Trilok Singh

List of Publications by Year
in descending order

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Version: 2024-02-01

50	2,450	257450	214800
papers	citations	24 h-index	47 g-index

54	54	54	3903
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stabilizing the Efficiency Beyond 20% with a Mixed Cation Perovskite Solar Cell Fabricated in Ambient Air under Controlled Humidity. Advanced Energy Materials, 2018, 8, 1700677.	19.5	459
2	Effect of Electron Transporting Layer on Bismuth-Based Lead-Free Perovskite (CH₃NH₃)₃ Bi₂I₉ for Photovoltaic Applications. ACS Applied Materials & Interfaces, 2016, 8, 14542-14547.	8.0	270
3	Sulfateâ€Assisted Interfacial Engineering for High Yield and Efficiency of Triple Cation Perovskite Solar Cells with Alkaliâ€Doped TiO₂ Electronâ€Transporting Layers. Advanced Functional Materials, 2018, 28, 1706287.	14.9	208
4	Zero-dimensional (CH3NH3)3Bi2I9 perovskite for optoelectronic applications. Solar Energy Materials and Solar Cells, 2016, 158, 195-201.	6.2	182
5	Role of ionic liquids in organic-inorganic metal halide perovskite solar cells efficiency and stability. Nano Energy, 2019, 63, 103828.	16.0	124
6	Antisolvents in Perovskite Solar Cells: Importance, Issues, and Alternatives. Advanced Materials Interfaces, 2020, 7, 2000950.	3.7	94
7	Photovoltaic enhancement of bismuth halide hybrid perovskite by N-methyl pyrrolidone-assisted morphology conversion. RSC Advances, 2017, 7, 9456-9460.	3.6	80
8	Role of Metal Oxide Electronâ€Transport Layer Modification on the Stability of High Performing Perovskite Solar Cells. ChemSusChem, 2016, 9, 2559-2566.	6.8	76
9	Tailoring surface states in WO3 photoanodes for efficient photoelectrochemical water splitting. Applied Surface Science, 2015, 347, 448-453.	6.1	71
10	Thickness dependence of optoelectronic properties in ALD grown ZnO thin films. Applied Surface Science, 2014, 289, 27-32.	6.1	63
11	Annealing studies on the structural and optical properties of electrodeposited CdO thin films. Materials Chemistry and Physics, 2011, 130, 1366-1371.	4.0	56
12	Plasma-chemical reduction of iron oxide photoanodes for efficient solar hydrogen production. International Journal of Hydrogen Energy, 2014, 39, 4828-4835.	7.1	54
13	Vapor Annealing Controlled Crystal Growth and Photovoltaic Performance of Bismuth Triiodide Embedded in Mesostructured Configurations. ACS Applied Materials & Interfaces, 2018, 10, 9547-9554.	8.0	45
14	Synthesis of cadmium oxide doped ZnO nanostructures using electrochemical deposition. Journal of Alloys and Compounds, 2011, 509, 5095-5098.	5.5	43
15	High performance perovskite solar cell via multi-cycle low temperature processing of lead acetate precursor solutions. Chemical Communications, 2016, 52, 4784-4787.	4.1	39
16	Progress in Materials Development for Flexible Perovskite Solar Cells and Future Prospects. ChemSusChem, 2021, 14, 512-538.	6.8	38
17	Surface plasmon enhanced bandgap emission of electrochemically grown ZnO nanorods using Au nanoparticles. Thin Solid Films, 2012, 520, 4646-4649.	1.8	37
18	Electrochemical deposition and characterization of elongated CdO nanostructures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 945-949.	3.5	32

#	Article	IF	Citations
19	Enhanced photocatalytic performance in atomic layer deposition grown TiO2 thin films via hydrogen plasma treatment. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	30
20	Ambient Fabrication of 126 Î¼m Thick Complete Perovskite Photovoltaic Device for High Flexibility and Performance. ACS Applied Energy Materials, 2018, 1, 6741-6747.	5.1	30
21	The effect of deposition time on the structural and optical properties of Î²-Ga2O3 nanowires grown using CVD technique. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	28
22	Atomic Layer Deposition of Transparent VO_x Thin Films for Resistive Switching Applications. Chemical Vapor Deposition, 2014, 20, 291-297.	1.3	28
23	Investigation of Defects in Cs₂SnI₆â€Based Double Perovskite Solar Cells Via SCAPSâ€1D. Advanced Theory and Simulations, 2022, 5, .	2.8	27
24	Sulphide passivation of GaN based Schottky diodes. Current Applied Physics, 2014, 14, 491-495.	2.4	25
25	Concentration dependent structural and optical properties of electrochemically grown ZnO thin films and nanostructures. Applied Surface Science, 2013, 270, 578-583.	6.1	24
26	Tuning of perovskite solar cell performance via low-temperature brookite scaffolds surface modifications. APL Materials, 2017, 5, .	5.1	23
27	Atomic layer deposition grown MOx thin films for solar water splitting: Prospects and challenges. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	22
28	Hierarchical SnO2 nanostructures for potential VOC sensor. Journal of Materials Science, 2021, 56, 9883-9893.	3.7	22
29	A theoretical exploration of lead-free double perovskite La2NiMnO6 based solar cell via SCAPS-1D. Optical Materials, 2022, 131, 112611.	3.6	21
30	Role of growth temperature on the structural, optical and electrical properties of ZnO thin films. Journal of Alloys and Compounds, 2015, 649, 1205-1209.	5.5	20
31	2.50 Gbit/s optical CDMA over FSO communication system. Optik, 2014, 125, 4538-4542.	2.9	19
32	Assessment of Leadâ€Free Tin Halide Perovskite Solar Cells Using Jâ€“V Hysteresis. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	1.8	19
33	Investigation of the role of back contact work function for hole transporting layer free perovskite solar cells applications. Optik, 2022, 256, 168749.	2.9	19
34	External vibrations can destroy the specific capacitance of supercapacitors â€“ from experimental proof to theoretical explanations. Journal of Materials Chemistry A, 2021, 9, 6460-6468.	10.3	15
35	Surface plasmon driven enhancement in UV-emission of electrochemically grown Zn1â^'xCdxO nanorods using Au nanoparticles. Journal of Alloys and Compounds, 2013, 552, 294-298.	5.5	14
36	Redox mediator induced electrochemical reactions at the electrodeâ€electrolyte interface: Making sodiumâ€ion supercapacitors a competitive technology. Electrochemical Science Advances, 2022, 2, e2100030.	2.8	14

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37	Experimental and Theoretical Insights into Influence of Hydrogen and Nitrogen Plasma on the Water Splitting Performance of ALD Grown TiO₂ Thin Films. Journal of Physical Chemistry C, 2017, 121, 15538-15548.	3.1	13
38	Hierarchical cage-frame type nanostructure of CeO₂for bio sensing applications: from glucose to protein detection. Nanotechnology, 2021, 32, 025504.	2.6	12
39	Effect of supporting electrolytes on the growth and optical properties of electrochemically deposited ZnO nanorods. Optical Materials, 2013, 35, 1493-1497.	3.6	11
40	Hierarchical NaFePO₄ nanostructures in combination with an optimized carbon-based electrode to achieve advanced aqueous Na-ion supercapacitors. RSC Advances, 2021, 11, 30031-30039.	3.6	11
41	Role of defects in organicâ€“inorganic metal halide perovskite: detection and remediation for solar cell applications. Emergent Materials, 2022, 5, 987-1020.	5.7	10
42	Long term stability assessment of perovskite solar cell via recycling of metal contacts under ambient conditions. Materials Letters, 2022, 322, 132490.	2.6	4
43	Surface exfoliation in ZnO by hydrogen implantation and its smoothening by high temperature annealing. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 444-447.	0.8	3
44	Tin dioxide nano-wire device for sensing kinetics of acetone and ethanol towards diabetes monitoring. , 2013, , .		3
45	Metal Oxide Nano-architectures and Heterostructures for Chemical Sensors. , 2013, , 397-438.		3
46	Atomic Layer Deposition of Transparent Conducting Oxides. Reviews in Advanced Sciences and Engineering, 2013, 2, 313-323.	0.6	3
47	GROWTH OF CdO AND ZnCdO-BASED NOVEL NANOSTRUCTURES USING ELECTROCHEMICAL DEPOSITION. International Journal of Nanoscience, 2011, 10, 827-831.	0.7	1
48	Selective room-temperature sensing of NO<inf>2</inf> by WO<inf>3</inf> film/graphene layers. , 2014, , .		1
49	Growth Of ZnO Based Ternary Nanostructures By Electrodeposition. , 2010, , .		0
50	<I>A Special Issue on</I> New Energy Materials for Future Applications. Energy and Environment Focus, 2014, 3, 95-97.	0.3	0