

Sandesh R Jadkar

List of Publications by Year in descending order

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91
papers

1,738
citations

304368

22
h-index

315357

38
g-index

94
all docs

94
docs citations

94
times ranked

2766
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly Transparent Wafer-Scale Synthesis of Crystalline WS ₂ Nanoparticle Thin Film for Photodetector and Humidity-Sensing Applications. ACS Applied Materials & Interfaces, 2016, 8, 3359-3365.	4.0	226
2	Large area chemical vapor deposition of monolayer transition metal dichalcogenides and their temperature dependent Raman spectroscopy studies. Nanoscale, 2016, 8, 3008-3018.	2.8	186
3	Structural, Electronic, and Optical Properties of Cu ₂ NiSnS ₄ : A Combined Experimental and Theoretical Study toward Photovoltaic Applications. Chemistry of Materials, 2017, 29, 3133-3142.	3.2	90
4	Temperature-Dependent Raman Spectroscopy of Titanium Trisulfide (TiS ₃) Nanoribbons and Nanosheets. ACS Applied Materials & Interfaces, 2015, 7, 24185-24190.	4.0	89
5	High performance humidity sensor and photodetector based on SnSe nanorods. Materials Research Express, 2016, 3, 105038.	0.8	62
6	Synthesis and Characterization of Various Doped TiO ₂ Nanocrystals for Dye-Sensitized Solar Cells. ACS Omega, 2021, 6, 3470-3482.	1.6	48
7	Electrochemical synthesis of 1D ZnO nanoarchitectures and their role in efficient photoelectrochemical splitting of water. Journal of Solid State Electrochemistry, 2017, 21, 2639-2648.	1.2	46
8	Synthesis of orthorhombic-molybdenum trioxide (1±-MoO3) thin films by hot wire-CVD and investigations of its humidity sensing properties. Journal of Materials Science: Materials in Electronics, 2017, 28, 15790-15796.	1.1	44
9	Temperature dependent Raman spectroscopy of electrochemically exfoliated few layer black phosphorus nanosheets. RSC Advances, 2016, 6, 76551-76555.	1.7	40
10	Seed-layer-free deposition of well-oriented ZnO nanorods thin films by SILAR and their photoelectrochemical studies. International Journal of Hydrogen Energy, 2020, 45, 5783-5792.	3.8	40
11	Dye sensitized solar cell with lawsone dye using a ZnO photoanode: experimental and TD-DFT study. RSC Advances, 2015, 5, 17647-17652.	1.7	38
12	Effect of calcination temperature on the properties of CZTS absorber layer prepared by RF sputtering for solar cell applications. Materials for Renewable and Sustainable Energy, 2017, 6, 1.	1.5	37
13	Temperature Dependent Raman Spectroscopy and Sensing Behavior of Few Layer SnSe ₂ Nanosheets. ChemistrySelect, 2016, 1, 5380-5387.	0.7	35
14	Cs ₂ TiBiCl ₆ : a new lead-free halide double perovskite with direct band gap. Journal of Physics Condensed Matter, 2019, 31, 445902.	0.7	35
15	Ternary Cu ₂ SnS ₃ : Synthesis, Structure, Photoelectrochemical Activity, and Heterojunction Band Offset and Alignment. Chemistry of Materials, 2021, 33, 1983-1993.	3.2	30
16	Experimental and Theoretical Investigation of the Structural and Optoelectronic Properties of Fe-Doped Lead-Free Cs ₂ AgBiCl ₆ Double Perovskite. Chemistry - A European Journal, 2021, 27, 7408-7417.	1.7	28
17	Efficient dye-sensitized solar cells based on hierarchical rutile TiO ₂ microspheres. CrystEngComm, 2012, 14, 8156.	1.3	27
18	Dramatic Enhancement in Photoresponse of In ₂ S ₃ through Suppression of Dark Conductivity by Synthetic Control of Defect-Induced Carrier Compensation. ACS Applied Materials & Interfaces, 2015, 7, 17671-17681.	4.0	27

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19	Influence of RF power on structural, morphology, electrical, composition and optical properties of Al-doped ZnO films deposited by RF magnetron sputtering. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 1134-1143.	1.1	26
20	Experimental and Theoretical Study into Interface Structure and Band Alignment of the Cu ₂ Zn _{1-x} Cd _x SnS ₄ Heterointerface for Photovoltaic Applications. <i>ACS Applied Energy Materials</i> , 2020, 3, 5153-5162.	2.5	25
21	Solvothermal synthesis of tin sulfide (SnS) nanorods and investigation of its field emission properties. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	1.1	24
22	CZTS/CdS: interface properties and band alignment study towards photovoltaic applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 4201-4210.	1.1	24
23	Investigations of the structural, optoelectronic and band alignment properties of Cu ₂ ZnSnS ₄ prepared by hot-injection method towards low-cost photovoltaic applications. <i>Journal of Alloys and Compounds</i> , 2021, 854, 157093.	2.8	23
24	Effect of plasma treatment on multilayer graphene: X-ray photoelectron spectroscopy, surface morphology investigations and work function measurements. <i>RSC Advances</i> , 2016, 6, 48843-48850.	1.7	22
25	Nanostructured BiOI@GO composite: facile room temperature synthesis with enhanced multifunctionality in field emission and photocatalytic activity. <i>RSC Advances</i> , 2016, 6, 83084-83090.	1.7	19
26	Bilayered ZnO/Nb ₂ O ₅ photoanode for dye sensitized solar cell. <i>International Journal of Modern Physics B</i> , 2018, 32, 1840046.	1.0	19
27	Investigation of growth mechanism for highly oriented TiO ₂ nanorods: the role of reaction time and annealing temperature. <i>SN Applied Sciences</i> , 2019, 1, 1.	1.5	19
28	Electrodeposition of highly porous ZnO nanostructures with hydrothermal amination for efficient photoelectrochemical activity. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 11459-11471.	3.8	19
29	Synergistic effect of Ag plasmon- and reduced graphene oxide-embedded ZnO nanorod-based photoanodes for enhanced photoelectrochemical activity. <i>Journal of Materials Science</i> , 2017, 52, 13572-13585.	1.7	18
30	Chemical spray pyrolysis synthesis of covellite copper sulphide (CuS) thin films for economical counter electrode for DSSCs. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 4940-4947.	1.1	18
31	Optical, structural and morphological study of CdS nanoparticles: role of sulfur source. <i>Nanomaterials and Energy</i> , 2020, 9, 72-81.	0.1	18
32	Highly stable and Pb-free bismuth-based perovskites for photodetector applications. <i>New Journal of Chemistry</i> , 2020, 44, 11282-11290.	1.4	16
33	Green synthesis and dye-sensitized solar cell application of rutile and anatase TiO ₂ nanorods. <i>Journal of Solid State Electrochemistry</i> , 2017, 21, 2713-2718.	1.2	15
34	A simple chemical route to synthesis the CuSe and CuS counter electrodes for titanium oxide based quantum dot solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 14394-14401.	1.1	14
35	Synthesis of Cubic Nanocrystalline Silicon Carbide (3C-SiC) Films by HW-CVD Method. <i>Silicon</i> , 2017, 9, 421-429.	1.8	13
36	Investigating the effect of solvent vapours on crystallinity, phase, and optical, morphological and structural properties of organolead halide perovskite films. <i>RSC Advances</i> , 2020, 10, 39995-40004.	1.7	12

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37	2D alignment of zinc oxide@ZIF8 nanocrystals for photoelectrochemical water splitting. <i>New Journal of Chemistry</i> , 2021, 45, 3498-3507.	1.4	12
38	Synthesis of WO_3 thin films by hot wire-CVD and investigation of its humidity sensing properties. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017, 214, 1600717.	0.8	11
39	Interface Structure and Band Alignment of CZTS/CdS Heterojunction: An Experimental and First-Principles DFT Investigation. <i>Materials</i> , 2019, 12, 4040.	1.3	10
40	Ag-Au Bimetal Incorporated ZnO Nanorods Photoanodes for Efficient Photoelectrochemical Splitting of Water. <i>Energy Technology</i> , 2019, 7, 233-239.	1.8	10
41	A simple chemical route to synthesis the CuS nanocrystal powder at room temperature and phase transition. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 11783-11789.	1.1	9
42	Influence of carbon and phosphorus doping on electronic properties of ZnO. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 12318-12322.	1.1	9
43	Rose Bengal sensitized niobium pentaoxide photoanode for dye sensitized solar cell application. <i>AIP Conference Proceedings</i> , 2017, , .	0.3	9
44	Electrochemical deposition of p-CdTe nanoparticle thin films for solar cell applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 18745-18754.	1.1	9
45	Uncovering the origin of enhanced field emission properties of rGO/MnO_2 heterostructures: a synergistic experimental and computational investigation. <i>RSC Advances</i> , 2020, 10, 25988-25998.	1.7	9
46	Solution-processed Cd-substituted CZTS nanocrystals for sensitized liquid junction solar cells. <i>Journal of Alloys and Compounds</i> , 2022, 890, 161575.	2.8	9
47	Preparation and characterization of In_2Se_3 thin-film photoanodes for photoelectrochemical water splitting. <i>Journal of Solid State Electrochemistry</i> , 2022, 26, 219-232.	1.2	9
48	Structural, Optical and Electrical Properties of Spray Pyrolysis Deposited CdS Films. <i>Macromolecular Symposia</i> , 2015, 347, 9-15.	0.4	8
49	Probing the effect of selenium substitution in kesterite- $\text{Cu}_2\text{ZnSnS}_4$ nanocrystals prepared by hot injection method. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 14781-14790.	1.1	8
50	Solvothermal Growth of PbBi_2Se_4 Nano-Flowers: A Material for Humidity Sensor and Photodetector Applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1900065.	0.8	8
51	Photoelectrochemical performance of MWCNT-Ag-ZnO ternary hybrid: a study of Ag loading and MWCNT garnishing. <i>Journal of Materials Science</i> , 2021, 56, 8627-8642.	1.7	8
52	Substrate temperature dependent structural, optical, morphology and electrical properties of RF sputtered CdTe thin films for solar cell application. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 12405-12411.	1.1	7
53	Enhanced photosplitting of water using ultrathin cobalt sulfide nanoflakes-sensitized zinc oxide nanorods array. <i>Ionics</i> , 2017, 23, 3401-3408.	1.2	7
54	Solution-processed electrochemical synthesis of ZnFe_2O_4 photoanode for photoelectrochemical water splitting. <i>Journal of Solid State Electrochemistry</i> , 2021, 25, 1835-1846.	1.2	7

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55	Hydrothermally synthesized CuO nanostructures and their application in humidity sensing. AIP Conference Proceedings, 2021, , .	0.3	7
56	Annealing temperature effect on structural and optoelectronic properties of In_2Se_3 thin films towards highly stable photodetector applications. Journal of Molecular Structure, 2022, 1265, 133336.	1.8	7
57	Fabrication and Studies on FTO/(Compact ZnO/Porous ZnO: Eosin-Y)/C: FTO Solar Cell. International Journal of Green Nanotechnology, 2012, 4, 528-533.	0.3	6
58	Room Temperature Synthesis of Transparent and Conducting Indium Tin Oxide Films with High Mobility and Figure of Merit by RF-Magnetron Sputtering. Journal of Electronic Materials, 2019, 48, 7192-7202.	1.0	6
59	Role of Solvents in the Preparation of Methylammonium Bismuth Iodide (MBI) Perovskite Films for Self-Biased Photodetector Applications. ACS Applied Electronic Materials, 2022, 4, 2793-2804.	2.0	6
60	Highly conducting phosphorous doped n-type nc-Si:H films by HW-CVD for c-Si heterojunction solar cells. RSC Advances, 2012, 2, 9873.	1.7	5
61	Synthesis, characterization, and photovoltaic properties of TiO_2/CdTe core-shell heterostructure for semiconductor-sensitized solar cells (SSSCs). Journal of Solid State Electrochemistry, 2017, 21, 2665-2676.	1.2	5
62	Field emission investigations of solvothermal synthesized and soaked rutile- TiO_2 nanostructures. Journal of Materials Science: Materials in Electronics, 2019, 30, 4920-4930.	1.1	5
63	Electrodeposition of template free hierarchical ZnO nanorod arrays via a chloride medium. Journal of Materials Science: Materials in Electronics, 2016, 27, 12357-12364.	1.1	4
64	Influence of RF power on structural optical and electrical properties of hydrogenated nano-crystalline silicon (nc-Si:H) thin films deposited by PE-CVD. Journal of Materials Science: Materials in Electronics, 2016, 27, 12365-12373.	1.1	4
65	Hot wire chemical vapor deposited multiphase silicon carbide (SiC) thin films at various filament temperatures. Journal of Materials Science: Materials in Electronics, 2016, 27, 12340-12350.	1.1	4
66	Chlorophyll-a/ZnO Nanorod Based Hybrid Photoanodes for Enhanced Photoelectrochemical Splitting of Water. ChemistrySelect, 2017, 2, 1911-1916.	0.7	4
67	Carbon functionalized bismuth vanadate thin films based photoelectrochemical logic gates. Journal of Alloys and Compounds, 2021, 855, 157524.	2.8	4
68	ZnO nanocactus loaded with gold nanoparticles for dye sensitized solar cells. , 2014, , .		3
69	Synthesis of crystalline umangite phase of copper selenide (Cu_3Se_2) for TiO_2 photoanode-based solar cell application. Journal of Solid State Electrochemistry, 2017, 21, 2677-2685.	1.2	3
70	Phase stability investigation of CsPbI_3 perovskite for solar cell application. AIP Conference Proceedings, 2021, , .	0.3	3
71	Influence of Au plasmons and their synergistic effects with ZnO nanorods for photoelectrochemical water splitting applications. Journal of Materials Science: Materials in Electronics, 2021, 32, 20525-20538.	1.1	3
72	An interlinked computational"experimental investigation into SnS nanoflakes for field emission applications. New Journal of Chemistry, 2021, 45, 11768-11779.	1.4	3

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73	3D Urchin-like Hierarchical Black TiO ₂ Hollow Nanospheres: A Highly Active and Stable Electrocatalyst for Water Oxidation in Alkaline and Neutral Media. ACS Applied Energy Materials, 2022, 5, 674-684.	2.5	3
74	Passivation of n-type emitter and p-type base in solar cells via oxygen terminated silicon nanoparticles. Progress in Photovoltaics: Research and Applications, 2013, 21, 1146-1152.	4.4	2
75	Emitter passivation of silicon solar cell via organic coating at room temperature. Journal of Materials Science: Materials in Electronics, 2016, 27, 12459-12463.	1.1	2
76	Optical antenna effect on SiNWs/CuS photodiodes. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600635.	0.8	2
77	Hydrothermal synthesis of rGO-PbBi ₂ Se ₄ composite and investigation of its structural, chemical and field emission properties. Journal of Materials Science: Materials in Electronics, 2018, 29, 10494-10503.	1.1	2
78	Effect of thermal annealing and cooling rate on CBD grown CdS thin films. Journal of Materials Science: Materials in Electronics, 2019, 30, 20354-20359.	1.1	2
79	Weather Station for Solar PV Power Plant Using Arduino Mega. , 2021, , .		2
80	A novel fast charging technique using supercapacitors. AIP Conference Proceedings, 2021, , .	0.3	2
81	Development of alkaline earth sulphide based nanophosphors embedded in PDMS polymer matrix for UV sensor applications. , 2012, , .		1
82	Field Emission Characteristics of Double Walled TiO ₂ Nanotubes. ES Materials & Manufacturing, 2021, , .	1.1	1
83	Investigation of optical and structural properties of ZnSe nanocrystals for heterojunction solar cell applications. AIP Conference Proceedings, 2021, , .	0.3	1
84	Humidity sensor properties of hydrothermally grown rutile-TiO ₂ microspheres on interdigital electrodes (IDEs). Journal of Materials Science: Materials in Electronics, 2022, 33, 11825-11840.	1.1	1
85	High growth rate of a-SiC:H films using ethane carbon source by HW-CVD method. Bulletin of Materials Science, 2013, 36, 1177-1185.	0.8	0
86	Single-Stroke Synthesis of Tin Sulphide/Oxide Nanocomposites Within Engineering Thermoplastic and Their Humidity Response. Journal of Nanoscience and Nanotechnology, 2018, 18, 3441-3447.	0.9	0
87	An innovative approach for waste heat utilization from municipal biogas plant. AIP Conference Proceedings, 2021, , .	0.3	0
88	Charge - discharge cycle performance of lead acid battery for energy storage application. AIP Conference Proceedings, 2021, , .	0.3	0
89	Role of Deposition Pressure on Properties of Phosphorus Doped Hydrogenated Nano-Crystalline Silicon (nc-Si:H) Thin Films Prepared by the Cat-CVD Method. Recent Innovations in Chemical Engineering, 2021, 14, 46-57.	0.2	0
90	Deposition Time-dependent Study of Structural and Optical Properties of PbS Thin Films Grown by CBD Method. Recent Innovations in Chemical Engineering, 2021, 14, 35-45.	0.2	0

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91	Amorphous-to-Nanocrystalline Transition in Silicon Thin Films by Hydrogen Diluted Silane Using PE-CVD Method. Recent Innovations in Chemical Engineering, 2021, 14, 58-70.	0.2	0