Popatrao N Bhosale

List of Publications by Year
in descending order

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103 papers	2,335 citations	201674 27 h-index	254184 43 g-index
104 all docs	104 docs citations	104 times ranked	2564 citing authors

#	Article	IF	Citations
1	Hydrothermally synthesized nanocrystalline photoactive SnS₂ thin films: effect of surface directing agents. New Journal of Chemistry, 2022, 46, 3277-3287.	2.8	2
2	An efficient Cu₂Zn_{1â^'x}In_xSn(S,Se)₄ multicomponent photocathode via one-step hydrothermal approach for thin film solar cell. Journal of Materials Chemistry C, 2022, 10, 3447-3460.	5.5	2
3	Surfactant mediated morphological transition of TiO2 thin films for enhanced photoconversion efficiency. Materials Today: Proceedings, 2021, 43, 2730-2737.	1.8	2
4	Exploring the microstructural, optoelectronic properties of deposition time dependent Cu2Sn(S,Se)3 thin film synthesized by non-vacuum arrested precipitation technique. Superlattices and Microstructures, 2021, 150, 106785.	3.1	3
5	Optoelectronic and Photovoltaic Properties of the Cu₂ZnSnS₄ Photocathode by a Temperature-Dependent Facile Hydrothermal Route. Industrial & Engineering Chemistry Research, 2021, 60, 7816-7825.	3.7	7
6	Surfactant assisted approach to development of efficient WO3 photoanode for natural dye sensitized solar cell. Solar Energy, 2021, 220, 371-383.	6.1	21
7	Optimization and comparative analysis of Cs ion intercalated H3PMO12O40 photocathode: one-step hydrothermal strategy. Journal of Materials Science: Materials in Electronics, 2021, 32, 22921-22935.	2.2	2
8	One pot hydrothermal synthesis and characterization of Cu2ZnSn(S,Se)4 nanocrystalline thin films: Photovoltaic performance. AIP Conference Proceedings, 2021, , .	0.4	0
9	Designing of novel efficient photoactive ternary Zn1-xCu2xSe thin film materials via hydrothermal route: Photoelectrochemical (PEC) cell study. Materials Science in Semiconductor Processing, 2020, 105, 104727.	4.0	26
10	Double layer mesoscopic electron contact for efficient perovskite solar cells. Sustainable Energy and Fuels, 2020, 4, 843-851.	4.9	22
11	Cesium doped H3PW12O40 nanocrystalline thin films using single step hydrothermal route and its photoelectrochemical properties. Journal of Materials Science: Materials in Electronics, 2020, 31, 18105-18119.	2.2	4
12	Photoelectrochemical (PEC) Investigation of Gaâ€Ðoped MoBi 2 Se 5 Thin Films Deposited by Arrested Precipitation Technique. Macromolecular Symposia, 2020, 393, 1900210.	0.7	0
13	Morphological engineering of novel nanocrystalline Cu2Sn(S,Se)3 thin film through annealing temperature variation: Assessment of photoelectrochemical cell performance. Materials Science in Semiconductor Processing, 2020, 120, 105218.	4.0	3
14	Investigating the Role of Selenium-Ion Concentration on Optoelectronic Properties of the Cu₂ZnSn(S_{1â€“x}Se_x)₄ Thin Films. Industrial & Engineering Chemistry Research, 2020, 59, 10868-10881.	3.7	19
15	Facile designing and assessment of photovoltaic performance of hydrothermally grown kesterite Cu2ZnSnS4 thin films: Influence of deposition time. Solar Energy, 2020, 201, 102-115.	6.1	32
16	Investigating the photovoltaic performance of surfactant-assisted MoBi2Se5 thin films. Nanomaterials and Energy, 2020, 9, 14-20.	0.2	2
17	Novel hydrothermal route for synthesis of photoactive Cu2ZnSn(S,Se)4 nanocrystalline thin film: efficient photovoltaic performance. Journal of Materials Science: Materials in Electronics, 2020, 31, 5441-5451.	2.2	11
18	One-step hydrothermally assisted synthesis of CuZnSe thin film: photovoltaic application. Nanomaterials and Energy, 2020, 9, 1-7.	0.2	13

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19	Optimization and comparative evaluation of optoelectronic properties of hydrothermally synthesized CdIn₂Te₄thin films: PEC performance. Materials Research Express, 2019, 6, 126404.	1.6	10
20	Probing the role of deposition time in tuning the physico-chemical, optoelectronic performance of Cu2SnS3 thin films. Materials Letters, 2019, 255, 126526.	2.6	9
21	Investigating the light harvesting capacity of sulfur ion concentration dependent SnS2 thin films synthesized by self-assembled arrested precipitation technique. Materials Research Express, 2019, 6, 086467.	1.6	9
22	Development of dye sensitized TiO2 thin films for efficient energy harvesting. Journal of Alloys and Compounds, 2019, 790, 1001-1013.	5.5	35
23	Multinary CdZnIn2(SeTe)5 thin films produced by arrested precipitation technique for photoelectrochemical solar cells. Journal of Alloys and Compounds, 2019, 787, 379-389.	5.5	3
24	Surfactant mediated synthesis of bismuth selenide thin films for photoelectrochemical solar cell applications. Journal of Colloid and Interface Science, 2018, 514, 250-261.	9.4	18
25	Facile hydrothermal assisted synthesis of time dependent Cu2S thin films for efficient photoelectrochemical application. Journal of Materials Science: Materials in Electronics, 2018, 29, 19322-19335.	2.2	12
26	A robust and self-assembled route to synthesis of CdZn(Se1â^'xTex)2 photoanodes as light harvesters for photoelectrochemical solar cells. Journal of Materials Science: Materials in Electronics, 2018, 29, 11763-11773.	2.2	7
27	Effect of molybdenum content on the optostructural, morphological and photoelectrochemical properties of Bi2Se3Thin films. AIP Conference Proceedings, 2018, , .	0.4	5
28	Single step fabrication of CuS thin film via hydrothermal route for solar cell application. AIP Conference Proceedings, 2018, , .	0.4	2
29	Synthesis, characterization and application of nanocrystalline CdZn(SeTe)2 thin films for energy application. AIP Conference Proceedings, 2018, , .	0.4	0
30	Langmuir-Blodgett assembly of nanometric WO 3 thin film for electrochromic performance: A new way. Materials Letters, 2017, 194, 102-106.	2.6	18
31	Deposition, characterizations and photoelectrochemical performance of nanocrystalline Cuâ€“Inâ€“Câ€“Sâ€“Se thin films by hybrid chemical process. Journal of Materials Science, 2017, 52, 9709-9727.	3.7	11
32	Development of CdZn(SSe) 2 thin films by using simple aqueous chemical route: Air annealing. Materials Today: Proceedings, 2017, 4, 363-368.	1.8	0
33	Novel synthetic route for the synthesis of ternary Cd(SSe) photoelectrode and their photoelectrochemical application. Journal of Materials Science: Materials in Electronics, 2017, 28, 2984-2995.	2.2	6
34	Development of RP-HPLC, Stability Indicating Method for Degradation Products of Linagliptin in Presence of Metformin HCl by Applying 2 Level Factorial Design; and Identification of Impurity-VII, VIII and IX and Synthesis of Impurity-VII. Scientia Pharmaceutica, 2017, 85, 25.	2.0	29
35	Analytical Enantio-Separation of Linagliptin in Linagliptin and Metformin HCl Dosage Forms by Applying Two-Level Factorial Design. Scientia Pharmaceutica, 2016, 84, 671-684.	2.0	8
36	Influence of deposition temperature on the optical, structural, morphological, compositional and photoelectrochemical properties of TiO2 thin films. Journal of Materials Science: Materials in Electronics, 2016, 27, 11739-11750.	2.2	14

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37	Novel Approach for Invention of Nubbly-Like Cd(SSe) Thin Film: Photoelectrochemical Application. Macromolecular Symposia, 2016, 362, 82-86.	0.7	3
38	Synthesis of Bismuth Telluride Thin Film for Thermoelectric Application Via Electrodeposition Technique. Macromolecular Symposia, 2016, 361, 152-155.	0.7	5
39	Photocurrent enhancement in a Cu₂Cd(SSe)₂ photoanode synthesized via an arrested precipitation route. New Journal of Chemistry, 2016, 40, 3277-3288.	2.8	21
40	Synthesis of SnS2 thin film via non vacuum arrested precipitation technique for solar cell application. Materials Letters, 2016, 180, 23-26.	2.6	25
41	Microwave assisted novel MoBi2S5 nanoflowers: Synthesis, characterization, photoelectrochemical performance. Solid State Sciences, 2016, 61, 89-93.	3.2	5
42	Rapid Formation of Ternary CdZnSe₂ Chalcogenide Thin Film by Microwave Assisted Chemical Bath Deposition. Macromolecular Symposia, 2016, 362, 60-64.	0.7	3
43	Effect of substrate on the nanostructured Bi2Se3 thin films for solar cell applications. Journal of Materials Science: Materials in Electronics, 2016, 27, 2385-2393.	2.2	33
44	Enhanced photoelectrochemical performance of novel p-type MoBiCuSe₄ thin films deposited by a simple surfactant-mediated solution route. RSC Advances, 2016, 6, 24985-24994.	3.6	19
45	Synthesis of (CdZn)Se thin films by a facile aqueous phase route and their photoelectrochemical performance for solar cell application. Journal of Materials Science: Materials in Electronics, 2016, 27, 5867-5877.	2.2	7
46	Development of RP UPLC-TOF/MS, stability indicating method for omeprazole and its related substances by applying two level factorial design; and identification and synthesis of non-pharmacopoeial impurities. Journal of Pharmaceutical and Biomedical Analysis, 2016, 118, 370-379.	2.8	20
47	Efficient improvement of photoelectrochemical performance of CdSe thin film deposited via arrested precipitation technique. Materials Letters, 2016, 164, 52-55.	2.6	30
48	Surfactant-Mediated Growth of Nanostructured MoBiInS5 Thin Films via Arrested Precipitation Technique. Advanced Science Letters, 2016, 22, 915-920.	0.2	1
49	Thermoelectric properties of nanocrystalline Cu3SbSe4 thin films deposited by a self-organized arrested precipitation technique. New Journal of Chemistry, 2015, 39, 5661-5668.	2.8	21
50	Simplistic construction of cadmium sulfoselenide thin films via a hybrid chemical process for enhanced photoelectrochemical performance. RSC Advances, 2015, 5, 40283-40296.	3.6	26
51	A facile and low cost strategy to synthesize Cd_{1â^'x}Zn_xSe thin films for photoelectrochemical performance: effect of zinc content. RSC Advances, 2015, 5, 55658-55668.	3.6	33
52	Novel route for the synthesis of surfactant-assisted MoBi₂(Se_{0.5}Te_{0.5})₅ thin films for solar cell applications. New Journal of Chemistry, 2015, 39, 3405-3416.	2.8	16
53	Single source precursor for vacuum evaporation of MoBi2Se5 photoactive thin films. Journal of Materials Science: Materials in Electronics, 2015, 26, 2879-2886.	2.2	2
54	Langmuirâ€“Blodgett self organized nanocrystalline tungsten oxide thin films for electrochromic performance. RSC Advances, 2015, 5, 26923-26931.	3.6	28

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55	Effect of indium(III) doping on chemosynthesized MoBi2Te5 thin films and itâ€™s photoresponse property. Journal of Materials Science: Materials in Electronics, 2015, 26, 2921-2930.	2.2	8
56	Bismuth Telluride quantum dot assisted Titanium Oxide microflowers for efficient photoelectrochemical performance. Materials Letters, 2015, 159, 177-181.	2.6	10
57	Low temperature and controlled synthesis of Bi₂(S_{1â^'x}Se_x)₃ thin films using a simple chemical route: effect of bath composition. RSC Advances, 2015, 5, 57090-57100.	3.6	12
58	Synthesis, characterization and photoelectrochemical properties of PbS sensitized vertically aligned ZnO nanorods: modified aqueous route. Journal of Materials Science: Materials in Electronics, 2015, 26, 6897-6906.	2.2	19
59	An approach towards TiO2 chrysanthemum flowers with tunable properties: influence of reaction time in hydrothermal process. Journal of Materials Science: Materials in Electronics, 2015, 26, 6119-6128.	2.2	7
60	Morphologically controlled electrodeposition of fern shaped Bi2Te3 thin films for photoelectrochemical performance. Journal of Electroanalytical Chemistry, 2015, 758, 178-190.	3.8	17
61	Photoelectrochemical Performance of MoBiInSe5 Mixed Metal Chalcogenide Thin Films. Materials Today: Proceedings, 2015, 2, 1458-1463.	1.8	4
62	High performing smart electrochromic device based on honeycomb nanostructured h-WO₃ thin films: hydrothermal assisted synthesis. Dalton Transactions, 2015, 44, 2788-2800.	3.3	69
63	Photoelectrocatalysis of Cefotaxime Using Nanostructured TiO₂ Photoanode: Identification of the Degradation Products and Determination of the Toxicity Level. Industrial & Engineering Chemistry Research, 2014, 53, 18152-18162.	3.7	38
64	Molybdenum Heteropolyoxometalate Thin Films for Solar Cell Applications. , 2014, 6, 1104-1109.		10
65	Novel-approach for fabrication of CdS thin films for photoelectrochemical solar cell application. Journal of Materials Science: Materials in Electronics, 2014, 25, 5606-5617.	2.2	22
66	Multistep hydrothermal route for nanocoral architecture of anatase TiO₂: synthesis and characterization of dyeâ€sensitized solar cell performance. Progress in Photovoltaics: Research and Applications, 2014, 22, 525-539.	8.1	12
67	Novel hybrid solar cells based on Î±-copper phthalocyanineâ€“cadmium sulfide planar heterojunction. Journal of Materials Science, 2014, 49, 5100-5111.	3.7	8
68	Development of nanocoral-like Cd(SSe) thin films using an arrested precipitation technique and their application. New Journal of Chemistry, 2014, 38, 5964-5974.	2.8	62
69	Single step hydrothermal synthesis of hierarchical TiO₂ microflowers with radially assembled nanorods for enhanced photovoltaic performance. RSC Advances, 2014, 4, 47278-47286.	3.6	40
70	Microwave assisted synthesis, characterization and thermoelectric properties of nanocrystalline copper antimony selenide thin films. RSC Advances, 2014, 4, 51632-51639.	3.6	28
71	Nanocrystalline MoBi 2 Se 5 Ternary Mixed Metal Chalcogenide Thin-films for Solar Cell Applications. , 2014, 6, 1285-1291.		16
72	Effect of indium (III) content on photoelectrochemical performance of MoBi(2â^'x)InxS5 thin films. Solid State Sciences, 2014, 35, 10-17.	3.2	4

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73	Effect of annealing temperature on photoelectrochemical properties of nanocrystalline MoBi₂(Se_{0.5}Te_{0.5})₅ thin films. Philosophical Magazine, 2014, 94, 3195-3205.	1.6	1
74	Microwave-assisted rapid synthesis of highly porous TiO 2 thin films with nanocrystalline framework for efficient photoelectrochemical conversion. Electrochimica Acta, 2014, 143, 89-97.	5.2	48
75	Influence of vacuum annealing on the structural and photoelectrochemical properties of nanocrystalline MoBi2S5 thin films. Current Applied Physics, 2014, 14, 508-515.	2.4	15
76	Nanobrick-like WO3 thin films: Hydrothermal synthesis and electrochromic application. Superlattices and Microstructures, 2014, 73, 290-295.	3.1	74
77	From nanocorals to nanorods to nanoflowers nanoarchitecture for efficient dye-sensitized solar cells at relatively low film thickness: All Hydrothermal Process. Scientific Reports, 2014, 4, 5451.	3.3	45
78	Enhanced electrochromic coloration in Ag nanoparticle decorated WO3 thin films. Electrochimica Acta, 2013, 102, 358-368.	5.2	73
79	Effect of copper content on optostructural, morphological and photoelectrochemical properties of MoBi2â^'x Cu x Se4 thin films. Journal of Materials Science, 2013, 48, 7300-7311.	3.7	13
80	Room temperature deposition of nanostructured Bi2Se3 thin films for photoelectrochemical application: effect of chelating agents. New Journal of Chemistry, 2013, 37, 2821.	2.8	46
81	Synthesis and characterization of nanocrystalline MoBi2Te5thin films for photoelectrode applications. Philosophical Magazine Letters, 2012, 92, 563-571.	1.2	7
82	Efficient dye-sensitized solar cells based on hierarchical rutile TiO2 microspheres. CrystEngComm, 2012, 14, 8156.	2.6	27
83	Effect of surfactant on optical and structural properties of chemically deposited MoBi2S5 thin films. New Journal of Chemistry, 2012, 36, 1807.	2.8	20
84	Synthesis of fibrous reticulate nanocrystalline n-type MoBi2(Se1â^'xTex)5 thin films: Thermocooling applications. Materials Research Bulletin, 2012, 47, 3860-3867.	5.2	19
85	Hydrothermal synthesis of rutile TiO2 nanoflowers using BrÃ¸nsted Acidic Ionic Liquid [BAIL]: Synthesis, characterization and growth mechanism. CrystEngComm, 2012, 14, 1920.	2.6	71
86	PbS quantum dot sensitized anatase TiO2 nanocorals for quantum dot-sensitized solar cell applications. Dalton Transactions, 2012, 41, 6130.	3.3	82
87	Eosin-Y and N3-Dye sensitized solar cells (DSSCs) based on novel nanocoral TiO2: A comparative study. Electrochimica Acta, 2012, 59, 113-120.	5.2	74
88	Novel synthesis of kesterite Cu2ZnSnS4 nanoflakes by successive ionic layer adsorption and reaction technique: Characterization and application. Electrochimica Acta, 2012, 66, 216-221.	5.2	105
89	Novel microwave assisted solâ€“gel synthesis (MW-SGS) and electrochromic performance of petal like h-WO3 thin films. Materials Research Bulletin, 2012, 47, 1787-1793.	5.2	44
90	Synthesis and characterization of Cu2ZnSnS4 thin films by SILAR method. Journal of Physics and Chemistry of Solids, 2012, 73, 735-740.	4.0	118

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91	Hydrothermal synthesis of rutile TiO2 with hierarchical microspheres and their characterization. CrystEngComm, 2011, 13, 6349.	2.6	69
92	Nanocoral architecture of TiO2 by hydrothermal process: Synthesis and characterization. Applied Surface Science, 2011, 257, 9737-9746.	6.1	79
93	Synthesis and electrochromic application of surfactants tailored WO3 nanostructures. Optical Materials, 2011, 34, 322-326.	3.6	14
94	Synthesis and characterization of new quaternary MoBiInSe5 mixed metal chalcogenide thin films. Journal of Alloys and Compounds, 2010, 491, 321-324.	5.5	21
95	Effect of Sb doping on thermoelectric properties of chemically deposited bismuth selenide films. Materials Chemistry and Physics, 2009, 115, 47-51.	4.0	32
96	UVA and solar light assisted photoelectrocatalytic degradation of AO7 dye in water using spray deposited TiO2 thin films. Applied Catalysis B: Environmental, 2009, 89, 288-294.	20.2	47
97	Optostructural and electrical studies on electrodeposited Indium doped ZrS2 thin films. Journal of Alloys and Compounds, 2009, 474, 14-17.	5.5	10
98	Growth mechanism and characterisation of chemically grown Sb doped Bi2Se3 thin films. Applied Surface Science, 2008, 254, 5261-5265.	6.1	45
99	Electrical and optical properties of bismuth sulphotelluride [Bi2(S1â^'xTex)3] thin films prepared by arrested precipitation technique (APT). Materials Chemistry and Physics, 2004, 84, 247-250.	4.0	15
100	Optical and electrical studies on molybdenum sulphoselenide [Mo(S1â^'xSex)2] thin films prepared by arrested precipitation technique (APT). Solar Energy Materials and Solar Cells, 2004, 81, 101-112.	6.2	24
101	Electrical and optical properties of bismuth sulphotelluride (Bi2(S1â^'xTex)3) thin films prepared by arrested precipitation technique (APT). Materials Chemistry and Physics, 2003, 82, 534-537.	4.0	21
102	Chemical compositional analysis of semiconducting bismuth sulphoselenide thin films. Thin Solid Films, 2002, 414, 155-162.	1.8	9
103	Growth of thin films by solution-gas interface: A new technique. Materials Chemistry and Physics, 1984, 11, 461-479.	4.0	16