A R Balu

List of Publications by Year
in descending order

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100	2,028	218381	329751
papers	citations	26 h-index	37 g-index

100	100	100	1186
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Characteristic analysis on the physical properties of nanostructured Mg-doped CdO thin filmsâ€"Doping concentration effect. Progress in Natural Science: Materials International, 2015, 25, 251-257.	1.8	81
2	Effect of chlorine doping on the structural, morphological, optical and electrical properties of spray deposited CdS thin films. Progress in Natural Science: Materials International, 2015, 25, 392-398.	1.8	75
3	Properties of Cd doped PbS thin films: doping concentration effect. Surface Engineering, 2015, 31, 316-321.	1.1	70
4	Effect of doping concentration on the structural, morphological, optical and electrical properties of Mn-doped CdO thin films. Materials Science-Poland, 2015, 33, 774-781.	0.4	69
5	Synthesis and characterization of NiO-CdO composite materials towards photoconductive and antibacterial applications. Materials Chemistry and Physics, 2018, 211, 88-96.	2.0	67
6	Effect of magnesium incorporation on the structural, morphological, optical and electrical properties of CdS thin films. Materials Science in Semiconductor Processing, 2014, 27, 915-923.	1.9	66
7	Structural, Optical, and Electrical Properties of Zn-Doped CdO Thin Films Fabricated by a Simplified Spray Pyrolysis Technique. Acta Metallurgica Sinica (English Letters), 2015, 28, 64-71.	1.5	58
8	Tuning the physical properties of PbS thin films towards optoelectronic applications through Ni doping. Optik, 2016, 127, 8892-8898.	1.4	47
9	PbS-NiO nanocomposite material with enhanced magnetic, photocatalytic and antifungal properties. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2018, 229, 118-125.	1.7	44
10	Photoconductive and photocatalytic properties of CdOâ€"NiO nanocomposite synthesized by a cost effective chemical method. Journal of Materials Science: Materials in Electronics, 2018, 29, 11384-11393.	1.1	42
11	Synthesis of CdO nanopowders by a simple soft chemical methodÂandÂevaluation of their antimicrobial activities. Pacific Science Review A Natural Science and Engineering, 2016, 18, 228-232.	0.4	40
12	Influence of precursor molar concentration on the structural, morphological, optical and electrical properties of PbS thin films deposited by spray pyrolysis technique using perfume atomizer. Optik, 2015, 126, 2550-2555.	1.4	34
13	Optical and magnetic properties of PbS thin films doped with Fe2+ ions. Optik, 2017, 134, 121-127.	1.4	34
14	Enhancement in some physical properties of spray deposited CdO:Mn thin films through Zn doping towards optoelectronic applications. Optik, 2016, 127, 6400-6406.	1.4	33
15	Spectroscopic, magnetic and antibacterial properties of Sr-doped SnS2 nanopowders. Optik, 2017, 142, 301-310.	1.4	33
16	CdO Al2O3 â€" A composite material with enhanced photocatalytic activity against the degradation of MY dye. Vacuum, 2019, 159, 9-16.	1.6	33
17	Structural, morphological, optical and electrical properties of CdS thin films simultaneously doped with magnesium and chlorine. Journal of Materials Science: Materials in Electronics, 2016, 27, 1158-1164.	1.1	32
18	Thermal behavior, magnetic and antimicrobial properties of PbSâ€"CdO nanocomposite synthesized by a simple soft chemical route. Journal of Materials Science: Materials in Electronics, 2017, 28, 12348-12355.	1.1	32

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19	Enhancement in the physical properties of spray deposited nanostructured ternary PbMgS thin films towards optoelectronic applications. Journal of Materials Science: Materials in Electronics, 2016, 27, 5070-5078.	1.1	31
20	Precursor aging effect on the properties of CdZnS films. Surface Engineering, 2016, 32, 212-217.	1.1	31
21	Properties of spray deposited Zn, Mg incorporated CdO thin films. Journal of Materials Science: Materials in Electronics, 2016, 27, 2071-2078.	1.1	30
22	Effect of thickness on the microstructural, optoelectronic and morphological properties of electron beam evaporated ZnTe films. Journal of Alloys and Compounds, 2010, 502, 434-438.	2.8	28
23	Multi metal oxide CdOâ€“Al₂O₃â€“NiO nanocompositeâ€”synthesis, photocatalytic and magnetic properties. Materials Research Express, 2019, 6, 015022.	0.8	28
24	Properties of CdS films doped with magnesium and fluorine. Surface Engineering, 2016, 32, 596-600.	1.1	27
25	Influence of thickness on the microstructural, optoelectronic and morphological properties of nanocrystalline ZnSe thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 171, 93-98.	1.7	26
26	Characteristic analysis of nanostructured Cl-doped CdO thin films â€“ doping effect. Materials Research Innovations, 2016, 20, 182-186.	1.0	26
27	Structural, optical and electrical properties of Cl-doped ternary CdZnS thin films towards optoelectronic applications. Optik, 2016, 127, 4943-4947.	1.4	25
28	Double doping (Mn + Cl) effects on the structural, morphological, photoluminescence, optoelectronic properties and antibacterial activity of CdO thin films. Optik, 2017, 130, 464-472.	1.4	25
29	TG-DSC analysis, magnetic and antifungal properties of Al-doped SnS2 nanopowders. Journal of Materials Science: Materials in Electronics, 2017, 28, 15556-15564.	1.1	24
30	NiO coupled CdO nanoparticles with enhanced magnetic and antifungal properties. Surfaces and Interfaces, 2019, 15, 11-18.	1.5	24
31	CdO-Fe₃O₄ nanocomposite with enhanced magnetic and photocatalytic properties. Materials Science-Poland, 2019, 37, 100-107.	0.4	24
32	Visible light irradiated photocatalytic activity of SnS₂-CdS nanocomposite against the degradation of methyl orange dye. Materials Technology, 2018, 33, 333-339.	1.5	23
33	PbSâ€“SnO2 nanocomposite with enhanced magnetic, photocatalytic and antifungal properties. Journal of Materials Science: Materials in Electronics, 2018, 29, 1065-1074.	1.1	23
34	Enhanced properties of Zn-, Mg-incorporated CdO films through Cl doping. Surface Engineering, 2016, 32, 829-833.	1.1	22
35	Improvement in the visible light mediated photocatalytic activity of Al<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll" id="d1e544" altimg="si65.gif"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll" id="d1e552" altimg="si66.gif"><mml:msub><mml:mrow	1.9	22
36	Visible light irradiated photocatalytic performance of SnS2-CdO nanocomposite against the degradation of rhodamine B (cationic) and congo red (anionic) dyes. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2020, 255, 114530.	1.7	22

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37	Influence of Al doping on the structural, morphological and opto-electrical properties of spray deposited lead sulfide thin films. Journal of Materials Science: Materials in Electronics, 2016, 27, 7876-7882.	1.1	21
38	Doping concentration and annealing temperature effects on the properties of nanostructured ternary CdZnO thin films towards optoelectronic applications. Optik, 2016, 127, 2822-2829.	1.4	21
39	Optoelectronic, magnetic and antibacterial properties of CdO thin films doubly doped with Mn (cationic) and F (anionic) ions. Journal of Materials Science: Materials in Electronics, 2017, 28, 7615-7621.	1.1	21
40	PbS nanopowder â€“ synthesis, characterization and antimicrobial activity. Materials Science-Poland, 2017, 35, 322-328.	0.4	20
41	Visible light irradiated photocatalytic and magnetic properties of Fe-doped SnS2 nanopowders. Journal of Materials Science: Materials in Electronics, 2018, 29, 9016-9024.	1.1	19
42	NiO coupled SnS2 nanoparticles with improved magnetic and photocatalytic performance against the degradation of organic dyes without N N double bond. Vacuum, 2019, 163, 373-383.	1.6	19
43	Optimization of S:Sn precursor molar concentration on the physical properties of spray deposited single phase Sn₂S₃thin films. Materials Science-Poland, 2016, 34, 393-398.	0.4	18
44	Optoelectronic, magnetic and antibacterial properties of Zr-doped CdS thin films. Optik, 2017, 138, 398-406.	1.4	18
45	Improved photodegradation activity of SnO2 nanopowder against methyl orange dye through Ag doping. Journal of Materials Science: Materials in Electronics, 2018, 29, 3657-3664.	1.1	18
46	Effect of Gd3+ Ions on the Thermal Behavior, Optical, Electrical and Magnetic Properties of PbS Thin Films. Journal of Electronic Materials, 2018, 47, 1271-1278.	1.0	18
47	Thermal behavior and comparative study on the visible light driven photocatalytic performance of SnS2â€“ZnS nanocomposite against the degradation of anionic and cationic dyes. Journal of Materials Science: Materials in Electronics, 2018, 29, 18708-18717.	1.1	18
48	Optical and magnetic properties of Ba-doped CdS thin films. Surface Engineering, 2017, 33, 835-840.	1.1	17
49	Modulation of microstructure and magnetic properties of Sr-doped CdO films. Surface Engineering, 2018, 34, 682-688.	1.1	17
50	Enhanced photocatalytic and antifungal properties of Sr-doped PbS nanopowders. Materials Technology, 2018, 33, 214-219.	1.5	17
51	Improved magnetic and photocatalytic properties of spray deposited (Li+Co) codoped CdS thin films. Superlattices and Microstructures, 2019, 129, 28-39.	1.4	17
52	Properties of spray deposited nano needle structured Cu-doped Sn2S3 thin films towards photovoltaic applications. Optik, 2016, 127, 3999-4003.	1.4	16
53	Photoconductive, photocatalytic and antifungal properties of PbS:Mo nanoparticles synthesized via precipitation method. Surfaces and Interfaces, 2018, 13, 148-156.	1.5	16
54	Photocatalytic Performance of SnO2:Mo Nanopowders Against the Degradation of Methyl Orange and Rhodamine B Dyes Under Visible Light Irradiation. Journal of Electronic Materials, 2019, 48, 401-408.	1.0	16

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55	Influence of substrate temperature on the properties of electron beam evaporated ZnSe films. Crystal Research and Technology, 2010, 45, 421-426.	0.6	14
56	Structural, optical, and electrical properties of electron beam evaporated CdSe thin films. Crystal Research and Technology, 2010, 45, 387-392.	0.6	14
57	Studies on ternary PbZnS films suited for optoelectronic applications. Surface Engineering, 2017, 33, 506-511.	1.1	14
58	Synthesis and characterization of Zr-doped SnS2 nanopowders by a simple soft chemical route towards magnetic and antibacterial applications. Surfaces and Interfaces, 2017, 9, 58-63.	1.5	14
59	Effect of solvent volume on the physical properties of spray deposited nano needle structured Sn₂S₃thin films. Materials Research Innovations, 2016, 20, 307-311.	1.0	13
60	TGâ€“DTA analysis, structural, optical and magnetic properties of PbS thin films doped with Co2+ ions. Journal of Materials Science: Materials in Electronics, 2018, 29, 6051-6058.	1.1	13
61	Optical and magnetic properties of CdO thin films doped with Ba²⁺(cation) ions. Materials Research Innovations, 2018, 22, 237-241.	1.0	13
62	Photocatalytic Performance of SnO2 Coupled CdO Nanoparticles Against MY and RhB Dyes. Journal of Electronic Materials, 2019, 48, 3676-3685.	1.0	13
63	Studies on the spectroscopic, photoconductive properties and antifungal activities of Al-doped PbS nanopowders synthesized by a simple soft chemical route. Journal of Materials Science: Materials in Electronics, 2017, 28, 5344-5351.	1.1	11
64	Influence of (ZnÂ+ÂF) double doping on the structural, morphological, photoluminescence, optoelectrical properties and antibacterial activity of CdS thin films. Journal of Materials Science: Materials in Electronics, 2017, 28, 2335-2342.	1.1	11
65	Bromine doping effect on some properties of CdS films. Surface Engineering, 2017, 33, 175-180.	1.1	11
66	Structural, morphological, optical and electrical properties of spray deposited ternary CdAgS thin films towards optoelectronic applications. Materials Research Innovations, 2018, 22, 79-84.	1.0	11
67	Enhanced photocatalytic and antifungal properties of PbS nanopowder doped with Ag+ ions. Journal of Materials Science: Materials in Electronics, 2018, 29, 4312-4319.	1.1	11
68	Potential suitability of NiO-CuO nanocomposite for photoconductive sensor, soft magnetic materials applications and as antimicrobial agent. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 268, 115143.	1.7	11
69	Properties of nanostructured Ni-doped Sn₂S₃thin films â€“ doping concentration effect. Materials Research Innovations, 2016, 20, 395-399.	1.0	10
70	Magnetically Separable CdOâ€“TiO2â€“CuO Ternary Nanocomposite Photocatalyst for Effective Degradation of RhB under Visible-Light Irradiation. Journal of Electronic Materials, 2020, 49, 4418-4430.	1.0	10
71	Substrate temperature influence on the optical and electrical properties of spray deposited Sn2S3 thin films. Optik, 2017, 130, 245-254.	1.4	9
72	Visible light mediated photocatalytic activity of Ni-doped Al2O3 nanoparticles. Surfaces and Interfaces, 2020, 18, 100416.	1.5	9

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73	(Znâ€‰+â€‰Co) co-doped CdO thin films with improved figure of merit values and ferromagnetic orderings with low squareness ratio well suited for optoelectronic devices and soft magnetic materials applications. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	9
74	Photoconductive and Antimicrobial Properties of Psidium guajava Leaf Extract Mediated Green Synthesized SnS₂â€“CdO and SnS₂â€“NiO Nanocomposites. International Journal of Nanoscience, 2021, 20, .	0.4	9
75	Realization of Improved Visible Light-Mediated Photocatalytic Activity of Al2O3 Nanoparticles Through Cobalt Doping. Journal of Electronic Materials, 2020, 49, 869-879.	1.0	8
76	Realization of improved Hackeeâ€™s quality factor and photo degradation efficiency of cauliflower shape nanostructured CdO thin films through Cs doping. Photonics and Nanostructures - Fundamentals and Applications, 2020, 40, 100784.	1.0	8
77	Aging effect of the precursor solution on the structural, morphological, optical and electrical properties of ternary CdZnO thin films suited for optoelectronic applications. Optik, 2016, 127, 10602-10609.	1.4	7
78	Optoelectronic, magnetic and antifungal properties of CdS thin films co-doped with zinc and bromine. Journal of Materials Science: Materials in Electronics, 2017, 28, 10433-10440.	1.1	7
79	Structural, Morphological, Opto-Electrical and Photoluminescence Studies of Nanoplate Structured Zn-Doped Sn2S3 Thin Films. Transactions of the Indian Institute of Metals, 2017, 70, 1503-1509.	0.7	7
80	(Ba+Co) codoped CdS thin films with enhanced magnetic and photodegradation properties. Materials Research Express, 2019, 6, 056414.	0.8	7
81	Structural, morphological and optoelectronic properties of CdO:Ag films â€“ precursor solution aging effect. Surface Engineering, 2020, 36, 418-423.	1.1	7
82	Influence of strontium doping level on the magnetic properties of CdS thin films. Journal of Materials Science: Materials in Electronics, 2017, 28, 14848-14854.	1.1	6
83	Doping effect investigation of Li-doped CdS thin films. Surface Engineering, 2019, 35, 79-85.	1.1	6
84	CdO:Ag thin films with enhanced visible light photocatalytic activity against metanil yellow. SN Applied Sciences, 2019, 1, 1.	1.5	6
85	A comparative study on the photocatalytic performance of two third order NLO active nanocomposites (NiO-CdO and NiO-CuO) green synthesized using Psidium guajava leaf extract. Inorganic Chemistry Communication, 2021, 134, 109073.	1.8	6
86	Structural, optical, electrical and catalytic properties of precursor solution-aged spray deposited undoped, Zn-doped and Ag-doped CdO thin films. Bulletin of Materials Science, 2020, 43, 1.	0.8	5
87	BaZrO3 perovskite â€“ A UV light mediated congo red dye deactivator catalyst with good optical switching and antimicrobial abilities green synthesized using Moringa oleifera leaf extract. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 278, 115636.	1.7	5
88	Effect of Co doping on the physical properties of Sn2S3 thin film. Journal of Materials Science: Materials in Electronics, 2017, 28, 11464-11472.	1.1	4
89	Ferromagnetism in CdO nanopowder â€“ Role of bioactive elements. Materials Letters, 2018, 217, 202-205.	1.3	4
90	Growth and characterization of third-order nonlinear optical lithium hydrogen maleate dihydrate single-crystal. International Journal of Modern Physics B, 2018, 32, 1850351.	1.0	4

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91	Cauliflower shaped CdO:Mo nanostructures with enhanced photocatalytic activity against the degradation of metanil yellow dye. Nano Structures Nano Objects, 2020, 22, 100458.	1.9	4
92	Investigations on the Properties of Nanostructured Mg-Doped Sn₂S₃ Thin Films towards Photovoltaic Applications. Acta Physica Polonica A, 2018, 133, 15-19.	0.2	4
93	Aging effect of the precursor solution on the structural, morphological and opto-electrical properties of spray deposited CdO thin films. Materials Science-Poland, 2019, 37, 1-7.	0.4	4
94	Improved Haackeâ€™s quality factor and paramagnetic-to-ferromagnetic transition realized in Ni co-doped CdO:Zn thin films. Journal of Materials Science: Materials in Electronics, 2020, 31, 12169-12177.	1.1	3
95	Green Synthesis of Environmentally Benign BaZrO3 Perovskite Using Plectranthus amboinicus and Ocimum sanctum Leaf Extracts and Comparison on Their Photocatalytic, Magnetic and Antimicrobial Properties. Brazilian Journal of Physics, 2022, 52, .	0.7	3
96	Structural, optical, thermal and NLO behavior of zinc hydrogen maleate dihydrate single crystal. Materials Science-Poland, 2017, 35, 773-784.	0.4	2
97	Structural, optical and electrical properties of ZnTe1âˆ’x Se x thin films. Journal of Materials Science: Materials in Electronics, 2011, 22, 607-613.	1.1	1
98	Growth, vibrational, optical, dielectric, thermal and third order NLO single crystal of manganese(II) hydrogen maleate tetrahydrate. Materials Research Innovations, 0, , 1-5.	1.0	1
99	Solvent volume dominated improved Haackeâ€™s quality factor values realized for CdO:Mo thin films well suited for optoelectronic applications. Optical and Quantum Electronics, 2021, 53, 1.	1.5	1
100	Reply to Comments on â€œStructural, Optical, and Electrical Properties of Zn-Doped CdO Thin Films Fabricated by a Simplified Spray Pyrolysis Techniqueâ€•by K. Usharani and A.R. Balu published in Acta Metall. Sin. (Engl. Lett.) 28(1), 64â€“71 (2015). Acta Metallurgica Sinica (English Letters), 2018, 31, 1007-1008.	1.5	0