Annasaheb Moholkar

List of Publications by Year in Descending Order

121 papers	4,664 citations	40 h-index	63 g-index
122 ext. papers	5,216 ext. citations	4.4 avg, IF	5.61 L-index

#	Paper	IF	Citations
121	Green Synthesis of Nanocomposites. *Advances in Chemical and Materials Engineering Book Series*, **2022**, 77-100	0.2	1
120	Advances in chemical and biomass-derived graphene/graphene-like nanomaterials for supercapacitors. *Journal of Energy Storage*, **2022**, 51, 104445	7.8	0
119	Sol-gel synthesized nickel oxide nanostructures on nickel foam and nickel mesh for a targeted energy storage application. *Journal of Energy Storage*, **2021**, 47, 103658	7.8	2
118	Enhanced specific capacitance and electrochemical properties of nickel hydroxide-activated carbon (□Ni(OH)2□AC) nanocomposite for pseudocapacitor electrode material. *Journal of Materials Science: Materials in Electronics*, **2021**, 32, 8657-8667	2.1	1
117	Hydrothermal synthesis of mesoporous NiMnO3 nanostructures for supercapacitor application: Effect of electrolyte. *Journal of Energy Storage*, **2021**, 35, 102277	7.8	8
116	Chemical synthesis and supercapacitive evaluation of polyaniline nanofibers (PANINFs). *Journal of Materials Science: Materials in Electronics*, **2021**, 32, 11865-11876	2.1	2
115	Hydrothermal synthesis of NO2 gas-sensitive and hydrophobic zinc oxide thin films. *Journal of Materials Science: Materials in Electronics*, **2021**, 32, 3140-3154	2.1	1
114	Polyaniline (PANI)-manganese dioxide (MnO2) nanocomposites as efficient electrode materials for supercapacitors. *Chemical Physics Letters*, **2021**, 778, 138764	2.5	4
113	Structural, morphological, and optical studies of hydrothermally synthesized Nb-added TiO2 for DSSC application. *Ceramics International*, **2021**, 47, 25580-25592	5.1	5
112	Probing the electrochemical properties of NiMn2O4 nanoparticles as prominent electrode materials for supercapacitor applications. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2021**, 271, 115298	3.1	3
111	Clinker-like V2O5 nanostructures anchored on 3D Ni-foam for supercapacitor application. *Materials Science in Semiconductor Processing*, **2021**, 133, 105978	4.3	3
110	Spray deposited Cu2CoSnS4 thin films for photovoltaic application: Effect of film thickness. *Thin Solid Films*, **2020**, 709, 138236	2.2	8
109	Synthesis of NiO nanoparticles for supercapacitor application as an efficient electrode material. *Vacuum*, **2020**, 181, 109646	3.7	38
108	Electrochemical performance of Polyaniline based symmetrical energy storage device. *Materials Science in Semiconductor Processing*, **2020**, 120, 105291	4.3	11
107	Chemiresistive ammonia gas sensor based on branched nanofibrous polyaniline thin films. *Journal of Materials Science: Materials in Electronics*, **2019**, 30, 11878-11887	2.1	4
106	Effect of substrate temperature on physicochemical and gas sensing properties of sprayed orthorhombic V2O5 thin films. *Measurement: Journal of the International Measurement Confederation*, **2019**, 131, 223-234	4.6	10
105	A facile synthesis of □Ni(OH)2-CNT composite films for supercapacitor application. *Advanced Powder Technology*, **2019**, 30, 2285-2292	4.6	16

104	Nanostructured zinc oxide photoelectrodes by green routes M-SILAR and electrodeposition for dye sensitized solar cell. *Optical Materials*, **2018**, 78, 325-334	3.3	13
103	Effect of solution concentration on physicochemical and NO2 gas sensing properties of sprayed MoO3 nanobelts. *Thin Solid Films*, **2018**, 648, 50-61	2.2	12
102	Fabrication of Cu 2 (Zn x Mg 1-x)SnS 4 thin films by pulsed laser deposition technique for solar cell applications. *Materials Science in Semiconductor Processing*, **2018**, 76, 50-54	4.3	15
101	Palladium (Pd) sensitized molybdenum trioxide (MoO3) nanobelts for nitrogen dioxide (NO2) gas detection. *Solid-State Electronics*, **2018**, 139, 21-30	1.7	32
100	Mimicking the Biological Synapse Functions of Analog Memory, Synaptic Weights, and Forgetting with ZnO-Based Memristive Devices. *Journal of Nanoscience and Nanotechnology*, **2018**, 18, 7758-7766	1.3	21
99	NO2 gas sensing properties of sprayed composite porous MoO3-V2O5 thin films. *Materials Chemistry and Physics*, **2018**, 216, 294-304	4.4	21
98	Fast response of sprayed vanadium pentoxide (V2O5) nanorods towards nitrogen dioxide (NO2) gas detection. *Applied Surface Science*, **2017**, 403, 540-550	6.7	54
97	Orthorhombic MoO3 nanobelts based NO2 gas sensor. *Applied Surface Science*, **2017**, 405, 427-440	6.7	82
96	Superior selectivity and enhanced response characteristics of palladium sensitized vanadium pentoxide nanorods for detection of nitrogen dioxide gas. *Journal of Colloid and Interface Science*, **2017**, 495, 53-60	9.3	23
95	Effect of film thickness on NO2 gas sensing properties of sprayed orthorhombic nanocrystalline V2O5 thin films. *Applied Surface Science*, **2017**, 416, 511-520	6.7	36
94	Investigations on the thickness dependent structural, morphological, and optoelectronic properties of sprayed cadmium based transparent conducting oxide. *Thin Solid Films*, **2017**, 628, 196-202	2.2	6
93	Photoelectrochemical performance of surfactant (polyvinyl alcohol) assisted PbS thin films grown by chemical route. *Journal of Materials Science: Materials in Electronics*, **2017**, 28, 5165-5173	2.1	2
92	Fabrication of Cu2CoSnS4 thin films by a facile spray pyrolysis for photovoltaic application. *Solar Energy*, **2017**, 158, 89-99	6.8	35
91	Effect of write voltage and frequency on the reliability aspects of memristor-based RRAM. *International Nano Letters*, **2017**, 7, 209-216	5.7	23
90	Oxidative degradation of benzoic acid using spray deposited WO3/TiO2 thin films. *Journal of Materials Science: Materials in Electronics*, **2017**, 28, 17976-17984	2.1	23
89	Temperature dependent properties of spray deposited Cu2CoSnS4 (CCTS) thin films. *Journal of Materials Science: Materials in Electronics*, **2017**, 28, 18891-18896	2.1	12
88	Gas sensing properties of (MoO3)0.4(V2O5)0.6 microsheets: Effect of Pd sensitization. *Vacuum*, **2017**, 144, 135-144	3.7	6
87	Visible light assisted photoelectrocatalytic degradation of sugarcane factory wastewater by sprayed CZTS thin films. *Journal of Physics and Chemistry of Solids*, **2017**, 111, 176-181	3.9	35

86	Template-free TiO photoanodes for dye-sensitized solar cell via modified chemical route. *Journal of Colloid and Interface Science*, **2017**, 488, 269-276	9.3	15
85	Photoelectrocatalytic degradation of oxalic acid using WO and stratified WO/TiO photocatalysts under sunlight illumination. *Ultrasonics Sonochemistry*, **2017**, 35, 233-242	8.9	75
84	Aqueous-Solution-Processed CuZnSn(S,Se) Thin-Film Solar Cells via an Improved Successive Ion-Layer-Adsorption-Reaction Sequence. *ACS Omega*, **2017**, 2, 9211-9220	3.9	16
83	Highly selective and sensitive response of 30.5 % of sprayed molybdenum trioxide (MoO3) nanobelts for nitrogen dioxide (NO2) gas detection. *Journal of Colloid and Interface Science*, **2016**, 483, 220-231	9.3	54
82	Influence of Zn concentration and dye adsorption time on the photovoltaic performance of M-SILAR deposited ZnO-based dye sensitized solar cells. *Journal of Photochemistry and Photobiology A: Chemistry*, **2016**, 329, 246-254	4.7	17
81	Cu2O thin films prepared using modified successive ionic layer adsorption and reaction method and their use in photoelectrochemical solar cells. *Journal of Materials Science: Materials in Electronics*, **2016**, 27, 1897-1900	2.1	14
80	Improved solar cell performance of Cu2ZnSnS4 (CZTS) thin films prepared by sulfurizing stacked precursor thin films via SILAR method. *Journal of Alloys and Compounds*, **2016**, 671, 509-516	5.7	26
79	Photoelectrocatalytic degradation of methyl blue using sprayed WO3 thin films. *Journal of Materials Science: Materials in Electronics*, **2016**, 27, 1629-1635	2.1	40
78	Visible light catalysis of methyl orange using nanostructured WO3 thin films. *Ceramics International* , **2016**, 42, 789-798	5.1	50
77	A Simple Aqueous Precursor Solution Processing of Earth-Abundant Cu2SnS3 Absorbers for Thin-Film Solar Cells. *ACS Applied Materials & Interfaces*, **2016**, 8, 11603-14	9.5	46
76	Influence of copper concentration on sprayed CZTS thin films deposited at high temperature. *Ceramics International*, **2015**, 41, 8299-8304	5.1	32
75	Photoelectrocatalytic degradation of methyl red using sprayed WO3 thin films under visible light irradiation. *Journal of Materials Science: Materials in Electronics*, **2015**, 26, 8404-8412	2.1	46
74	Physicochemical properties of sprayed V2O5 thin films: Effect of substrate temperature. *Journal of Analytical and Applied Pyrolysis*, **2015**, 115, 57-65	6	40
73	Influence of growth temperature on the physico-chemical properties of sprayed cadmium oxide thin films. *Ceramics International*, **2015**, 41, 4867-4873	5.1	16
72	Photoelectrocatalytic degradation of benzoic acid using Au doped TiO2 thin films. *Journal of Photochemistry and Photobiology B: Biology*, **2015**, 142, 204-11	6.7	48
71	A Promising Modified SILAR Sequence for the Synthesis of Photoelectrochemically Active Cu2ZnSnS4 (CZTS) Thin Films. *Israel Journal of Chemistry*, **2015**, 55, 1098-1102	3.4	8
70	Fabrication of 3.01% power conversion efficient high-quality CZTS thin film solar cells by a green and simple sol□gel technique. *Materials Letters*, **2015**, 158, 58-61	3.3	51
69	Investigations on Chemo-Mechano Stabilities of the Molybdenum Thin Films Deposited by DC-Sputter Technique. *Zeitschrift Fur Physikalische Chemie*, **2015**, 229, 377-393	3.1	8

68	Synthesis of simple, low cost and benign sol□gel Cu2ZnSnS4 thin films: influence of different annealing atmospheres. *Journal of Materials Science: Materials in Electronics*, **2015**, 26, 1900-1907	2.1	29
67	Electrochromic performance of the mixed V2O5□WO3 thin films synthesized by pulsed spray pyrolysis technique. *Current Applied Physics*, **2014**, 14, 389-395	2.6	37
66	Structural, Optical, Electrical, and Dielectric Properties of the Spray-Deposited WO3 Thin Films. *Journal of Materials Engineering and Performance*, **2014**, 23, 1204-1213	1.6	30
65	Influence of growth temperatures on the properties of photoactive CZTS thin films using a spray pyrolysis technique. *Materials Letters*, **2014**, 129, 153-155	3.3	37
64	The synergistic influence of anionic bath immersion time on the photoelectrochemical performance of CZTS thin films prepared by a modified SILAR sequence. *RSC Advances*, **2014**, 4, 18537	3.7	21
63	Improved photoelectrochemical performance of Cu2ZnSnS4 (CZTS) thin films prepared using modified successive ionic layer adsorption and reaction (SILAR) sequence. *Electrochimica Acta*, **2014** , 150, 136-145	6.7	66
62	Photoluminescence quenching of a CdS nanoparticles/ZnO nanorods core□shell heterogeneous film and its improved photovoltaic performance. *Optical Materials*, **2014**, 37, 766-772	3.3	19
61	Next generation promising Cu2(ZnxFe1□)SnS4 photovoltaic absorber material prepared by pulsed laser deposition technique. *Materials Letters*, **2014**, 137, 147-149	3.3	36
60	A chemical approach for synthesis of photoelectrochemically active Cu 2 ZnSnS 4 (CZTS) thin films. *Solar Energy*, **2014**, 110, 221-230	6.8	38
59	Simplistic surface active agents mediated morphological tweaking of CdS thin films for photoelectrochemical solar cell performance. *Current Applied Physics*, **2014**, 14, 1669-1676	2.6	21
58	Photoelectrocatalytic activity of ferric oxide nanocatalyst: A synergestic effect of thickness. *Ceramics International*, **2014**, 40, 9463-9471	5.1	14
57	UV assisted photoelectrocatalytic oxidation of phthalic acid using spray deposited Al doped zinc oxide thin films. *Journal of Alloys and Compounds*, **2014**, 611, 446-451	5.7	39
56	Kesterite CZTS nanocrystals: pH-dependent synthesis. *Physica Status Solidi (A) Applications and Materials Science*, **2014**, 211, 1531-1534	1.6	19
55	Thickness Dependent Photoelectrochemical Performance of Chemo-Synthesized Nanostructured CdS Thin Films. *Zeitschrift Fur Physikalische Chemie*, **2014**, 228, 817-827	3.1	3
54	Novel reduced toxic route synthesis and characterization of chemical bath deposited ZnSe thin films. *Ceramics International*, **2014**, 40, 367-374	5.1	11
53	Visible light catalysis of rhodamine B using nanostructured Fe(2)O(3), TiO(2) and TiO(2)/Fe(2)O(3) thin films. *Journal of Photochemistry and Photobiology B: Biology*, **2014**, 133, 90-8	6.7	76
52	Study on the effects of different sulfur vaporization temperature on the properties of CuInS2 thin films. *Applied Surface Science*, **2013**, 270, 572-577	6.7	13
51	Influence of Substrate Temperature on ${rm H}_{2}{rm S}$ Gas Sensing Properties of Nanocrystalline Zinc Oxide Thin Films Prepared by Advanced Spray Pyrolysis. *IEEE Sensors Journal*, **2013**, 13, 1992-1998	4	14

50	CZTS based thin film solar cells: a status review. *Materials Technology*, **2013**, 28, 98-109	2.1	217
49	Improved solar cell performance of chemosynthesized cadmium selenide pebbles. *Electrochimica Acta*, **2013**, 98, 244-254	6.7	37
48	Green route fast synthesis and characterization of chemical bath deposited nanocrystalline ZnS buffer layers. *Current Applied Physics*, **2013**, 13, 850-856	2.6	29
47	Preparation and characterization of chemical bath deposited nanocrystalline ZnSe thin films using Na3-citrate and hydrazine hydrate: A comparative study. *Materials Letters*, **2013**, 106, 186-189	3.3	11
46	Photoelectrocatalytic oxidation of Rhodamine B with sprayed □Fe2O3 photocatalyst. *Materials Express*, **2013**, 3, 247-255	1.3	26
45	Influence of core temperature on physical and H2S sensing properties of zinc oxide thin films. *Journal of Alloys and Compounds*, **2012**, 541, 244-249	5.7	13
44	A facile and low cost synthesis of earth abundant element Cu2ZnSnS4 (CZTS) nanocrystals: Effect of Cu concentrations. *Journal of Alloys and Compounds*, **2012**, 541, 192-197	5.7	39
43	Studies of compositional dependent CZTS thin film solar cells by pulsed laser deposition technique: An attempt to improve the efficiency. *Journal of Alloys and Compounds*, **2012**, 544, 145-151	5.7	113
42	Investigations on silver/polyaniline electrodes for electrochemical supercapacitors. *Physical Chemistry Chemical Physics*, **2012**, 14, 11886-95	3.6	107
41	Quaternary Cu2ZnSnS4 nanocrystals: Facile and low cost synthesis by microwave-assisted solution method. *Journal of Alloys and Compounds*, **2012**, 516, 96-101	5.7	63
40	Preparation and characteristics of chemical bath deposited ZnS thin films: Effects of different complexing agents. *Journal of Alloys and Compounds*, **2012**, 526, 25-30	5.7	49
39	Non-toxic complexing agent Tri-sodium citrate□ effect on chemical bath deposited ZnS thin films and its growth mechanism. *Journal of Alloys and Compounds*, **2012**, 535, 53-61	5.7	49
38	A facile and low-cost synthesis of promising absorber materials on Cu2ZnSn(Sx,Se1□)4 nanocrystals consisting of earth abundant elements with tunable band gap characteristics. *Journal of Materials Chemistry*, **2012**, 22, 21727		40
37	Photoelectrochemical properties of CdS sensitized ZnO nanorod arrays: Effect of nanorod length. *Journal of Applied Physics*, **2012**, 112, 044302	2.5	47
36	Photoelectrocatalytic activity of spray deposited ZnO thin films against E. coli Davis. *Materials Research Innovations*, **2012**, 16, 417-424	1.9	1
35	Structural, Morphological, Optical and Photoluminescence Properties of Ag-Doped Zinc Oxide Thin Films. *Materials Express*, **2012**, 2, 64-70	1.3	14
34	Sensing properties of sprayed antimony doped tin oxide thin films: Solution molarity. *Journal of Alloys and Compounds*, **2011**, 509, 3108-3115	5.7	92
33	Synthesis and characterization of Cu2ZnSnS4 thin films grown by PLD: Solar cells. *Journal of Alloys and Compounds*, **2011**, 509, 7439-7446	5.7	98

32	Structural, compositional and electrical properties of co-precipitated zinc stannate. *Journal of Alloys and Compounds*, **2011**, 509, 7508-7514	5.7	37
31	Physical properties of sprayed antimony doped tin oxide thin films: The role of thickness. *Journal of Semiconductors*, **2011**, 32, 053001	2.3	59
30	Low temperature aqueous chemical synthesis of CdS sensitized ZnO nanorods. *Materials Letters*, **2011**, 65, 548-551	3.3	62
29	Nanoporous nickel oxide thin films and its improved electrochromic performance: Effect of thickness. *Applied Surface Science*, **2011**, 257, 2647-2656	6.7	81
28	CuOPAA hybrid films: Chemical synthesis and supercapacitor behavior. *Applied Surface Science*, **2011**, 257, 4389-4397	6.7	76
27	Synthesis of cadmium sulfide spongy balls with nanoconduits for effective light harvesting. *Electrochimica Acta*, **2011**, 56, 2762-2768	6.7	42
26	Development of CZTS thin films solar cells by pulsed laser deposition: Influence of pulse repetition rate. *Solar Energy*, **2011**, 85, 1354-1363	6.8	138
25	Structural, morphological, luminescent and electronic properties of sprayed aluminium incorporated iron oxide thin films. *Surface and Coatings Technology*, **2011**, 205, 3567-3577	4.4	27
24	Structural and optoelectronic properties of sprayed Sb:SnO2thin films: Effects of substrate temperature and nozzle-to-substrate distance. *Journal of Semiconductors*, **2011**, 32, 102001	2.3	13
23	Structural, optical and electrical properties of chemically sprayed nanosized gallium doped CdO thin films. *Journal of Alloys and Compounds*, **2010**, 496, 357-363	5.7	56
22	Structural and optoelectronic properties of antimony incorporated tin oxide thin films. *Journal of Alloys and Compounds*, **2010**, 505, 416-422	5.7	93
21	Electrical and dielectric properties of co-precipitated nanocrystalline tin oxide. *Journal of Alloys and Compounds*, **2010**, 505, 743-749	5.7	68
20	Temperature dependent structural, luminescent and XPS studies of CdO:Ga thin films deposited by spray pyrolysis. *Journal of Alloys and Compounds*, **2010**, 506, 794-799	5.7	40
19	Single step electrosynthesis of Cu2ZnSnS4 (CZTS) thin films for solar cell application. *Electrochimica Acta*, **2010**, 55, 4057-4061	6.7	192
18	Effects of dopant (Al, Ga, and In) on the characteristics of ZnO thin films prepared by RF magnetron sputtering system. *Current Applied Physics*, **2010**, 10, S463-S467	2.6	67
17	Temperature-Dependent Properties of Spray-Deposited ITO Thin Films. *Journal of Thermal Spray Technology*, **2010**, 19, 531-540	2.5	7
16	Studies on the effect of nozzle-to-substrate distance on the structural, electrical and optical properties of spray deposited CdIn2O4 thin films. *Applied Surface Science*, **2010**, 256, 3522-3530	6.7	14
15	Influence of deposition temperature on morphological, optical, electrical and opto-electrical properties of highly textured nano-crystalline spray deposited CdO:Ga thin films. *Applied Surface Science*, **2010**, 257, 93-101	6.7	50

14	Effect of laser incident energy on the structural, morphological and optical properties of Cu2ZnSnS4 (CZTS) thin films. *Current Applied Physics*, **2010**, 10, 565-569	2.6	122
13	Effect of pH on the characteristics of nanocrystalline ZnS thin films prepared by CBD method in acidic medium. *Current Applied Physics*, **2010**, 10, S473-S477	2.6	52
12	Fabrication of Fe:CdSe solar rechargeable (semiconductor□eptum) storage cells. *Current Applied Physics*, **2009**, 9, 1122-1124	2.6	7
11	Effect of quantity of spraying solution on the properties of spray deposited fluorine doped tin oxide thin films. *Physica B: Condensed Matter*, **2009**, 404, 1874-1877	2.8	31
10	Effect of fluorine doping on highly transparent conductive spray deposited nanocrystalline tin oxide thin films. *Applied Surface Science*, **2009**, 255, 9358-9364	6.7	115
9	Electrical, structural and optical properties of SnO2:F thin films: Effect of the substrate temperature. *Journal of Alloys and Compounds*, **2009**, 488, 350-355	5.7	106
8	Room temperature electrocrystallization of CdSe thin films from ethylene glycol bath. *Journal of Alloys and Compounds*, **2008**, 459, 515-520	5.7	22
7	Effect of precursor concentration on the properties of ITO thin films. *Journal of Alloys and Compounds*, **2008**, 464, 387-392	5.7	56
6	Spray deposition of highly transparent fluorine doped cadmium oxide thin films. *Applied Surface Science*, **2008**, 254, 2187-2195	6.7	99
5	Electrosynthesis and characterization of Fe doped CdSe thin films from ethylene glycol bath. *Applied Surface Science*, **2007**, 253, 7313-7317	6.7	28
4	Properties of highly oriented spray-deposited fluorine-doped tin oxide thin films on glass substrates of different thickness. *Journal of Physics and Chemistry of Solids*, **2007**, 68, 1981-1988	3.9	38
3	Influence of pH on electrochemically deposited CdSe thin films. *Materials Letters*, **2007**, 61, 1034-1038	3.3	30
2	Effect of solvent ratio on the properties of highly oriented sprayed fluorine-doped tin oxide thin films. *Materials Letters*, **2007**, 61, 3030-3036	3.3	60
1	Electrosynthesis and characterization of CdSe thin films: Optimization of preparative parameters by photoelectrochemical technique. *Journal of Physics and Chemistry of Solids*, **2006**, 67, 2386-2391	3.9	38