

Vijay Kumar

List of Publications by Year in descending order

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87
papers

4,239
citations

109137

35
h-index

114278

63
g-index

88
all docs

88
docs citations

88
times ranked

3715
citing authors

#	ARTICLE	IF	CITATIONS
1	Polymer/Carbon Nanocomposites for Biomedical Applications. <i>Advances in Material Research and Technology</i> , 2022, , 109-150.	0.3	2
2	Advances in ZnO: Manipulation of defects for enhancing their technological potentials. <i>Nanotechnology Reviews</i> , 2022, 11, 575-619.	2.6	65
3	DOE-based synthesis of gellan gum-acrylic acid-based biodegradable hydrogels: screening of significant process variables and <i>in situ</i> field studies. <i>RSC Advances</i> , 2022, 12, 4780-4794.	1.7	13
4	Progress in Diamanes and Diamanoids Nanosystems for Emerging Technologies. <i>Advanced Science</i> , 2022, 9, e2105770.	5.6	35
5	Synthesis of gum acacia-silver nanoparticles based hydrogel composites and their comparative anti-bacterial activity. <i>Journal of Polymer Research</i> , 2022, 29, 1.	1.2	28
6	Rare-earth-activated phosphors for forensic applications. , 2022, , 215-246.		0
7	Introduction to phosphors and luminescence. , 2022, , 3-41.		1
8	Methylene Blue Dye Adsorption from Wastewater Using Hydroxyapatite/Gold Nanocomposite: Kinetic and Thermodynamics Studies. <i>Nanomaterials</i> , 2021, 11, 1403.	1.9	33
9	A Review of Adsorbents for Heavy Metal Decontamination: Growing Approach to Wastewater Treatment. <i>Materials</i> , 2021, 14, 4702.	1.3	95
10	Nanoparticles as fingerprint sensors. <i>TrAC - Trends in Analytical Chemistry</i> , 2021, 143, 116378.	5.8	28
11	Microwave-assisted synthesis of gum gellan-cl-poly(acrylic-co- methacrylic acid) hydrogel for cationic dyes removal. <i>Polymer Bulletin</i> , 2020, 77, 4917-4935.	1.7	18
12	A novel near white light emitting phosphor K ₂ Si ₂ O ₇ :Dy ³⁺ : Synthesis, characterization and luminescence properties. <i>Vacuum</i> , 2020, 174, 109179.	1.6	26
13	Neem gum based pH responsive hydrogel matrix: A new pharmaceutical excipient for the sustained release of anticancer drug. <i>International Journal of Biological Macromolecules</i> , 2020, 142, 742-755.	3.6	13
14	Current advancement and future prospect of biosorbents for bioremediation. <i>Science of the Total Environment</i> , 2020, 709, 135895.	3.9	165
15	Nanohydroxyapatite-, Gelatin-, and Acrylic Acid-Based Novel Dental Restorative Material. <i>ACS Omega</i> , 2020, 5, 27886-27895.	1.6	12
16	A Short Review on Rare Earth Doped NaYF ₄ Upconverted Nanomaterials for Solar Cell Applications. <i>Materials Today: Proceedings</i> , 2020, 21, 1868-1874.	0.9	18
17	Preparation of gum acacia-poly(acrylamide-IPN-acrylic acid) based nanocomposite hydrogels via polymerization methods for antimicrobial applications. <i>Journal of Molecular Structure</i> , 2020, 1215, 128298.	1.8	27
18	Preparation and Characterizations Graft Copolymer of Poly(acrylamide-aniline)-Grafted Gum Ghatti. <i>Materials Today: Proceedings</i> , 2020, 21, 1856-1861.	0.9	3

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19	Synthesis of Hydrogels by Modification of Natural Polysaccharides Through Radiation Cross-Linking Polymerization for Use in Drug Delivery. Springer Series on Polymer and Composite Materials, 2019, , 269-292.	0.5	2
20	Analysis of writing/printing paper via Thermogravimetric Analysis: application in forensic science. Australian Journal of Forensic Sciences, 2019, 51, 22-39.	0.7	13
21	Enhanced upconversion study of Er ³⁺ -Yb ³⁺ codoped NaYF ₄ phosphors synthesized by the reverse microemulsion method. Ceramics International, 2018, 44, 13649-13653.	2.3	9
22	Combustion synthesis and characterization of blue long lasting phosphor CaAl ₂ O ₄ : Eu ²⁺ , Dy ³⁺ and its novel application in latent fingerprint and lip mark detection. Physica B: Condensed Matter, 2018, 535, 149-156.	1.3	40
23	Recent advances in rare earth doped alkali-alkaline earth borates for solid state lighting applications. Physica B: Condensed Matter, 2018, 535, 106-113.	1.3	36
24	Recent advances in enhanced luminescence upconversion of lanthanide-doped NaYF ₄ phosphors. Physica B: Condensed Matter, 2018, 535, 278-286.	1.3	20
25	Synthesis, characterization and upconversion luminescence of core-shell nanocomposites NaYF ₄ : Er/Yb@SiO ₂ @Ag/Au. Vacuum, 2018, 157, 492-496.	1.6	14
26	Electronic energy transfer effects of Ti ⁹⁺ and S ⁹⁺ ions irradiations upon structural, optical and chemical properties of Kapton-H polymer. Vacuum, 2018, 157, 447-452.	1.6	4
27	Green synthesis of agar/Gum Arabic based superabsorbent as an alternative for irrigation in agriculture. Vacuum, 2018, 157, 458-464.	1.6	48
28	Multivariate analysis for forensic characterization, discrimination, and classification of marker pen inks. Spectroscopy Letters, 2018, 51, 205-215.	0.5	9
29	A system for computer-aided gating design for multi-cavity die-casting dies. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2017, 231, 1983-1999.	1.5	4
30	Manipulating selective dispersion of reduced graphene oxide in polycarbonate/nylon 66 based blend nanocomposites for improved thermo-mechanical properties. RSC Advances, 2017, 7, 22145-22155.	1.7	11
31	Investigation of structural, morphological and optical properties of Mg: ZnO thin films prepared by sol-gel spin coating method. Vacuum, 2017, 146, 524-529.	1.6	25
32	Luminescence dynamics and investigation of Judd-Ofelt intensity parameters of Sm ³⁺ ion containing glasses. Optical Materials, 2017, 64, 171-178.	1.7	81
33	Influence of Fe-doping on the structural, optical and luminescent behavior of ZnO thin films deposited by spin coating technique. Vacuum, 2017, 146, 478-482.	1.6	12
34	Conducting Polymer Hydrogels and Their Applications. Springer Series on Polymer and Composite Materials, 2017, , 193-221.	0.5	5
35	Synthesis, characterization, and anti-microbial activity of superabsorbents based on agar- ϵ -poly(methacrylic acid-glycine). Journal of Bioactive and Compatible Polymers, 2017, 32, 74-91.	0.8	13
36	Structural and luminescence responses of CaMoO ₄ nano phosphors synthesized by hydrothermal route to swift heavy ion irradiation: Elemental and spectral stability. Acta Materialia, 2017, 124, 109-119.	3.8	26

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37	Spectroscopic studies of Sm ³⁺ /Dy ³⁺ co-doped lithium boro-silicate glasses. Journal of Non-Crystalline Solids, 2016, 438, 49-58.	1.5	50
38	Magical Allotropes of Carbon: Prospects and Applications. Critical Reviews in Solid State and Materials Sciences, 2016, 41, 257-317.	6.8	167
39	Ion-induced modification of structural, optical and luminescence behaviour of Gd ₂ MoO ₆ nanomaterials: A comparative approach. Vacuum, 2016, 128, 146-157.	1.6	6
40	Ag ⁷⁺ ion induced modification of morphology, optical and luminescence behaviour of charge compensated CaMoO ₄ nanophosphor. Nuclear Instruments & Methods in Physics Research B, 2016, 384, 76-85.	0.6	3
41	Influence of Ho ³⁺ doping on the temperature sensing behavior of Er ³⁺ –Yb ³⁺ doped La ₂ CaZnO ₅ phosphor. RSC Advances, 2016, 6, 84914-84925.	1.7	35
42	Red-light-emitting inorganic La ₂ CaZnO ₅ frameworks with high photoluminescence quantum efficiency: Theoretical approach. Materials and Design, 2016, 93, 203-215.	3.3	45
43	Application of biodegradable superabsorbent hydrogel composite based on Gum ghatti-co-poly(acrylic) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.7	68
44	Advances in phosphors based on organic materials for light emitting devices. Physica B: Condensed Matter, 2016, 480, 105-110.	1.3	5
45	Microwave assisted synthesis of ZnO nanoparticles for lighting and dye removal application. Physica B: Condensed Matter, 2016, 480, 36-41.	1.3	35
46	Dopant distribution and influence of sonication temperature on the pure red light emission of mixed oxide phosphor for solid state lighting. Ultrasonics Sonochemistry, 2016, 28, 79-89.	3.8	24
47	Evaluation of a conducting interpenetrating network based on gum ghatti-g-poly(acrylic acid-aniline) as a colon-specific delivery system for amoxicillin trihydrate and paracetamol. New Journal of Chemistry, 2015, 39, 3021-3034.	1.4	35
48	Gum ghatti-based biodegradable and conductive carriers for colon-specific drug delivery. Colloid and Polymer Science, 2015, 293, 1181-1190.	1.0	17
49	Synthesis of Biodegradable Gum ghatti Based Poly(methacrylic acid-aniline) Conducting IPN Hydrogel for Controlled Release of Amoxicillin Trihydrate. Industrial & Engineering Chemistry Research, 2015, 54, 1982-1991.	1.8	64
50	Upconversion based temperature sensing ability of Er ³⁺ –Yb ³⁺ codoped SrWO ₄ : An optical heating phosphor. Sensors and Actuators B: Chemical, 2015, 209, 352-358.	4.0	355
51	Synthesis, characterization and water retention study of biodegradable Gum ghatti-poly(acrylic) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.7	60
52	CaTiO ₃ :Eu ³⁺ , a potential red long lasting phosphor: Energy migration and characterization of trap level distribution. Journal of Alloys and Compounds, 2015, 622, 1068-1073.	2.8	41
53	Effects of O ⁷⁺ and Ni ⁹⁺ swift heavy ions irradiation on polyacrylamide grafted Gum acacia thin film and sorption of methylene blue. Vacuum, 2015, 111, 73-82.	1.6	29
54	The role of growth atmosphere on the structural and optical quality of defect free ZnO films for strong ultraviolet emission. Laser Physics, 2014, 24, 105704.	0.6	29

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55	Effect of Eu doping on the photoluminescence properties of ZnO nanophosphors for red emission applications. Applied Surface Science, 2014, 308, 419-430.	3.1	105
56	Fabrication and characterization of gum ghatti-polymethacrylic acid based electrically conductive hydrogels. Synthetic Metals, 2014, 187, 61-67.	2.1	48
57	A comparative study of the effect of Ni ⁹⁺ and Au ⁸⁺ ion beams on the properties of poly(methacrylic) Tj ETQq1 1 0.784314 rgBT /Over	1.4	12
58	Gamma radiation induced modifications in Au-polypyrrole nanocomposites: Detailed Raman and X-ray studies. Vacuum, 2014, 99, 265-271.	1.6	31
59	Applications of AES, XPS and TOF SIMS to phosphor materials. Surface and Interface Analysis, 2014, 46, 1105-1109.	0.8	12
60	Synthesis of yellow emitting bis-pyrimidine based purely organic phosphors. Journal of Luminescence, 2014, 149, 61-68.	1.5	6
61	Effect of annealing on the structural, morphological and photoluminescence properties of ZnO thin films prepared by spin coating. Journal of Colloid and Interface Science, 2014, 428, 8-15.	5.0	107
62	Defect correlated fluorescent quenching and electron phonon coupling in the spectral transition of Eu ³⁺ in CaTiO ₃ for red emission in display application. Journal of Applied Physics, 2014, 115, .	1.1	250
63	Tunable and white emission from ZnO:Tb ³⁺ nanophosphors for solid state lighting applications. Chemical Engineering Journal, 2014, 255, 541-552.	6.6	146
64	A comparative investigation on ion impact parameters and TL response of Y ₂ O ₃ :Tb ³⁺ nanophosphor exposed to swift heavy ions for space dosimetry. Journal of Alloys and Compounds, 2014, 589, 5-18.	2.8	34
65	Role of swift heavy ions irradiation on the emission of boron doped ZnO thin films for near white light application. Journal of Alloys and Compounds, 2014, 594, 32-38.	2.8	32
66	Enhanced upconversion and temperature sensing study of Er ³⁺ –Yb ³⁺ codoped tungsten tellurite glass. Sensors and Actuators B: Chemical, 2014, 202, 1305-1312.	4.0	152
67	Swift heavy ions induced surface modifications in Ag-polypyrrole composite films synthesized by an electrochemical route. Nuclear Instruments & Methods in Physics Research B, 2014, 323, 7-13.	0.6	9
68	Influence of ultrasonication times on the tunable colour emission of ZnO nanophosphors for lighting applications. Ultrasonics Sonochemistry, 2014, 21, 1549-1556.	3.8	63
69	Effects of swift heavy ion beam irradiation on the structural and morphological properties of poly(methacrylic acid) cross-linked gum ghatti films. Vacuum, 2014, 101, 166-170.	1.6	24
70	Swift heavy ion irradiation induced modification in structural, optical and luminescence properties of Y ₂ O ₃ :Tb ³⁺ nanophosphor. Journal of Luminescence, 2014, 146, 162-173.	1.5	62
71	The role of surface and deep-level defects on the emission of tin oxide quantum dots. Nanotechnology, 2014, 25, 135701.	1.3	99
72	The energy transfer phenomena and colour tunability in Y ₂ O ₃ :S:Eu ³⁺ /Dy ³⁺ micro-fibers for white emission in solid state lighting applications. Dalton Transactions, 2014, 43, 9860-9871.	1.6	212

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73	A study of the biodegradation behaviour of poly(methacrylic acid/aniline)-grafted gum ghatti by a soil burial method. RSC Advances, 2014, 4, 25637.	1.7	46
74	Water retention and dye adsorption behavior of Gg-cl-poly(acrylic acid-aniline) based conductive hydrogels. Geoderma, 2014, 232-234, 45-55.	2.3	100
75	Synthesis and biodegradation studies of gamma irradiated electrically conductive hydrogels. Polymer Degradation and Stability, 2014, 107, 166-177.	2.7	67
76	Effect of swift heavy ion beam irradiation on Au“ polyaniline composite films. Vacuum, 2013, 90, 59-64.	1.6	28
77	Polypyrrole microspheroidals decorated with Ag nanostructure: Synthesis and their characterization. Applied Surface Science, 2013, 280, 950-956.	3.1	21
78	Doped zinc oxide window layers for dye sensitized solar cells. Journal of Applied Physics, 2013, 114, .	1.1	73
79	Two-step electrochemical synthesis of Au nanoparticles decorated polyaniline nanofiber. Vacuum, 2013, 93, 79-83.	1.6	34
80	Synthesis and properties of poly(acrylamide-aniline)-grafted gum ghatti based nanospikes. RSC Advances, 2013, 3, 25830.	1.7	80
81	Raman and AFM study of gamma irradiated plastic bottle sheets. , 2013, , .		0
82	High electronic excitation induced modifications by 100MeV O7+ and 150MeV Ni11+ ions in Makrofol KG polycarbonate film. Nuclear Instruments & Methods in Physics Research B, 2012, 287, 4-9.	0.6	43
83	Effect of gamma irradiation on the properties of plastic bottle sheet. Nuclear Instruments & Methods in Physics Research B, 2012, 287, 10-14.	0.6	124
84	Gamma irradiation induced chemical and structural modifications in PM-355 polymeric nuclear track detector film. Nuclear Instruments & Methods in Physics Research B, 2012, 290, 59-63.	0.6	37
85	Carbon ion beam induced modifications of optical, structural and chemical properties in PADC and PET polymers. Radiation Physics and Chemistry, 2012, 81, 652-658.	1.4	113
86	Study of optical, structural and chemical properties of neutron irradiated PADC film. Vacuum, 2011, 86, 275-279.	1.6	51
87	Swift Heavy Ion Synthesis and Modifications of Nanophosphors for Dosimetric Application. Advances in Chemical and Materials Engineering Book Series, 0, , 1-25.	0.2	0