

J Madhavan

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111
papers

1,979
citations

24
h-index

40
g-index

121
ext. papers

2,349
ext. citations

2.3
avg, IF

5.12
L-index

#	Paper	IF	Citations
111	Photocatalytic and photoelectrochemical studies of visible-light active $\alpha\text{-Fe}_2\text{O}_3/\text{C}_3\text{N}_4$ nanocomposites. <i>RSC Advances</i> , 2014 , 4, 38222-38229	3.7	177
110	Synthesis and characterization of a CuS/WO_3 composite photocatalyst for enhanced visible light photocatalytic activity. <i>RSC Advances</i> , 2015 , 5, 52718-52725	3.7	109
109	Synthesis and characterization of low-cost $\text{g-C}_3\text{N}_4/\text{TiO}_2$ composite with enhanced photocatalytic performance under visible-light irradiation. <i>Optical Materials</i> , 2017 , 64, 533-539	3.3	75
108	A low cost additive-free facile synthesis of $\text{BiFeWO}/\text{BiVO}$ nanocomposite with enhanced visible-light induced photocatalytic activity. <i>Journal of Colloid and Interface Science</i> , 2017 , 506, 553-563	9.3	71
107	Synthesis of $\text{Ni}_3\text{V}_2\text{O}_8$ @graphene oxide nanocomposite as an efficient electrode material for supercapacitor applications. <i>Journal of Solid State Electrochemistry</i> , 2018 , 22, 527-536	2.6	65
106	One-step electrochemical deposition of Ni_1-xMoxS ternary sulfides as an efficient counter electrode for dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 16119-16127	13	65
105	Synthesis of titanium oxide nanoparticles using <i>Aloe barbadensis</i> mill and evaluation of its antibiofilm potential against <i>Pseudomonas aeruginosa</i> PAO1. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2019 , 201, 111667	6.7	63
104	Effect of tetrabutylammonium iodide content on PVDF-PMMA polymer blend electrolytes for dye-sensitized solar cells. <i>Ionics</i> , 2015 , 21, 2889-2896	2.7	56
103	Growth and characterization of a novel NLO crystal L-histidine hydrofluoride dihydrate (LHHF). <i>Journal of Crystal Growth</i> , 2006 , 293, 409-414	1.6	56
102	Growth and characterization of a new nonlinear optical L-histidine acetate single crystals. <i>Optical Materials</i> , 2007 , 29, 1211-1216	3.3	52
101	Cu_2S -incorporated ZnS nanocomposites for photocatalytic hydrogen evolution. <i>RSC Advances</i> , 2015 , 5, 30175-30186	3.7	49
100	Thermal, optical, mechanical and electrical properties of a novel NLO active L-phenylalanine L-phenylalaninium perchlorate single crystals. <i>Physica B: Condensed Matter</i> , 2010 , 405, 65-71	2.8	48
99	Growth and characterization of L-histidine hydrochloride monohydrate single crystals. <i>Crystal Research and Technology</i> , 2007 , 42, 59-64	1.3	44
98	Facile synthesis of $\alpha\text{-Fe}_2\text{O}_3/\text{WO}_3$ composite with an enhanced photocatalytic and photo-electrochemical performance. <i>Ionics</i> , 2018 , 24, 3673-3684	2.7	43
97	Synthesis of various carbon incorporated flower-like MoS_2 microspheres as counter electrode for dye-sensitized solar cells. <i>Journal of Solid State Electrochemistry</i> , 2017 , 21, 581-590	2.6	33
96	Growth and characterization of pure and doped bis(thiourea) cadmium acetate single crystals. <i>Materials Chemistry and Physics</i> , 2007 , 103, 153-157	4.4	32
95	Growth and characterization of gel grown single crystals of bis-glycine hydrogen chloride (BGHC). <i>Optical Materials</i> , 2007 , 29, 657-662	3.3	31

94	Performance of TiO ₂ based dye-sensitized solar cells fabricated with dye extracted from leaves of <i>Peltophorum pterocarpum</i> and <i>Acalypha amentacea</i> as sensitizer. <i>Materials Letters</i> , 2018 , 219, 158-162	3.3	30
93	Fabrication of manganese oxide decorated copper oxide (MnO ₂ /CuO) nanocomposite electrodes for energy storage supercapacitor devices. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020 , 119, 114033	3	29
92	Cubic fluorite phase of samarium doped cerium oxide (CeO ₂) _{0.96} Sm _{0.04} for solid oxide fuel cell electrolyte. <i>Journal of Materials Science: Materials in Electronics</i> , 2016 , 27, 1566-1573	2.1	29
91	Hydrothermal synthesis and characterization studies of Fe ₂ O ₃ /MnO ₂ nanocomposites for energy storage supercapacitor application. <i>Ceramics International</i> , 2020 , 46, 6222-6233	5.1	29
90	Optical, spectral and photovoltaic characterization of natural dyes extracted from leaves of <i>Peltophorum pterocarpum</i> and <i>Acalypha amentacea</i> used as sensitizers for ZnO based dye sensitized solar cells. <i>Optical Materials</i> , 2018 , 83, 192-199	3.3	27
89	Enhanced electrochemical performance of MnO ₂ /NiO nanocomposite for supercapacitor electrode with excellent cycling stability. <i>Journal of Materials Science: Materials in Electronics</i> , 2019 , 30, 5222-5232	2.1	25
88	Studies on the electrical, linear and nonlinear optical properties of Meta nitroaniline, an efficient NLO crystal. <i>Physica B: Condensed Matter</i> , 2009 , 404, 1655-1660	2.8	24
87	Growth, optical, dielectric and ESR studies on tetrathiourea mercury(II) tetrathiocyanato manganate(II): An organometallic complex NLO crystal. <i>Journal of Physics and Chemistry of Solids</i> , 2007 , 68, 2370-2375	3.9	24
86	A low-cost visible light active BiFeWO ₆ /TiO ₂ nanocomposite with an efficient photocatalytic and photoelectrochemical performance. <i>Optical Materials</i> , 2018 , 81, 84-92	3.3	24
85	Growth, thermal, dielectric and mechanical properties of L-phenylalanine-benzoic acid: a nonlinear optical single crystal. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2013 , 114, 19-26	4.4	23
84	Growth and characterization of pure and doped NLO L-arginine acetate single crystals. <i>Bulletin of Materials Science</i> , 2009 , 32, 431-435	1.7	23
83	Electrochemical deposition of carbon materials incorporated nickel sulfide composite as counter electrode for dye-sensitized solar cells. <i>Ionics</i> , 2017 , 23, 1017-1025	2.7	22
82	Growth and characterization of 2-amino-5-chlorobenzophenone (2A-5CB) single crystals. <i>Journal of Crystal Growth</i> , 2007 , 300, 409-414	1.6	22
81	Growth and characterization of a pure and doped nonlinear optical l-histidine acetate single crystals. <i>Optics Communications</i> , 2008 , 281, 2989-2995	2	22
80	The preparation of dye sensitized solar cells using natural dyes extracted from <i>Phytolacca icosandra</i> and <i>Phyllanthus reticulatus</i> with ZnO as photoanode. <i>Materials Letters</i> , 2019 , 244, 142-146	3.3	21
79	Generation of 532 nm laser radiation and phase matching properties of organic nonlinear optical material. <i>Optik</i> , 2014 , 125, 164-169	2.5	21
78	Growth and characterization of l-argininium dinitrate. <i>Journal of Crystal Growth</i> , 2005 , 277, 303-307	1.6	20
77	Investigation of structural, optical and electrical properties of transition metal oxide semiconductor CdO ZnO nanocomposite and its effective role in the removal of water contaminants. <i>Journal of Physics and Chemistry of Solids</i> , 2019 , 126, 322-334	3.9	20

76	A sensitive electrochemical detection of hydroquinone using newly synthesized Fe ₂ O ₃ -graphene oxide nanocomposite as an electrode material. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 10081-10091	2.1	19
75	Linear and nonlinear optical properties of N-(3-nitrophenyl) acetamide single crystals. <i>Optik</i> , 2012 , 123, 104-108	2.5	19
74	Synthesis, growth and characterization of new borate-mixed crystals of type (NH ₄) _{1-x} K _x B ₅ O ₈ . <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2008 , 71, 1371-8	4.4	18
73	Growth and characterization of amino acid (glycine and valine) substituted l-arginine diphosphate single crystals. <i>Optical Materials</i> , 2006 , 29, 173-179	3.3	18
72	Optical, magnetic, and photoelectrochemical properties of electrochemically deposited Eu ³⁺ -doped ZnSe thin films. <i>Ionics</i> , 2017 , 23, 2497-2507	2.7	17
71	Studies on the growth and characterization of Benzimidazolium Picrate single crystals. <i>Journal of Optics (India)</i> , 2017 , 46, 382-390	1.3	17
70	Simple and low cost electrode material based on Ca ₂ V ₂ O ₇ /PANI nanoplatelets for supercapacitor applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 17354-17362	2.1	16
69	Growth and characterization of semi organic nonlinear optical LHPCL crystals. <i>Crystal Research and Technology</i> , 2007 , 42, 180-185	1.3	15
68	Transparent ZnO/BVA binary composite for UV-A photo detector: optical, electrical and thermal properties followed by laser induced fluorescence. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 7190-7203	2.1	14
67	Influence of pyrazole on the photovoltaic performance of dye-sensitized solar cell with polyvinylidene fluoride polymer electrolytes. <i>Ionics</i> , 2016 , 22, 425-433	2.7	13
66	Influence of metal dopants (Cu and Mg) on the thermal, mechanical and optical properties of l-alanine acetate single crystals. <i>Physica B: Condensed Matter</i> , 2010 , 405, 1233-1238	2.8	13
65	Impact of dysprosium (Dy ³⁺) doping on size, optical and dielectric properties of titanium dioxide nanoparticles grown by low temperature hydrothermal method. <i>Journal of Materials Science: Materials in Electronics</i> , 2018 , 29, 3170-3177	2.1	13
64	Fabrication of Al deposited sandwich capacitor structure with CdSe/PVA dielectric thin film by spin coating technique for high power applications: synthesis and characterizations. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 7544-7557	2.1	12
63	Effect of samarium (Sm ³⁺) doping on structural, optical properties and photocatalytic activity of titanium dioxide nanoparticles. <i>Journal of Taibah University for Science</i> , 2018 , 12, 186-190	3	12
62	Investigations on acceptor (Pr ³⁺) and donor (Nb ⁵⁺) doped cerium oxide for the suitability of solid oxide fuel cell electrolytes. <i>Ionics</i> , 2016 , 22, 2461-2470	2.7	12
61	Facile synthesis of n-ZnO @ p-CuO nanocomposite for water purification enhanced decolorization of methyl orange. <i>Journal of Materials Science: Materials in Electronics</i> , 2019 , 30, 16099-16109	2.1	12
60	The influence of metallic substitution on the physical properties of manganese mercury thiocyanate crystals. <i>Crystal Research and Technology</i> , 2007 , 42, 295-299	1.3	12
59	Exploring the influence of varying pH on structural, electro-optical, magnetic and photo-Fenton properties of mesoporous ZnFeO nanocrystals. <i>Environmental Pollution</i> , 2021 , 272, 115983	9.3	12

58	Comparative studies of structural, magnetic and photocatalytic degradation on 4-chlorophenol by ZnFe ₂ O ₄ nanostructures prepared via cost effective combustion methods. <i>Journal of Materials Science: Materials in Electronics</i> , 2018 , 29, 14084-14092	2.1	12
57	Studies on the electrical, linear and nonlinear optical properties of Manganese mercury thiocyanate bis-dimethyl sulfoxide, an efficient NLO crystal. <i>Physica B: Condensed Matter</i> , 2009 , 404, 295-299	2.8	11
56	Thermal, mechanical, electrical, linear and nonlinear optical properties of a nonlinear optical l-ornithine monohydrochloride single crystal. <i>Physica B: Condensed Matter</i> , 2009 , 404, 2336-2339	2.8	11
55	Thermal, mechanical, electrical, linear and nonlinear optical properties of l-arginine dihydrofluoride single crystal. <i>Physica B: Condensed Matter</i> , 2010 , 405, 192-197	2.8	11
54	Growth and characterization of non-linear optical crystal ZnCd(SCN) ₄ . <i>Crystal Research and Technology</i> , 2007 , 42, 247-252	1.3	11
53	Spectroscopic, thermal and mechanical behavior of allylthiourea cadmium chloride single crystals. <i>Materials Research Bulletin</i> , 2007 , 42, 2040-2047	5.1	11
52	Growth and characterization of diaquatetrakis (thiocyanato) cobalt (II) mercury (II) N-methyl-2-pyrrolidone (CMTWMP) single crystals. <i>Journal of Crystal Growth</i> , 2008 , 310, 124-130	1.6	11
51	Impact of calcination temperature on structural, optical, and magnetic properties of spinel CuFe ₂ O ₄ for enhancing photocatalytic activity. <i>Journal of Materials Science: Materials in Electronics</i> , 2020 , 31, 6574-6585	2.1	10
50	Enhanced performance of dye-sensitized solar cell using 2-mercaptobenzothiazole-doped poly(vinylidene fluoride-co-hexafluoropropylene) polymer electrolyte. <i>Ionics</i> , 2016 , 22, 1225-1230	2.7	10
49	Thermal, mechanical, optical and conductivity studies of a novel NLO active l-phenylalanine l-phenylalaninium dihydrogenphosphate single crystal. <i>Physica B: Condensed Matter</i> , 2010 , 405, 3365-3370	2.8	9
48	Tungsten doped titanium dioxide as a photoanode for dye sensitized solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 3428-3439	2.1	8
47	Carbon nanohorns functionalized PEDOT:PSS nanocomposites for dye sensitized solar cell applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2016 , 27, 4050-4056	2.1	7
46	Enhanced electrochemical behavior of ceria based zirconia electrolytes for intermediate temperature solid oxide fuel cell applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2016 , 27, 10980-10992	2.1	7
45	Structural and Optical Analysis of 1D Zinc Oxide Nanoparticles Synthesized Via Hydrothermal Method. <i>Materials Today: Proceedings</i> , 2019 , 8, 412-418	1.4	5
44	A Featural Analysis of Aluminium Doped SnO ₂ and Bare SnO ₂ Thin Films Grown on FTO Substrates. <i>Materials Today: Proceedings</i> , 2019 , 8, 207-213	1.4	5
43	Surfactant Free Hydrothermal Synthesis, Structural and Dielectric Studies of One-Dimensional EMnO ₂ Nanorods. <i>Materials Today: Proceedings</i> , 2019 , 8, 162-168	1.4	5
42	Crystallization and characterization of nonlinear optical l-histidinium dihydrogen orthophosphate orthophosphoric acid single crystal. <i>Crystal Research and Technology</i> , 2006 , 41, 997-1001	1.3	5
41	Dye-sensitized solar cell using 4-chloro-7-nitrobenzofurazan incorporated polyvinyl alcohol polymer electrolyte. <i>Indian Journal of Physics</i> , 2016 , 90, 1265-1270	1.4	5

40	Investigations of Structural, Optical and dielectric studies of Copper Oxide nanoparticles. <i>Materials Today: Proceedings</i> , 2019 , 8, 386-392	1.4	4
39	Growth and Characterization of Nonlinear Optical Crystal L-Isoleucine D-Norleucine: A DFT Approach. <i>Materials Today: Proceedings</i> , 2019 , 8, 492-501	1.4	4
38	A Correlative Investigation of Photoconductive Behaviour of Bare and Al-Doped ZnO Thin Films. <i>Materials Today: Proceedings</i> , 2019 , 8, 250-255	1.4	4
37	Synthesis and characterization of one dimensional semiconducting nanorods and nanobelts. <i>Transactions of the Indian Institute of Metals</i> , 2011 , 64, 217-220	1.2	4
36	Growth and characterization of pure and doped nonlinear optical l-arginine acetate single crystals. <i>Crystal Research and Technology</i> , 2007 , 42, 948-954	1.3	4
35	Crystal Growth and Characterization of a Novel Non Linear Optical Single Crystal of Urea Phthalic Acid. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018 , 360, 012032	0.4	4
34	Influence of rare earth doping on the spectral, thermal, morphological, and optical properties of nonlinear optical single crystals of manganese mercury thiocyanate, MnHg(SCN) ₄ . <i>Optik</i> , 2015 , 126, 4899-4904 ³	2.5	3
33	Molecular structure, First-order hyperpolarizability and HOMO-LUMO studies of L- Histidinium Dinitrate. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 73, 012035	0.4	3
32	Impact of dysprosium doped (Dy) zinc ferrite (ZnFeo) nanocrystals in photo- fenton exclusion of recalcitrant organic pollutant. <i>Environmental Research</i> , 2022 , 203, 111913	7.9	3
31	Structural, Optical and Thermal Behaviour of L-Phenylalanine L-Phenylalaninium Perchlorate (LPAPCl) A Nonlinear Optical Single Crystal. <i>Materials Today: Proceedings</i> , 2019 , 8, 470-475	1.4	2
30	Growth and Optical, Mechanical, Electrical Behaviour of Zinc Formate Dihydrate Single Crystal: A Third Order Nonlinear Optical Material. <i>Materials Today: Proceedings</i> , 2019 , 8, 99-107	1.4	2
29	Natural Dyes Extracted from Fruits of Phyllanthus reticulatus as Sensitizers in ZnO Nanorods Based Dye Sensitized Solar Cells. <i>Materials Today: Proceedings</i> , 2019 , 8, 284-293	1.4	2
28	Performance of TiO ₂ Based Dye-Sensitized Solar Cells Fabricated Using Coomassie Brilliant Blue in Acetonitrile Solution. <i>Materials Today: Proceedings</i> , 2019 , 8, 130-135	1.4	2
27	Synthesis of Cds quantum dots by reverse micelle method 2013 ,		2
26	Growth and Characterization of Bis(thiourea) Cadmium Acetate Single Crystal: An Efficient Semiorganic Non-linear Optical Single Crystal. <i>Asian Journal of Chemistry</i> , 2013 , 25, 969-971	0.4	2
25	Synthesis Of CdSe@ZnS Quantum Dots Via Non-TOPO Hydrothermal Techniques 2011 ,		2
24	Hollow ZnSnO ₃ Crystallites: Structural, Electrical and Optical Properties. <i>Springer Proceedings in Physics</i> , 2017 , 255-262	0.2	1
23	Experimental and Theoretical Studies of Glycine Zinc Sulphate: An Adequate NLO Single Crystal. <i>Materials Today: Proceedings</i> , 2019 , 8, 435-443	1.4	1

22	A Relative Investigation of the independent effects of Al-plasmonization and growth procedure on TiO ₂ /ZnO Photoanodes. <i>Materials Today: Proceedings</i> , 2019 , 8, 188-195	1.4	1
21	DFT investigations on a Non-Linear Optical crystal L-Valine L-Valinium Perchlorate (LVPCl). <i>Materials Today: Proceedings</i> , 2019 , 8, 508-514	1.4	1
20	Growth, Spectral, Linear and Nonlinear Optical Characteristics of A Novel Organic L-Proline Adipate Single Crystals. <i>Materials Today: Proceedings</i> , 2019 , 8, 117-122	1.4	1
19	Density Functional Theoretical and Experimental investigation on L - Asparaginium Picrate-a nonlinear optical material. <i>Materials Today: Proceedings</i> , 2019 , 8, 108-116	1.4	1
18	Systematic Investigation and Applications of an Efficient NLO Crystal: Glycine Lithium Sulphate. <i>Materials Today: Proceedings</i> , 2019 , 8, 427-434	1.4	1
17	Synthesis and Structural, Dielectric and Photocatalytic Properties of (Ti, La)-co-Doped Calcium Ferrite Ceramic Powders. <i>Arabian Journal for Science and Engineering</i> , 1	2.5	1
16	Growth and Characterization of L-Leucenium Hydrogen Maleate Single Crystals for Nonlinear Optical Applications. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018 , 360, 012044	0.4	1
15	Effect of 3-Nitroacetophenone on Corrosion Inhibition of Mild Steel in Acidic Medium. <i>International Journal of Photoenergy</i> , 2022 , 2022, 1-9	2.1	1
14	Growth, Spectral, Optical, Studies of A Zinc Picolinate Dihydrate NLO Single Crystal. <i>Materials Today: Proceedings</i> , 2019 , 8, 264-270	1.4	0
13	Studies on Growth and Characterization of Nonlinear Optical Single Crystal L-Histidine Di Picrate. <i>Materials Today: Proceedings</i> , 2019 , 8, 456-463	1.4	0
12	Theoretical and Experimental studies on nonlinear optical L-phenylalaninium maleate. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 73, 012138	0.4	0
11	rGO Sheets/ZnFe ₂ O ₄ Nanocomposites as an Efficient Electro Catalyst Material for I ₃ ⁻ /I ⁻ Reaction for High Performance DSSCs. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2022 , 32, 1183	3.2	0
10	Plasmon (Al) Impregnated SnO ₂ /TiO ₂ and ZnO/TiO ₂ Nanocomposites as Efficient Photoelectrodes for DSSCs: A Relative Analysis. <i>Materials Today: Proceedings</i> , 2019 , 8, 239-244	1.4	
9	Dye-Sensitized Solar Cells Using Natural Dye as Light-Harvesting Material Extracted From the Leaves of Peltophorum Pterocarpum. <i>Materials Today: Proceedings</i> , 2019 , 8, 123-129	1.4	
8	Growth, optical and thermal studies on N-benzyl-2-methyl-4-nitroaniline. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 73, 012033	0.4	
7	X-ray diffraction, spectroscopic and mechanical studies on potential organic NLO materials of metaNitroaniline and N-3-Nitrophenyl Acetamide single crystals. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 73, 012110	0.4	
6	Synthesis, growth and optical properties of an efficient nonlinear optical single crystal: L-alanine DL-malic acid. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 73, 012036	0.4	
5	Linear and nonlinear optical properties of unidirectionally grown L-Threonine acetate single crystals. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 73, 012034	0.4	

4	Linear and Nonlinear Optical Properties of L- Histidinium Perchlorate (LHPCl) Single Crystal. <i>Advanced Materials Research</i> , 2012 , 584, 74-78	0.5
3	Synthesis, characterization, spectroscopic properties and DFT study of a new L-Glycinium 5-Nitrouracilate: A non-linear optical single crystal. <i>Materials Today: Proceedings</i> , 2020 , 50, 2707-2707	1.4
2	Synthesis and characterization of dysprosium (Dy ³⁺) doped titanium dioxide (TiO ₂) as a potential material for photocatalytic activity. <i>Materials Today: Proceedings</i> , 2020 , 50, 2683-2683	1.4
1	Crystal Structure, Vibrational Spectra and Theoretical Studies on Glycine Lithium Sulphate. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018 , 360, 012045	0.4