

Kamlendra Awasthi

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

111
papers

1,326
citations

20
h-index

31
g-index

122
ext. papers

1,678
ext. citations

3.6
avg, IF

4.81
L-index

#	Paper	IF	Citations
111	Functional role of single-atom catalysts in electrocatalytic hydrogen evolution: Current developments and future challenges. <i>Coordination Chemistry Reviews</i> , 2022 , 452, 214289	23.2	5
110	Enhanced hydrogen sensing performances of PdO nanoparticles-decorated ZnO flower-like nanostructures. <i>Journal of Alloys and Compounds</i> , 2022 , 900, 163545	5.7	1
109	A reversible tuning of Fermi level in BiSbTe ₃ thin films through ion implantation. <i>Materials Letters</i> , 2022 , 306, 130923	3.3	1
108	Bismuth Oxide Extended-Gate Field-Effect Transistor as pH Sensor. <i>Journal of Electronic Materials</i> , 2022 , 51, 2673-2681	1.9	0
107	Charge storage mechanism in vanadium telluride/carbon nanobelts as electroactive material in an aqueous asymmetric supercapacitor.. <i>Journal of Colloid and Interface Science</i> , 2022 , 621, 110-118	9.3	2
106	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> , 2021 , 120029	8.3	2
105	Rapid thermal annealing induced engineering of surface and photoluminescence properties of (K,Na)NbO ₃ thin films for optoelectronic applications. <i>Applied Surface Science</i> , 2021 , 151794	6.7	0
104	Tuning of fermi level in antimony telluride thin films by low-energy FeIon implantation. <i>Applied Physics A: Materials Science and Processing</i> , 2021 , 127, 1	2.6	9
103	Structural and Morphological Modifications Induced by Fe Ion Implantation in Sb ₂ Te ₃ Thin Films. <i>Macromolecular Symposia</i> , 2021 , 399, 2100079	0.8	1
102	Recent advances in application of the graphene-based membrane for water purification. <i>Materials Today Chemistry</i> , 2021 , 22, 100597	6.2	6
101	UV-irradiation assisted functionalization and binding of Pd nanoparticles in polycarbonate membranes for hydrogen separation. <i>Environmental Science and Pollution Research</i> , 2021 , 28, 46404-46413	5.1	1
100	Facile synthesis of Pd@ZnO core@shell nanoparticles for selective ethanol detection. <i>Materials Letters: X</i> , 2021 , 10, 100068	0.5	1
99	Biosensors for diagnosis of urinary tract infections: Advances and future challenges. <i>Materials Letters: X</i> , 2021 , 10, 100077	0.5	2
98	Luminescent and structural behaviour of Tb ³⁺ ions doped TiO ₂ nanoparticles synthesized by facile sol-gel method. <i>Physica B: Condensed Matter</i> , 2021 , 602, 412465	2.8	2
97	Effect of nanostructuring on surface oxidation of bismuth telluride. <i>Materials Today: Proceedings</i> , 2021 , 38, 1255-1258	1.4	
96	Zinc oxide nanostructuresBased biosensors 2021 , 655-695		2
95	General introduction of zinc oxide nanomaterials 2021 , 1-19		

94 Zinc-Oxide based EGFET pH sensors **2021**, 459-481

93 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 4 3

92 Palladium-oxide Extended Gate Field Effect Transistor as pH Sensor. *Materials Letters: X*, **2021**, 12, 1001025

91 An efficient hydrogen gas sensor based on hierarchical Ag/ZnO hollow microstructures. *Sensors and Actuators B: Chemical*, **2021**, 346, 130510 8.5 11

90 Conjugate polymer-based membranes for gas separation applications: current status and future prospects. *Materials Today Chemistry*, **2021**, 22, 100558 6.2 2

89 Synthesis of ZnO nanostructures **2021**, 93-116 1

88 Impact of defects on the structural and electrical transport properties of Sb₂Te₃ thin films by SHI irradiation. *Materials Letters: X*, **2021**, 12, 100113 0.5

87 Synthesis and characterization of terbium doped TiO₂ nanoparticles and their use as recyclable and reusable heterogeneous catalyst for efficient and environmentally sustainable synthesis of spiroannulated indolo[3,2-c]quinolines- mimetic scaffolds of isocryptolepine. *Applied Organometallic Chemistry*, **2020**, 34, e5836 3.1 5

86 Development of ZnO nanostructure film for pH sensing application. *Applied Physics A: Materials Science and Processing*, **2020**, 126, 1 2.6 15

85 Synthesis and thermal analysis of polyaniline (PANI). *Journal of Physics: Conference Series*, **2020**, 1531, 012108 0.3 3

84 Dose dependent enhanced antibacterial effects and reduced biofilm activity against *Bacillus subtilis* in presence of ZnO nanoparticles. *Materials Science and Engineering C*, **2020**, 113, 111021 8.3 14

83 Nanoporous Polymeric Membranes for Hydrogen Separation. *Green Energy and Technology*, **2020**, 355-3766

82 Highly stable nanostructured Bi₂Se₃ anode material for all solid-state lithium-ion batteries. *Journal of Alloys and Compounds*, **2020**, 838, 155403 5.7 12

81 Efficient and Sustainable Synthesis of Spiroannulated Hybrid Molecules with Privileged Substructures using Nanostructured Heterogeneous Catalyst. *ChemistrySelect*, **2020**, 5, 14069-14077 1.8

80 Electrochemical reaction mechanism for Bi₂Te₃-based anode material in highly durable all solid-state lithium-ion batteries. *Journal of Materials Science: Materials in Electronics*, **2020**, 31, 16429-16436 2.1 6

79 Active block copolymer layer on carboxyl-functionalized PET film for hydrogen separation. *International Journal of Hydrogen Energy*, **2020**, 45, 18676-18684 6.7 2

78 The destabilization of LiBH₄ through the addition of Bi₂Se₃ nanosheets. *International Journal of Hydrogen Energy*, **2020**, 45, 23947-23953 6.7 7

77 Hydrogen ion sensing characteristics of Na₃BiO₄Bi₂O₃ mixed oxide nanostructures based EGFET pH sensor. *International Journal of Hydrogen Energy*, **2020**, 45, 18743-18751 6.7 20

76	Nanostructured Bi ₂ Te ₃ as anode material as well as a destabilizing agent for LiBH ₄ . <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 16992-16999	6.7	11
75	Gas sensing properties of ZnO nanostructures (flowers/rods) synthesized by hydrothermal method. <i>Sensors and Actuators B: Chemical</i> , 2019 , 292, 24-31	8.5	113
74	Disposable bismuth-based electrodes for heavy metal ion detection. <i>IOP Conference Series: Earth and Environmental Science</i> , 2019 , 228, 012014	0.3	1
73	Morphology-dependent structural and optical properties of ZnO nanostructures. <i>Applied Physics A: Materials Science and Processing</i> , 2019 , 125, 1	2.6	13
72	Optical studies on bismuth chalcogenides. <i>Materials Today: Proceedings</i> , 2019 , 10, 142-150	1.4	2
71	Flower-like BiS nanostructures as highly efficient anodes for all-solid-state lithium-ion batteries.. <i>RSC Advances</i> , 2019 , 9, 29549-29555	3.7	15
70	LiBH ₄ as solid electrolyte for Li-ion batteries with Bi ₂ Te ₃ nanostructured anode. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 21709-21714	6.7	13
69	Synthesis and characterization of polyaniline membranes with secondary amine additive containing N,N'-dimethyl propylene urea for fuel cell application. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 21715-21723	6.7	7
68	Electrochemical hydrogen evolution and storage studies on bismuth nano hexagons. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 21642-21648	6.7	11
67	Synthesis and characterization of hybrid PANI/MWCNT nanocomposites for EMI applications. <i>Polymer Composites</i> , 2018 , 39, 3858-3868	3	27
66	Polyaniline/Carbon Nanotube Composites: Preparation Methods, Properties, and Applications. <i>Polymer-Plastics Technology and Engineering</i> , 2018 , 57, 70-97		46
65	Functionalized and engineered nanochannels for gas separation. <i>Pure and Applied Chemistry</i> , 2018 , 90, 1063-1071	2.1	5
64	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. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 21690-21698	6.7	9
63	Investigation of dimensionality-dependent thermal stability of (Bi) ₂ (Te) ₃ . <i>Applied Physics A: Materials Science and Processing</i> , 2018 , 124, 1	2.6	2
62	Electrochemical sensor for detection of mercury (II) ions in water using nanostructured bismuth hexagons. <i>Applied Physics A: Materials Science and Processing</i> , 2018 , 124, 1	2.6	11
61	An efficient and environmentally sustainable domino protocol for the synthesis of structurally diverse spiroannulated pyrimidophenazines using erbium doped TiO nanoparticles as a recyclable and reusable heterogeneous acid catalyst.. <i>RSC Advances</i> , 2018 , 8, 30430-30440	3.7	16
60	Investigation of luminescence and structural properties of ZnO nanoparticles, synthesized with different precursors. <i>Materials Chemistry Frontiers</i> , 2017 , 1, 1413-1421	7.8	61
59	Effects of hydroxyl-functionalized multiwalled carbon nanotubes on sperm health and testes of Wistar rats. <i>Toxicology and Industrial Health</i> , 2017 , 33, 519-529	1.8	4

58	Palladium nanoparticle binding in functionalized track etched PET membrane for hydrogen gas separation. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 16186-16194	6.7	14
57	Selective deposition of Pd nanoparticles in porous PET membrane for hydrogen separation. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 15203-15210	6.7	11
56	Effective Doping of Er ³⁺ in ZnO Nanoparticles to Control Its Luminescent Properties. <i>Macromolecular Symposia</i> , 2017 , 376, 1700005	0.8	2
55	Hydrogen gas separation with controlled selectivity via efficient and cost effective block copolymer coated PET membranes. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 19977-19983	6.7	10
54	Titania nanodots array using self-assembled poly(styrene)-b-poly(4-vinylpyridine) block copolymer nanotemplates via ex-situ approach. <i>Materials Letters</i> , 2017 , 209, 365-368	3.3	2
53	Investigation of thermal stability of TiO ₂ nanoparticles using 1-thioglycerol as capping agent. <i>Solid State Communications</i> , 2017 , 263, 1-5	1.6	5
52	Effect of ZnO Nanoparticles on Germination of Triticum aestivum Seeds. <i>Macromolecular Symposia</i> , 2017 , 376, 1700043	0.8	24
51	Effect of Volume Fraction of Minority Block on Morphology of PS-b-P4VP Nanotemplates. <i>Macromolecular Symposia</i> , 2017 , 376, 1700016	0.8	2
50	Hydrogen Sorption Characteristics of ZrCrAl Ternary Alloy as a Function of Milling Time. <i>Macromolecular Symposia</i> , 2017 , 376, 1700047	0.8	1
49	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	6.7	29
48	Electrical behavior of dual-morphology polyaniline. <i>Journal of Applied Polymer Science</i> , 2016 , 133,	2.9	22
47	ZnO nanoparticles favours heterogeneous nucleation in PET/ZnO nanocomposites. <i>Philosophical Magazine</i> , 2015 , 95, 2306-2322	1.6	2
46	Cytotoxicity, genotoxicity and alteration of cellular antioxidant enzymes in silver nanoparticles exposed CHO cells. <i>RSC Advances</i> , 2015 , 5, 34927-34935	3.7	24
45	An efficient one pot three-component nanocatalyzed synthesis of spiroheterocycles using TiO ₂ nanoparticles as a heterogeneous catalyst. <i>RSC Advances</i> , 2015 , 5, 46415-46422	3.7	24
44	SHI irradiation of metal doped zinc sulfide polymer nanocomposites synthesized using micro emulsion method. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015 , 358, 258-262	1.2	2
43	Thermal Stability and Electrical Properties of Polyaniline Synthesized by Oxidative Polymerization Method. <i>Macromolecular Symposia</i> , 2015 , 357, 168-172	0.8	10
42	Toxicological Evaluation of TiO ₂ Nanoparticles in Bacterial Cell. <i>Macromolecular Symposia</i> , 2015 , 357, 235-240	0.8	3
41	Poly (Ethylene Terephthalate)-ZnO Nanocomposites: Optical and Raman Studies. <i>Macromolecular Symposia</i> , 2015 , 357, 105-108	0.8	1

40	Preface to the special issue on Soft Materials ICSM 2014. <i>Macromolecular Symposia</i> , 2015 , 357, 11-11	0.8	
39	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	0.8	
38	Structural and Morphological Study of PS-TiO ₂ Nanocomposite Membranes. <i>Macromolecular Symposia</i> , 2015 , 357, 200-205	0.8	3
37	Structural and Morphological Study of PS-ZnO Nanocomposite Membrane. <i>Macromolecular Symposia</i> , 2015 , 357, 218-222	0.8	5
36	Silver Nanoparticles and Carbon Nanotubes Induced DNA Damage in Mice Evaluated by Single Cell Gel Electrophoresis. <i>Macromolecular Symposia</i> , 2015 , 357, 210-217	0.8	5
35	Optical and Structural Study of Polyaniline/Polystyrene Composite Films. <i>Macromolecular Symposia</i> , 2015 , 357, 229-234	0.8	19
34	In Vivo Genotoxic Assessment Of Silver Nanoparticles In Liver Cells Of Swiss Albino Mice Using Comet Assay. <i>Advanced Materials Letters</i> , 2015 , 6, 187-193	2.4	15
33	Functionalization of track-etched poly (ethylene terephthalate) membranes as a selective filter for hydrogen purification. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 9356-9365	6.7	21
32	Non-isothermal crystallization kinetics of TiO ₂ nanoparticle-filled poly(ethylene terephthalate) with structural and chemical properties. <i>Polymer Bulletin</i> , 2014 , 71, 1539-1555	2.4	13
31	60MeV Ni ion induced modifications in nano-CdS/polystyrene composite films. <i>Radiation Physics and Chemistry</i> , 2014 , 94, 49-53	2.5	21
30	Synthesis and Crystallization Studies of Thermo-plastic Polyester/Titania Nanocomposites. <i>Journal of Nuclear Physics Material Sciences Radiation and Applications</i> , 2014 , 1, 207-211	0.2	7
29	Surface Modification Of Nanocomposite Polymer Membranes By Ion Plasma Irradiation For Improving Biocompatibility Of Polymer. <i>Advanced Materials Letters</i> , 2014 , 5, 645-651	2.4	8
28	Silver nanoparticle induced cytotoxicity, oxidative stress, and DNA damage in CHO cells. <i>Journal of Nanoparticle Research</i> , 2013 , 15, 1	2.3	43
27	Multi walled carbon nano tubes induced hepatotoxicity in Swiss albino mice. <i>Micron</i> , 2013 , 44, 359-64	2.3	48
26	Antimicrobial Properties of Electro-Chemically Stabilized Organo-Metallic Thin Films 2013 , 1, 42-47		9
25	Synthesis and Characterization of Plasma Treated TiO ₂ Nano Composites Polymer Membranes 2013 , 1, 98-104		4
24	ZnO Doping in PET Matrix Enhances Conductivity of PET-ZnO Nanocomposites 2013 , 1, 118-123		2
23	Large area Cl ⁹⁺ irradiated PET membranes for hydrogen separation. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 9374-9381	6.7	15

22	OPTICAL AND DYNAMIC MECHANICAL CHARACTERIZATION OF THIN FILM POLYMER NANOCOMPOSITES. <i>International Journal of Modern Physics B</i> , 2010 , 24, 57-63	1.1	0
21	Optical, chemical and structural modification of oxygen irradiated PET. <i>Radiation Measurements</i> , 2010 , 45, 850-855	1.5	44
20	Microstructure change in poly(ethersulfone) films by swift heavy ions. <i>Micron</i> , 2010 , 41, 390-4	2.3	22
19	Enhancement of hydrogen gas permeability in electrically aligned MWCNT-PMMA composite membranes. <i>Micron</i> , 2010 , 41, 909-14	2.3	49
18	Hydrogen separation in doped and blend polymer membranes. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 327-331	6.7	32
17	Study of hydrogen transport through porous aluminum and composite membranes. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 346-349	6.7	17
16	Characterization of asymmetric polymeric membranes by gas permeation. <i>Micron</i> , 2007 , 38, 326-9	2.3	9
15	Characterization of Nanocomposite Polymeric Membrane. <i>Journal of Polymer Research</i> , 2007 , 13, 357-360.	6.7	23
14	Swift heavy ion (SHI) irradiated polymer blend membranes for hydrogen permeation. <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 3105-3108	6.7	22
13	Preparation and Characterization of Zn-Se Bilayer Structure. <i>Advanced Materials Research</i> , 2007 , 31, 153-157	6.7	15
12	Structural, optical, thermo-mechanical and transport properties of ion irradiated polymer membranes. <i>Polymer Bulletin</i> , 2006 , 56, 427-435	2.4	28
11	Conduction nature of conical pores in PET membrane. <i>Polymer Bulletin</i> , 2006 , 57, 723-728	2.4	7
10	Transport through track etched polymeric blend membrane. <i>Bulletin of Materials Science</i> , 2006 , 29, 261-264	6.7	20
9	Swift heavy ion irradiated polymeric membranes for gas permeation. <i>Journal of Applied Polymer Science</i> , 2006 , 102, 2386-2390	2.9	11
8	Temperature Dependence Study of Gas Permeability in Metal Doped Composite Polymeric Membranes. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 973, 1		
7	Surface Modification and Synthesis of Polymeric Membrane for Energy and Biological Applications. <i>Journal of Biomedical Nanotechnology</i> , 2006 , 2, 144-151	4	15
6	Gas and ion transport through a track-etched large-area polymer film. <i>Desalination</i> , 2006 , 195, 273-280	10.3	16
5	Ion transport through track etched polypropylene membrane. <i>European Polymer Journal</i> , 2006 , 42, 883-887	6.7	18

4	Study of gas permeation for asymmetric track-etched polymer blends. <i>International Journal of Hydrogen Energy</i> , 2006 , 31, 1266-1270	6.7	19
3	Using fast atomic source and low-energy plasma ions for polymer surface modification. <i>Vacuum</i> , 2006 , 80, 643-646	3.7	14
2	Gas permeation study of Ti-coated, track-etched polymeric membranes. <i>Vacuum</i> , 2006 , 81, 389-393	3.7	19
1	Effect of temperature and irradiation on gas permeability for polymeric membrane. <i>Bulletin of Materials Science</i> , 2005 , 28, 643-646	1.7	10