H Kim

List of Publications by Year
in descending order

117 papers	4,823 citations	61945 43 h-index	123376 61 g-index
118 all docs	118 docs citations	118 times ranked	5913 citing authors

#	Article	IF	Citations
1	Critical Review, Recent Updates on Zeolitic Imidazolate Frameworkâ€67 (ZIFâ€67) and Its Derivatives for Electrochemical Water Splitting. Advanced Materials, 2022, 34, e2107072.	11.1	183
2	Imidazolium zinc tetrahalide-catalyzed coupling reaction of CO2 and ethylene oxide or propylene oxide. Journal of Catalysis, 2003, 220, 44-46.	3.1	151
3	Bimetallic iron cobalt oxide self-supported on Ni-Foam: An efficient bifunctional electrocatalyst for oxygen and hydrogen evolution reaction. Electrochimica Acta, 2017, 249, 253-262.	2.6	124
4	Ionic liquid as a catalyst for utilization of carbon dioxide to production of linear and cyclic carbonate. Fuel, 2017, 200, 316-332.	3.4	119
5	Low internal concentration polarization in forward osmosis membranes with hydrophilic crosslinked PVA nanofibers as porous support layer. Desalination, 2014, 336, 24-31.	4.0	118
6	Preparation of Ni-MOF-74 membrane for CO2 separation by layer-by-layer seeding technique. Microporous and Mesoporous Materials, 2012, 163, 169-177.	2.2	115
7	Hydrogen production from NaBH4 hydrolysis via Co-ZIF-9 catalyst. Fuel Processing Technology, 2012, 100, 43-48.	3.7	103
8	Adsorptive Li+ mining from liquid resources by H2TiO3: Equilibrium, kinetics, thermodynamics, and mechanisms. Journal of Industrial and Engineering Chemistry, 2016, 35, 347-356.	2.9	99
9	Cobalt nanoparticles supported on magnetic core-shell structured carbon as a highly efficient catalyst for hydrogen generation from NaBH 4 hydrolysis. International Journal of Hydrogen Energy, 2018, 43, 9296-9306.	3.8	99
10	Efficient selective dehydration of fructose and sucrose into 5-hydroxymethylfurfural (HMF) using dicationic room temperature ionic liquids as a catalyst. Catalysis Communications, 2012, 21, 96-103.	1.6	96
11	Polyurethane nanofibers containing copper nanoparticles as future materials. Applied Surface Science, 2011, 257, 3020-3026.	3.1	91
12	Fe2O3 hollow nanorods/CNT composites as an efficient electrocatalyst for oxygen evolution reaction. Electrochimica Acta, 2016, 222, 1316-1325.	2.6	82
13	H 2 TiO 3 composite adsorbent foam for efficient and continuous recovery of Li + from liquid resources. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 504, 267-279.	2.3	79
14	Mixed matrix nanofiber as a flow-through membrane adsorber for continuous Li+ recovery from seawater. Journal of Membrane Science, 2016, 510, 141-154.	4.1	79
15	Influence of processing methodology on the structural and magnetic behavior of MgFe2O4 nanopowders. Journal of Alloys and Compounds, 2012, 517, 164-169.	2.8	74
16	Preparation of superhydrophobic membranes by electrospinning of fluorinated silane functionalized poly(vinylidene fluoride). Applied Surface Science, 2009, 255, 7073-7077.	3.1	72
17	Cobalt impregnated magnetite-multiwalled carbon nanotube nanocomposite as magnetically separable efficient catalyst for hydrogen generation by NaBH4 hydrolysis. Journal of Alloys and Compounds, 2017, 699, 1057-1067.	2.8	72
18	Iron-based heterogeneous catalysts for oxygen evolution reaction; change in perspective from activity promoter to active catalyst. Journal of Power Sources, 2018, 395, 106-127.	4.0	68

#	Article	IF	Citations
19	Preparation of PVDF nanofiber composites for hydrogen generation from sodium borohydride. Energy, 2011, 36, 755-759.	4.5	64
20	Synthesis of Co3O4 macrocubes catalyst using novel chitosan/urea template for hydrogen generation from sodium borohydride. Energy, 2017, 121, 238-245.	4.5	63
21	Carbon nanotube ensembled hybrid nanocomposite electrode for direct electrochemical detection of epinephrine in pharmaceutical tablets and urine. Materials Science and Engineering C, 2017, 79, 93-99.	3.8	61
22	Electrospun carbon nanofiber-carbon nanotubes composites coated with polyaniline with improved electrochemical properties for supercapacitors. Electrochimica Acta, 2018, 259, 1110-1119.	2.6	57
23	Ce Zr1â"O2 solid solutions for catalytic synthesis of dimethyl carbonate from CO2: Reaction mechanism and the effect of catalyst morphology on catalytic activity. Fuel, 2018, 216, 245-254.	3.4	57
24	Engineered iron-carbon-cobalt (Fe3O4@C-Co) core-shell composite with synergistic catalytic properties towards hydrogen generation via NaBH4 hydrolysis. Journal of Colloid and Interface Science, 2019, 543, 273-284.	5.0	57
25	Biomass into chemicals: green chemical conversion of carbohydrates into 5-hydroxymethylfurfural in ionic liquids. RSC Advances, 2016, 6, 63991-64002.	1.7	56
26	Recent Trends in Electrochemical Sensors for Vital Biomedical Markers Using Hybrid Nanostructured Materials. Advanced Science, 2020, 7, 1902980.	5.6	54
27	Derivation of both EDLC and pseudocapacitance characteristics based on synergistic mixture of NiCo2O4 and hollow carbon nanofiber: An efficient electrode towards high energy density supercapacitor. Electrochimica Acta, 2019, 318, 392-404.	2.6	52
28	Characterization of structure, physico-chemical properties and diffusion behavior of Ca-Alginate gel beads prepared by different gelation methods. Journal of Colloid and Interface Science, 2014, 432, 109-116.	5.0	51
29	Development of high capacity Li+ adsorbents from H2TiO3/polymer nanofiber composites: Systematic polymer screening, characterization and evaluation. Journal of Industrial and Engineering Chemistry, 2019, 70, 124-135.	2.9	50
30	Use of a nickel-borideâ€"silica nanocomposite catalyst prepared by in-situ reduction for hydrogen production from hydrolysis of sodium borohydride. Fuel Processing Technology, 2008, 89, 966-972.	3.7	49
31	Facile synthesis of bicontinuous Ni3Fe alloy for efficient electrocatalytic oxygen evolution reaction. Journal of Alloys and Compounds, 2017, 726, 875-884.	2.8	49
32	Spray deposition of electrospun TiO2 nanoparticles with self-cleaning and transparent properties onto glass. Applied Surface Science, 2013, 276, 390-396.	3.1	48
33	Imaging, spectroscopy, mechanical, alignment and biocompatibility studies of electrospun medical grade polyurethane (Carbothaneâ„¢ 3575A) nanofibers and composite nanofibers containing multiwalled carbon nanotubes. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 41, 189-198.	1.5	48
34	Liquid-liquid extraction of lithium using lipophilic dibenzo-14-crown-4 ether carboxylic acid in hydrophobic room temperature ionic liquid. Hydrometallurgy, 2016, 164, 362-371.	1.8	48
35	Triazole-forming waterborne polyurethane composites fabricated with silane coupling agent functionalized nano-silica. Journal of Colloid and Interface Science, 2011, 361, 483-490.	5.0	47
36	Immobilization of CoCl2 (cobalt chloride) on PAN (polyacrylonitrile) composite nanofiber mesh filled with carbon nanotubes for hydrogen production from hydrolysis of NaBH4 (sodium borohydride). Energy, 2014, 71, 32-39.	4.5	47

#	Article	IF	Citations
37	Carbon nanotube hybrid nanostructures: future generation conducting materials. Journal of Materials Chemistry A, 2016, 4, 9347-9361.	5.2	47
38	Synergism of transition metal (Co, Ni, Fe, Mn) nanoparticles and â€œactive supportâ€•Fe3O4@C for catalytic reduction of 4-nitrophenol. Science of the Total Environment, 2020, 712, 135492.	3.9	47
39	Hydrogen generation from the hydrolysis of sodium borohydride using chemically modified multiwalled carbon nanotubes with pyridinium based ionic liquid and decorated with highly dispersed Mn nanoparticles. Journal of Power Sources, 2015, 293, 429-436.	4.0	46
40	Thermal degradation and kinetic analysis of PVDF/modified MMT nanocomposite membranes. Desalination, 2008, 234, 9-15.	4.0	45
41	Utilization of the superior properties of highly mesoporous PVP modified NiCo2O4 with accessible 3D nanostructure and flower-like morphology towards electrochemical methanol oxidation reaction. Journal of Energy Chemistry, 2019, 29, 136-146.	7.1	45
42	A switchable single-molecule electrochromic device derived from a viologen-tethered triazolium-based poly(ionic liquid). Journal of Materials Chemistry A, 2019, 7, 21668-21673.	5.2	45
43	Preparation and application of sodium borohydride composites for portable hydrogen production. Energy, 2010, 35, 960-963.	4.5	44
44	Fabrication of porous TiO2 nanofiber and its photocatalytic activity. Materials Research Bulletin, 2011, 46, 2094-2099.	2.7	44
45	Electrospun ZnFe2O4-based nanofiber composites with enhanced supercapacitive properties. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2016, 211, 141-148.	1.7	44
46	Facile synthesis of Ag3PO4/g-C3N4 composites in various solvent systems with tuned morphologies and their efficient photocatalytic activity for multi-dye degradation. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 368, 168-181.	2.0	44
47	NiCo2O4 hollow sphere as an efficient catalyst for hydrogen generation by NaBH4 hydrolysis. Materials Letters, 2017, 198, 50-53.	1.3	43
48	Ternary NiCoP urchin like 3D nanostructure supported on nickel foam as a catalyst for hydrogen generation of alkaline NaBH4. Chemical Physics, 2019, 516, 152-159.	0.9	43
49	A Simple Method of Electrospun Tungsten Trioxide Nanofibers with Enhanced Visible-Light Photocatalytic Activity. Nano-Micro Letters, 2015, 7, 291-297.	14.4	41
50	One-pot synthesis of 2,5-diformylfuran from fructose using a magnetic bi-functional catalyst. RSC Advances, 2016, 6, 25678-25688.	1.7	41
51	Cobalt oxide synthesized using urea precipitation method as catalyst for the hydrolysis of sodium borohydride. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 520, 355-360.	2.3	41
52	Efficient Dehydration of Glucose, Sucrose, and Fructose to 5-Hydroxymethylfurfural Using Tri-cationic Ionic Liquids. Catalysis Letters, 2019, 149, 672-687.	1.4	41
53	Ni/Ag/silica nanocomposite catalysts for hydrogen generation from hydrolysis of NaBH4 solution. Materials Letters, 2008, 62, 1451-1454.	1.3	39
54	Green synthesis, characterization and catalytic efficiency of hypercross-linked porous polymeric ionic liquid networks towards 4-nitrophenol reduction. Chemical Engineering Journal, 2016, 285, 554-561.	6.6	39

#	Article	IF	Citations
55	Highly selective and multifunctional chitosan/ionic liquids catalyst for conversion of CO2 and methanol to dimethyl carbonates at mild reaction conditions. Fuel, 2016, 166, 495-501.	3.4	37
56	Carbon Transitionâ€metal Oxide Electrodes: Understanding the Role of Surface Engineering for High Energy Density Supercapacitors. Chemistry - an Asian Journal, 2020, 15, 1628-1647.	1.7	37
57	Diffusion characteristics of different molecular weight solutes in Caâ€“alginate gel beads. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 469, 158-165.	2.3	36
58	Preparation of Y-zeolite/CoCl2 doped PVDF composite nanofiber and its application in hydrogen production. Energy, 2012, 38, 144-150.	4.5	35
59	Catalytic hydrolysis of ammonia borane for hydrogen generation using cobalt nanocluster catalyst supported on polydopamine functionalized multiwalled carbon nanotube. Energy, 2014, 76, 822-829.	4.5	35
60	Microwave-Assisted Synthesis of a Stainless Steel Mesh-Supported Co₃O₄ Microrod Array As a Highly Efficient Catalyst for Electrochemical Water Oxidation. ACS Sustainable Chemistry and Engineering, 2017, 5, 11069-11079.	3.2	35
61	Conversion of sugars (sucrose and glucose) into 5-hydroxymethylfurfural in pyridinium based dicationic ionic liquid ([C10(EPy)2]2Brâ˜) with chromium chloride as a catalyst. Industrial Crops and Products, 2015, 76, 12-17.	2.5	32
62	In-situ derived hierarchical ZnO/Zn-C nanofiber with high photocatalytic activity and recyclability under solar light. Applied Surface Science, 2019, 491, 350-359.	3.1	32
63	Synthesis and application of CeO2â€“NiO loaded TiO2 nanofiber as novel catalyst for hydrogen production from sodium borohydride hydrolysis. Energy, 2015, 89, 568-575.	4.5	31
64	A super hydrophilic modification of poly(vinylidene fluoride) (PVDF) nanofibers: By in situ hydrothermal approach. Applied Surface Science, 2016, 385, 417-425.	3.1	31
65	Ion-conductive and transparent PVdF-HFP/silane-functionalized ZrO2 nanocomposite electrolyte for electrochromic applications. Electrochimica Acta, 2016, 196, 236-244.	2.6	31
66	Diethylenetriamine assisted synthesis of mesoporous Co and Ni-Co spinel oxides as an electrocatalysts for methanol and water oxidation. Electrochimica Acta, 2017, 240, 277-287.	2.6	31
67	Nanocatalyst: Electrospun nanofibers of PVDF â€“ Dicationic tetrachloronickelate (II) anion and their effect on hydrogen generation from the hydrolysis of sodium borohydride. International Journal of Hydrogen Energy, 2012, 37, 18851-18859.	3.8	29
68	Preparation of porous PVDF-NiB capsules as catalytic adsorbents for hydrogen generation from sodium borohydride. Fuel Processing Technology, 2011, 92, 1368-1373.	3.7	28
69	Preparation and application of Smâ€“Ni oxide doped TiO2 nanofiber as catalyst in hydrogen production from sodium borohydride hydrolysis. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 484, 242-252.	2.3	28
70	Environment friendly hydrothermal synthesis of carbonâ€“Co3O4 nanorods composite as an efficient catalyst for oxygen evolution reaction. Journal of Energy Chemistry, 2017, 26, 695-702.	7.1	28
71	Facile synthesis of polypyrrole/ionic liquid nanoparticles and use as an electrocatalyst for oxygen evolution reaction. Chemical Engineering Journal, 2018, 335, 215-220.	6.6	28
72	Electrospun titanium dioxide nanofibers containing hydroxyapatite and silver nanoparticles as future implant materials. Journal of Materials Science: Materials in Medicine, 2010, 21, 2551-2559.	1.7	26

#	Article	IF	Citations
73	Preparation of solâ€“gel modified electrospun TiO2 nanofibers for improved photocatalytic decomposition of ethylene. Materials Letters, 2012, 76, 169-172.	1.3	26
74	Improved electrocatalytic oxygen evolution reaction properties using PVP modified direct growth Co-based metal oxides electrocatalysts on nickel foam. Electrochimica Acta, 2018, 263, 362-372.	2.6	26
75	Transition metal based ionic liquid (bulk and nanofiber composites) used as catalyst for reduction of aromatic nitro compounds under mild conditions. RSC Advances, 2013, 3, 3399.	1.7	25
76	Synthesis and characterization of poly (vinylidene fluoride)â€“calcium phosphate composite for potential tissue engineering applications. Ceramics International, 2015, 41, 7066-7072.	2.3	25
77	Water-insoluble hydrophilic polysulfides as microfibrous composites towards highly effective and practical Hg2+ capture. Chemical Engineering Journal, 2019, 378, 122216.	6.6	25
78	A mild, efficient, and selective deprotection of tert-butyldimethylsilyl (TBDMS) ethers using dicationic ionic liquid as a catalyst. Tetrahedron Letters, 2012, 53, 5338-5342.	0.7	24
79	Fabrication of ionic liquid/polymer nanoscale networks by electrospinning and chemical cross-linking and their application in hydrogen generation from the hydrolysis of NaBH4. Energy, 2015, 79, 482-488.	4.5	24
80	Highly efficient synthesis of dimethyl carbonate from methanol and carbon dioxide using IL/DBU/SmOCl as a novel ternary catalytic system. Catalysis Communications, 2016, 75, 87-91.	1.6	24
81	Solvent free synthesis of 1,5-benzodiazepine derivatives over the heterogeneous silver salt of silicotungstic acid under ambient conditions. RSC Advances, 2013, 3, 5131.	1.7	21
82	Effect of different solvents in the synthesis of LaCoO3 nanopowders prepared by the co-precipitation method. Advanced Powder Technology, 2014, 25, 1834-1838.	2.0	21
83	Ionic Liquid-Derived Co₃O₄-N/S-Doped Carbon Catalysts for the Enhanced Water Oxidation. ACS Sustainable Chemistry and Engineering, 2019, 7, 14889-14898.	3.2	21
84	Surfactant modified MgFe2O4 nanopowders by reverse micelle processing: Effect of water to surfactant ratio (R) on the particle size and magnetic property. Applied Surface Science, 2012, 258, 3315-3320.	3.1	20
85	CuCl2@Poly-IL catalyzed carboxylation of terminal alkynes through CO2 utilization. Chemical Engineering Journal, 2017, 326, 1009-1019.	6.6	20
86	Amorphous iron sulfide nanowires as an efficient adsorbent for toxic dye effluents remediation. Environmental Science and Pollution Research, 2019, 26, 2734-2746.	2.7	20
87	Structurally modified cerium doped hydrotalcite-like precursor as efficient catalysts for hydrogen production from sodium borohydride hydrolysis. Energy, 2015, 93, 955-962.	4.5	19
88	Synthesis, characterization, and application of silica supported ionic liquid as catalyst for reductive amination of cyclohexanone with formic acid and triethyl amine as hydrogen source. Chinese Journal of Catalysis, 2015, 36, 1365-1371.	6.9	19
89	Effect of poly(ethylene oxide) and water on electrospun poly(vinylidene fluoride) nanofibers with enhanced mechanical properties as pre-filter for oil-in-water filtration. Materials Chemistry and Physics, 2016, 182, 208-218.	2.0	19
90	Synthesis of 1-amidoalkyl 2-naphthols using ionic liquid with metal complex as an efficient and reusable catalyst under solvent free conditions. Journal of Molecular Liquids, 2015, 212, 413-417.	2.3	18

#	Article	IF	Citations
91	Ionic liquid functionalized graphene oxide decorated with copper oxide nanostructures towards H2 generation from sodium borohydride. International Journal of Hydrogen Energy, 2016, 41, 14491-14497.	3.8	18
92	Superior decontamination of toxic organic pollutants under solar light by reduced graphene oxide incorporated tetrapods-like Ag3PO4/MnFe2O4 hierarchical composites. Journal of Environmental Management, 2020, 256, 109930.	3.8	18
93	Synthesis of ultrafine MgFe2O4 nanofibers via electrospining using solâ€“gel precursor. Journal of Sol-Gel Science and Technology, 2013, 65, 189-194.	1.1	17
94	Solvent free synthesis of cyclic ureas and urethanes by carbonylation method in the basic dicationic ionic liquid catalysts. Chemical Engineering Journal, 2016, 306, 826-831.	6.6	17
95	Spinel type Fe3O4 polyhedron supported on nickel foam as an electrocatalyst for water oxidation reaction. Journal of Alloys and Compounds, 2021, 863, 158742.	2.8	17
96	Chitosan grafted polymer matrix/ZnCl2/1,8-diazabicycloundec-7-ene catalytic system for efficient catalytic fixation of CO2 into valuable fuel additives. Fuel, 2016, 184, 233-241.	3.4	16
97	Efficient decontamination of toxic phenol pollutant using LaCO3OH nanowires decorated Ag3PO4 hierarchical composites mediated by metallic Ag. Science of the Total Environment, 2019, 675, 325-336.	3.9	16
98	Hierarchically assembled porous TiO2 nanoparticles with enhanced photocatalytic activity towards Rhodamine-B degradation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 586, 124199.	2.3	16
99	Synthesis of cerium and nickel doped titanium nanofibers for hydrolysis of sodium borohydride. Chemosphere, 2018, 202, 669-676.	4.2	14
100	Removal of Cs+ in water by dibenzo-18-crown-6 ether tethered on mesoporous SBA-15 as a reusable and efficient adsorbent. Journal of Water Process Engineering, 2021, 39, 101716.	2.6	14
101	Synthesis of substituted amines: Catalytic reductive amination of carbonyl compounds using Lewis acid Znâ€“Co-double metal cyanide/polymethylhydrosiloxane. Chemical Engineering Journal, 2016, 295, 376-383.	6.6	13
102	Crown ethers â€œclickedâ€•on fibrous polyglycidyl methacrylate for selective Li+ retrieval from aqueous sources. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 596, 124709.	2.3	12
103	Transformation of waste onion peels into core-shell Fe3C@ N-doped carbon as a robust electrocatalyst for oxygen evolution reaction. Electrochimica Acta, 2022, 422, 140545.	2.6	12
104	Graphene oxide interlayered Ga-doped FeSe2 nanorod: A robust nanocomposite with ideal electronic structure for electrochemical dopamine detection. Electrochimica Acta, 2020, 363, 137245.	2.6	11
105	ZnO@Ni foam photoelectrode modified with heteroatom doped graphitic carbon for enhanced photoelectrochemical water splitting under solar light. International Journal of Hydrogen Energy, 2021, 46, 2075-2085.	3.8	11
106	Microstructural control of catalyst-loaded PVDF microcapsule membrane for hydrogen generation by NaBH 4 hydrolysis. International Journal of Hydrogen Energy, 2014, 39, 15656-15664.	3.8	10
107	A lattice model for solid-state sintering simple particle arrays. Computational Materials Science, 1995, 4, 181-190.	1.4	9
108	Highly porous NiMoO4 tailored onto amine functionalized CNT as advanced nanocomposite electrocatalyst for supercapacitor application. Journal of Materials Science: Materials in Electronics, 2019, 30, 9558-9571.	1.1	9

#	Article	IF	Citations
109	Zirconium dioxide nanofilled poly(vinylidene fluoride-hexafluoropropylene) complexed with lithium trifluoromethanesulfonate as composite polymer electrolyte for electrochromic devices. Materials Research Bulletin, 2015, 69, 104-111.	2.7	8
110	Electrochemically engineered zinc(iron)oxyhydroxide/zinc ferrite heterostructure with interfacial microstructure and hydrophilicity ideal for supercapacitors. Journal of Colloid and Interface Science, 2022, 606, 607-617.	5.0	8
111	Inâ€…Situ Electrochemical Formation of a Coreâ€Shell ZnFe 2 O 4 @Zn(Fe)OOH Heterostructural Catalyst for Efficient Water Oxidation in Alkaline Medium. ChemElectroChem, 2020, 7, 3478-3486.	1.7	7
112	Solventâ€free synthesis of propargylamines via A 3 coupling reaction and organic pollutant degradation in aqueous condition using Cu/C catalyst. Applied Organometallic Chemistry, 2020, 34, e5986.	1.7	7
113	Thermochromic transition analysis of elastomer prepared from azo dye-siloxane blend. Materials Chemistry and Physics, 2020, 240, 122297.	2.0	5
114	Synthesis of free-standing poly(ionic liquid) bearing 1,2,3-triazole group for the adsorptive elimination of Cr6+from aqueous solution. Journal of Environmental Chemical Engineering, 2020, 8, 104084.	3.3	4
115	Highly soluble electroactive ethylenedioxythiopene (EDOT)-based copolymer obtained via â€˜clickâ€™ copolymerization. Polymer, 2021, 226, 123846.	1.8	3
116	A simple computer simulation method for the analysis of phase behavior of particle suspension. Journal of Materials Science Letters, 2001, 20, 1545-1547.	0.5	1
117	Microstructural analysis of sintering behavior of intra-grain pores. Korean Journal of Chemical Engineering, 1998, 15, 663-666.	1.2	0