

Kamlendra Awasthi

List of Publications by Year in descending order

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Version: 2024-02-01

117
papers

2,219
citations

236925

25
h-index

289244

40
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122
all docs

122
docs citations

122
times ranked

2082
citing authors

#	ARTICLE	IF	CITATIONS
1	Gas sensing properties of ZnO nanostructures (flowers/rods) synthesized by hydrothermal method. <i>Sensors and Actuators B: Chemical</i> , 2019, 292, 24-31.	7.8	211
2	Investigation of luminescence and structural properties of ZnO nanoparticles, synthesized with different precursors. <i>Materials Chemistry Frontiers</i> , 2017, 1, 1413-1421.	5.9	113
3	An efficient hydrogen gas sensor based on hierarchical Ag/ZnO hollow microstructures. <i>Sensors and Actuators B: Chemical</i> , 2021, 346, 130510.	7.8	70
4	Polyanilineâ€“Carbon Nanotube Composites: Preparation Methods, Properties, and Applications. <i>Polymer-Plastics Technology and Engineering</i> , 2018, 57, 70-97.	1.9	69
5	Enhancement of hydrogen gas permeability in electrically aligned MWCNT-PMMA composite membranes. <i>Micron</i> , 2010, 41, 909-914.	2.2	57
6	Multi walled carbon nano tubes induced hepatotoxicity in Swiss albino mice. <i>Micron</i> , 2013, 44, 359-364.	2.2	55
7	Silver nanoparticle induced cytotoxicity, oxidative stress, and DNA damage in CHO cells. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	1.9	54
8	Functional role of single-atom catalysts in electrocatalytic hydrogen evolution: Current developments and future challenges. <i>Coordination Chemistry Reviews</i> , 2022, 452, 214289.	18.8	54
9	Optical, chemical and structural modification of oxygen irradiated PET. <i>Radiation Measurements</i> , 2010, 45, 850-855.	1.4	53
10	Morphology-dependent structural and optical properties of ZnO nanostructures. <i>Applied Physics A: Materials Science and Processing</i> , 2019, 125, 1.	2.3	51
11	Functionalized Pd-decorated and aligned MWCNTs in polycarbonate as a selective membrane for hydrogen separation. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 23057-23066.	7.1	49
12	Effect of ZnO Nanoparticles on Germination of <i>Triticum aestivum</i> Seeds. <i>Macromolecular Symposia</i> , 2017, 376, 1700043.	0.7	49
13	Synthesis and characterization of hybrid PANI/MWCNT nanocomposites for EMI applications. <i>Polymer Composites</i> , 2018, 39, 3858-3868.	4.6	47
14	Hydrogen separation in doped and blend polymer membranes. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 327-331.	7.1	36
15	Flower-like Bi ₂ S ₃ nanostructures as highly efficient anodes for all-solid-state lithium-ion batteries. <i>RSC Advances</i> , 2019, 9, 29549-29555.	3.6	33
16	Hydrogen ion sensing characteristics of Na ₃ BiO ₄ â€“Bi ₂ O ₃ mixed oxide nanostructures based EGFET pH sensor. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 18743-18751.	7.1	31
17	Dose dependent enhanced antibacterial effects and reduced biofilm activity against <i>Bacillus subtilis</i> in presence of ZnO nanoparticles. <i>Materials Science and Engineering C</i> , 2020, 113, 111021.	7.3	31
18	Insights into the progress of polymeric nano-composite membranes for hydrogen separation and purification in the direction of sustainable energy resources. <i>Separation and Purification Technology</i> , 2022, 282, 120029.	7.9	31

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19	Tuning of fermi level in antimony telluride thin films by low-energy Fe ²⁺ -ion implantation. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	31
20	Structural, optical, thermo-mechanical and transport properties of ion irradiated polymer membranes. Polymer Bulletin, 2006, 56, 427-435.	3.3	30
21	Enhanced hydrogen sensing performances of PdO nanoparticles-decorated ZnO flower-like nanostructures. Journal of Alloys and Compounds, 2022, 900, 163545.	5.5	30
22	Electrical behavior of dual-morphology polyaniline. Journal of Applied Polymer Science, 2016, 133, .	2.6	29
23	Electrochemical sensor for detection of mercury (II) ions in water using nanostructured bismuth hexagons. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	29
24	Cytotoxicity, genotoxicity and alteration of cellular antioxidant enzymes in silver nanoparticles exposed CHO cells. RSC Advances, 2015, 5, 34927-34935.	3.6	28
25	An efficient one pot three-component nanocatalyzed synthesis of spiroheterocycles using TiO ₂ nanoparticles as a heterogeneous catalyst. RSC Advances, 2015, 5, 46415-46422.	3.6	28
26	Highly stable nanostructured Bi ₂ Se ₃ anode material for all solid-state lithium-ion batteries. Journal of Alloys and Compounds, 2020, 838, 155403.	5.5	28
27	Functionalization of track-etched poly (ethylene terephthalate) membranes as a selective filter for hydrogen purification. International Journal of Hydrogen Energy, 2014, 39, 9356-9365.	7.1	27
28	Characterization of Nanocomposite Polymeric Membrane. Journal of Polymer Research, 2007, 13, 357-360.	2.4	25
29	Palladium nanoparticle binding in functionalized track etched PET membrane for hydrogen gas separation. International Journal of Hydrogen Energy, 2017, 42, 16186-16194.	7.1	24
30	Charge storage mechanism in vanadium telluride/carbon nanobelts as electroactive material in an aqueous asymmetric supercapacitor. Journal of Colloid and Interface Science, 2022, 621, 110-118.	9.4	24
31	Recent advances in application of the graphene-based membrane for water purification. Materials Today Chemistry, 2021, 22, 100597.	3.5	23
32	Gas permeation study of Ti-coated, track-etched polymeric membranes. Vacuum, 2006, 81, 389-393.	3.5	22
33	Swift heavy ion (SHI) irradiated polymer blend membranes for hydrogen permeation. International Journal of Hydrogen Energy, 2007, 32, 3105-3108.	7.1	22
34	Study of hydrogen transport through porous aluminum and composite membranes. International Journal of Hydrogen Energy, 2008, 33, 346-349.	7.1	22
35	Microstructure change in poly(ethersulfone) films by swift heavy ions. Micron, 2010, 41, 390-394.	2.2	22
36	60MeV Ni ion induced modifications in nano-CdS/polystyrene composite films. Radiation Physics and Chemistry, 2014, 94, 49-53.	2.8	22

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37	Development of ZnO nanostructure film for pH sensing application. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	2.3	22
38	Synthesis and thermal analysis of polyaniline (PANI). Journal of Physics: Conference Series, 2020, 1531, 012108.	0.4	22
39	Study of gas permeation for asymmetric track-etched polymer blends. International Journal of Hydrogen Energy, 2006, 31, 1266-1270.	7.1	21
40	Optical and Structural Study of Polyaniline/Polystyrene Composite Films. Macromolecular Symposia, 2015, 357, 229-234.	0.7	21
41	An efficient and environmentally sustainable domino protocol for the synthesis of structurally diverse spiroannulated pyrimidophenazines using erbium doped TiO ₂ nanoparticles as a recyclable and reusable heterogeneous acid catalyst. RSC Advances, 2018, 8, 30430-30440.	3.6	21
42	Gas and ion transport through a track-etched large-area polymer film. Desalination, 2006, 195, 273-280.	8.2	20
43	Transport through track etched polymeric blend membrane. Bulletin of Materials Science, 2006, 29, 261-264.	1.7	20
44	LiBH ₄ as solid electrolyte for Li-ion batteries with Bi ₂ Te ₃ nanostructured anode. International Journal of Hydrogen Energy, 2018, 43, 21709-21714.	7.1	20
45	Ion transport through track etched polypropylene membrane. European Polymer Journal, 2006, 42, 883-887.	5.4	19
46	In Vivo Genotoxic Assessment Of Silver Nanoparticles In Liver Cells Of Swiss Albino Mice Using Comet Assay. Advanced Materials Letters, 2015, 6, 187-193.	0.6	19
47	Selective deposition of Pd nanoparticles in porous PET membrane for hydrogen separation. International Journal of Hydrogen Energy, 2017, 42, 15203-15210.	7.1	18
48	Experimental investigation of natural polysaccharide-based mixed matrix membrane modified with graphene oxide and Pd-nanoparticles for enhanced gas separation performance. International Journal of Hydrogen Energy, 2022, 47, 41820-41832.	7.1	18
49	Surface Modification and Synthesis of Polymeric Membrane for Energy and Biological Applications. Journal of Biomedical Nanotechnology, 2006, 2, 144-151.	1.1	17
50	Non-isothermal crystallization kinetics of TiO ₂ nanoparticle-filled poly(ethylene terephthalate) with structural and chemical properties. Polymer Bulletin, 2014, 71, 1539-1555.	3.3	17
51	Large area Cl ⁹⁺ irradiated PET membranes for hydrogen separation. International Journal of Hydrogen Energy, 2011, 36, 9374-9381.	7.1	16
52	Hydrogen gas separation with controlled selectivity via efficient and cost effective block copolymer coated PET membranes. International Journal of Hydrogen Energy, 2017, 42, 19977-19983.	7.1	16
53	Nanostructured Bi ₂ Te ₃ as anode material as well as a destabilizing agent for LiBH ₄ . International Journal of Hydrogen Energy, 2020, 45, 16992-16999.	7.1	16
54	Electrochemical hydrogen evolution and storage studies on bismuth nano hexagons. International Journal of Hydrogen Energy, 2018, 43, 21642-21648.	7.1	15

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55	Effect of temperature and γ -irradiation on gas permeability for polymeric membrane. Bulletin of Materials Science, 2005, 28, 643-646.	1.7	14
56	Using fast atomic source and low-energy plasma ions for polymer surface modification. Vacuum, 2006, 80, 643-646.	3.5	14
57	Thermal Stability and Electrical Properties of Polyaniline Synthesized by Oxidative Polymerization Method. Macromolecular Symposia, 2015, 357, 168-172.	0.7	14
58	Effect of UV irradiation on PC membrane and use of Pd nanoparticles with/without PVP for H ₂ selectivity enhancement over CO ₂ and N ₂ gases. International Journal of Hydrogen Energy, 2018, 43, 21690-21698.	7.1	14
59	Conjugate polymer-based membranes for gas separation applications: current status and future prospects. Materials Today Chemistry, 2021, 22, 100558.	3.5	14
60	Swift heavy ion irradiated polymeric membranes for gas permeation. Journal of Applied Polymer Science, 2006, 102, 2386-2390.	2.6	11
61	Silver Nanoparticles and Carbon Nanotubes Induced DNA Damage in Mice Evaluated by Single Cell Gel Electrophoresis. Macromolecular Symposia, 2015, 357, 210-217.	0.7	11
62	The destabilization of LiBH ₄ through the addition of Bi ₂ Se ₃ nanosheets. International Journal of Hydrogen Energy, 2020, 45, 23947-23953.	7.1	11
63	Luminescent and structural behaviour of Tb ³⁺ ions doped TiO ₂ nanoparticles synthesized by facile sol-gel method. Physica B: Condensed Matter, 2021, 602, 412465.	2.7	10
64	Characterization of asymmetric polymeric membranes by gas permeation. Micron, 2007, 38, 326-329.	2.2	9
65	Investigation of thermal stability of TiO ₂ nanoparticles using 1-thioglycerol as capping agent. Solid State Communications, 2017, 263, 1-5.	1.9	9
66	Active block copolymer layer on carboxyl-functionalized PET film for hydrogen separation. International Journal of Hydrogen Energy, 2020, 45, 18676-18684.	7.1	9
67	Electrochemical reaction mechanism for Bi ₂ Te ₃ -based anode material in highly durable all solid-state lithium-ion batteries. Journal of Materials Science: Materials in Electronics, 2020, 31, 16429-16436.	2.2	9
68	Antimicrobial Properties of Electro-Chemically Stabilized Organo-Metallic Thin Films. Advanced Electrochemistry, 2013, 1, 42-47.	0.1	9
69	Effects of hydroxyl-functionalized multiwalled carbon nanotubes on sperm health and testes of Wistar rats. Toxicology and Industrial Health, 2017, 33, 519-529.	1.4	8
70	Synthesis and characterization of polyaniline membranes with β -secondary amine additive containing N,N ϵ ² -dimethyl propylene urea for fuel cell application. International Journal of Hydrogen Energy, 2018, 43, 21715-21723.	7.1	8
71	Zinc oxide nanostructures ϵ -based biosensors. , 2021, , 655-695.		8
72	Metal-Immobilized Micellar Aggregates of a Block Copolymer from a Mixed Solvent for a SERS-Active Sensing Substrate and Versatile Dip Catalysis. Langmuir, 2021, 37, 2445-2456.	3.5	8

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73	Synthesis and Crystallization Studies of Thermo-plastic Polyester/Titania Nanocomposites. Journal of Nuclear Physics Material Sciences Radiation and Applications, 2014, 1, 207-211.	0.2	8
74	Surface Modification Of Nanocomposite Polymer Membranes By Ion Plasma Irradiation For Improving Biocompatibility Of Polymer. Advanced Materials Letters, 2014, 5, 645-651.	0.6	8
75	Rapid thermal annealing induced engineering of surface and photoluminescence properties of (K,Na)NbO ₃ thin films for optoelectronic applications. Applied Surface Science, 2022, 575, 151794.	6.1	8
76	Conduction nature of conical pores in PET membrane. Polymer Bulletin, 2006, 57, 723-728.	3.3	7
77	Structural and Morphological Study of PS/ZnO Nanocomposite Membrane. Macromolecular Symposia, 2015, 357, 218-222.	0.7	7
78	Functionalized and engineered nanochannels for gas separation. Pure and Applied Chemistry, 2018, 90, 1063-1071.	1.9	7
79	Effective Doping of Er ³⁺ in ZnO Nanoparticles to Control Its Luminescent Properties. Macromolecular Symposia, 2017, 376, 1700005.	0.7	6
80	Synthesis and characterization of terbium doped TiO ₂ nanoparticles and their use as recyclable and reusable heterogeneous catalyst for efficient and environmentally sustainable synthesis of spiroannulated indolo[3,2-a]quinolines-mimetic scaffolds of isocryptolepine. Applied Organometallic Chemistry, 2020, 34, e5836.	3.5	6
81	Synthesis of ZnO nanostructures. , 2021, , 93-116.		6
82	Synthesis and Characterization of Plasma Treated TiO ₂ / Nano Composites Polymer Membranes. Advanced Electrochemistry, 2013, 1, 98-104.	0.1	5
83	Toxicological Evaluation of TiO ₂ Nanoparticles in Bacterial Cell. Macromolecular Symposia, 2015, 357, 235-240.	0.7	4
84	Disposable bismuth-based electrodes for heavy metal ion detection. IOP Conference Series: Earth and Environmental Science, 0, 228, 012014.	0.3	4
85	UV-irradiation assisted functionalization and binding of Pd nanoparticles in polycarbonate membranes for hydrogen separation. Environmental Science and Pollution Research, 2021, 28, 46404-46413.	5.3	4
86	Biosensors for diagnosis of urinary tract infections: Advances and future challenges. Materials Letters: X, 2021, 10, 100077.	0.7	4
87	Structural and Morphological Study of PS/TiO ₂ Nanocomposite Membranes. Macromolecular Symposia, 2015, 357, 200-205.	0.7	3
88	ZnO nanoparticles favours heterogeneous nucleation in PET/ZnO nanocomposites. Philosophical Magazine, 2015, 95, 2306-2322.	1.6	3
89	SHI irradiation of metal doped zinc sulfide polymer nanocomposites synthesized using micro emulsion method. Nuclear Instruments & Methods in Physics Research B, 2015, 358, 258-262.	1.4	3
90	Investigation of dimensionality-dependent thermal stability of Bi ₂ Te ₃ . Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	3

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91	Optical studies on bismuth chalcogenides. Materials Today: Proceedings, 2019, 10, 142-150.	1.8	3
92	Facile synthesis of Pd@ZnO core@shell nanoparticles for selective ethanol detection. Materials Letters: X, 2021, 10, 100068.	0.7	3
93	A reversible tuning of Fermi level in BiSbTe ₃ thin films through ion implantation. Materials Letters, 2022, 306, 130923.	2.6	3
94	ZnO Doping in PET Matrix Enhances Conductivity of PET-ZnO Nanocomposites. Advanced Electrochemistry, 2013, 1, 118-123.	0.1	3
95	Structural and Morphological Modifications Induced by Fe Ion Implantation in Sb ₂ Te ₃ Thin Films. Macromolecular Symposia, 2021, 399, 2100079.	0.7	3
96	Bismuth Oxide Extended-Gate Field-Effect Transistor as pH Sensor. Journal of Electronic Materials, 2022, 51, 2673-2681.	2.2	3
97	Synthesis and thermal analysis of bisphenol a polycarbonate- ZnO nanocomposites. , 2014, , .		2
98	Poly (Ethylene Terephthalate)-ZnO Nanocomposites: Optical and Raman Studies. Macromolecular Symposia, 2015, 357, 105-108.	0.7	2
99	Titania nanodots array using self-assembled poly(styrene)-b-poly(4-vinylpyridine) block copolymer nanotemplates via ex-situ approach. Materials Letters, 2017, 209, 365-368.	2.6	2
100	Effect of Volume Fraction of Minority Block on Morphology of PS- <i>b</i> -P4VP Nanotemplates. Macromolecular Symposia, 2017, 376, 1700016.	0.7	2
101	Palladium-oxide Extended Gate Field Effect Transistor as pH Sensor. Materials Letters: X, 2021, 12, 100102.	0.7	2
102	OPTICAL AND DYNAMIC MECHANICAL CHARACTERIZATION OF THIN FILM POLYMER NANOCOMPOSITES. International Journal of Modern Physics B, 2010, 24, 57-63.	2.0	1
103	Hydrogen Sorption Characteristics of ZrCrAl Ternary Alloy as a Function of Milling Time. Macromolecular Symposia, 2017, 376, 1700047.	0.7	1
104	The fascinating world of Soft Materials. Bulletin of Materials Science, 2020, 43, 1.	1.7	1
105	General introduction of zinc oxide nanomaterials. , 2021, , 1-19.		1
106	Zinc-Oxide based EGFET pH sensors. , 2021, , 459-481.		1
107	Impact of defects on the structural and electrical transport properties of Sb ₂ Te ₃ thin films by SHI irradiation. Materials Letters: X, 2021, 12, 100113.	0.7	1
108	Temperature Dependence Study of Gas Permeability in Metal Doped Composite Polymeric Membranes. Materials Research Society Symposia Proceedings, 2006, 973, 1.	0.1	0

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109	Preparation and Characterization of Zn-Se Bilayer Structure. <i>Advanced Materials Research</i> , 2008, 31, 153-157.	0.3	0
110	Positron lifetime and residual gas analysis studies of $MmNi_{4.5}Al_{0.5}$ hydride system. <i>International Journal of Hydrogen Energy</i> , 2007, 32, 3376-3380.	7.1	0
111	Preface to the special issue on "Soft Materials" ICSM 2014. <i>Macromolecular Symposia</i> , 2015, 357, 11-11.	0.7	0
112	A Comparative Study of the Effects of Oxygen Ions Upon the Free Volume and Physico-Chemical Properties of Makrofol (KG & N) Polycarbonate. <i>Macromolecular Symposia</i> , 2015, 357, 86-98.	0.7	0
113	Effect of temperature on storage modulus and glass transition temperature of ZnS/PS nanocomposites. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	0
114	Efficient and Sustainable Synthesis of Spiroannulated Hybrid Molecules with Privileged Substructures using Nanostructured Heterogeneous Catalyst. <i>ChemistrySelect</i> , 2020, 5, 14069-14077.	1.5	0
115	Preface to the special issue on international conference on soft materials ICSM 2018. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 16929.	7.1	0
116	Effect of nanostructuring on surface oxidation of bismuth telluride. <i>Materials Today: Proceedings</i> , 2021, 38, 1255-1258.	1.8	0
117	Nanoporous Polymeric Membranes for Hydrogen Separation. <i>Green Energy and Technology</i> , 2020, , 355-376.	0.6	0