Maan Hayyan

List of Publications by Year
in descending order

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77 papers	8,084 citations	81743 39 h-index	76769 74 g-index
80 all docs	80 docs citations	80 times ranked	8276 citing authors

#	Article	IF	Citations
1	Superoxide Ion: Generation and Chemical Implications. Chemical Reviews, 2016, 116, 3029-3085.	23.0	1,458
2	Are deep eutectic solvents benign or toxic?. Chemosphere, 2013, 90, 2193-2195.	4.2	473
3	Potential applications of deep eutectic solvents in nanotechnology. Chemical Engineering Journal, 2015, 273, 551-567.	6.6	415
4	New horizons in the extraction of bioactive compounds using deep eutectic solvents: A review. Analytica Chimica Acta, 2017, 979, 1-23.	2.6	377
5	Applications of deep eutectic solvents in biotechnology and bioengineeringâ€"Promises and challenges. Biotechnology Advances, 2017, 35, 105-134.	6.0	361
6	Glycerol-based deep eutectic solvents: Physical properties. Journal of Molecular Liquids, 2016, 215, 98-103.	2.3	294
7	A novel technique for separating glycerine from palm oil-based biodiesel using ionic liquids. Fuel Processing Technology, 2010, 91, 116-120.	3.7	265
8	Environmental application of nanotechnology: air, soil, and water. Environmental Science and Pollution Research, 2016, 23, 13754-13788.	2.7	265
9	The role of ionic liquids in desulfurization of fuels: A review. Renewable and Sustainable Energy Reviews, 2017, 76, 1534-1549.	8.2	247
10	Investigating the electrochemical windows of ionic liquids. Journal of Industrial and Engineering Chemistry, 2013, 19, 106-112.	2.9	242
11	Assessment of cytotoxicity and toxicity for phosphonium-based deep eutectic solvents. Chemosphere, 2013, 93, 455-459.	4.2	217
12	In Vitro and In Vivo Toxicity Profiling of Ammonium-Based Deep Eutectic Solvents. PLoS ONE, 2015, 10, e0117934.	1.1	204
13	Natural deep eutectic solvents: cytotoxic profile. SpringerPlus, 2016, 5, 913.	1.2	190
14	Evaluation of toxicity and biodegradability for cholinium-based deep eutectic solvents. RSC Advances, 2015, 5, 83636-83647.	1.7	180
15	Functionalization of graphene using deep eutectic solvents. Nanoscale Research Letters, 2015, 10, 1004.	3.1	172
16	Ionic Liquid-Carbon Nanomaterial Hybrids for Electrochemical Sensor Applications: a Review. Electrochimica Acta, 2016, 193, 321-343.	2.6	156
17	Physical properties of ethylene glycol-based deep eutectic solvents. Journal of Molecular Liquids, 2019, 276, 794-800.	2.3	150
18	A novel phosphonium-based deep eutectic catalyst for biodiesel production from industrial low grade crude palm oil. Chemical Engineering Science, 2013, 92, 81-88.	1.9	141

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19	Emerging frontiers of deep eutectic solvents in drug discovery and drug delivery systems. Journal of Controlled Release, 2019, 316, 168-195.	4.8	140
20	A new processing route for cleaner production of biodiesel fuel using aÂcholine chloride based deep eutectic solvent. Journal of Cleaner Production, 2014, 65, 246-251.	4.6	129
21	Toxicity profile of choline chloride-based deep eutectic solvents for fungi and Cyprinus carpio fish. Environmental Science and Pollution Research, 2016, 23, 7648-7659.	2.7	128
22	Unraveling the cytotoxicity and metabolic pathways of binary natural deep eutectic solvent systems. Scientific Reports, 2017, 7, 41257.	1.6	121
23	Deep eutectic solvents: designer fluids for chemical processes. Journal of Chemical Technology and Biotechnology, 2018, 93, 945-958.	1.6	103
24	Allyl triphenyl phosphonium bromide based DES-functionalized carbon nanotubes for the removal of mercury from water. Chemosphere, 2017, 167, 44-52.	4.2	95
25	Lead removal from water by choline chloride based deep eutectic solvents functionalized carbon nanotubes. Journal of Molecular Liquids, 2016, 222, 883-894.	2.3	90
26	Functionalization of CNTs surface with phosphonuim based deep eutectic solvents for arsenic removal from water. Applied Surface Science, 2016, 389, 216-226.	3.1	89
27	Triethylene glycol based deep eutectic solvents and their physical properties. Journal of the Taiwan Institute of Chemical Engineers, 2015, 50, 24-30.	2.7	83
28	Intensification of biotransformations using deep eutectic solvents: Overview and outlook. Process Biochemistry, 2018, 66, 33-60.	1.8	83
29	A novel ammonium based eutectic solvent for the treatment of free fatty acid and synthesis of biodiesel fuel. Industrial Crops and Products, 2013, 46, 392-398.	2.5	80
30	Pure and aqueous deep eutectic solvents for a lipase-catalysed hydrolysis reaction. Biochemical Engineering Journal, 2017, 117, 129-138.	1.8	66
31	Ammonium-based deep eutectic solvents as novel soil washing agent for lead removal. Chemical Engineering Journal, 2016, 294, 316-322.	6.6	64
32	Hydrophobic deep eutectic solvents: Current progress and future directions. Journal of Industrial and Engineering Chemistry, 2021, 97, 142-162.	2.9	61
33	A grand avenue to integrate deep eutectic solvents into biomass processing. Biomass and Bioenergy, 2020, 137, 105550.	2.9	57
34	Electrochemical reduction of dioxygen in Bis (trifluoromethylsulfonyl) imide based ionic liquids. Journal of Electroanalytical Chemistry, 2011, 657, 150-157.	1.9	55
35	Long term stability of superoxide ion in piperidinium, pyrrolidinium and phosphonium cations-based ionic liquids and its utilization in the destruction of chlorobenzenes. Journal of Electroanalytical Chemistry, 2012, 664, 26-32.	1.9	55
36	A novel method for the synthesis of 2-imidazolones. Tetrahedron Letters, 2010, 51, 1976-1978.	0.7	50

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37	Functionalization of carbon nanotubes using eutectic mixtures: A promising route for enhanced aqueous dispersibility and electrochemical activity. Chemical Engineering Journal, 2017, 311, 326-339.	6.6	50
38	Shedding Light on Lipase Stability in Natural Deep Eutectic Solvents. Chemical and Biochemical Engineering Quarterly, 2018, 32, 359-370.	0.5	50
39	From nanoengineering to nanomedicine: A facile route to enhance biocompatibility of graphene as a potential nano-carrier for targeted drug delivery using natural deep eutectic solvents. Chemical Engineering Science, 2019, 195, 95-106.	1.9	45
40	Doxorubicin Loading on Functional Graphene as a Promising Nanocarrier Using Ternary Deep Eutectic Solvent Systems. ACS Omega, 2020, 5, 1656-1668.	1.6	41
41	Ethanesulfonic acid-based esterification of industrial acidic crude palm oil for biodiesel production. Bioresource Technology, 2011, 102, 9564-9570.	4.8	37
42	Physicochemical properties of piperidinium, ammonium, pyrrolidinium and morpholinium cations based ionic liquids paired with bis(trifluoromethylsulfonyl)imide anion. Fluid Phase Equilibria, 2016, 427, 18-26.	1.4	34
43	Generation of Superoxide Ion in Pyridinium, Morpholinium, Ammonium, and Sulfonium-Based Ionic Liquids and the Application in the Destruction of Toxic Chlorinated Phenols. Industrial & Engineering Chemistry Research, 2012, 51, 10546-10556.	1.8	32
44	An investigation of the reaction between 1-butyl-3-methylimidazolium trifluoromethanesulfonate and superoxide ion. Journal of Molecular Liquids, 2013, 181, 44-50.	2.3	32
45	Generation of Superoxide Ion in Trihexyl (Tetradecyl) Phosphonium bis (Trifluoromethylsulfonyl) imide Room Temperature Ionic Liquid. Journal of Applied Sciences, 2010, 10, 1176-1180.	0.1	27
46	Generation of superoxide ion in 1-butyl-1-methylpyrrolidinium trifluoroacetate and its application in the destruction of chloroethanes. Journal of Molecular Liquids, 2012, 167, 28-33.	2.3	25
47	Natural Deep Eutectic Solvent-Assisted Pectin Extraction from Pomelo Peel Using Sonoreactor: Experimental Optimization Approach. Processes, 2019, 7, 416.	1.3	25
48	Facile Route for Fuel Desulfurization Using Generated Superoxide Ion in Ionic Liquids. Industrial & Engineering Chemistry Research, 2015, 54, 12263-12269.	1.8	23
49	Enhanced removal of lead from contaminated soil by polyol-based deep eutectic solvents and saponin. Journal of Contaminant Hydrology, 2016, 194, 17-23.	1.6	23
50	Generation and stability of superoxide ion in tris(pentafluoroethyl)trifluorophosphate anion-based ionic liquids. Journal of Fluorine Chemistry, 2012, 142, 83-89.	0.9	20
51	Esterification of sludge palm oil using trifluoromethanesulfonic acid for preparation of biodiesel fuel. Korean Journal of Chemical Engineering, 2013, 30, 1229-1234.	1.2	20
52	Superoxide Ion as Oxidative Desulfurizing Agent for Aromatic Sulfur Compounds in Ionic Liquid Media. ACS Sustainable Chemistry and Engineering, 2017, 5, 1854-1863.	3.2	18
53	Potentiating the anti-cancer profile of tamoxifen-loaded graphene using deep eutectic solvents as functionalizing agents. Applied Nanoscience (Switzerland), 2020, 10, 293-304.	1.6	18
54	Characterization of tetraethylene glycol-based deep eutectic solvents and their potential application for dissolving unsaturated fatty acids. Journal of Molecular Liquids, 2020, 312, 113284.	2.3	17

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55	Simulation of Deep Eutectic Solventsâ€™ Interaction with Membranes of Cancer Cells Using COSMO-RS. Journal of Physical Chemistry B, 2020, 124, 9086-9094.	1.2	15
56	Ternary glycerol-based deep eutectic solvents: Physicochemical properties and enzymatic activity. Chemical Engineering Research and Design, 2021, 169, 77-85.	2.7	15
57	Treatment of industrial low grade palm oil via esterification reaction using sonoreactor. Journal of Industrial and Engineering Chemistry, 2014, 20, 2066-2070.	2.9	13
58	A Solid Organic Acid Catalyst for the Pretreatment of Low-Grade Crude Palm Oil and Biodiesel Production. International Journal of Green Energy, 2014, 11, 129-140.	2.1	13
59	Wear Behaviour of TiC Coated AISI 4340 Steel Produced by TIG Surface Melting. Materials Science Forum, 2015, 819, 76-80.	0.3	12
60	In Situ Electrosynthesis of Peroxydicarbonate Anion in Ionic Liquid Media Using Carbon Dioxide/Superoxide System. ACS Applied Materials & Interfaces, 2019, 11, 25928-25939.	4.0	12
61	Extraction of bioactive compounds. , 2020, , 149-167.		11
62	Treatment of acidic palm oil for fatty acid methyl esters production. Chemical Papers, 2012, 66, .	1.0	10
63	Biodiesel Production from Acidic Crude Palm Oil Using Perchloric Acid. Energy Procedia, 2014, 61, 2745-2749.	1.8	10
64	Kinetics of superoxide ion in dimethyl sulfoxide containing ionic liquids. Ionics, 2015, 21, 719-728.	1.2	10
65	Diethylene glycol based deep eutectic solvents and their physical properties. Studia Universitatis Babes-Bolyai Chemia, 2017, 62, 433-450.	0.1	10
66	Hybridized Fe/Ru-SiMWCNT-ionic liquid nanofluid for CO2 conversion into carbamate using superoxide ion. Journal of Environmental Chemical Engineering, 2021, 9, 105285.	3.3	8
67	Mechanistic insights into carbon dioxide utilization by superoxide ion generated electrochemically in ionic liquid electrolyte. Physical Chemistry Chemical Physics, 2021, 23, 1114-1126.	1.3	7
68	Oxidative degradation of acetaminophen using superoxide ion generated in ionic liquid/aprotic solvent binary system. Separation and Purification Technology, 2021, 270, 118730.	3.9	7
69	INVESTIGATING THE LONG-TERM STABILITY AND KINETICS OF SUPEROXIDE ION IN DIMETHYL SULFOXIDE CONTAINING IONIC LIQUIDS AND THE APPLICATION OF THIOPHENE DESTRUCTION. Brazilian Journal of Chemical Engineering, 2017, 34, 227-239.	0.7	6
70	Nanocellulose and natural deep eutectic solvent as potential biocatalyst system toward enzyme immobilization. Molecular Catalysis, 2022, 528, 112422.	1.0	6
71	Agro-industrial acidic oil as a renewable feedstock for biodiesel production using (1R)-(â€“)-camphor-10-sulfonic acid. Chemical Engineering Science, 2014, 116, 223-227.	1.9	5
72	Application of a Novel Catalyst in the Esterification of Mixed Industrial Palm Oil for Biodiesel Production. Bioenergy Research, 2015, 8, 459-463.	2.2	5

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73	SYNTHESIS OF NOVEL EUTECTIC CATALYST FOR THE ESTERIFICATION OF CRUDE PALM OIL MIXED WITH SLUDGE PALM OIL. Journal of Oil Palm Research, 0, , 373-379.	2.1	4
74	Electrochemical Generation of Superoxide Ion in Ionic Liquid 1-(3-Methoxypropyl)-1-Methylpiperidinium Bis (Trifluoromethylsulfonyl) Imide. IOP Conference Series: Materials Science and Engineering, 2011, 17, 012028.	0.3	3
75	Polyamidoamine dendrimers: Favorable polymeric nanomaterials for lipase activation. Materials Today Communications, 2020, 25, 101492.	0.9	3
76	Corrosion of Surface Modified AISI 4340 Steel in Jatropha Biodiesel. Advanced Materials Research, 2015, 1115, 243-246.	0.3	0
77	Utilizing of 1-Hexyl-1-Methyl-Pyrrolidinium Bis (Trifluoromethyl-Sulfonyl) Imide as Medium for Electrochemical Generation of Superoxide Ion-Radical. IIUM Engineering Journal, 2011, 12, .	0.5	0