

Gopalan Muralidharan

List of Publications by Year in descending order

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117
all docs

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docs citations

117
times ranked

5447
citing authors

#	ARTICLE	IF	CITATIONS
1	Supercapacitor Studies on NiO Nanoflakes Synthesized Through a Microwave Route. ACS Applied Materials & Interfaces, 2013, 5, 2188-2196.	4.0	542
2	Interconnected V ₂ O ₅ Nanoporous Network for High-Performance Supercapacitors. ACS Applied Materials & Interfaces, 2012, 4, 4484-4490.	4.0	408
3	Microwave assisted synthesis of Co ₃ O ₄ nanoparticles for high-performance supercapacitors. Electrochimica Acta, 2013, 106, 500-505.	2.6	198
4	Synthesis of Mn ₃ O ₄ /Amorphous Carbon Nanoparticles as Electrode Material for High Performance Supercapacitor Applications. Energy & Fuels, 2013, 27, 3508-3515.	2.5	156
5	Supercapacitor Behavior of Cerium Oxide Nanoparticles in Neutral Aqueous Electrolytes. Energy & Fuels, 2015, 29, 8246-8253.	2.5	150
6	Nanosheet-Assembled NiO Microstructures for High-Performance Supercapacitors. ACS Applied Materials & Interfaces, 2013, 5, 10767-10773.	4.0	133
7	Nanostructured CuO/reduced graphene oxide composite for hybrid supercapacitors. RSC Advances, 2014, 4, 23485.	1.7	133
8	Porous NiO/C Nanocomposites as Electrode Material for Electrochemical Supercapacitors. ACS Sustainable Chemistry and Engineering, 2013, 1, 1110-1118.	3.2	119
9	The effect of annealing temperature on the electrochromic properties of nanostructured NiO films. Solar Energy Materials and Solar Cells, 2009, 93, 1195-1201.	3.0	99
10	Hexagonal CeO ₂ nanostructures: an efficient electrode material for supercapacitors. Dalton Transactions, 2016, 45, 14352-14362.	1.6	99
11	Structural and luminescence behavior of Sm ³⁺ ions doped lead boro-telluro-phosphate glasses. Journal of Luminescence, 2015, 159, 207-218.	1.5	93
12	Structural and optical investigations on Dy ³⁺ doped lithium tellurofluoroborate glasses for white light applications. Journal of Luminescence, 2016, 176, 15-24.	1.5	93
13	Fabrication of two-dimensional reduced graphene oxide supported V ₂ O ₅ networks and their application in supercapacitors. Materials Chemistry and Physics, 2016, 170, 266-275.	2.0	83
14	Ni@CeO ₂ spherical nanostructures for magnetic and electrochemical supercapacitor applications. Physical Chemistry Chemical Physics, 2017, 19, 4396-4404.	1.3	82
15	Structural and luminescence studies on Dy ³⁺ doped lead boro-telluro-phosphate glasses. Physica B: Condensed Matter, 2014, 454, 72-81.	1.3	80
16	Controlled synthesis of nanostructured molybdenum oxide electrodes for high performance supercapacitor devices. Applied Surface Science, 2017, 416, 461-469.	3.1	79
17	Effect of annealing temperature on the supercapacitor behaviour of V ₂ O ₅ thin films. Materials Research Bulletin, 2013, 48, 760-766.	2.7	78
18	Supercapacitor behavior of V ₂ O ₅ -MnMoO ₄ nanorods on different electrolytes. Materials Research Bulletin, 2012, 47, 3348-3351.	2.7	75

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19	Effect of temperature of annealing on optical, structural and electrochromic properties of sol-gel dip coated molybdenum oxide films. <i>Applied Surface Science</i> , 2011, 257, 2074-2079.	3.1	69
20	Biopolymer-Assisted Synthesis of MnO_2 Nanoparticles As an Electrode Material for Aqueous Symmetric Supercapacitor Devices. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 18262-18268.	1.8	69
21	Luminescence and energy transfer studies on $\text{Sm}^{3+}/\text{Tb}^{3+}$ codoped telluroborate glasses for WLED applications. <i>Journal of Molecular Structure</i> , 2018, 1151, 266-276.	1.8	69
22	Green synthesis of ZnO/carbon (ZnO/C) as an electrode material for symmetric supercapacitor devices. <i>Applied Surface Science</i> , 2018, 449, 521-527.	3.1	67
23	Synthesis of mesh-like $\text{Fe}_2\text{O}_3/\text{C}$ nanocomposite via greener route for high performance supercapacitors. <i>RSC Advances</i> , 2014, 4, 4631-4637.	1.7	64
24	Ordered mesoporous $\text{Co}_3\text{O}_4/\text{CMC}$ nanoflakes for superior cyclic life and ultra high energy density supercapacitor. <i>Applied Surface Science</i> , 2019, 480, 371-383.	3.1	63
25	Ag incorporated $\text{Mn}_3\text{O}_4/\text{AC}$ nanocomposite based supercapacitor devices with high energy density and power density. <i>Dalton Transactions</i> , 2014, 43, 17528-17538.	1.6	62
26	High performance supercapacitor based on carbon coated V_2O_5 nanorods. <i>Journal of Electroanalytical Chemistry</i> , 2015, 758, 111-116.	1.9	62
27	Red light generation through the lead borotellurophosphate glasses activated by Eu^{3+} ions. <i>Journal of Molecular Structure</i> , 2016, 1119, 276-285.	1.8	60
28	Microstructural, electrical and optical properties of ZnO:Mo thin films with various thickness by spray pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2013, 102, 68-75.	2.6	59
29	Size-strain distribution analysis of SnO_2 nanoparticles and their multifunctional applications as fiber optic gas sensors, supercapacitors and optical limiters. <i>RSC Advances</i> , 2016, 6, 90559-90570.	1.7	58
30	Mesoporous nickel sulphide nanostructures for enhanced supercapacitor performance. <i>Applied Surface Science</i> , 2019, 480, 186-198.	3.1	58
31	Ni-Doped SnO_2 Nanoparticles for Sensing and Photocatalysis. <i>ACS Applied Nano Materials</i> , 2018, 1, 5823-5836.	2.4	55
32	Fabrication of CeO_2/PANI composites for high energy density supercapacitors. <i>Materials Research Bulletin</i> , 2018, 106, 357-364.	2.7	53
33	Nickel bismuth oxide as negative electrode for battery-type asymmetric supercapacitor. <i>Chemical Engineering Journal</i> , 2021, 422, 130058.	6.6	49
34	MnO_2 grafted V_2O_5 nanostructures: formation mechanism, morphology and supercapacitive features. <i>CrystEngComm</i> , 2014, 16, 10711-10720.	1.3	48
35	Structural and optical studies of Eu^{3+} ions in alkali borate glasses. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2009, 206, 131-139.	0.8	46
36	Nanostructured nickel doped V_2O_5 thin films for supercapacitor applications. <i>Materials Research Bulletin</i> , 2013, 48, 2578-2582.	2.7	46

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37	V ₂ O ₅ / nitrogen enriched mesoporous carbon spheres nanocomposite as supercapacitor electrode. Microporous and Mesoporous Materials, 2018, 258, 83-94.	2.2	43
38	Optical, structural and electrochromic properties of nickel oxide films produced by sol-gel technique. Solar Energy, 2011, 85, 978-984.	2.9	42
39	Effect of modifier oxides (SrO, Al ₂ O ₃ , ZnO, CdO, PbO and Bi ₂ O ₃) on the luminescence properties of Er ³⁺ doped telluroborate glasses for laser and optical amplifier applications. Journal of Luminescence, 2019, 207, 534-544.	1.5	42
40	Synthesising of ZnO nanopetals for supercapacitor applications. Micro and Nano Letters, 2011, 6, 668.	0.6	40
41	Nanostructured NiO based all solid state electrochromic device. Journal of Sol-Gel Science and Technology, 2008, 46, 190-194.	1.1	39
42	Cubic fluorite phase of samarium doped cerium oxide (CeO ₂) _{0.96} Sm _{0.04} for solid oxide fuel cell electrolyte. Journal of Materials Science: Materials in Electronics, 2016, 27, 1566-1573.	1.1	39
43	Pure and Co doped CeO ₂ nanostructure electrodes with enhanced electrochemical performance for energy storage applications. Ceramics International, 2017, 43, 10494-10501.	2.3	39
44	V ₂ O ₅ /functionalized MWCNT hybrid nanocomposite: the fabrication and its enhanced supercapacitive performance. RSC Advances, 2014, 4, 37437-37445.	1.7	38
45	Ag ₃ O ₄ grafted NiO nanosheets for high performance supercapacitors. Journal of Materials Chemistry A, 2015, 3, 420-427.	5.2	37
46	Preparation and characterization of F doped SnO ₂ films and electrochromic properties of FTO/NiO films. Current Applied Physics, 2009, 9, 67-72.	1.1	35
47	Effect of PbO on the B ₂ O ₃ -TeO ₂ -P ₂ O ₅ -BaO-CdO-Sm ₂ O ₃ glasses - Structural and optical investigations. Journal of Non-Crystalline Solids, 2017, 461, 35-46.	1.5	35
48	Graphene encapsulated NiS/Ni ₃ S ₄ mesoporous nanostructure: A superlative high energy supercapacitor device with excellent cycling performance. Electrochimica Acta, 2021, 365, 137367.	2.6	35
49	Electrochemical supercapacitor behaviour of Ni-Ni(OH) ₂ nanoparticles synthesized via green chemistry route. Journal of Electroanalytical Chemistry, 2014, 727, 53-58.	1.9	33
50	Preparation of vinyl polymer stabilized silver nanospheres for electro-analytical determination of H ₂ O ₂ . Sensors and Actuators B: Chemical, 2014, 193, 149-156.	4.0	32
51	CdS microspheres as promising electrode materials for high performance supercapacitors. Materials Science in Semiconductor Processing, 2020, 105, 104677.	1.9	32
52	High performance supercapacitor and non-enzymatic hydrogen peroxide sensor based on tellurium nanoparticles. Sensing and Bio-Sensing Research, 2017, 13, 40-48.	2.2	30
53	Lithium ferrite (LiFe ₅ O ₈) nanorod based battery-type asymmetric supercapacitor with NiO nanoflakes as the counter electrode. New Journal of Chemistry, 2019, 43, 15375-15388.	1.4	30
54	Thermoluminescence and optical studies on X-irradiated terbium-doped potassium bromide crystals. Journal of Luminescence, 2010, 130, 618-622.	1.5	29

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55	Amperometric sensing of hydrogen peroxide using glassy carbon electrode modified with copper nanoparticles. <i>Materials Research Bulletin</i> , 2015, 70, 315-320.	2.7	28
56	Microwave assisted fabrication of l-Arginine capped $\text{Ni}(\text{OH})_2$ microstructures as an electrode material for high performance hybrid supercapacitors. <i>Materials Chemistry and Physics</i> , 2019, 224, 357-368.	2.0	26
57	Enhanced electrochromic performance of nanoporous NiO films. <i>Materials Science in Semiconductor Processing</i> , 2011, 14, 78-83.	1.9	25
58	Structural and luminescence studies of Eu^{3+} : $\text{TeO}_2\text{B}_2\text{O}_3\text{AO AF}_2$ ($\text{A}=\text{Pb, Ba, Zn, Cd, Sr}$) glasses. <i>Journal of Molecular Structure</i> , 2017, 1144, 290-299.	1.8	25
59	High performance supercapacitor behavior of hydrothermally synthesized CdTe nanorods. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 17397-17404.	1.1	25
60	Influence of thiourea concentration on the CuS nanostructures and identification of the most suited electrolyte for high energy density supercapacitor. <i>Ionics</i> , 2019, 25, 4409-4423.	1.2	25
61	Influence of Modifier Cations on the Spectroscopic Properties of Dy^{3+} Doped Telluroborate Glasses for White Light Applications. <i>Journal of Fluorescence</i> , 2016, 26, 2281-2294.	1.3	24
62	Ag-Incorporated CeO_2 nano cauliflower for high-performance supercapacitor devices. <i>New Journal of Chemistry</i> , 2017, 41, 10841-10850.	1.4	24
63	Supercapacitor performance study of lithium chloride doped polyaniline. <i>Applied Surface Science</i> , 2018, 460, 40-47.	3.1	23
64	Effect of ZnO on the spectroscopic properties of Dy^{3+} doped zinc telluroborate glasses for white light generation. <i>Journal of Non-Crystalline Solids</i> , 2018, 498, 386-394.	1.5	21
65	Surfactant tuned morphology of mesoporous $\text{Ni}(\text{OH})_2/\text{CMC}$ nanoflakes: a prospective candidate for supercapacitors. <i>Journal of Solid State Electrochemistry</i> , 2019, 23, 1325-1338.	1.2	21
66	Electrochromic properties of nickel oxide and mixed Co/Ni oxide films prepared via sol-gel route. <i>Journal of Non-Crystalline Solids</i> , 2012, 358, 354-359.	1.5	20
67	Spongy structured $\text{Ni}(\text{OH})_2$: Facile and rapid synthesis for supercapattery applications. <i>Materials Letters</i> , 2019, 238, 35-37.	1.3	19
68	Enhanced luminescence properties of hybrid Alq ₃ /ZnO (organic/inorganic) composite films. <i>Journal of Luminescence</i> , 2014, 156, 1-7.	1.5	18
69	Gold nanoparticles for sensitive detection of hydrogen peroxide: a simple non-enzymatic approach. <i>Journal of Applied Electrochemistry</i> , 2015, 45, 963-971.	1.5	18
70	Sol-Gel coated WO_3 thin films based complementary electrochromic smart windows. <i>Materials Letters</i> , 2021, 296, 129881.	1.3	18
71	Enhanced luminescent properties and optical absorption of I^{137} -irradiated KI: Ce^{3+} , Tb^{3+} crystals. <i>Journal of Luminescence</i> , 2009, 129, 24-29.	1.5	17
72	Design of additive free 3D floral shaped V_2O_5 @ Ni foam for high performance supercapacitors. <i>Materials Technology</i> , 2017, 32, 584-590.	1.5	17

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73	Hierarchical Fe^{2+} -Co(OH) ₂ /CoO nanosheets: an additive-free synthesis approach for supercapattery applications. <i>Ionics</i> , 2019, 25, 2437-2444.	1.2	17
74	AgCoO ₂ \times Co ₃ O ₄ /CMC Cloudy Architecture as High Performance Electrodes for Asymmetric Supercapacitors. <i>ChemElectroChem</i> , 2020, 7, 535-545.	1.7	17
75	Co ₃ S ₄ -CoS/rGO hybrid nanostructure: promising material for high-performance and high-rate capacity supercapacitor. <i>Journal of Solid State Electrochemistry</i> , 2021, 25, 465-477.	1.2	17
76	Luminescence studies on gamma irradiated KCl: Ce ³⁺ crystals. <i>Physica B: Condensed Matter</i> , 2012, 407, 2185-2189.	1.3	16
77	Optical, structural, and electrochromic properties of cobalt oxide films prepared via the sol-gel route. <i>Materials Science in Semiconductor Processing</i> , 2013, 16, 1410-1415.	1.9	16
78	Synthesis and optical properties of ZnO incorporated Tris-(8-hydroxyquinoline)aluminum. <i>Journal of Luminescence</i> , 2014, 153, 188-193.	1.5	16
79	Extra-Durable Hybrid Supercapacitor Based on Cobalt Sulfide and Carbon (MWCNT) Matrix Electrodes. <i>Journal of Energy Storage</i> , 2021, 34, 102200.	3.9	16
80	Carboxymethyl cellulose aided fabrication of flaky structured mesoporous Fe^{2+} -Co(OH) ₂ /C nanocomposite for supercapacitors. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 2107-2117.	1.1	15
81	Thermoluminescence and other optical studies on RbBr:Tb ³⁺ crystals. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 726-734.	0.7	13
82	Apatites and britholites, are they akin - as probed by Eu ³⁺ +luminescence?. <i>Journal of Physics Condensed Matter</i> , 2001, 13, 537-547.	0.7	12
83	Enhanced electrochromism in cerium doped molybdenum oxide thin films. <i>Materials Research Bulletin</i> , 2010, 45, 1969-1972.	2.7	12
84	EFFECT OF FLUORINE CONTENT ON THE MORPHOLOGICAL, STRUCTURAL, OPTICAL AND ELECTRICAL PROPERTIES OF NANOSTRUCTURED SnO ₂ FILMS. <i>Surface Review and Letters</i> , 2007, 14, 1149-1156.	0.5	11
85	Thickness dependent supercapacitor behaviour of sol-gel spin coated nanostructured vanadium pentoxide thin films. <i>Philosophical Magazine</i> , 2013, 93, 1490-1499.	0.7	11
86	Improved luminescence intensity and stability of thermal annealed ZnO incorporated Alq ₃ composite films. <i>Journal of Fluorescence</i> , 2015, 25, 1629-1635.	1.3	11
87	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.	1.1	11
88	Photoluminescence, optical absorption and XRD studies on X-ray irradiated terbium doped KBr crystals. <i>Journal of Luminescence</i> , 2010, 130, 343-346.	1.5	9
89	Effect of thermal annealing on the structural and optical properties of tris-(8-hydroxyquinoline)aluminum(III) (Alq ₃) films. <i>Luminescence</i> , 2015, 30, 352-357.	1.5	9
90	Polyethylene glycol-assisted growth of Ni ₃ S ₄ closely packed nanosheets on Ni-foam for enhanced supercapacitor device. <i>Journal of Solid State Electrochemistry</i> , 2019, 23, 2937-2950.	1.2	9

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91	The binder-free mesoporous CoNi ₂ S ₄ electrode for high-performance symmetric and asymmetric supercapacitor devices. Journal of Materials Science, 2022, 57, 5933-5953.	1.7	8
92	Effect of tungsten on the electrochromic behaviour of sol-gel dip coated molybdenum oxide thin films. Materials Research Bulletin, 2010, 45, 542-545.	2.7	7
93	SUPERCAPACITOR BEHAVIOR OF SPRAY DEPOSITED SnO ₂ THIN FILMS. International Journal of Nanoscience, 2011, 10, 1245-1248.	0.4	7
94	Role of annealing duration on the microstructure and electrochemical performance of ZnO ₅ thin films. Philosophical Magazine, 2014, 94, 946-955.	0.7	6
95	Surfactant free nickel sulphide nanoparticles for high capacitance supercapacitors. AIP Conference Proceedings, 2018, . .	0.3	6
96	Luminescence and laser Raman studies on gamma-irradiated Rb:Sm ³⁺ crystals. Physica Status Solidi (B): Basic Research, 2007, 244, 3730-3738.	0.7	5
97	NANOPOROUS NiO BASED ELECTROCHROMIC WINDOW. Functional Materials Letters, 2009, 02, 143-145.	0.7	5
98	Supercapacitor behaviour of cobalt-doped nickel oxide films. Philosophical Magazine Letters, 2012, 92, 436-441.	0.5	5
99	Investigations on growth and characterization of glycine admixture sodium molybdate crystals for nonlinear optical applications. Optik, 2016, 127, 1708-1713.	1.4	5
100	Influence of calcination temperature on the electrochemical performance of Sol-gel-derived ZnO/C nanocomposite electrodes. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	5
101	Thermoluminescence and Fluorescence Studies on RbBr:Gd ²⁺ . Physica Status Solidi (B): Basic Research, 1988, 146, 727-731.	0.7	4
102	Thermoluminescence and Other Optical Studies on γ -irradiated RbCl: Gd ²⁺ . Physica Status Solidi (B): Basic Research, 1988, 150, 315-322.	0.7	4
103	Thermoluminescence, optical absorption, photoluminescence, FT-IR and XRD studies on l-arginine doped orthophosphoric acid. Journal of Luminescence, 2013, 142, 184-188.	1.5	4
104	Thermoluminescence and optical studies on γ -ray irradiated KCl: Tb ³⁺ crystals. Radiation Effects and Defects in Solids, 2014, 169, 9-18.	0.4	4
105	Luminescent Properties of Cerium Doped Potassium Iodide Single Crystals in Response to γ -irradiation. Journal of Fluorescence, 2015, 25, 641-646.	1.3	4
106	One step synthesis of ZrO ₂ microstructures for electrochemical capacitor applications. AIP Conference Proceedings, 2019, . .	0.3	3
107	Cr ₂ O ₃ nanoparticles: Advanced electrode materials for high performance pseudocapacitors. AIP Conference Proceedings, 2017, . .	0.3	1
108	Derivation of activated carbon from tamarindus indica tree bark for supercapacitor applications. AIP Conference Proceedings, 2019, . .	0.3	1

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109	Neem seed shell derived carbon: KOH activation towards symmetric supercapacitor applications. AIP Conference Proceedings, 2019, , .	0.3	1
110	Flaky Structured V2O5: Morphology, Formation Scheme and Supercapactive Performance. Russian Journal of Electrochemistry, 2019, 55, 97-106.	0.3	1
111	Copper incorporated nickel sulphide on Ni-foam: Binder-free electrode for high performance supercapacitors. AIP Conference Proceedings, 2020, , .	0.3	1
112	Optimization of LiCl concentration on polyaniline composites for symmetric and asymmetric supercapacitor devices. Materials Chemistry and Physics, 2022, 285, 126109.	2.0	1
113	Photoluminescence study of Cupric Telluride thin films. AIP Conference Proceedings, 2008, , .	0.3	0
114	Spectroscopic behaviour of Dy ³⁺ ions in lead telluro-fluoroborate glasses for photonic applications. AIP Conference Proceedings, 2015, , .	0.3	0
115	Luminescence Properties and Optical Absorption of X ray-Irradiated KBr: Ce ³⁺ , Tb ³⁺ Crystals. Journal of Fluorescence, 2015, 25, 239-246.	1.3	0
116	The influence of Ag incorporation on the electrochemical characteristics of ZnO/C electrodes. CrystEngComm, 2019, 21, 2900-2907.	1.3	0
117	Azadirachta indica (Neem) tree bark based activated carbon for electrochemical supercapacitor. AIP Conference Proceedings, 2020, , .	0.3	0