Progress in Metalâ€“Organic Frameworks and Their Derived Nanostructures for Energy and Environmental Applications. ChemSusChem, 2017, 10, 1645-1663.	3.6	199
172	Semi-transparent solar cells. Journal Physics D: Applied Physics, 2017, 50, 093001.	1.3	70
173	Photovoltaic performance and impedance spectroscopy of a purely organic dye and most common metallic dye based dye-sensitized solar cells. Journal of Materials Science: Materials in Electronics, 2017, 28, 6552-6559.	1.1	16
174	Effect of sintering time on the performance of turmeric dye-sensitized solar cells. AIP Conference Proceedings, 2017, , .	0.3	1
175	Enhancement in the photostability of natural dyes for dye-sensitized solar cell (DSSC) applications: a review. International Journal of Energy Research, 2017, 41, 1372-1396.	2.2	83
176	Solid polymer electrolyte dye-sensitized solar cells with organized mesoporous TiO2 interfacial layer templated by poly(vinyl alcohol)â€“poly(methyl methacrylate) comb copolymer. Solid State Ionics, 2017, 300, 195-204.	1.3	16
177	Porphyrin-Based Dye-Sensitized Solar Cells (DSSCs): a Review. Journal of Fluorescence, 2017, 27, 1075-1085.	1.3	129
178	TiO 2 photoanode surface modification via combined action of samarium and titanium salt in dye-sensitized solar cells. Solar Energy Materials and Solar Cells, 2017, 165, 45-51.	3.0	11
179	Characteristics of dye Rhoeo spathacea in dye sensitizer solar cell (DSSC). Journal of Physics: Conference Series, 2017, 795, 012026.	0.3	0
180	Synthesis of organic sulfobetaineâ€based polymer gel electrolyte for dyeâ€sensitized solar cell application. Polymers for Advanced Technologies, 2017, 28, 1504-1509.	1.6	4
181	Exfoliated molybdenum disulfide for dye sensitized solar cells. FlatChem, 2017, 2, 1-7.	2.8	29

#	Article	IF	Citations
182	Impact of natural photosensitizer extraction solvent upon light absorbance in dye-sensitized solar cells. , 2017, , .		0
183	Theoretical and experimental analysis of porphyrin derivatives with suitable anchoring groups for DSSC applications. Journal of Porphyrins and Phthalocyanines, 2017, 21, 88-102.	0.4	8
184	Urchin-inspired ZnO-TiO2 core-shell as building blocks for dye sensitized solar cells. Materials and Design, 2017, 126, 314-321.	3.3	20
185	A high performance ZnO based photoelectrochemical cell type UV photodetector with [Co(bpy)₃]^{3+/2+} electrolyte and PEDOT/ITO counter electrode. RSC Advances, 2017, 7, 18987-18992.	1.7	16
186	Energy levels of natural sensitizers extracted from rengas (Gluta spp.) and mengkulang (Heritiera) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.5	7
187	Realization of manufacturing dye-sensitized solar cells with possible maximum power conversion efficiency and durability. Solar Energy, 2017, 149, 314-322.	2.9	26
188	Recent advances in photo-anode for dye-sensitized solar cells: a review. International Journal of Energy Research, 2017, 41, 2446-2467.	2.2	141
189	Electrochemical interfacial charge transfer dynamics and photovoltaic performances of nanofibrous vanadium derivatives based platinum free counter electrodes in dye sensitized solar cells. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2017, 222, 7-17.	1.7	22
190	Tailoring anatase nanotubes for the photovoltaic device by the anodization process on behalf of microstructural features of titanium thin film. Solar Energy Materials and Solar Cells, 2017, 168, 136-145.	3.0	12
191	Design of â€œpush-pullâ€•p-type quinoid-based organic dyes with near-IR absorption: A density function theory study. Journal of the Korean Physical Society, 2017, 70, 758-764.	0.3	1
192	Recent progress and utilization of natural pigments in dye sensitized solar cells: A review. Renewable and Sustainable Energy Reviews, 2017, 78, 301-317.	8.2	156
193	Recent advances in the application of two-dimensional materials as charge transport layers in organic and perovskite solar cells. FlatChem, 2017, 2, 54-66.	2.8	53
194	A convenient electrolytic assembly of graphene-MOF composite thin film and its photoanodic application. Applied Surface Science, 2017, 396, 1303-1309.	3.1	47
195	Energy conversion technologies towards self-powered electrochemical energy storage systems: the state of the art and perspectives. Journal of Materials Chemistry A, 2017, 5, 1873-1894.	5.2	113
196	Optimization of ITO glass/TiO2 based DSSC photo-anodes through electrophoretic deposition and sintering techniques. Ceramics International, 2017, 43, 10540-10545.	2.3	28
197	Hemigraphis colorata as a natural dye for solar energy conversion. Materials Today: Proceedings, 2017, 4, 4358-4365.	0.9	5
198	Time dependent â€“ density functional theory characterization of organic dyes for dye-sensitized solar cells. Molecular Simulation, 2017, 43, 1523-1531.	0.9	22
199	Effects of a TiO 2 :CaO barrier layer on the back electron transfer in TiO 2 -based solar cells. Journal of Industrial and Engineering Chemistry, 2017, 50, 96-101.	2.9	10

#	Article	IF	Citations
200	Interrelationship between TiO₂ nanoparticle size and kind/size of dyes in the mechanism and conversion efficiency of dye sensitized solar cells. Physical Chemistry Chemical Physics, 2017, 19, 11187-11196.	1.3	12
201	Effect of solvents in the extraction and stability of anthocyanin from the petals of Caesalpinia pulcherrima for natural dye sensitized solar cell applications. Journal of Materials Science: Materials in Electronics, 2017, 28, 9882-9892.	1.1	21
202	Effect of substitution on the optoelectronic properties of dyes for DSSC. A DFT approach. Journal of Theoretical and Computational Chemistry, 2017, 16, 1750018.	1.8	16
203	Dye sensitized solar cells: From genesis to recent drifts. Renewable and Sustainable Energy Reviews, 2017, 70, 529-537.	8.2	100
204	Characterization techniques for dye-sensitized solar cells. Energy and Environmental Science, 2017, 10, 672-709.	15.6	136
205	Performance improvement of modified dye-sensitized solar cells. Renewable and Sustainable Energy Reviews, 2017, 71, 602-617.	8.2	74
206	An overview of the Challenges in the commercialization of dye sensitized solar cells. Renewable and Sustainable Energy Reviews, 2017, 71, 675-686.	8.2	153
207	Highly improved performances of DSSC prepared with crystalline type CoS2 dispersed on graphene. Journal of Materials Science: Materials in Electronics, 2017, 28, 1393-1401.	1.1	3
208	Low-temperature microbial and direct conversion of lignocellulosic biomass to electricity: Advances and challenges. Renewable and Sustainable Energy Reviews, 2017, 71, 268-282.	8.2	59
209	Effects of ionic radii of co-dopants (Mg, Ca, Al and La) in TiO2 on performance of dye-sensitized solar cells. Solar Energy, 2017, 141, 249-255.	2.9	27
210	Impact of chromium doping on physical, optical, electronic and photovoltaic properties of nanoparticle TiO₂photoanodes in dye-sensitized solar cells. New Journal of Chemistry, 2017, 41, 14516-14527.	1.4	12
211	Low-temperature (70 Â°C) ambient air plasma-fabrication of inkjet-printed mesoporous TiO ₂ flexible photoanodes. Flexible and Printed Electronics, 2017, 2, 035010.	1.5	24
212	First Examples of Pyran Based Colorants as Sensitizing Agents ofp-Type Dye-Sensitized Solar Cells. Journal of the Electrochemical Society, 2017, 164, F1412-F1418.	1.3	13
213	Electronic Couplings for Charge Transfer across Molecule/Metal and Molecule/Semiconductor Interfaces: Performance of the Projector Operator-Based Diabatization Approach. Journal of Physical Chemistry C, 2017, 121, 19677-19689.	1.5	44
214	Doping and energy band modulation of nanoporous electrodes for enhancing power conversion efficiency of dye-sensitized solar cells. Materials Research Bulletin, 2017, 95, 436-443.	2.7	5
215	Electrochemical deposition of Pt-Ni on reduced graphene oxide as counter electrode material for dye-sensitized solar cell. Journal of Photochemistry and Photobiology A: Chemistry, 2017, 348, 263-268.	2.0	13
216	Introduction of Nanomaterials for Photocatalysis. Springer Series on Polymer and Composite Materials, 2017, , 1-17.	0.5	5
217	Orthogonally Functionalized Donor/Acceptor Homo- and Heterodimeric Dyes for Dye-Sensitized Solar Cells: An Approach to Introduce Panchromaticity and Control the Charge Recombination. ACS Applied Materials & Interfaces, 2017, 9, 34875-34890.	4.0	34

#	Article	IF	Citations
218	Interplay between Ï€-Bridges and Positions of Branched Alkyl Groups of Unsymmetrical Dâ€“Aâ€“Dâ˜Ï€â€“A Squaraines in Dye-Sensitized Solar Cells: Mode of Dye Anchoring and the Charge Transfer Process at the TiO₂/Dye/Electrolyte Interface. ACS Applied Materials & Interfaces, 2017, 9, 32698-32712.	4.0	10
219	A new direction in design and manufacture of co-sensitized dye solar cells: Toward concurrent optimization of power conversion efficiency and durability. Opto-electronics Review, 2017, 25, 229-237.	2.4	13
220	Three-dimensional graphene-based macrostructures for sustainable energy applications and climate change mitigation. Progress in Materials Science, 2017, 90, 224-275.	16.0	60
221	Enhanced visible light absorption and reduced charge recombination in AgNP plasmonic photoelectrochemical cell. Results in Physics, 2017, 7, 2311-2316.	2.0	27
222	The charge transport characterization of the polyaniline coated carbon fabric as a novel textile based counter electrode for flexible dye-sensitized solar cell. Electrochimica Acta, 2017, 249, 308-317.	2.6	21
223	Ultrafast Electron Dynamics in Solar Energy Conversion. Chemical Reviews, 2017, 117, 10940-11024.	23.0	266
224	SrZnO nanostructures grown on templated <0001> Al2O3 substrates by pulsed laser deposition. AIP Advances, 2017, 7, 095220.	0.6	0
225	A redox-controlled electrolyte for plasmonic enhanced dye-sensitized solar cells. Nanoscale, 2017, 9, 10940-10947.	2.8	3
226	Characterization of the inner structure of porous TiO 2 nanoparticle films in dye sensitive solar cells (DSSC) by focused ion beam (FIB) tomography and transmission Kikuchi diffraction (TKD) in the scanning electron microscope (SEM). Materials Characterization, 2017, 131, 39-48.	1.9	13
227	Hierarchical porous photoanode based on acid boric catalyzed sol for dye sensitized solar cells. Applied Surface Science, 2017, 394, 37-46.	3.1	9
228	Tuning the performance of aqueous photovoltaic elastomer gels by solvent polarity and nanostructure development. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 85-95.	2.4	6
229	Review on dye-sensitized solar cells (DSSCs): Advanced techniques and research trends. Renewable and Sustainable Energy Reviews, 2017, 68, 234-246.	8.2	882
230	Natural dyes for dye sensitized solar cell: A review. Renewable and Sustainable Energy Reviews, 2017, 69, 705-718.	8.2	307
231	Nanostructured ZnO and natural dye based DSSC for efficiency enhancement. , 2017, , .		4
232	Probing the interaction between 2,2â€²-bithiophene-5-carboxylic acid and TiO2 by photoelectron spectroscopy: A joint experimental and theoretical study. Journal of Chemical Physics, 2017, 147, 244704.	1.2	2
233	Recent improvements on TiO2and ZnO nanostructure photoanode for dye sensitized solar cells: A brief review. EPJ Web of Conferences, 2017, 162, 01045.	0.1	7
234	DFT-based Theoretical Simulations for Photocatalytic Applications Using TiO2. , 0, , .		3
235	Cost-effective Synthesis and Properties of Graphene. Indian Journal of Science and Technology, 2017, 9, .	0.5	1

#	Article	IF	Citations
236	Recent Developments in Quantum Dots/CNT Co-Sensitized Organic Solar Cells. Journal of Material Science & Engineering, 2017, 06, .	0.2	3
237	Properties of TiO<inf>2</inf> and Dye in Enhacement of Dye-Sensitized Solar Cells' Efficiency. , 2017, , .		1
238	Synthesis, computational study and characterization of a 3-{[2,3-diphenylquinoxalin-6-yl]diazenyl}-4-hydroxy-2H-chromen-2- one azo dye for dye-sensitized solar cell applications. Journal of Computational Electronics, 2018, 17, 821-829.	1.3	10
239	Optimization of 3D ZnO brush-like nanorods for dye-sensitized solar cells. RSC Advances, 2018, 8, 9775-9782.	1.7	16
240	Annealing effect of E-beam evaporated TiO2 films and their performance in perovskite solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 360, 109-116.	2.0	23
241	Mg-La Co-Doped TiO₂ as Compact Layer for High Efficient Dye-Sensitized Solar Cells. Key Engineering Materials, 2018, 765, 34-38.	0.4	2
242	Developing the photovoltaic performance of dye-sensitized solar cells (DSSCs) using a SnO2-doped graphene oxide hybrid nanocomposite as a photo-anode. Optical Materials, 2018, 79, 345-352.	1.7	18
243	Two dimensional layered electron transport bridges in mesoscopic TiO2 for dye sensitized solar cell applications. Electrochimica Acta, 2018, 267, 63-70.	2.6	13
244	Enhanced photon collection of high surface area carbonate-doped mesoporous TiO2 nanospheres in dye sensitized solar cells. Materials Research Bulletin, 2018, 101, 353-362.	2.7	32
245	Tandem perovskite solar cells. Renewable and Sustainable Energy Reviews, 2018, 84, 89-110.	8.2	93
246	Carbon-coated three-dimensional WS2 film consisting of WO3@WS2 core-shell blocks and layered WS2 nanostructures as counter electrodes for efficient dye-sensitized solar cells. Electrochimica Acta, 2018, 266, 130-138.	2.6	21
247	Nanostructured zinc titanate wide band gap semiconductor as a photoelectrode material for quantum dot sensitized solar cells. Solar Energy, 2018, 163, 338-346.	2.9	26
248	Probing energy losses from dye desorption in cobalt complex-based dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2018, 20, 6698-6707.	1.3	2
249	Quasiâ€Solidâ€State Dyeâ€Sensitized Solar Cells Containing a Charged Thermoplastic Elastomeric Gel Electrolyte and Hydrophilic/phobic Photosensitizers. Solar Rrl, 2018, 2, 1700145.	3.1	12
250	Minimizing the charge recombination rate at the FTO/Zn2SnO4 interface by metal oxide semiconductors in DSSCs. Journal of Materials Science, 2018, 53, 7551-7561.	1.7	17
251	A dye-sensitized solar cell acting as the electrical reading box of an immunosensor: Application to CEA determination. Biosensors and Bioelectronics, 2018, 107, 94-102.	5.3	21
252	Progress in the performance of dye sensitized solar cells by incorporating cost effective counter electrodes. Solar Energy, 2018, 160, 130-152.	2.9	55
253	Low-cost synthesized organic compounds in solvent free quasi-solid state polyethyleneimine, polyethylene glycol based polymer electrolyte for dye-sensitized solar cells with high photovoltaic conversion efficiencies. Solar Energy, 2018, 160, 225-250.	2.9	25

#	Article	IF	Citations
254	Performance and stability analysis of curcumin dye as a photo sensitizer used in nanostructured ZnO based DSSC. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 193, 467-474.	2.0	47
255	Improving the photovoltaic performance of DSSCs using a combination of mixed-phase TiO2 nanostructure photoanode and agglomerated free reduced graphene oxide counter electrode assisted with hyperbranched surfactant. Optik, 2018, 158, 522-534.	1.4	25
256	Improvement of the photocatalytic activity of TiO2 using Colombian Caribbean species (Syzygium) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 370-376.	2.0	31
257	From dense blocking layers to different templated films in dye sensitized and perovskite solar cells: toward light transmittance management and efficiency enhancement. Journal of Materials Chemistry A, 2018, 6, 2632-2642.	5.2	22
258	Fabrication and characterization of dye-sensitized solar cells based on natural plants. Chemical Physics Letters, 2018, 693, 16-22.	1.2	34
259	High efficiency of dye-sensitized solar cells with two-layer mesoporous photoanodes fabricated in a low temperature process. Electrochimica Acta, 2018, 261, 421-427.	2.6	12
260	Cost effective natural photo-sensitizer from upcycled jackfruit rags for dye sensitized solar cells. Journal of Science: Advanced Materials and Devices, 2018, 3, 213-220.	1.5	10
261	Few layers graphene based conductive composite inks for Pt free stainless steel counter electrodes for DSSC. Solar Energy, 2018, 169, 67-74.	2.9	28
262	Dye Sensitized Solar Cell (DSSC) greenhouse shading: New insights for solar radiation manipulation. Renewable and Sustainable Energy Reviews, 2018, 92, 171-186.	8.2	121
263	A Primer on Photovoltaic Generators. Springer Series in Materials Science, 2018, , 63-90.	0.4	3
264	The colour rendering index and correlated colour temperature of dye-sensitized solar cell for adaptive glazing application. Solar Energy, 2018, 163, 537-544.	2.9	73
265	Exploring the use of impedance spectroscopy in relaxation and electrochemical studies. Applied Spectroscopy Reviews, 2018, 53, 157-176.	3.4	4
266	Nano-structured TiO2/ZnO nanocomposite for dye-sensitized solar cells application: A review. Renewable and Sustainable Energy Reviews, 2018, 81, 2264-2270.	8.2	123
267	Review on earth-abundant and environmentally benign Cuâ€“Snâ€“X(X = S, Se) nanoparticles by chemical synthesis for sustainable solar energy conversion. Journal of Industrial and Engineering Chemistry, 2018, 60, 19-52.	2.9	36
268	Recent advances in plasmonic dye-sensitized solar cells. Journal of Solid State Chemistry, 2018, 258, 271-282.	1.4	43
269	Freeze-casted TiO2 photoelectrodes with hierarchical porous structures for efficient light harvesting ability in dye-sensitized solar cells. Applied Surface Science, 2018, 449, 405-411.	3.1	3
270	Palladium-directed self-assembly of multi-titanium(IV)-porphyrin arrays on the substrate surface as sensitive ultrathin films for hydrogen peroxide sensing, photocurrent generation, and photochromism of viologen. Applied Surface Science, 2018, 427, 1003-1010.	3.1	13
271	Dye-sensitized solar cells using ionic liquids as redox mediator. Chemical Physics Letters, 2018, 691, 373-378.	1.2	50

#	Article	IF	Citations
272	Effect of auxiliary group for p-type organic dyes in NiO-based dye-sensitized solar cells: The first principal study. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 193, 192-196.	2.0	6
273	Carbon nanotubes: A potential material for energy conversion and storage. Progress in Energy and Combustion Science, 2018, 64, 219-253.	15.8	184
274	Recent progress in two-dimensional inorganic quantum dots. Chemical Society Reviews, 2018, 47, 586-625.	18.7	230
275	The latest trends in synthesis of dye-sensitized solar cells. IOP Conference Series: Materials Science and Engineering, 2018, 402, 012176.	0.3	1
276	Theoretical study on the effect of solvents in chlorophyll solution for Dye-Sensitized Solar Cell. IOP Conference Series: Materials Science and Engineering, 2018, 299, 012089.	0.3	2
277	An Efficient Anilineâ€Based Coâ€Sensitizer for High Performance N3â€Sensitized Solar Cells. ChemistrySelect, 2018, 3, 12297-12302.	0.7	8
278	Grafting Carbon Nanotube for Dye-Sensitized Solar Cell Improvement. Key Engineering Materials, 2018, 779, 122-128.	0.4	0
279	Improvement in dye sensitized solar cells from past to present. Optical and Quantum Electronics, 2018, 50, 1.	1.5	27
280	Improvement in performance of N3 sensitized DSSCs with structurally simple aniline based organic co-sensitizers. Solar Energy, 2018, 174, 999-1007.	2.9	28
281	Electrode Design to Overcome Substrate Transparency Limitations for Highly Efficient 1 cm2 Mesoscopic Perovskite Solar Cells. Joule, 2018, 2, 2694-2705.	11.7	34
282	Effect of Ni doping into chlorophyll dye on the efficiency of dye-sensitized solar cells (DSSC). AIP Conference Proceedings, 2018, , .	0.3	3
283	Intrinsic AuPt-alloy particles decorated on TiO2 nanotubes provide enhanced photocatalytic degradation. Electrochimica Acta, 2018, 292, 865-870.	2.6	24
285	The researcher's guide to solid-state dye-sensitized solar cells. Journal of Materials Chemistry C, 2018, 6, 11903-11942.	2.7	87
286	A comprehensive review on counter electrodes for dye sensitized solar cells: A special focus on Pt-TCO free counter electrodes. Solar Energy, 2018, 174, 1097-1125.	2.9	116
287	Efficient Energy Harvesting in SnO₂-Based Dye-Sensitized Solar Cells Utilizing Nano-Amassed Mesoporous Zinc Oxide Hollow Microspheres as Synergy Boosters. ACS Omega, 2018, 3, 14482-14493.	1.6	28
288	Investigation on the Thickness Effect of TiO₂Photo- Anode on Dye-Sensitized Solar Cell Performance. Solid State Phenomena, 2018, 280, 76-80.	0.3	4
290	Homoâ€•and Heterodimeric Dyes for Dyeâ€Sensitized Solar Cells: Panchromatic Light Absorption and Modulated Open Circuit Potential. ChemPlusChem, 2018, 83, 998-1007.	1.3	8
291	Janus nanoarchitectures: From structural design to catalytic applications. Nano Today, 2018, 22, 62-82.	6.2	137

#	Article	IF	Citations
292	Step-by-Step Heating of Dye Solution for Efficient Solar Energy Harvesting in Dye-Sensitized Solar Cells. Journal of Electronic Materials, 2018, 47, 4737-4741.	1.0	6
293	Co-sensitization of graphene/TiO2 nanocomposite thin films with ruthenizer and metal free organic photosensitizers for improving the power conversion efficiency of dye-sensitized solar cells (DSSCs). Solar Energy, 2018, 170, 47-55.	2.9	23
294	Novel High Pressure Exfoliated Graphene-Based Semitransparent Stable DSSCs for Building Integrated Photovoltaics. ACS Applied Energy Materials, 2018, 1, 2512-2519.	2.5	22
295	A solar rechargeable battery based on the sodium ion storage mechanism with Fe₂(MoO₄)₃ microspheres as anode materials. Journal of Materials Chemistry A, 2018, 6, 10627-10631.	5.2	21
296	Dye-sensitized Solar Cell Technology: Recent Development and Advancement. Green Energy and Technology, 2018, , 221-250.	0.4	2
297	Solid-state dye-sensitized solar cells based on Zn_{1â^'x}Sn_xO nanocomposite photoanodes. RSC Advances, 2018, 8, 24059-24067.	1.7	26
298	Prospects of life cycle assessment of renewable energy from solar photovoltaic technologies: A review. Renewable and Sustainable Energy Reviews, 2018, 96, 11-28.	8.2	236
299	A Synergetic Experimental and Computational Approach Towards a Better Comprehension of Redox		

#	Article	IF	Citations
310	Excited-State Planarization in Donorâ€“Bridge Dye Sensitizers: Phenylene versus Thiophene Bridges. Journal of the American Chemical Society, 2018, 140, 11046-11057.	6.6	30
311	Characterization of ZnO as substrate for DSSC. Physical Chemistry Chemical Physics, 2018, 20, 21910-21916.	1.3	6
312	Nanocrystalline Pyrite for Photovoltaic Applications. ChemistrySelect, 2018, 3, 6488-6524.	0.7	25
313	Characterization and adsorption performance of CdMn2O4 nanocomposite as a new highly efficient adsorbent. International Journal of Environmental Science and Technology, 2019, 16, 5979-5988.	1.8	9
314	Dye sensitized solar cells based on double-layered titanium dioxide and their evaluation in tropical hot desert climate of Saudi Arabia. Superlattices and Microstructures, 2019, 133, 106206.	1.4	4
315	Synthesis of Poly[N-(2-ethylhexyl)-3,6-carbazole-alt-aniline] Copolymer and Its Potential as Hole-Transporting Material to Solid-State Dye-Sensitized Solar Cells. Molecular Crystals and Liquid Crystals, 2019, 678, 53-61.	0.4	0
316	Hetero-seed meditated method to synthesize ZnO/TiO2 multipod nanostructures with ultra-high yield for dye-sensitized solar cells. Journal of Alloys and Compounds, 2019, 805, 868-872.	2.8	12
317	Polyaniline - BiVO4 nanocomposite as an efficient adsorbent for the removal of methyl orange from aqueous solution. Materials Science in Semiconductor Processing, 2019, 103, 104645.	1.9	26
318	Performance of the dyeâ€sensitized solar cells fabricated using natural dyes from Ixora coccinea flowers and Cymbopogon schoenanthus leaves as sensitizers. International Journal of Energy Research, 2019, 43, 7229.	2.2	12
319	3D printed chitosan scaffolds: A new TiO2 support for the photocatalytic degradation of amoxicillin in water. Water Research, 2019, 163, 114841.	5.3	102
320	Augmented reality in dermatology: Are we ready for AR?. Journal of the American Academy of Dermatology, 2019, 81, 1216-1222.	0.6	22
321	The effect of titanium (IV) chloride surface treatment to enhance charge transport and performance of dye-sensitized solar cell. Results in Physics, 2019, 15, 102725.	2.0	12
322	Current and future solar potential of India: A review. AIP Conference Proceedings, 2019, , .	0.3	0
324	Recent advances in dye-sensitized solar cells. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	36
325	Synthesis of Mesoporous TiO2 Spheres via the Solvothermal Process and Its Application in the Development of DSSC. Advances in Materials Science and Engineering, 2019, 2019, 1-15.	1.0	5
326	Combining Zinc Phthalocyanines, Oligo(pâ€Phenylenevinylenes), and Fullerenes to Impact Reorganization Energies and Attenuation Factors. ChemPhysChem, 2019, 20, 2806-2815.	1.0	6
327	Application of quantitative prediction to design new organic dyes in dye sensitized solar cells. Journal of Molecular Liquids, 2019, 278, 484-490.	2.3	9
328	Synthesis of dipyrrolopyrazine-based sensitizers with a new Ï€-bridge end-capped donorâ€“acceptor framework for DSSCs: a combined experimental and theoretical investigation. New Journal of Chemistry, 2019, 43, 3017-3025.	1.4	13

#	Article	IF	Citations
329	Improving the light scattering efficiency of photoelectrode dye-sensitized solar cell through optimization of core-shell structure. Materials Today Communications, 2019, 19, 220-229.	0.9	9
330	Efficiency enhancement study on addition of 1-hexyl-3-methylimidazolium iodide ionic liquid to the poly(methyl methacrylate-co-methacrylic acid) electrolyte system as applied in dye-sensitized solar cells. Journal of Physics and Chemistry of Solids, 2019, 129, 252-260.	1.9	11
331	The influence of antenna and anchoring moieties on the improvement of photoelectronic properties in Zn(<scp>ii</scp>)â€“porphyrinâ€“TiO₂ as potential dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2019, 21, 4339-4348.	1.3	17
332	Coupling gold nanoparticles to Dye-Sensitized Solar Cells for an increased efficiency. Electrochimica Acta, 2019, 300, 102-112.	2.6	10
333	A simple method to synthesize low-cost carbon modified TiO₂ counter electrodes for high-efficiency dye-sensitized solar cells. Materials Research Express, 2019, 6, 085553.	0.8	0
334	ZnO-based dye-sensitized solar cells. , 2019, , 145-204.		4
335	Pâ€100: Lowâ€temperature Fabrication of ZnO Nanorods Using Chemical Bath Deposition Method for Sensing Application in Display. Digest of Technical Papers SID International Symposium, 2019, 50, 1630-1633.	0.1	0
336	Novel stainless steel based, eco-friendly dye-sensitized solar cells using electrospun porous ZnO nanofibers. Nano Structures Nano Objects, 2019, 19, 100311.	1.9	22
337	Environmental performance of window-integrated systems using dye-sensitised solar module technology in Malaysia. Solar Energy, 2019, 187, 379-392.	2.9	15
338	The Voltammetric Hysteresis Behavior and Potential Scan Rate Dependence of a Dye Sensitized Solar Cells. MRS Advances, 2019, 4, 865-871.	0.5	1
339	Advances in nanostructures fabricatedviaspray pyrolysis and their applications in energy storage and conversion. Chemical Society Reviews, 2019, 48, 3015-3072.	18.7	260
340	Preparation of Electrolytic Quasi-Solid-State Nanofibers for Dye-Sensitized Solar Cells. Jom, 2019, 71, 1944-1951.	0.9	4
341	Nanostructured photoanode and counter electrode materials for efficient Dye-Sensitized Solar Cells (DSSCs). Solar Energy, 2019, 185, 165-188.	2.9	128
342	Theoretical Study of Phenothiazine Organic Dyes with Different Spacers for Dye-Sensitised Solar Cells. Australian Journal of Chemistry, 2019, 72, 244.	0.5	0
343	Simulation of Electron Diffusion Coefficient Interpretation on the Optimum Thickness of TiO₂ Photoanode in Dye-Sensitized Solar Cell (DSSC). IOP Conference Series: Materials Science and Engineering, 0, 515, 012058.	0.3	7
344	Synthesis of Porous NiMo Sulfide Microspheres for High-Performance Dye-Sensitized Solar Cells and Supercapacitor. Nano, 2019, 14, 1950048.	0.5	11
345	CVD-graphene/graphene flakes dual-films as advanced DSSC counter electrodes. 2D Materials, 2019, 6, 035007.	2.0	23
346	Improved DSSC photovoltaic performance using reduced graphene oxideâ€“carbon nanotube/platinum assisted with customised triple-tail surfactant as counter electrode and zinc oxide nanowire/titanium dioxide nanoparticle bilayer nanocomposite as photoanode. Graphene Technology, 2019, 4, 17-31.	1.9	8

#	Article	IF	Citations
347	Materials for Photovoltaics: State of Art and Recent Developments. International Journal of Molecular Sciences, 2019, 20, 976.	1.8	185
348	Chayaver: Indian-traditional dye to modern dye-sensitized solar cells. Materials Research Express, 2019, 6, 066206.	0.8	6
349	Simply synthesized silica hollow fibers for enhancing the performance of dye/quantum dot sensitized solar cells. Solar Energy, 2019, 183, 716-724.	2.9	3
350	Few-layer graphene supported polyaniline (PANI) film as a transparent counter electrode for dye-sensitized solar cells. Diamond and Related Materials, 2019, 94, 242-251.	1.8	26
351	Charge transport and electron recombination suppression in dye-sensitized solar cells using graphene quantum dots. Results in Physics, 2019, 13, 102171.	2.0	31
352	Mathematical Modeling of Dye-Sensitized Solar Cells. , 2019, , 51-81.		22
353	The effect of molecular structure on intramolecular charge-transfer in 1,3,4-oxadiazole derivatives. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 377, 309-317.	2.0	17
354	Facile fabrication of PVA nanofiber coated with PEDOT as a counter electrode for dye-sensitized solar cell. Journal of Materials Science: Materials in Electronics, 2019, 30, 8705-8711.	1.1	1
355	Pt-free, low-cost and efficient counter electrode with carbon wrapped VO2(M) nanofiber for dye-sensitized solar cells. Scientific Reports, 2019, 9, 5177.	1.6	66
356	Photovoltaic Materials. , 2019, , 1033-1054.		0
357	Effect of ZrO2 barrier layers on the photovoltaic parameters of rose bengalÂdye-sensitized TiO2 solar cell. Journal of Materials Science: Materials in Electronics, 2019, 30, 6015-6022.	1.1	6
358	Designing new quinoline-based organic photosensitizers for dye-sensitized solar cells (DSSC): a theoretical investigation. Journal of Molecular Modeling, 2019, 25, 75.	0.8	20
359	Applied potential-dependent performance of the nickel cobalt oxysulfide nanotube/nickel molybdenum oxide nanosheet coreâ€“shell structure in energy storage and oxygen evolution. Journal of Materials Chemistry A, 2019, 7, 4626-4639.	5.2	59
360	Progress in dye sensitized solar cell by incorporating natural photosensitizers. Solar Energy, 2019, 181, 490-509.	2.9	76
361	Synthesis of TiO2 nanotube/ZnO nanorod hybrid nanocomposite photoanodes for dye-sensitized solar cells. Journal of Materials Science: Materials in Electronics, 2019, 30, 6335-6341.	1.1	8
362	Influence of Synthesis-Dependent Structural Morphology on Performance of Natural Dye-Sensitized ZnO Solar Cells. Jom, 2019, 71, 1477-1484.	0.9	0
363	Dye-Sensitized Cu-Doped TiO2 Solar Cells with a Double Flat Band. Lecture Notes in Intelligent Transportation and Infrastructure, 2019, , 940-946.	0.3	1
364	Characterization of dye-sensitized solar cell (DSSC) with acid treatment by HNO3 in mangosteen peel dye. AIP Conference Proceedings, 2019, , .	0.3	4

#	Article	IF	Citations
365	Design of Efficient Emissive Materials. , 2021, , 466-502.		14
366	Fabrication and characterization of metal oxide and lignocelluloses fibers based working electrode for dye-sensitized solar cells (DSSCs). Materials Research Express, 2019, 6, 126336.	0.8	4
367	Inkjet Printing and Characterization of Titanium Dioxide and Platinum Electrodes For Dye-sensitized Solar Cells (DSSCs). , 2019, , .		1
368	Enhancing the Contact Area of Ti Wire as Photoanode Substrate of Flexible Fiber-Type Dye-Sensitized Solar Cells Using the TiO2 Nanotube Growth and Removal Technique. Nanomaterials, 2019, 9, 1521.	1.9	8
369	Near-infrared (NIR) surface-enhanced Raman spectroscopy (SERS) study of novel functional phenothiazines for potential use in dye sensitized solar cells (DSSC). RSC Advances, 2019, 9, 37365-37375.	1.7	8
370	Investigation of â€œKeriangâ€•fruit Dye application on the performance of Dye-Sensitized solar cell with anatase-rutile TiO2 Electrode. , 2019, , .		3
371	Evaluation of Perovskite Photo-sensors with Electron-beam Evaporated Titanium Dioxide Films. , 2019, , .		1
372	Nickel impregnated multi-walled carbon nanotubes (Ni/MWCNT) as active catalyst materials for efficient and platinum-free dye-sensitized solar cells (DSSCs). Sustainable Energy and Fuels, 2019, 3, 3473-3480.	2.5	12
373	Methodologies in Spectral Tuning of DSSC Chromophores through Rational Design and Chemical-Structure Engineering. Materials, 2019, 12, 4024.	1.3	5
374	N719 Derivatives for Application in a Dye-Sensitized Solar Cell (DSSC): A Theoretical Study. Journal of Physical Chemistry A, 2019, 123, 10930-10939.	1.1	28
375	Internal path investigation of the acting electrons during the photocatalysis of panchromatic ruthenium dyes in dye-sensitized solar cells. Comptes Rendus Chimie, 2019, 22, 34-45.	0.2	3
376	Influence of synthesized thiourea derivatives as a prolific additive with tris(1,10-phenanthroline)cobalt(II/III)bis/tris(hexafluorophosphate)/ hydroxypropyl cellulose gel polymer electrolytes on dye-sensitized solar cells. Electrochimica Acta, 2019, 298, 237-247.	2.6	23
377	Ordered Nanotubular Titanium Disulfide (TiS₂) Structures: Synthesis and Use as Counter Electrodes in Dye Sensitized Solar Cells (DSSCs). Journal of the Electrochemical Society, 2019, 166, H3009-H3013.	1.3	13
378	Emerging solar cells energy trade-off: Interface engineering materials impact on stability and efficiency progress. International Journal of Energy Research, 2019, 43, 1670-1688.	2.2	13
379	Effect of Cr-doping on the physicochemical properties of blue TiO2 and its application in dye-sensitized solar cells via low-temperature fabrication process. Ceramics International, 2019, 45, 4230-4236.	2.3	8
380	The pH dependent tannic acid and Fe-tannic acid complex dye for dye sensitized solar cell applications. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 371, 282-291.	2.0	28
381	Distinctive Diffusion Regimes of Organic Molecules in Clays: (De)Coupled Motion with Water. Journal of Physical Chemistry C, 2019, 123, 511-516.	1.5	2
382	High efficiency dye-sensitized solar cell based on a novel gel polymer electrolyte containing RbI and tetrahexylammonium iodide (Hex4NI) salts and multi-layered photoelectrodes of TiO2 nanoparticles. Renewable and Sustainable Energy Reviews, 2019, 103, 282-290.	8.2	39

#	Article	IF	Citations
383	Optoelectrical characterization of different fabricated donor substituted benzothiazole based sensitizers for efficient DSSCs. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 372, 35-41.	2.0	13
384	Hollow Micro/Nanostructured Ceriaâ€Based Materials: Synthetic Strategies and Versatile Applications. Advanced Materials, 2019, 31, e1800592.	11.1	87
385	Bilayer films using broadband nanoparticles and mesoporous TiO2 for high efficient dye sensitized solar cells. Journal of Alloys and Compounds, 2019, 773, 743-751.	2.8	10
386	Study of solvent effect on thermodynamic stability and electron efficiency of MZ-341 dye. Journal of Molecular Liquids, 2019, 273, 27-32.	2.3	4
387	Effect and position of spiro-bipropylenedioxythiophene Ï€-spacer in donor-Ï€-spacer-acceptor dyes for dye-sensitized solar cell. Dyes and Pigments, 2019, 161, 313-323.	2.0	7
388	Effect of ethylenediamine on morphology of 2D Co-Mo-S@NG hybrids and their enhanced electrocatalytic activity for DSSCs application. Materials Science in Semiconductor Processing, 2020, 105, 104725.	1.9	7
389	Natural dye extracted from Areca catechu fruits as a new sensitiser for dye-sensitised solar cell fabrication: Optimisation using D-Optimal design. Materials Chemistry and Physics, 2020, 240, 122204.	2.0	16
390	Forming a Metal-Free Oxidatively Coupled Agent, Bicarbazole, as a Defect Passivation for HTM and an Interfacial Layer in a pâ€“iâ€“n Perovskite Solar Cell Exhibits Nearly 20% Efficiency. Chemistry of Materials, 2020, 32, 127-138.	3.2	22
391	Prickly pear fruit extract as photosensitizer for dye-sensitized solar cell. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 228, 117686.	2.0	25
392	Determination of pK a values for (E)â€2â€hydroxyâ€5â€(aryldiazenyl) benzaldehydes in dimethyl sulfoxide: Cyclic voltammetry and density functional theory calculations. Journal of the Chinese Chemical Society, 2020, 67, 41-45.	0.8	2
393	Theoretical Study on Factors Influencing the Efficiency of Dâ€“Ï€â€²â€“Aâ€²â€“Ï€â€“A Isoindigo-Based Sensitizer for Dye-Sensitized Solar Cells. Journal of Electronic Materials, 2020, 49, 318-332.	1.0	11
394	Photoconversion efficiency of Titania solar cells co-sensitized with natural pigments from cochineal, papaya peel and microalga Scenedesmus obliquus. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 388, 112216.	2.0	23
395	Diketopyrrolopyrrole/perylene-diimide and thiophene based D-Ï€-A low bandgap polymer sensitizers for application in dye sensitized solar cells. Dyes and Pigments, 2020, 174, 108032.	2.0	14
396	Potential of plantâ€based photosensitizers in dyeâ€sensitized solar cell applications. Environmental Progress and Sustainable Energy, 2020, 39, e13351.	1.3	9
397	Si-based Solar Cellsâ€™ Conversion Efficiency Related Publications Bibliometric Review During 2000-2017. Silicon, 2020, 12, 2705-2720.	1.8	6
398	Photovoltaic Properties of an rGO/Pt Counter Electrode With AZO Photoanode for Dye-Sensitized Solar Cells Under Low Light Intensity. IEEE Transactions on Semiconductor Manufacturing, 2020, 33, 121-127.	1.4	3
399	New pyran-based molecules as both n- and p-type sensitizers in semi-transparent Dye Sensitized Solar Cells. Dyes and Pigments, 2020, 175, 108140.	2.0	16
400	Effect of surface modification via sol-gel spin coating of ZnO nanoparticles on the performance of WO3 photoanode based dye sensitized solar cells. Optik, 2020, 212, 164142.	1.4	15

#	Article	IF	Citations
402	Role of long persistence phosphors on their enhancement in performances of photoelectric devices: In case of dye-sensitized solar cells. Applied Surface Science, 2020, 507, 145098.	3.1	8
403	Synthesis of pâ€type Nâ€doped TiO₂ thin films by coâ€reactive magnetron sputtering. Plasma Processes and Polymers, 2020, 17, 1900203.	1.6	10
404	Recent developments in pyrazine functionalized Ï€-conjugated materials for optoelectronic applications. Journal of Materials Chemistry C, 2020, 8, 352-379.	2.7	33
405	Study of charge injection in Ortho-, Meta- and Para-NKX-2553 in dye-sensitized solar cells: A theoretical approach. Optik, 2020, 203, 163987.	1.4	1
406	Photoanode annealing effect on charge transport in dye-sensitized solar cell. Journal of Materials Science: Materials in Electronics, 2020, 31, 779-784.	1.1	4
407	Substrate Diameter-Dependent Photovoltaic Performance of Flexible Fiber-Type Dye-Sensitized Solar Cells with TiO2 Nanoparticle/TiO2 Nanotube Array Photoanodes. Nanomaterials, 2020, 10, 13.	1.9	13
408	A comprehensive device modeling of solid-state dye-sensitized solar cell by MATLAB. AIP Conference Proceedings, 2020, , .	0.3	3
409	The feasible photoanode of graphene oxide/zinc aluminum mixed metal oxides for the dye-sensitized solar cell. Colloids and Interface Science Communications, 2020, 39, 100313.	2.0	10
410	Performance of pyrocatechol violet and carminic acid sensitized ZnO/CdS nanostructured photoactive materials for dye sensitized solar cell. Solid-State Electronics, 2020, 172, 107886.	0.8	16
411	Simulation, Analysis, and Characterization of Calcium-Doped ZnO Nanostructures for Dye-Sensitized Solar Cells. Energies, 2020, 13, 4863.	1.6	12
412	A simple and one step low cost microwave induced low cost grapheme modified CeO2 photo electrodes for high-efficiency dye-sensitized solar cells. Inorganic Chemistry Communication, 2020, 120, 108132.	1.8	13
413	Dye-sensitized solar cells (DSSCs) as a potential photovoltaic technology for the self-powered internet of things (IoTs) applications. Solar Energy, 2020, 207, 874-892.	2.9	113
414	Photochemical Charge Separation and Dye Self-Oxidation Control Performance of Fluorescein, Rose Bengal, and Triphenylamine Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2020, 124, 26174-26183.	1.5	4
415	Biopolymer-Based Electrolytes for Dye-Sensitized Solar Cells: A Critical Review. Energy & Fuels, 2020, 34, 15634-15671.	2.5	58
417	Improving the performance of dye-sensitized solar cells by using a novel zinc tin oxide composite layer electron injection layer. Optik, 2020, 220, 165400.	1.4	1
418	Potential of building integrated and attached/applied photovoltaic (BIPV/BAPV) for adaptive less energy-hungry buildingâ€™s skin: A comprehensive review. Journal of Cleaner Production, 2020, 276, 123343.	4.6	172
419	Electron transport properties analysis of titanium dioxide dye-sensitized solar cells (TiO2-DSSCs) based natural dyes using electrochemical impedance spectroscopy concept: A review. Solar Energy, 2020, 207, 1088-1121.	2.9	110
420	Recent advances in eco-friendly and cost-effective materials towards sustainable dye-sensitized solar cells. Green Chemistry, 2020, 22, 7168-7218.	4.6	272

#	Article	IF	Citations
421	Characteristics of Electron Transport Study of Composited Graphene-Zinc Oxide Thin Film Photoanode for Dye-Sensitized Solar Cells. Solid State Phenomena, 2020, 307, 185-191.	0.3	1
422	Non-edible oil based polyurethane acrylate with tetrabutylammonium iodide gel polymer electrolytes for dye-sensitized solar cells. Solar Energy, 2020, 208, 457-468.	2.9	24
423	A Comprehensive Review on Optical Properties of Polymer Electrolytes and Composites. Materials, 2020, 13, 3675.	1.3	85
424	Characteristics of Dye-Sensitized Solar Cell Assembled from Modified Chitosan-Based Gel Polymer Electrolytes Incorporated with Potassium Iodide. Molecules, 2020, 25, 4115.	1.7	33
425	Nickel Selenide Quantum Dot Applications in Electrocatalysis and Sensors. Electroanalysis, 2020, 32, 2603-2614.	1.5	6
426	Recent advances in graphene-based materials for dye-sensitized solar cell fabrication. RSC Advances, 2020, 10, 44453-44469.	1.7	43
427	Perovskite Solar Cells with Low-Cost TiO₂ Mesoporous Photoanodes Prepared by Rapid Low-Temperature (70 Â°C) Plasma Processing. ACS Applied Energy Materials, 2020, 3, 12009-12018.	2.5	21
428	Enhancement of power conversion efficiency of dye-sensitized solar cells for indoor applications by using a highly responsive organic dye and tailoring the thickness of photoactive layer. Journal of Power Sources, 2020, 479, 229095.	4.0	9
429	TiO₂ nanotubes for dyeâ€sensitized solar cellsâ€”A review. Energy Science and Engineering, 2021, 9, 921-937.	1.9	51
430	New architecture in dye sensitized solar cells: a SCAPS-1D simulation study. Optical and Quantum Electronics, 2020, 52, 1.	1.5	11
431	Nanostructured photoanode materials and their deposition methods for efficient and economical third generation dye-sensitized solar cells: A comprehensive review. Renewable and Sustainable Energy Reviews, 2020, 129, 109919.	8.2	58
432	Theoretical Investigation on Copper(I) Complexes Featuring a Phosphonic Acid Anchor with Asymmetric Ligands for DSSC. ACS Applied Electronic Materials, 2020, 2, 2141-2150.	2.0	8
433	Solvent exfoliated graphene incorporated mixed phase TiO2 transparent photoelectrode for the efficient and color transparent dye-sensitized solar cell. Solar Energy, 2020, 206, 317-329.	2.9	14
434	Effect of counter electrode materials on the performance of dye-sensitized solar cell. AIP Conference Proceedings, 2020, , .	0.3	3
435	A new Ru(<scp>ii</scp>) polypyridyl complex as an efficient photosensitizer for enhancing the visible-light-driven photocatalytic activity of a TiO₂/reduced graphene oxide nanocomposite for the degradation of atrazine: DFT and mechanism insights. RSC Advances, 2020, 10, 22500-22514.	1.7	12
436	Emerging Thin Film Solar Panels. , 0, , .		10
437	Low-temperature processed highly efficient hole transport layer free carbon-based planar perovskite solar cells with SnO2 quantum dot electron transport layer. Materials Today Physics, 2020, 13, 100204.	2.9	35
438	Synthesis and computational study of coumarin thiophene-based D-Ï€-A azo bridge colorants for DSSC and NLOphoric application. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 394, 112466.	2.0	34

#	Article	IF	Citations
439	Effect of fluoro-substituted acceptor-based ancillary ligands on the photocurrent and photovoltage in dye-sensitized solar cells. Solar Energy, 2020, 199, 74-81.	2.9	10
440	Smart Textiles for Electricity Generation. Chemical Reviews, 2020, 120, 3668-3720.	23.0	644
441	Trap State and Charge Recombination in Nanocrystalline Passivized Conductive and Photoelectrode Interface of Dye-Sensitized Solar Cell. Coatings, 2020, 10, 284.	1.2	17
442	Numerical analysis of earth-abundant Cu2ZnSn(SxSe1-x)4 solar cells based on Spectroscopic Ellipsometry results by using SCAPS-1D. Solar Energy, 2020, 201, 827-835.	2.9	104
443	Morphological control of TiO2 nanocrystals by solvothermal synthesis for dye-sensitized solar cell applications. Applied Surface Science, 2020, 519, 146082.	3.1	21
444	Photo sensitizing and electrochemical performance analysis of mixed natural dye and nanostructured ZnO based DSSC. Sadhana - Academy Proceedings in Engineering Sciences, 2020, 45, 1.	0.8	13
445	Ruthenium complexes based dye sensitized solar cells: Fundamentals and research trends. Solar Energy, 2020, 207, 59-76.	2.9	90
446	Optimization of TiO2 Mesoporous Photoanodes Prepared by Inkjet Printing and Low-Temperature Plasma Processing. Plasma Chemistry and Plasma Processing, 2020, 40, 1311-1330.	1.1	11
447	Synthesis and characterization of electro-spun TiO₂and TiO₂-SnO₂composite nano-fibers for application in advance generation solar cells. Materials Research Express, 2020, 7, 015523.	0.8	6
448	Dye-sensitized solar cells based on natural photosensitizers: A green view from Iran. Journal of Alloys and Compounds, 2020, 828, 154329.	2.8	40
449	Harnessing hierarchical architectures to trap light for efficient photoelectrochemical cells. Energy and Environmental Science, 2020, 13, 660-684.	15.6	43
450	Biomolecular photosensitizers for dye-sensitized solar cells: Recent developments and critical insights. Renewable and Sustainable Energy Reviews, 2020, 121, 109678.	8.2	91
451	Electrochemically Deposited NiO Films as a Blocking Layer in p-Type Dye-Sensitized Solar Cells with an Impressive 45% Fill Factor. Nanomaterials, 2020, 10, 167.	1.9	26
452	Electron Transfer in Rhodamineâ€“TiO₂ Complexes Studied as a Function of Chalcogen and Bridge Substitution. Journal of Physical Chemistry C, 2020, 124, 2851-2863.	1.5	2
453	Influence of 2,4-Diamino-6-Phenyl-1-3-5-triazine on bio synthesized TiO₂ dye-sensitized solar cell fabricated using poly (ethylene glycol) polymer electrolyte. Materials Research Express, 2020, 7, 025507.	0.8	17
454	Chemical bath deposited WS2 quantum dots on TiO2 for dye sensitized solar cell applications. Optical and Quantum Electronics, 2020, 52, 1.	1.5	6
455	Enhanced photoelectric and photocatalysis performances of quinacridone derivatives by forming D-Ï€-A-A structure. Solar Energy, 2020, 201, 872-883.	2.9	39
456	Thickness-dependent hole-blocking capability of RF-sputtered nickel oxide compact layers in dye-sensitized solar cells. Emergent Materials, 2020, 3, 117-124.	3.2	9

#	Article	IF	Citations
457	Poly(ethylene glycol)â€“poly(propylene glycol)â€“poly(ethylene glycol) and polyvinylidene fluoride blend doped with oxydianiline-based thiourea derivatives as a novel and modest gel electrolyte system for dye-sensitized solar cell applications. RSC Advances, 2020, 10, 14768-14777.	1.7	10
458	Dissymmetric interface design of SnO2/TiO2 side-by-side bi-component nanofibers as photoanodes for dye sensitized solar cells: Facilitated electron transport and enhanced carrier separation. Journal of Colloid and Interface Science, 2021, 583, 24-32.	5.0	21
459	Influence of polyaniline on the photocatalytic properties of metal nanocomposites: A review. Colloids and Interface Science Communications, 2021, 40, 100339.	2.0	41
460	Titanium-doped hydroxyapatites photoanodes for Dye-Sensitized Solar Cells. Ceramics International, 2021, 47, 9701-9710.	2.3	4
461	Gold nanoparticle decorated carbon nanotube nanocomposite for dye-sensitized solar cell performance and stability enhancement. Chemical Engineering Journal, 2021, 421, 127756.	6.6	20
462	Transient current effect on the dye sensitized solar cells I â€“ V characterization. IET Science, Measurement and Technology, 2021, 15, 70-76.	0.9	0
463	CHAPTER 6. Atomic and Molecular Functionalization of Graphitic Carbon Nitride for Solar Cell Applications. RSC Nanoscience and Nanotechnology, 2021, , 221-261.	0.2	2
464	Recent Progress in Metal Oxide for Photovoltaic Application. , 2021, , 99-145.		0
465	Solution-processed two-dimensional materials for next-generation photovoltaics. Chemical Society Reviews, 2021, 50, 11870-11965.	18.7	96
466	An electron rich indaceno [2,1-b:6,5-bâ€²] dithiophene derivative as a high intramolecular charge transfer material in dye sensitized solar cells. New Journal of Chemistry, 2021, 45, 2734-2741.	1.4	4
467	Material and its selection attributes for improved DSSC. Materials Today: Proceedings, 2021, 42, 1477-1484.	0.9	2
468	Progress in fabrication of one-dimensional catalytic materials by electrospinning technology. Journal of Industrial and Engineering Chemistry, 2021, 93, 28-56.	2.9	56
469	A single layer deposition of Li-doped mesoporous TiO2 beads for low-cost and efficient dye-sensitized solar cells. New Journal of Chemistry, 2021, 45, 2470-2477.	1.4	0
470	Phenothiazine functional materials for organic optoelectronic applications. Physical Chemistry Chemical Physics, 2021, 23, 14969-14996.	1.3	37
471	Acceptor substituent effect on triphenylamine-based organic dye sensitizers for DSSCs: quantum chemical study. Journal of the Iranian Chemical Society, 2021, 18, 1279-1288.	1.2	9
472	Dyes extracted from Hibiscus Sabdariffa flower and Pandannus amaryllifolius leaf as natural dye sensitizer by using an alcohol-based solvent. Journal of Physics: Conference Series, 2021, 1755, 012025.	0.3	2
473	ZnO Nanowires/N719 Dye With Different Aspect Ratio as a Possible Photoelectrode for Dye-Sensitized Solar Cells. Frontiers in Chemistry, 2020, 8, 604092.	1.8	5
474	Design and analysis of a graphene-based Schottky junction solar cell with core/shell quantum dots as spectral downshifter. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 940.	0.9	1

#	Article	IF	Citations
475	Dye-Sensitized Solar Cells Based on a New Type of Non-Volatile Co(II)/Co(III) Electrolyte Delivering Higher Power Conversion Efficiency for Indoor Applications. Micro and Nanosystems, 2022, 14, 77-82.	0.3	2
476	Biotemplated Synthesis of Titanium Oxide Nanoparticles in the Presence of Root Extract of Kniphofia schemperi and Its Application for Dye Sensitized Solar Cells. International Journal of Photoenergy, 2021, 2021, 1-12.	1.4	16
477	Synthesis of TiO₂/ZnO-Anthocyanin Hybrid Material for Dye Sensitized Solar Cell (DSSC). IOP Conference Series: Materials Science and Engineering, 2021, 1053, 012088.	0.3	3
478	Electrochemical monitoring and mechanistic understanding of iodine film formation as a metastable intermediate during I3â^'/Iâ^' redox reaction in aqueous ZnI2 media. Electrochimica Acta, 2021, 368, 137650.	2.6	16
479	The prospects and challenges of solar electrochemical capacitors. Journal of Energy Storage, 2021, 35, 102294.	3.9	10
481	Influence of Solvent on Dyeâ€Sensitized Solar Cell Efficiency: What is so Special About Acetonitrile?. Particle and Particle Systems Characterization, 2021, 38, 2000220.	1.2	12
482	Enhanced light harvesting in panchromatic double dye-sensitized solar cells incorporated with bilayered TiO2 thin film-based photoelectrodes. Solar Energy, 2021, 218, 346-353.	2.9	7
483	Computational study of the effect of Ï€-spacers on the optoelectronic properties of carbazole-based organic dyes. Journal of Molecular Modeling, 2021, 27, 122.	0.8	6
484	Non-metallic organic dyes as photosensitizers for dye-sensitized solar cells: a review. Environmental Science and Pollution Research, 2021, 28, 28911-28925.	2.7	23
485	Dye sensitized solar cells fabricated based on nanocomposite photoanodes of TiO2 and AlMo0.5O3 perovskite nanoparticles. Solar Energy, 2021, 218, 435-444.	2.9	37
486	The Recent Use of Nanoporous Materials in the Development of Third-Generation Solar Cells: A Review. IEEE Nanotechnology Magazine, 2021, 15, 37-48.	0.9	1
487	Fabrication of dye-sensitized solar cells with ZnO nanorods as photoanode and natural dye extract as sensitizer. Journal of Materials Science: Materials in Electronics, 2021, 32, 13418-13429.	1.1	2
488	CdS Q-Dot-Impregnated TiO₂-B Nanowire-Based Photoanodes for Efficient Photovoltaic Conversion in â€˜Q-Dot Co-sensitized DSSCâ€™. Energy & Fuels, 2021, 35, 8246-8262.	2.5	17
489	Quantum chemical investigation on D-Ï€-A-based phenothiazine organic chromophores with spacer and electron acceptor effects for DSSCs. Structural Chemistry, 2021, 32, 2199-2207.	1.0	4
490	How Can the Introduction of Zr4+ Ions into TiO2 Nanomaterial Impact the DSSC Photoconversion Efficiency? A Comprehensive Theoretical and Experimental Consideration. Materials, 2021, 14, 2955.	1.3	6
491	Nanocomposites of Multi-walled Carbon Nanotubes and Titanium dioxide (MWCNTs/TiO2) as affective counter electrode materials for Platinum-free Dye-Sensitized Solar Cells (DSSCs). Solar Energy, 2021, 220, 949-952.	2.9	15
492	Carbazole based organic dyes as effective photosensitizers: A comprehensive analysis of their structureâ€property relationships. Electrochemical Science Advances, 2022, 2, e2100061.	1.2	7
493	Merging Biology and Photovoltaics: How Nature Helps Sunâ€Catching. Advanced Energy Materials, 2021, 11, 2100520.	10.2	15

#	Article	IF	Citations
494	Recent progress in dye sensitized solar cell materials and photo-supercapacitors: A review. Journal of Power Sources, 2021, 493, 229698.	4.0	96
495	An insight into device performance and hysteresis in dye-sensitized solar cell using 5-aminovaleric acid and 5-aminovaleric acid hydrochloride as electrolyte additives. Solar Energy, 2021, 221, 375-383.	2.9	5
496	Highly efficient long thin-film fiber-shaped dye sensitized solar cells based on a fully organic sensitizer. Solar Energy Materials and Solar Cells, 2021, 224, 110986.	3.0	15
497	Review of State of the Art Recycling Methods in the Context of Dye Sensitized Solar Cells. Energies, 2021, 14, 3741.	1.6	24
498	Organic-inorganic upconversion nanoparticles hybrid in dye-sensitized solar cells. Coordination Chemistry Reviews, 2021, 436, 213805.	9.5	47
499	Unrevealing the effect of transparent fluorine-doped tin oxide (FTO) substrate and irradiance configuration to unmask the activity of FTO-BiVO4 heterojunction. Materials Science in Semiconductor Processing, 2021, 128, 105717.	1.9	16
500	Highly efficient <scp>dyeâ€sensitized</scp> solar cells: A comparative study with two different system of solventâ€free binary roomâ€temperature ionic liquidâ€based electrolytes. Journal of Applied Polymer Science, 2021, 138, 51312.	1.3	4
501	Graphitic carbon nitride (g-C3N4) incorporated TiO2â€“B nanowires as efficient photoanode material in dye sensitized solar cells. Materials Chemistry and Physics, 2021, 266, 124520.	2.0	19
502	Molecular engineering of thienothiophene or dithienopyrrole-based Ï€-spacers for dye-sensitized solar cells (DSSCs) with D-Ï€-A architecture: A DFT/TD-DFT study. Computational and Theoretical Chemistry, 2021, 1201, 113275.	1.1	5
503	The exploration of deoxygenation reactions for alcohols and derivatives using earth-abundant reagents. Pure and Applied Chemistry, 2021, 93, 799-810.	0.9	1
504	Structure and Energetics of Dye-Sensitized NiO Interfaces in Water from Ab Initio MD and Large-Scale GW Calculations. Journal of Chemical Theory and Computation, 2021, 17, 5225-5238.	2.3	9
505	High-voltage solar energy conversion based on ZIF-67-derived binary redox-quasi-solid-state electrolyte. Journal of Electroanalytical Chemistry, 2021, 893, 115264.	1.9	5
506	Photovoltaic and impedance properties of dye-sensitized solar cell based on nature dye from beetroot. Current Applied Physics, 2022, 40, 119-125.	1.1	7
507	DFT/TD-DFT Study of DonorÏ€-Acceptor Organic Dye models contained Triarylamine for an Efficient Dye-Sensitized Solar Cell. Journal of Physics: Conference Series, 2021, 1963, 012012.	0.3	3
508	Fiberâ€Shaped Electronic Devices. Advanced Energy Materials, 2021, 11, 2101443.	10.2	74
509	MOF-derived Co2+-doped TiO2 nanoparticles as photoanodes for dye-sensitized solar cells. Scientific Reports, 2021, 11, 16265.	1.6	40
510	Dyeâ€sensitized solar cells based on nickelâ€doped tungsten diselenide counter electrodes. Energy Storage, 2022, 4, e276.	2.3	1
511	Organic/metal-organic photosensitizers for dye-sensitized solar cells (DSSC): Recent developments, new trends, and future perceptions. Dyes and Pigments, 2021, 192, 109227.	2.0	100

#	Article	IF	Citations
514	Graphene-Based Material for Fabrication of Electrodes in Dye-Sensitized Solar Cells. , 0, , .		1
515	Fabrication of Dye-Sensitized Solar Cells (DSSC) Using Mg-Doped ZnO as Photoanode and Extract of Rose Myrtle (Rhodomyrtus tomentosa) as Natural Dye. International Journal of Photoenergy, 2021, 2021, 1-7.	1.4	13
516	Plasmonic Dyeâ€Sensitized Solar Cells: Fundamentals, Recent Developments, and Future Perspectives. ChemistrySelect, 2021, 6, 9337-9350.	0.7	6
517	Fabrication of natural dye-sensitized solar cells with bulk TiO2 instead of nano-sized. Optik, 2021, 242, 166205.	1.4	6
518	Surface Functionalization of Metal Oxide Semiconductors with Catechol Ligands for Enhancing Their Photoactivity. Solar Rrl, 2021, 5, 2100512.	3.1	16
519	Hybrid titanium dioxide/sericite light scattering layer to enhance light harvesting of dye-sensitized solar cells. Electrochimica Acta, 2021, 390, 138820.	2.6	6
520	Electrical and Electrochemical Properties of Sandwich- and Monolithic-Structured Dye-Sensitized Solar Cells with Various Counter Electrode Materials. International Journal of Electrochemical Science, 2021, 16, 210922.	0.5	3
521	Enhancement in photostability of betalain dye from basella Alba fruits using zinc oxide nanoparticles. Materials Today: Proceedings, 2021, , .	0.9	0
522	Understanding the optical behaviours and the power conversion efficiency of novel organic dye and nanostructured TiO2 based integrated DSSCs. Solar Energy, 2021, 225, 129-147.	2.9	16
523	Biomass-based photothermal materials for interfacial solar steam generation: a review. Materials Today Energy, 2021, 21, 100716.	2.5	48
524	Theoretical and photovoltaic investigations of 1,3,5-triazine-based photosensitizers achieving highly efficient DSSCs. Synthetic Metals, 2021, 280, 116882.	2.1	7
525	Enhanced efficiency of low-temperature fabricated dye-sensitized solar cells by incorporating upconversion nanoparticles. Solar Energy, 2021, 227, 1-7.	2.9	10
526	Application of new natural dyes extracted from Nasturtium flowers (Tropaeolum majus) as photosensitizer in dye-sensitized solar cells. Optik, 2021, 243, 167331.	1.4	20
527	Improving Photovoltaic Performance of Dye-Sensitized Solar Cell by Modification of Photoanode With g-C3N4/TiO2 Nanofibers. IEEE Transactions on Electron Devices, 2021, 68, 4982-4988.	1.6	0
528	Exploration on Ï‡-Anderson type Polyoxometalates based hybrids towards photovoltaic response in solar cell. Inorganic Chemistry Communication, 2021, 133, 108875.	1.8	3
529	Fabrication of WO3 nanotubes/graphene oxide nanosheets hybrid structures: Enhanced solar conversion efficiency in dye sensitized solar cell. Diamond and Related Materials, 2021, 119, 108562.	1.8	14
530	Pyrocatechol violet sensitized cadmium and barium doped TiO2/ZnO nanostructures: As photoanode in DSSC. Materials Science in Semiconductor Processing, 2021, 135, 106119.	1.9	7
531	NiCo2O4/carbon nanofibers composite as an efficient counter electrode for dye-sensitized solar cells. Materials Research Bulletin, 2022, 145, 111528.	2.7	9

#	Article	IF	Citations
532	Introduction to solar energy and its conversion into electrical energy by using dye-sensitized solar cells. , 2021, , 139-178.		3
533	Indole fused heterocycles as sensitizers in dye-sensitized solar cells: an overview. Materials Advances, 2021, 2, 6136-6168.	2.6	35
534	Preparation and Property Studies of Polyaniline Film for Flexible Counter Electrode of Dyeâ€Sensitized Solar Cells by Cyclic Voltammetry. ChemistrySelect, 2021, 6, 230-233.	0.7	11
535	Solar PV cell materials and technologies: Analyzing the recent developments. Materials Today: Proceedings, 2021, 43, 2843-2849.	0.9	44
536	Improvement of Short-Circuit Current of Quantum Dot Sensitive Solar Cell Through Various Size of Quantum Dots. Korean Journal of Materials Research, 2021, 31, 16-22.	0.1	1
537	Electrospun Nanofibers for Energy and Environment Protection. Springer Series on Polymer and Composite Materials, 2021, , 25-52.	0.5	1
538	CHAPTER 8. Highly Efficient Dye-sensitized Solar Cells with Integrated 3D Graphene-based Materials. Chemistry in the Environment, 2021, , 205-236.	0.2	1
540	Perspective of Nanomaterials in the Performance of Solar Cells. , 2020, , 25-54.		4
541	Yet to Be Challenged: TiO2 as the Photo-Anode Material in Dye-Sensitized Solar Cells. Energy, Environment, and Sustainability, 2020, , 285-313.	0.6	1
542	Conducting Polymers as Cost Effective Counter Electrode Material in Dye-Sensitized Solar Cells. Energy, Environment, and Sustainability, 2020, , 345-371.	0.6	8
543	Performance Evaluation of Beetroot Sensitized Solar Cell Device. Lecture Notes in Electrical Engineering, 2020, , 223-228.	0.3	3
544	A DFT/TDDFT investigation on the efficiency of novel dyes with ortho-fluorophenyl units (A1) and incorporating benzotriazole/benzothiadiazole/phthalimide units (A2) as organic photosensitizers with Dâ€“A2â€“Ïâ€“A1 configuration for solar cell applications. Journal of Computational Electronics, 2019, 18, 375-395.	1.3	41
545	Hydrothermal production of low-cost bismuth sulfide/reduced graphene oxide nanocomposite as counter electrode for DSSCs. Optik, 2020, 217, 164868.	1.4	14
546	Performance evaluation of natural native dyes as photosensitizer in dye-sensitized solar cells. Optical Materials, 2020, 110, 110441.	1.7	34
547	Graphene-Based Interconnects for Stable Dye-Sensitized Solar Modules. ACS Applied Energy Materials, 2021, 4, 98-110.	2.5	9
548	Modeling of interfacial and bulk charge transfer in dye-sensitized solar cells. Cogent Engineering, 2017, 4, 1287231.	1.1	12
549	Conductivity and Electrochemical Behavior of Plasticized Polymer Electrolyte for Dye-Sensitized Solar Cell Integrated Supercapacitor. Journal of Electrochemical Energy Conversion and Storage, 2020, 17, .	1.1	1
550	Photovoltaic properties of Cassia fistula flower extract based dye-sensitized solar cells. Journal of Nanophotonics, 2019, 13, 1.	0.4	2

#	Article	IF	Citations
551	Optimization of CdS/CdSe quantum dots solar cells based on electrochemically grown ZnO nanorods. Journal of Photonics for Energy, 2018, 8, 1.	0.8	2
552	Quantum Dot-sensitized Solar Cells: A Review. Bulletin of Electrical Engineering and Informatics, 2018, 7, 42-54.	0.6	4
553	Dye-Sensitized Solar Cells: Components Screening for Glass substrate, Counter-Electrode, Photoanode and Electrolyte. Materials Research, 2020, 23, .	0.6	8
554	A carbon-nanotubes counter electrode for flexible dye-sensitized solar cells. Materiali in Tehnologije, 2017, 51, 623-629.	0.3	6
555	An Overview: Recent Development of Titanium Dioxide Loaded Graphene Nanocomposite Film for Solar Application. Current Organic Chemistry, 2015, 19, 1882-1895.	0.9	16
556	Printing photovoltaics by electrospray. Opto-Electronic Advances, 2020, 3, 190038-190038.	6.4	20
557	Review on Dye-Sensitized Solar Cells (DSSCs). Edelweiss Applied Science and Technology, 2018, , 145-150.	1.1	32
558	Flexible Dye-sensitized Solar Cell Using Titanium Gel at Low Temperature. Korean Journal of Materials Research, 2019, 29, 183-188.	0.1	4
559	Photochromic dye-sensitized solar cells. AIMS Materials Science, 2015, 2, 503-509.	0.7	14
560	Dithienosilole Based Organic Sensitizers for Efficient Dye-Sensitized Solar Cells. Bulletin of the Korean Chemical Society, 2013, 34, 979-982.	1.0	1
561	Calculated and Experimental UV and IR Spectra of Oligo-para-phenylenes. Bulletin of the Korean Chemical Society, 2014, 35, 531-538.	1.0	11
562	Review of the Development of Dyes for Dye-Sensitized Solar Cells. Applied Science and Convergence Technology, 2019, 28, 194-206.	0.3	20
563	Emerging Photovoltaic Technologies and Eco-Designâ€"Criticisms and Potential Improvements. , 0, , .		5
564	Synthesis and characterization of hole transporting materials containing bis(carbazole) groups for solid-state dye-sensitized solar cells. Molecular Crystals and Liquid Crystals, 2022, 734, 118-128.	0.4	2
565	Titanium Dioxide Nanomaterials for Renewable Energy Applications. Engineering Materials, 2022, , 73-96.	0.3	1
566	Molecular Engineering of Carbazole Dyes for Efficient Dye-Sensitized Solar Cells. Bulletin of the Korean Chemical Society, 2013, 34, 1533-1536.	1.0	1
567	Preparation and Characterization of (E)- and (Z)-2-(Biphenyl-4-yl)-1-(4-bromophenyl)-1-phenylethene Isomers. Bulletin of the Korean Chemical Society, 2014, 35, 1871-1874.	1.0	0
568	Co-Embedded Graphitic Porous Carbon Nanofibers for Pt-Free Counter Electrode in Dye-Sensitized Solar Cells. Korean Journal of Materials Research, 2015, 25, 672-677.	0.1	4

#	Article	IF	Citations
569	Fabrication of Octahedral Co3O4/Carbon Nanofiber Composites for Pt-Free Counter Electrode in Dye-Sensitized Solar Cells. Korean Journal of Materials Research, 2016, 26, 250-257.	0.1	2
570	Photofunctional Nanosheet-Based Hybrids. Nanostructure Science and Technology, 2017, , 373-394.	0.1	0
571	Applications of Ionic Liquids in Organic Electronic Devices. RSC Smart Materials, 2017, , 196-233.	0.1	0
572	Acetylacetone-Based Electrolyte in Dye Sensitized Solar Cell. World Journal of Engineering and Technology, 2017, 05, 428-434.	0.3	0
573	Fabrication of dye Rhoeospathacea with concentration variation in dye-sensitized solar cells (DSSC). Journal of Physics Theories and Applications, 2017, 1, 83.	0.1	0
574	Photovoltaic Materials. , 2018, , 1-22.		0
575	Review on Dye-Sensitized Solar Cells (DSSCs). Journal of Heterocyclics, 2018, , 29-34.	1.0	2
576	Fe/ZnO nanorod photoanode and pyrocatechol violet sensitizer based dye sensitized solar cells. Sakarya University Journal of Science, 2018, 22, 1736-1742.	0.3	1
577	Basic Concepts, Engineering, and Advances in Dye-Sensitized Solar Cells. , 2020, , 185-233.		2
578	Fabrication techniques and working principle of neoteric dye-sensitized solar cells. , 2022, , 159-179.		0
579	Intramolecular charge transfer dynamics in the excited states of diphenylamine substituted 1,3,4-oxadiazole derivatives. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 267, 120463.	2.0	4
580	Visualization and Quantification of the Laser-Induced ART of TiO₂ by Photoexcitation of Adsorbed Dyes. Langmuir, 2020, 36, 1651-1661.	1.6	1
581	Investigating the Recycling Potential of Glass Based Dye-Sensitized Solar Cellsâ€"Melting Experiment. Materials, 2021, 14, 6622.	1.3	10
582	Investigation of the Structural, Optical, Electrical, and Dielectrical Properties of Aloe Vera Leaf Exudate. Journal of Solar Energy Engineering, Transactions of the ASME, 2021, 143, .	1.1	4
583	Study on Perovskite Photo-sensors with Solution-Processed Compact TiO₂ Under Low Temperature Fabrication Process. , 2020, , .		1
584	Synthesis, characterization and application of Ru(II) complexes containing pyridil ligands for dye-sensitized solar cells. Materials Science-Poland, 2020, 38, 450-458.	0.4	2
585	An Investigation on the Stability Enhancement of Dye-Sensitized Solar Cells Fabricated with Ethyl Cellulose Based Gel Electrolyte. Applied Solar Energy (English Translation of Geliotekhnika), 2021, 57, 23-29.	0.2	2
586	Natural resources for dye-sensitized solar cells. Heliyon, 2021, 7, e08436.	1.4	12

#	Article	IF	Citations
587	A Ruthenium Bipyridyl Molecular Dye Sensitizer and an Excited-State Intermolecular Proton Transfer-Active Colorimetric Probe for Anions, with High Affinity Towards CNâ¯ in DMSO. Chemistry Africa, 0, , 1.	1.2	4
588	Review of Dye-Sensitized Solar Cell (DSSCs) Development. Natural Science, 2021, 13, 496-509.	0.2	9
589	The Photovoltaic Performance of the DSSC With the Photoanode Modified by Î³-Fe₂O₃/TiO₂ Nanofibers Under Low Illumination. IEEE Journal of Photovoltaics, 2022, 12, 618-624.	1.5	0
590	Solar energy conversion using first row d-block metal coordination compound sensitizers and redox mediators. Chemical Science, 2022, 13, 1225-1262.	3.7	35
591	A two-step MM and QM/MM approach to model AIEE of aryloxy benzothiadiazole derivatives for optoelectronic applications. Physical Chemistry Chemical Physics, 2022, 24, 4051-4064.	1.3	6
592	Dye sensitized solar cells go beyond using perovskite and spinel inorganic materials: A review. Renewable and Sustainable Energy Reviews, 2022, 157, 112047.	8.2	54
593	Effect of Macropores in Titanium Dioxide Layer on the Enhancement of Photovoltaic Conversion Efficiency of Long-Persistence-Phosphor Enhanced Dye-Sensitized Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
596	Design of dyes for energy transformation: From the interaction with biological systems to application in solar cells. , 2022, , 79-114.		1
597	Leakage Current Mitigation of Photovoltaic System Using Optimized Predictive Control for Improved Efficiency. Applied Sciences (Switzerland), 2022, 12, 643.	1.3	4
598	Rare earthâ€“doped semiconductor nanomaterials. , 2022, , 291-338.		4
599	Advancements, frontiers and analysis of metal oxide semiconductor, dye, electrolyte and counter electrode of dye sensitized solar cell. Solar Energy, 2022, 233, 378-407.	2.9	52
600	Perspective on the rational design strategies of quinoxaline derived organic sensitizers for dye-sensitized solar cells (DSSC). Dyes and Pigments, 2022, 199, 110093.	2.0	18
601	Bio and nonâ€bio materialsâ€based quasiâ€solid state electrolytes in <scp>DSSC</scp> : A review. International Journal of Energy Research, 2022, 46, 5399-5422.	2.2	16
602	Toward Eco-Friendly Dye-Sensitized Solar Cells (DSSCs): Natural Dyes and Aqueous Electrolytes. Energies, 2022, 15, 219.	1.6	31
603	Improved dye-sensitized solar cell performance with hedgehog-like shaped ZnO nanorods grown using ZnO nanoparticles seed layer. Materials Today: Proceedings, 2022, 52, 248-251.	0.9	7
604	Role of microbial nanotechnology in energy devices. , 2022, , 517-547.		0
605	Enhance Growth Temperature ZnO Nr Photoanode DSSC for Performance of Photo-Supercapacitor via Hydrothermal. Materials Science Forum, 0, 1053, 131-136.	0.3	0
606	Metalâ€organic framework coordinated with cobalt ion as charge recombination retarder in <scp>dyeâ€sensitized</scp> solar cells. International Journal of Energy Research, 2022, 46, 9345-9357.	2.2	6

#	Article	IF	Citations
607	Effect of Ag doping on structural, optical, complex impedance and photovoltaic properties of SnO2 nanoparticles prepared by co-precipitation method for dye sensitized solar cell application. Optik, 2022, 260, 168971.	1.4	12
608	Triiodide-in-Iodine Networks Stabilized by Quaternary Ammonium Cations as Accelerants for Electrode Kinetics of Iodide Oxidation in Aqueous Media. ACS Applied Materials & Interfaces, 2022, 14, 12168-12179.	4.0	7
609	Performance analysis of aqueous Al-ion electrolyte based dye sensitized solar cell. Solar Energy, 2022, 236, 608-612.	2.9	3
610	Electrodeposition of Simonkolleite as a Low-Temperature Route to Crystalline ZnO Films for Dye-Sensitized Solar Cells. Journal of the Electrochemical Society, 2022, 169, 042504.	1.3	0
611	Fenestration integrated BIPV (FIPV): A review. Solar Energy, 2022, 237, 213-230.	2.9	31
612	Counter electrode materials based on carbon nanotubes for dye-sensitized solar cells. Renewable and Sustainable Energy Reviews, 2022, 159, 112196.	8.2	39
613	The integration of flexible dye-sensitized solar cells and storage devices towards wearable self-charging power systems: A review. Renewable and Sustainable Energy Reviews, 2022, 159, 112252.	8.2	41
614	Effect of macropores in titanium dioxide layer on the enhancement of photovoltaic conversion efficiency of long-persistence-phosphor enhanced dye-sensitized solar cells. Journal of Alloys and Compounds, 2022, 905, 164295.	2.8	4
615	End-capped group modification on cyclopentadithiophene based non-fullerene small molecule acceptors for efficient organic solar cells; a DFT approach. Journal of Molecular Graphics and Modelling, 2022, 113, 108162.	1.3	46
616	Account of Structural, Theoretical, and Photovoltaic Properties of ABO₃ Oxide Perovskites Photoanodeâ€Based Dyeâ€Sensitized Solar Cells. Solar Rrl, 2022, 6, .	3.1	10
617	Impact of dopant ratio on the energy harvesting activity of polyaniline modified counter electrodes for Ptâ€free dyeâ€sensitized solar cells. Electrochemical Science Advances, 0, , .	1.2	0
618	Dye-Sensitized Solar Cells (DSSCS) Based on a Natural Dye (<i>Mangifera indica</i>): A Mini Review. Key Engineering Materials, 0, 917, 146-153.	0.4	4
619	Exploring the influence of Zn2SnO4/ZIF-8 nanocomposite photoelectrodes on boosting efficiency of dye sensitized solar cells. Ceramics International, 2022, 48, 21812-21823.	2.3	20
620	Quantum Dots for Type III Photovoltaics. RSC Nanoscience and Nanotechnology, 2017, , 436-471.	0.2	1
621	MWCNT Aided Cobalt Antimony Sulfide Electrocatalyst for Dye-Sensitized Solar Cells and Supercapacitors: Designing Integrated Photo-Powered Energy System. Journal of the Electrochemical Society, 2022, 169, 056518.	1.3	11
622	One-dimensional silver-titania nanocomposites as modification of photoanode for enhanced dye-sensitized solar cells â€“ A review. Materials Today: Proceedings, 2022, 62, 3301-3305.	0.9	2
623	Investigating the Remanufacturing Potential of Dye-Sensitized Solar Cells. Sustainability, 2022, 14, 5670.	1.6	7
624	Structureâ€“Propertyâ€“Performance Relationships of Dielectric Cu₂O Nanoparticles for Mie Resonance-Enhanced Dye Sensitization. ACS Applied Nano Materials, 2022, 5, 6699-6707.	2.4	6

#	Article	IF	Citations
625	Porous organic polymers in solar cells. Chemical Society Reviews, 2022, 51, 4465-4483.	18.7	21
626	Comparison of different carbon-based enhancer for photoanode application at different adsorption time. AIP Conference Proceedings, 2022, , .	0.3	0
628	Plasmonic Engineering of TiO2 Photoanodes for Dye-Sensitized Solar Cells: A Review. Journal of Electronic Materials, 2022, 51, 4188-4206.	1.0	12
629	First-principles study on optoelectronic properties of new quinacridone dye derivatives in dye sensitized photovoltaic cells. Materials Today: Proceedings, 2022, , .	0.9	1
630	Designing the optoelectronic properties of BODIPY and their photovoltaic applications for high performance of organic solar cells by using computational approach. Materials Science in Semiconductor Processing, 2022, 148, 106812.	1.9	14
631	Sulfides and selenides as electrodes for dye-sensitized solar cells. , 2022, , 243-267.		0
632	Indium free hybrid system of getting power conversion efficiency of dye sensitized solar cell fabricated using calcium ferrites on photoanode. Materials Today: Proceedings, 2022, 67, 156-160.	0.9	2
633	Mapping the Progress in Natural Dyeâ€Sensitized Solar Cells: Materials, Parameters and Durability. ChemistrySelect, 2022, 7, .	0.7	5
634	Insights into <scp> MoS ₂ </scp> and its composites for dyeâ€sensitized solar cells. International Journal of Energy Research, 0, , .	2.2	1
635	A Review And Comparative Analysis Of Different Types Of Dyes For Applications In Dye-Sensitized Solar Cells. Brazilian Journal of Physics, 2022, 52, .	0.7	9
636	Bismuth-based organometallic-halide perovskite photo-supercapacitor utilizing novel polymer gel electrolyte for hybrid energy harvesting and storage applications. Journal of Energy Storage, 2022, 53, 105167.	3.9	19
637	Titanium dioxide/graphene composites for dye-sensitized solar cell applications. , 2022, , 313-339.		0
638	Performance of primrose willow (Ludwigia peruviana) as a photosensitizer in dye-sensitized solar cell (DSSC). IOP Conference Series: Earth and Environmental Science, 2022, 1025, 012015.	0.2	0
639	Perovskite Photo-Sensors with Solution-Processed TiO2 under Low Temperature Process and Ultra-Thin Polyethylenimine Ethoxylated as Electron Injection Layer. Crystals, 2022, 12, 914.	1.0	2
640	Efficient and Stable Fiber Dye-Sensitized Solar Cells Based on Solid-State Li-TFSI Electrolytes with 4-Oxo-TEMPO Derivatives. Nanomaterials, 2022, 12, 2309.	1.9	4
641	Three-dimensionally ordered macroporous materials for photo/electrocatalytic sustainable energy conversion, solar cell and energy storage. EnergyChem, 2022, 4, 100081.	10.1	12
642	Highly Efficient Dye-Sensitized Solar Cells Based on Electrolyte Solutions Containing Choline Chloride/Ethylene Glycol Deep Eutectic Solvent: Electrolyte Optimization. Industrial & Engineering Chemistry Research, 2022, 61, 11464-11473.	1.8	5
643	Nanoflower shaped ZnO photoanode and natural dye sensitizer based solar cell fabrication. Materials Today: Proceedings, 2023, 72, 227-231.	0.9	1

#	Article	IF	Citations
644	Elements co-alloying to improve electrocatalytic activity of nanocrystalline Cu2Cu1-x-yFexMnySnS4 counter electrodes. Materials Letters, 2022, 325, 132825.	1.3	0
645	Increasing Efficiency of Solar Panels via Photovoltaic Materials. IOP Conference Series: Earth and Environmental Science, 2022, 1048, 012005.	0.2	1
646	Dithizone, carminic acid and pyrocatechol violet dyes sensitized metal (Ho, Ba& Cd) doped TiO2/CdS nanocomposite as a photoanode in hybrid heterojunction solar cell. Ceramics International, 2022, 48, 31478-31490.	2.3	3
647	Fabrication and synthesis of dye-sensitized solar cells (DSSC) using Pd doped ZnO photoanodes and extract of plant leaves as a natural dye. Materials Research Innovations, 2023, 27, 194-203.	1.0	2
648	Effect of ruthenium(II)-bipyridine complex photosensitizer on the panchromatic light absorption and electron transfer in N719-dye sensitized photoanodes. Optical Materials, 2022, 133, 112924.	1.7	2
649	Ultrasound effects on titanium dioxide compact layer and its application of dye-sensitized solar cell. Optik, 2022, 270, 169964.	1.4	3
650	Perovskite zinc titanate-reduced graphene oxide nanocomposite photoanode for improved photovoltaic performance in dye-sensitized solar cell. Physica B: Condensed Matter, 2022, 646, 414300.	1.3	4
651	Plasma-treatment applications for fabricating third-generation solar cells. , 2022, , 137-166.		0
652	Printed Electronics Applications: Energy Conversion and Storage Devices. , 2022, , 445-515.		0
653	Phase modulated scanning near field optical luminescence imaging as a probe of exciton dark lifetime and diffusivity in persistently luminescent micro- and nanocrystals. Journal of Materials Chemistry C, 2022, 10, 12975-12985.	2.7	1
654	Small Molecules Containing Amphoteric Imidazole Motifs as Sensitizers for Dye-Sensitized Solar Cells: An Overview. Topics in Current Chemistry, 2022, 380, .	3.0	8
655	Solar-Driven Photocatalytic Films: Synthesis Approaches, Factors Affecting Environmental Activity, and Characterization Features. Topics in Current Chemistry, 2022, 380, .	3.0	10
656	Review on bandgap engineering in metal-chalcogenide absorber layer via grading: A trend in thin-film solar cells. Solar Energy, 2022, 246, 152-180.	2.9	11
657	Synthesis and characterization of a new phenothiazine-based sensitizer/co-sensitizer for efficient dye-sensitized solar cell performance using a gel polymer electrolyte and Niâ€“TiO₂ as a photoanode. New Journal of Chemistry, 0, , .	1.4	2
658	First principle investigation of new dithienosilole-based dyes for DSSCs: effects of auxiliary acceptor groups. Theoretical Chemistry Accounts, 2022, 141, .	0.5	2
659	An improved perovskite solar cell employing InxGa1-xAs as an efficient hole transport layer. Journal of Computational Electronics, 0, , .	1.3	0
660	Carbazole-based donor materials with enhanced photovoltaic parameters for organic solar cells and hole-transport materials for efficient perovskite solar cells. Journal of Molecular Modeling, 2022, 28, .	0.8	4
661	Heterostructures of Cut Carbon Nanotube-Filled Array of TiO2 Nanotubes for New Module of Photovoltaic Devices. Nanomaterials, 2022, 12, 3604.	1.9	2

#	Article	IF	Citations
662	Conventional and Back-Illuminated Cobalt- and Iodine-Mediated Dye-Sensitized Solar Cells for Artificial and Solar Light Conversion. ACS Applied Energy Materials, 2022, 5, 14846-14857.	2.5	6
663	Ultrafast laser spectroscopy uncovers mechanisms of light energy conversion in photosynthesis and sustainable energy materials. Chemical Physics Reviews, 2022, 3, .	2.6	10
664	ZnFe2O4 spinel oxide incorporated photoanodes as light-absorbing layers for dye-sensitized solar cells. Optical Materials, 2022, 134, 113064.	1.7	3
665	Evaluation of 2.45â€…GHz microwave plasma for conductive glass. AIP Conference Proceedings, 2022, , .	0.3	0
666	Recent development in two-dimensional material-based advanced photoanodes for high-performance dye-sensitized solar cells. Solar Energy, 2023, 249, 606-623.	2.9	18
667	Impact of end-group modifications and planarity on BDP-based non-fullerene acceptors for high-performance organic solar cells by using DFT approach. Journal of Molecular Modeling, 2022, 28, .	0.8	17
668	Enerji Etkin Bina TasarÄ±mÄ±nda YapÄ± ElemanÄ± olarak Fotovoltaik Sistemler. Kocaeli Ãœniversitesi MimarlÄ±k Ve YaÅŸam Dergisi, 0, , .	0.3	0
669	NATURAL DYEâ€™S PHOTODEGRADATION EFFECT TOWARDS OPTICAL PROPERTIES FOR SOLAR ENERGY APPLICATIONS. Jurnal Teknologi (Sciences and Engineering), 2022, 85, 167-176.	0.3	0
670	Green Synthesis of TiO₂ Nanoparticles Using Averrhoa Bilimbi Fruits Extract and DPT-PEG Polymer Electrolyte for Enhance Dye-Sensitized Solar Cell Application. , 0, , .		0
671	Progress in transition metal chalcogenides-based counter electrode materials for dye-sensitized solar cells. Materials Science in Semiconductor Processing, 2023, 156, 107273.	1.9	13
672	Graphene loaded TiO2 submicron spheres scattering layer for efficient dye-sensitized solar cell. Chemosphere, 2023, 321, 138009.	4.2	4
673	A Highly Efficient Infinity-Shaped Large Angular- and Polarization-Independent Metamaterial Absorber. Symmetry, 2023, 15, 352.	1.1	5
674	Phosphors for solar spectrum modification. , 2023, , 213-236.		0
675	Quantum dots synthesis for photovoltaic cells. , 2023, , 67-98.		0
676	Effect of D-limonene additive in copper redox-based quasi-solid-state electrolytes on the performance of dye-sensitized solar cells. Materials Today Communications, 2023, 35, 105505.	0.9	0
677	Review on the progress of light harvesting natural pigments as DSSC sensitizers with high potency. Inorganic Chemistry Communication, 2023, 152, 110638.	1.8	4
678	DSSCs based on unsymmetrical A3B type Zn(II) and TiO(IV) naphthalenephthalocyanine/porphyrin cocktail dyes: A potential alternative for ruthenium based sensitizers. Journal of Photochemistry and Photobiology A: Chemistry, 2023, 440, 114642.	2.0	6
679	Role of end-capped acceptor moieties on optoelectronic properties of small molecules featuring Bâ€“N covalent bond-based organic solar cells. Journal of Computational Electronics, 2023, 22, 874-886.	1.3	1

#	Article	IF	Citations
680	A Review of Transition Metal Sulfides as Counter Electrodes for Dye-Sensitized and Quantum Dot-Sensitized Solar Cells. Materials, 2023, 16, 2881.	1.3	4
681	Ag Reflectors: An Effective Approach to Improve Light Harvesting in Dye Sensitized Solar Cells. IEEE Journal of Photovoltaics, 2023, 13, 250-253.	1.5	4
682	High-yield TiO2 submicron sphere/nanoparticle-blended scattering layer for efficient and scalable dye-sensitized solar cells. Emergent Materials, 2023, 6, 671-679.	3.2	3
683	Present status of metal-free photosensitizers for dye-sensitized solar cells. Materials Today: Proceedings, 2023, , .	0.9	3
684	Developments of nanocomposites in dye-sensitized solar cells. , 2023, , 225-253.		1
685	Successful Growth of TiO2 Nanocrystals with {001} Facets for Solar Cells. Nanomaterials, 2023, 13, 928.	1.9	3
686	Hydrogel-based solar-driven interfacial evaporation: Current progress and future challenges. , 2023, 1, 100011.		2
687	Modifications to the Scattering Layer of a Dye-Sensitized Solar Cell Photoanode With Bifunctional WO₃ Hollow Spheres for Increased Electron Transfer and Scattering Effect. IEEE Transactions on Electron Devices, 2023, 70, 2415-2423.	1.6	0
688	A Review of Perovskite Nanocrystal Applications in Luminescent Solar Concentrators. Advanced Optical Materials, 2023, 11, .	3.6	4
689	Improved performance of D149 dye-sensitized ZnO-based solar cell under solvents activation effect. European Physical Journal Plus, 2023, 138, .	1.2	0
690	The evolution of organic materials for efficient dye-sensitized solar cells. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2023, 55, 100586.	5.6	18
691	A review study to manufacture each part of dye-sensitized solar cells. AIP Conference Proceedings, 2023, , .	0.3	0
692	Hierarchical Cu4SnS6 nanoflowers supported by MWCNT can accomplish everything: Supercapacitors, dye-sensitized solar cells and water splitting. Electrochimica Acta, 2023, 457, 142416.	2.6	0
693	Progress in photocapacitors: A review. Functional Materials Letters, 2023, 16, .	0.7	1
694	Optoelectronic properties fine-tuning through chalcogenide-based ï€-bridge for dye molecules featuring hydantoin anchoring group: first-principle calculations. Molecular Physics, 2023, 121, .	0.8	0
695	Impact of organic dye-photosensitizer on TiO2 nanocrystalline surface for high performance organic electronic devices: A computational insight. Journal of Photochemistry and Photobiology A: Chemistry, 2023, 442, 114772.	2.0	6
696	Advances in organic photovoltaic cells: a comprehensive review of materials, technologies, and performance. RSC Advances, 2023, 13, 12244-12269.	1.7	28
697	The Possibility of Using Wood Peeler Core as The Dye-Sensitized Solar Cells. , 2023, , 155-186.		0

#	Article	IF	Citations
699	A short review on natural pigments as electron boosters for photoconversion efficiency of dye-sensitized solar cells. AIP Conference Proceedings, 2023, , .	0.3	1
705	Progress on integrated supercapacitors and DSSC structure and performance. AIP Conference Proceedings, 2023, , .	0.3	0
708	Fourth-generation solar cells: a review. Energy Advances, 2023, 2, 1239-1262.	1.4	8
712	Optimizing Solar Photovoltaic Cells. , 2023, , 1-18.		0
715	Effect of Polyacriontrile (PAN) Concentration on Characteristics and Performance of TiO2/N719/PAN-rGO for Dye-Sensitized Solar Cells. , 2023, , 74-85.		0
734	Investigation of GaN-Aln-Tio2 nanoflower photoanode for dye-sensitized solar cell application. AIP Conference Proceedings, 2023, , .	0.3	0
739	Metal oxides for dye-sensitized solar cells. , 2024, , 543-576.		0