

# Nowshad Amin

## List of Publications by Year in descending order

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385  
papers

7,659  
citations

53794

45  
h-index

98798

67  
g-index

387  
all docs

387  
docs citations

387  
times ranked

6555  
citing authors

#	ARTICLE	IF	CITATIONS
1	An overview of solar photovoltaic panels' end-of-life material recycling. <i>Energy Strategy Reviews</i> , 2020, 27, 100431.	7.3	328
2	Recent advances in utilization of graphene for filtration and desalination of water: A review. <i>Desalination</i> , 2015, 365, 389-397.	8.2	205
3	An intelligent system architecture in home energy management systems (HEMS) for efficient demand response in smart grid. <i>Energy and Buildings</i> , 2017, 138, 154-164.	6.7	201
4	Numerical modeling of CdS/CdTe and CdS/CdTe/ZnTe solar cells as a function of CdTe thickness. <i>Solar Energy Materials and Solar Cells</i> , 2007, 91, 1202-1208.	6.2	173
5	Performance analysis of copper-indium-gallium-diselenide (CIGS) solar cells with various buffer layers by SCAPS. <i>Current Applied Physics</i> , 2010, 10, S387-S391.	2.4	143
6	Effect of deep-level defect density of the absorber layer and n/i interface in perovskite solar cells by SCAPS-1D. <i>Results in Physics</i> , 2020, 16, 102839.	4.1	128
7	Performance of a PV-wind hybrid system for hydrogen production. <i>Renewable Energy</i> , 2009, 34, 1973-1978.	8.9	97
8	Current trends and prospects of tidal energy technology. <i>Environment, Development and Sustainability</i> , 2021, 23, 8179-8194.	5.0	95
9	Comparison of Structural and Optical Properties of CdS Thin Films Grown by CSVT, CBD and Sputtering Techniques. <i>Energy Procedia</i> , 2013, 33, 203-213.	1.8	93
10	A practical field study of various solar cells on their performance in Malaysia. <i>Renewable Energy</i> , 2009, 34, 1939-1946.	8.9	92
11	Growth and characterization of RF-sputtered ZnS thin film deposited at various substrate temperatures for photovoltaic application. <i>Applied Surface Science</i> , 2015, 334, 138-144.	6.1	90
12	A comprehensive defect study of tungsten disulfide (WS <sub>2</sub> ) as electron transport layer in perovskite solar cells by numerical simulation. <i>Results in Physics</i> , 2019, 12, 1097-1103.	4.1	90
13	Emerging sustainable solutions for depollution: Geopolymers. <i>Construction and Building Materials</i> , 2019, 199, 540-548.	7.2	88
14	Research and development aspects on decentralized electrification options for rural household. <i>Renewable and Sustainable Energy Reviews</i> , 2013, 24, 314-324.	16.4	86
15	Implementation of a novel home energy management system (HEMS) architecture with solar photovoltaic system as supplementary source. <i>Renewable Energy</i> , 2018, 125, 108-120.	8.9	85
16	Effect of defect density and energy level mismatch on the performance of perovskite solar cells by numerical simulation. <i>Optik</i> , 2019, 182, 1204-1210.	2.9	82
17	Defect Study and Modelling of SnX <sub>3</sub> -Based Perovskite Solar Cells with SCAPS-1D. <i>Nanomaterials</i> , 2021, 11, 1218.	4.1	81
18	Monitoring of the Human Body Signal through the Internet of Things (IoT) Based LoRa Wireless Network System. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 1884.	2.5	79

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19	A Modified Meander Line Microstrip Patch Antenna With Enhanced Bandwidth for 2.4 GHz ISM-Band Internet of Things (IoT) Applications. <i>IEEE Access</i> , 2019, 7, 127850-127861.	4.2	77
20	Analysis of absorber layer properties effect on CIGS solar cell performance using SCAPS. <i>Optik</i> , 2015, 126, 681-686.	2.9	76
21	Highly efficient 1 $\frac{1}{4}$ $\mu$ m thick CdTe solar cells with textured TCOs. <i>Solar Energy Materials and Solar Cells</i> , 2001, 67, 195-201.	6.2	75
22	A Polarization Independent Quasi-TEM Metamaterial Absorber for X and Ku Band Sensing Applications. <i>Sensors</i> , 2018, 18, 4209.	3.8	75
23	WS <sub>2</sub> : A New Window Layer Material for Solar Cell Application. <i>Scientific Reports</i> , 2020, 10, 771.	3.3	67
24	Influence of Annealing Temperature on the Properties of ZnO Thin Films Grown by Sputtering. <i>Energy Procedia</i> , 2012, 25, 55-61.	1.8	66
25	Prospects of novel front and back contacts for high efficiency cadmium telluride thin film solar cells from numerical analysis. <i>Solar Energy Materials and Solar Cells</i> , 2010, 94, 1496-1500.	6.2	64
26	Research and development aspects of pico-hydro power. <i>Renewable and Sustainable Energy Reviews</i> , 2012, 16, 5861-5878.	16.4	64
27	Elucidating the role of interfacial MoS <sub>2</sub> layer in Cu <sub>2</sub> ZnSnS <sub>4</sub> thin film solar cells by numerical analysis. <i>Solar Energy</i> , 2019, 178, 162-172.	6.1	64
28	Prospective Methodologies in Hybrid Renewable Energy Systems for Energy Prediction Using Artificial Neural Networks. <i>Sustainability</i> , 2021, 13, 2393.	3.2	62
29	Efficiency enhancement of CIGS solar cell by WS <sub>2</sub> as window layer through numerical modelling tool. <i>Solar Energy</i> , 2020, 207, 479-485.	6.1	61
30	Numerical Modelling of Ultra Thin Cu(In,Ga)Se <sub>2</sub> Solar Cells. <i>Energy Procedia</i> , 2012, 15, 291-298.	1.8	60
31	A Comparative Performance Analysis of ANN Algorithms for MPPT Energy Harvesting in Solar PV System. <i>IEEE Access</i> , 2021, 9, 102137-102152.	4.2	60
32	Silicon back contact solar cell configuration: A pathway towards higher efficiency. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 60, 1516-1532.	16.4	57
33	Biomass and Industrial Wastes as Resource Materials for Aerogel Preparation: Opportunities, Challenges, and Research Directions. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 17621-17645.	3.7	56
34	Effect of ZnTe and CdZnTe Alloys at the Back Contact of 1- $\mu$ m-Thick CdTe Thin Film Solar Cells. <i>Japanese Journal of Applied Physics</i> , 2002, 41, 2834-2841.	1.5	55
35	Amorphous Silicon Single-Junction Thin-Film Solar Cell Exceeding 10% Efficiency by Design Optimization. <i>International Journal of Photoenergy</i> , 2012, 2012, 1-7.	2.5	55
36	High quality 1 $\frac{1}{4}$ $\mu$ m thick CdTe absorber layers grown by magnetron sputtering for solar cell application. <i>Current Applied Physics</i> , 2013, 13, S115-S121.	2.4	55

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37	A two step technique to remove the secondary phases in CZTS thin films grown by sol - gel method. <i>Ceramics International</i> , 2019, 45, 10876-10881.	4.8	55
38	A Gap Coupled Hexagonal Split Ring Resonator Based Metamaterial for S-Band and X-Band Microwave Applications. <i>IEEE Access</i> , 2020, 8, 68239-68253.	4.2	54
39	Effect of CdCl <sub>2</sub> treatment on structural and electronic property of CdTe thin films deposited by magnetron sputtering. <i>Thin Solid Films</i> , 2013, 546, 367-374.	1.8	53
40	Effects of RF magnetron sputtering deposition process parameters on the properties of molybdenum thin films. <i>Thin Solid Films</i> , 2017, 638, 213-219.	1.8	52
41	Characterization of Highly Efficient CdTe Thin Film Solar Cells by Low-Temperature Photoluminescence. <i>Japanese Journal of Applied Physics</i> , 1998, 37, 3894-3899.	1.5	51
42	Effects of growth temperature on the photovoltaic properties of RF sputtered undoped NiO thin films. <i>Results in Physics</i> , 2019, 14, 102360.	4.1	51
43	Prospects for introducing hydrogen fuel cell vehicles in Malaysia. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 9125-9134.	7.1	50
44	Fabrication of high efficiency sputtered CdS:O/CdTe thin film solar cells from window/absorber layer growth optimization in magnetron sputtering. <i>Solar Energy Materials and Solar Cells</i> , 2017, 172, 384-393.	6.2	47
45	Effect of oxidation on structural, optical and electrical properties of CdS thin films grown by sputtering. <i>Optik</i> , 2015, 126, 3177-3180.	2.9	46
46	Fabrication techniques and morphological analysis of perovskite absorber layer for high-efficiency perovskite solar cell: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 98, 469-488.	16.4	46
47	Left-Handed Metamaterial-Inspired Unit Cell for S-Band Glucose Sensing Application. <i>Sensors</i> , 2019, 19, 169.	3.8	45
48	Prospective Efficient Ambient Energy Harvesting Sources for IoT-Equipped Sensor Applications. <i>Electronics (Switzerland)</i> , 2020, 9, 1345.	3.1	45
49	An overview on prospects of new generation single-phase transformerless inverters for grid-connected photovoltaic (PV) systems. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 82, 515-530.	16.4	44
50	Modulation of structural, optical and thermoelectric properties of sol-gel grown CZTS thin films by controlling the concentration of zinc. <i>Ceramics International</i> , 2019, 45, 12820-12824.	4.8	43
51	Effect of Different Factors on the Acoustic Absorption of Coir Fiber. <i>Journal of Applied Sciences</i> , 2010, 10, 2887-2892.	0.3	42
52	Annealing effect in structural and electrical properties of sputtered Mo thin film. <i>Applied Surface Science</i> , 2015, 334, 129-137.	6.1	41
53	Design prospects of cadmium telluride/silicon (CdTe/Si) tandem solar cells from numerical simulation. <i>Optik</i> , 2017, 139, 397-406.	2.9	41
54	Impact of preheating environment on microstructural and optoelectronic properties of Cu <sub>2</sub> ZnSnS <sub>4</sub> (CZTS) thin films deposited by spin-coating. <i>Superlattices and Microstructures</i> , 2020, 140, 106452.	3.1	41

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55	The role of laser ablation technique parameters in synthesis of nanoparticles from different target types. <i>Journal of Nanoparticle Research</i> , 2019, 21, 1.	1.9	40
56	Development of hydrophobic reduced graphene oxide as a new efficient approach for photochemotherapy. <i>RSC Advances</i> , 2020, 10, 12851-12863.	3.6	39
57	Synthesis and Characterization of Silver Nanoparticles and Silver Inks: Review on the Past and Recent Technology Roadmaps. <i>Journal of Materials Engineering and Performance</i> , 2014, 23, 3541-3550.	2.5	38
58	Performance assessment of Cu <sub>2</sub> SnS <sub>3</sub> (CTS) based thin film solar cells by AMPS-1D. <i>Current Applied Physics</i> , 2018, 18, 79-89.	2.4	38
59	Influence of deposition time in CdTe thin film properties grown by Close-Spaced Sublimation (CSS) for photovoltaic application. <i>Results in Physics</i> , 2019, 14, 102371.	4.1	38
60	High performance supercapattery with rGO/TiO <sub>2</sub> nanocomposites anode and activated carbon cathode. <i>Journal of Alloys and Compounds</i> , 2019, 796, 13-24.	5.5	38
61	Perceiving of Defect Tolerance in Perovskite Absorber Layer for Efficient Perovskite Solar Cell. <i>IEEE Access</i> , 2020, 8, 106346-106353.	4.2	38
62	In vitro antioxidant activity of <i>Ficus carica</i> L. latex from 18 different cultivars. <i>Scientific Reports</i> , 2020, 10, 10852.	3.3	38
63	Impact of CdTe thin film thickness in Zn <sub>x</sub> Cd <sub>1-x</sub> S/CdTe solar cell by RF sputtering. <i>Solar Energy</i> , 2019, 180, 559-566.	6.1	37
64	Electrical and Optical Properties of Nickel Oxide Films for Efficient Perovskite Solar Cells. <i>Small Methods</i> , 2020, 4, 2000454.	8.6	37
65	IoT Based Health Monitoring System with LoRa Communication Technology. , 2019, , .		36
66	Prospective development in diffusion barrier layers for copper metallization in LSI. <i>Microelectronics Journal</i> , 2007, 38, 777-782.	2.0	35
67	Cost effective thermoelectric composites from recycled carbon fibre: From waste to energy. <i>Journal of Cleaner Production</i> , 2018, 195, 1015-1025.	9.3	34
68	A review of thermoelectric power generation systems: Roles of existing test rigs/ prototypes and their associated cooling units on output performance. <i>Energy Conversion and Management</i> , 2018, 174, 138-156.	9.2	34
69	An Overview of the Building Energy Management System Considering the Demand Response Programs, Smart Strategies and Smart Grid. <i>Energies</i> , 2020, 13, 3299.	3.1	34
70	Current advancement of flexible dye sensitized solar cell: A review. <i>Optik</i> , 2022, 254, 168089.	2.9	34
71	The role of existing infrastructure of fuel stations in deploying solar charging systems, electric vehicles and solar energy: A preliminary analysis. <i>Technological Forecasting and Social Change</i> , 2018, 137, 317-326.	11.6	33
72	Development of graphene based nanocomposites towards medical and biological applications. <i>Artificial Cells, Nanomedicine and Biotechnology</i> , 2020, 48, 1189-1205.	2.8	33

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73	Effect of substrate temperature on the properties of RF sputtered CdS thin films for solar cell applications. Results in Physics, 2020, 17, 103132.	4.1	33
74	Prospects of Back Surface Field Effect in Ultra-Thin High-Efficiency CdS/CdTe Solar Cells from Numerical Modeling. International Journal of Photoenergy, 2010, 2010, 1-8.	2.5	32
75	Physical and electrical properties of molybdenum thin films grown by DC magnetron sputtering for photovoltaic application. Results in Physics, 2019, 14, 102515.	4.1	32
76	Key factors of desiccant-based cooling systems: Materials. Applied Thermal Engineering, 2019, 159, 113946.	6.0	32
77	Growth of Zn <sub>2</sub> GeO <sub>4</sub> thin film by thermal evaporation on ITO substrate for thermoelectric power generation applications. Ceramics International, 2019, 45, 312-316.	4.8	32
78	Development of effective and sustainable adsorbent biomaterial from an agricultural waste material: Cu(II) removal. Materials Chemistry and Physics, 2020, 249, 123128.	4.0	31
79	Prospects of Thickness Reduction of the CdTe Layer in Highly Efficient CdTe Solar Cells Towards 1 Åµm. Japanese Journal of Applied Physics, 1999, 38, 4666-4672.	1.5	30
80	Effect of structural variations in amorphous silicon based single and multi-junction solar cells from numerical analysis. Solar Energy Materials and Solar Cells, 2010, 94, 1542-1545.	6.2	29
81	Growth optimization of Zn <sub>x</sub> Cd <sub>1-x</sub> S films on ITO and FTO coated glass for alternative buffer application in CdTe thin film solar cells. Optical Materials, 2018, 86, 270-277.	3.6	29
82	Recent Developments of Flexible CdTe Solar Cells on Metallic Substrates: Issues and Prospects. International Journal of Photoenergy, 2012, 2012, 1-10.	2.5	28
83	Diluted chemical bath deposition of CdZnS as prospective buffer layer in CIGS solar cell. Ceramics International, 2021, 47, 11003-11009.	4.8	28
84	Numerical Analysis of Novel Back Surface Field for High Efficiency Ultrathin CdTe Solar Cells. International Journal of Photoenergy, 2013, 2013, 1-8.	2.5	27
85	Compositional disparity in Cu <sub>2</sub> ZnSnS <sub>4</sub> (CZTS) thin film deposited by RF-sputtering from a single quaternary compound target. Materials Letters, 2018, 221, 201-205.	2.6	27
86	Improved thermoelectric performance of Al and Sn doped ZnO nano particles by the engineering of secondary phases. Ceramics International, 2020, 46, 15013-15017.	4.8	27
87	Recovery of FTO coated glass substrate via environment-friendly facile recycling perovskite solar cells. RSC Advances, 2021, 11, 14534-14541.	3.6	27
88	Growth optimization of Zn <sub>x</sub> Cd <sub>1-x</sub> S thin films by radio frequency magnetron co-sputtering for solar cell applications. Thin Solid Films, 2013, 548, 202-209.	1.8	26
89	Growth of Cu <sub>2</sub> InO <sub>4</sub> thin films on Si substrate by thermal evaporation technique and enhancement of thermoelectric properties by post-growth annealing. Physica B: Condensed Matter, 2019, 562, 59-62.	2.7	26
90	Airborne particles in the city center of Kuala Lumpur: Origin, potential driving factors, and deposition flux in human respiratory airways. Science of the Total Environment, 2019, 650, 1195-1206.	8.0	26

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91	Optoelectronic properties of electron beam-deposited NiOx thin films for solar cell application. Results in Physics, 2020, 17, 103122.	4.1	26
92	PbS/CdS/ZnO nanowire arrays: Synthesis, structural, optical, electrical, and photoelectrochemical properties. Chemical Physics Letters, 2020, 750, 137486.	2.6	26
93	Effects of oxygen concentration variation on the structural and optical properties of reactive sputtered WOx thin film. Solar Energy, 2021, 222, 202-211.	6.1	26
94	Effect of laser annealing on thermally evaporated CdTe thin films for photovoltaic absorber application. Solar Energy, 2018, 173, 1051-1057.	6.1	25
95	Influence of oxygen on structural and optoelectronic properties of CdS thin film deposited by magnetron sputtering technique. Chinese Journal of Physics, 2020, 67, 170-179.	3.9	25
96	A comprehensive study on the effects of alternative sulphur precursor on the material properties of chemical bath deposited CdS thin films. Ceramics International, 2020, 46, 18716-18724.	4.8	25
97	Design and Modelling of Eco-Friendly CH3NH3SnI3-Based Perovskite Solar Cells with Suitable Transport Layers. Energies, 2021, 14, 7200.	3.1	25
98	Effect of Annealing on the Properties of ZnxCd1-xS Thin Film Growth by RF Magnetron Co-sputtering. Energy Procedia, 2013, 33, 214-222.	1.8	24
99	Fabrication of Cu2SnS3 thin film solar cells by sulphurization of sequentially sputtered Sn/CuSn metallic stacked precursors. Solar Energy, 2019, 177, 262-273.	6.1	24
100	Impact of high resistivity transparent (HRT) layer in cadmium telluride solar cells from numerical simulation. Journal of Renewable and Sustainable Energy, 2020, 12, .	2.0	24
101	Effect of temperature on synthesis of cellulose nanoparticles via ionic liquid hydrolysis process. Journal of Molecular Liquids, 2020, 308, 113030.	4.9	24
102	An Adaptive TE-PV Hybrid Energy Harvesting System for Self-Powered IoT Sensor Applications. Sensors, 2021, 21, 2604.	3.8	24
103	Performance analysis of tungsten disulfide (WS2) as an alternative buffer layer for CdTe solar cell through numerical modeling. Optical Materials, 2021, 120, 111296.	3.6	24
104	Improving the thermoelectric performance of hydrothermally synthesized FeS2 nanoparticles by post sulfurization. Ceramics International, 2020, 46, 20496-20499.	4.8	23
105	High mobility and transparent ZTO ETM prepared by RF reactive co-sputtering for perovskite solar cell application. Results in Physics, 2019, 14, 102518.	4.1	22
106	Modulation of secondary phases in hydrothermally grown zinc oxide nanostructures by varying the Cu dopant concentration for enhanced thermo power. Journal of Alloys and Compounds, 2020, 843, 156081.	5.5	22
107	Self-Sustained Autonomous Wireless Sensor Network with Integrated Solar Photovoltaic System for Internet of Smart Home-Building (IoSHB) Applications. Micromachines, 2021, 12, 653.	2.9	22
108	Effects of Transition Metal Dichalcogenide Molybdenum Disulfide Layer Formation in Copper-Zinc-Tin-Sulfur Solar Cells from Numerical Analysis. Japanese Journal of Applied Physics, 2012, 51, 10NC32.	1.5	22



#	ARTICLE	IF	CITATIONS
109	Recycled carbon fibre/Bi <sub>2</sub> Te <sub>3</sub> and Bi <sub>2</sub> S <sub>3</sub> hybrid composite doped with MWCNTs for thermoelectric applications. <i>Composites Part B: Engineering</i> , 2019, 175, 107085.	12.0	21
110	IoT-Enabled High Efficiency Smart Solar Charge Controller with Maximum Power Point Tracking—Design, Hardware Implementation and Performance Testing. <i>Electronics (Switzerland)</i> , 2020, 9, 1267.	3.1	21
111	Effect of zinc doping on the optoelectronic properties of cadmium sulphide (CdS) thin films deposited by chemical bath deposition by utilising an alternative sulphur precursor. <i>Optik</i> , 2020, 218, 165197.	2.9	21
112	A comparative study of CdS thin films grown on ultra-thin glass substrates by RF magnetron sputtering and chemical bath deposition. <i>Materials Science in Semiconductor Processing</i> , 2021, 133, 105935.	4.0	21
113	An Investigation on Structural and Electrical Properties of RF-Sputtered Molybdenum Thin Film Deposited on Different Substrates. <i>Energy Procedia</i> , 2013, 33, 186-197.	1.8	20
114	Effect of tin concentration on the structural, optical and thermoelectric properties of CZTS thin films grown by chemical solution method. <i>Ceramics International</i> , 2019, 45, 22513-22516.	4.8	20
115	Annealing temperature assisted microstructural and optoelectrical properties of CdSe thin film grown by RF magnetron sputtering. <i>Superlattices and Microstructures</i> , 2020, 148, 106716.	3.1	20
116	Temperature difference in close-spaced sublimation (CSS) growth of CdTe thin film on ultra-thin glass substrate. <i>Results in Physics</i> , 2020, 18, 103213.	4.1	20
117	Organosoluble starch derivative as quasi-solid electrolytes in DSSC: Unravelling the synergy between electrolyte rheology and photovoltaic properties. <i>Solar Energy</i> , 2020, 197, 144-153.	6.1	20
118	A Portable Electromagnetic Head Imaging System Using Metamaterial Loaded Compact Directional 3D Antenna. <i>IEEE Access</i> , 2021, 9, 50893-50906.	4.2	20
119	Mixture deposition method for graphene quantum dots-based dye-sensitized solar cell. <i>Electrochimica Acta</i> , 2022, 404, 139732.	5.2	20
120	Effects of sulfurization temperature on Cu <sub>2</sub> ZnSnS <sub>4</sub> thin film deposited by single source thermal evaporation method. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 08KC18.	1.5	19
121	Effects of Cr doping in the structural and optoelectronic properties of Cu <sub>2</sub> ZnSnS <sub>4</sub> (CZTS) thin film by magnetron co-sputtering. <i>Materials Letters</i> , 2018, 221, 22-25.	2.6	19
122	Air-stable perovskite photovoltaic cells with low temperature deposited NiOx as an efficient hole-transporting material. <i>Optical Materials Express</i> , 2020, 10, 1801.	3.0	19
123	Process optimisation for n-type Bi <sub>2</sub> Te <sub>3</sub> films electrodeposited on flexible recycled carbon fibre using response surface methodology. <i>Journal of Materials Science</i> , 2017, 52, 11467-11481.	3.7	18
124	Optimizing the electrical transport properties of ZnSnO thin films by post growth annealing in air. <i>Optik</i> , 2020, 204, 164148.	2.9	18
125	Delamination-and Electromigration-Related Failures in Solar Panels—A Review. <i>Sustainability</i> , 2021, 13, 6882.	3.2	18
126	A Novel Active Sun Tracking Controller for Photovoltaic Panels. <i>Journal of Applied Sciences</i> , 2009, 9, 4050-4055.	0.3	18



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127	Prospects of Cu <sub>2</sub> ZnSnS <sub>4</sub> (CZTS) solar cells from numerical analysis. , 2010, , .		17
128	Properties of sputtered ZnS thin films for photovoltaic application. Materials Research Express, 2018, 5, 096409.	1.6	17
129	Sorbent-based air water-harvesting systems: progress, limitation, and consideration. Reviews in Environmental Science and Biotechnology, 2021, 20, 257-279.	8.1	17
130	Cubic Silicon Carbide (3C-SiC) as a buffer layer for high efficiency and highly stable CdTe solar cell. Optical Materials, 2022, 123, 111911.	3.6	17
131	Effects of Transition Metal Dichalcogenide Molybdenum Disulfide Layer Formation in Copper-Zinc-Tin-Sulfur Solar Cells from Numerical Analysis. Japanese Journal of Applied Physics, 2012, 51, 10NC32.	1.5	16
132	High performance and stable molybdenum telluride PV cells with Indium Telluride BSF. , 2016, , .		16
133	Modeling and characterization of a grid-connected photovoltaic system under tropical climate conditions. Renewable and Sustainable Energy Reviews, 2018, 82, 2094-2105.	16.4	16
134	Hydrolytic cleavage of glycosidic bonds for cellulose nanoparticles (CNPs) production by BmimHSO <sub>4</sub> ionic liquid catalyst. Thermochimica Acta, 2020, 684, 178484.	2.7	16
135	Organosoluble Starch-Cellulose Binary Polymer Blend as a Quasi-Solid Electrolyte in a Dye-Sensitized Solar Cell. Polymers, 2020, 12, 516.	4.5	16
136	The Role of Deposition Temperature in the Photovoltaic Properties of RF-Sputtered CdSe Thin Films. Crystals, 2021, 11, 73.	2.2	16
137	Impact of CdCl <sub>2</sub> Treatment in CdTe Thin Film Grown on Ultra-Thin Glass Substrate via Close Spaced Sublimation. Crystals, 2021, 11, 390.	2.2	16
138	Growth of MoO <sub>x</sub> nanobelts from molybdenum bi-layer thin films for thin film solar cell application. Thin Solid Films, 2017, 621, 240-246.	1.8	15
139	Tailoring of the Structural and Optoelectronic Properties of Zinc-Tin-Oxide Thin Films via Oxygenation Process for Solar Cell Application. IEEE Access, 2020, 8, 193560-193568.	4.2	15
140	An approach to alternative post-deposition treatment in CdTe thin films for solar cell application. Superlattices and Microstructures, 2020, 147, 106687.	3.1	15
141	Fabrication of Black Silicon via Metal-Assisted Chemical Etching—A Review. Sustainability, 2021, 13, 10766.	3.2	15
142	Numerical Insights into the Influence of Electrical Properties of n-CdS Buffer Layer on the Performance of SLG/Mo/p-Absorber/n-CdS/n-ZnO/Ag Configured Thin Film Photovoltaic Devices. Coatings, 2021, 11, 52.	2.6	15
143	Effect of CdCl <sub>2</sub> treatment on physical properties of CdTe films with different compositions fabricated by chemical molecular beam deposition. Applied Solar Energy (English Translation of Geliotekhnika), 2013, 49, 35-39.	1.6	14
144	Prospects of Graphene as a Potential Carrier-Transport Material in Third-Generation Solar Cells. Chemical Record, 2016, 16, 614-632.	5.8	14

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145	Controllable formation of MoS <sub>2</sub> via preferred crystallographic orientation modulation of DC-sputtered Mo thin film. <i>Materials Letters</i> , 2018, 219, 174-177.	2.6	14
146	A comparative study on thermally and laser annealed copper and silver doped CdTe thin film solar cells. <i>Solar Energy</i> , 2018, 173, 1-6.	6.1	14
147	Sol-gel prepared Cu <sub>2</sub> ZnSnS <sub>4</sub> (CZTS) semiconductor thin films: Role of solvent removal processing temperature. <i>Materials Science in Semiconductor Processing</i> , 2021, 132, 105874.	4.0	14
148	Promises of Cu (In, Ga)Se <sub>2</sub> Thin Film Solar Cells from the Perspective of Material Properties, Fabrication Methods and Current Research Challenges. <i>Journal of Applied Sciences</i> , 2011, 11, 401-410.	0.3	14
149	Optoelectrical impact of alternative window layer composition in CdTe thin film solar cells performance. <i>Solar Energy</i> , 2022, 233, 523-530.	6.1	14
150	A practical investigation on the root causes of the mechanical damages of pogo pin type test sockets to IC packages in final test. , 2008, , .		13
151	Effect of deposition power in fabrication of highly efficient CdS:O/CdTe thin film solar cell by the magnetron sputtering technique. <i>Materials Science in Semiconductor Processing</i> , 2015, 40, 90-98.	4.0	13
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