Jaya Narayan Sahu

List of Publications by Year
in descending order

111 papers	9,971 citations	38742 50 h-index	34986 98 g-index
111 all docs	111 docs citations	111 times ranked	11025 citing authors

#	Article	IF	Citations
1	Effect of process parameters on production of biochar from biomass waste through pyrolysis: A review. Renewable and Sustainable Energy Reviews, 2016, 55, 467-481.	16.4	1,031
2	Remediation technologies for heavy metal contaminated groundwater. Journal of Environmental Management, 2011, 92, 2355-2388.	7.8	697
3	Fuel ethanol production from lignocellulosic biomass: An overview on feedstocks and technological approaches. Renewable and Sustainable Energy Reviews, 2016, 66, 751-774.	16.4	552
4	Bioethanol production from renewable sources: Current perspectives and technological progress. Renewable and Sustainable Energy Reviews, 2017, 71, 475-501.	16.4	541
5	An overview of cathode material and catalysts suitable for generating hydrogen in microbial electrolysis cell. International Journal of Hydrogen Energy, 2013, 38, 1745-1757.	7.1	289
6	Response surface modeling and optimization of chromium(VI) removal from aqueous solution using Tamarind wood activated carbon in batch process. Journal of Hazardous Materials, 2009, 172, 818-825.	12.4	282
7	The effects of a microwave heating method on the production of activated carbon from agricultural waste: A review. Journal of Analytical and Applied Pyrolysis, 2013, 100, 1-11.	5.5	252
8	Optimization of production conditions for activated carbons from Tamarind wood by zinc chloride using response surface methodology. Bioresource Technology, 2010, 101, 1974-1982.	9.6	244
9	Removal of Heavy Metals from Wastewater Using Carbon Nanotubes. Separation and Purification Reviews, 2014, 43, 311-338.	5.5	240
10	Utilization possibilities of palm shell as a source of biomass energy in Malaysia by producing bio-oil in pyrolysis process. Biomass and Bioenergy, 2011, 35, 1863-1872.	5.7	226
11	Studies on the removal of Pb(II) from wastewater by activated carbon developed from Tamarind wood activated with sulphuric acid. Journal of Hazardous Materials, 2008, 153, 221-228.	12.4	192
12	Bioethanol Production from Fermentable Sugar Juice. Scientific World Journal, The, 2014, 2014, 1-11.	2.1	192
13	Utilization of oil palm tree residues to produce bio-oil and bio-char via pyrolysis. Energy Conversion and Management, 2013, 76, 1073-1082.	9.2	178
14	Characterization of Bio-oil and Bio-char from Pyrolysis of Palm Oil Wastes. Bioenergy Research, 2013, 6, 830-840.	3.9	175
15	Optimization of chromium(VI) sorption potential using developed activated carbon from sugarcane bagasse with chemical activation by zinc chloride. Desalination, 2011, 275, 276-284.	8.2	164
16	Chemical, dielectric and structural characterization of optimized hydrochar produced from hydrothermal carbonization of palm shell. Fuel, 2016, 163, 88-97.	6.4	161
17	An overview on methods for the production of carbon nanotubes. Journal of Industrial and Engineering Chemistry, 2014, 20, 1186-1197.	5.8	160
18	Microwave induced synthesis of magnetic biochar from agricultural biomass for removal of lead and cadmium from wastewater. Journal of Industrial and Engineering Chemistry, 2017, 45, 287-295.	5.8	154

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19	Optimization and characterization studies on bio-oil production from palm shell by pyrolysis using response surface methodology. Biomass and Bioenergy, 2011, 35, 3604-3616.	5.7	153
20	Effect of interfacial forces and turbulence models on predicting flow pattern inside the bubble column. Chemical Engineering and Processing: Process Intensification, 2014, 75, 38-47.	3.6	151
21	Immobilization of cellulase enzyme on functionalized multiwall carbon nanotubes. Journal of Molecular Catalysis B: Enzymatic, 2014, 107, 124-131.	1.8	147
22	Critical review of abatement of ammonia from wastewater. Journal of Molecular Liquids, 2018, 261, 21-31.	4.9	143
23	Column performance of granular activated carbon packed bed for Pb(II) removal. Journal of Hazardous Materials, 2008, 156, 596-603.	12.4	140
24	Optimization and modeling of methyl orange adsorption onto polyaniline nano-adsorbent through response surface methodology and differential evolution embedded neural network. Journal of Environmental Management, 2018, 223, 517-529.	7.8	140
25	Modeling and optimization by particle swarm embedded neural network for adsorption of zinc (II) by palm kernel shell based activated carbon from aqueous environment. Journal of Environmental Management, 2018, 206, 178-191.	7.8	136
26	Co-pyrolysis of palm shell and polystyrene waste mixtures to synthesis liquid fuel. Fuel, 2013, 108, 311-318.	6.4	130
27	Improving efficacy of Cr (VI) adsorption process on sustainable adsorbent derived from waste biomass (sugarcane bagasse) with help of ant colony optimization. Industrial Crops and Products, 2020, 143, 111927.	5.2	119
28	Utilization of palm oil sludge through pyrolysis for bio-oil and bio-char production. Bioresource Technology, 2015, 178, 65-69.	9.6	107
29	Removal of methylene blue from wastewater using fly ash as an adsorbent by hydrocyclone. Journal of Hazardous Materials, 2008, 158, 531-540.	12.4	101
30	Comparison of oil palm shell-based activated carbons produced by microwave and conventional heating methods using zinc chloride activation. Journal of Analytical and Applied Pyrolysis, 2013, 104, 176-184.	5.5	100
31	Synthesis of palm oil empty fruit bunch magnetic pyrolytic char impregnating with FeCl3 by microwave heating technique. Biomass and Bioenergy, 2014, 61, 265-275.	5.7	99
32	Statistical optimization and kinetic studies on removal of Zn2+ using functionalized carbon nanotubes and magnetic biochar. Journal of Environmental Chemical Engineering, 2013, 1, 486-495.	6.7	96
33	High-performance removal of toxic phenol by single-walled and multi-walled carbon nanotubes: Kinetics, adsorption, mechanism and optimization studies. Journal of Industrial and Engineering Chemistry, 2016, 35, 63-74.	5.8	90
34	Preparation of granular activated carbon from oil palm shell by microwave-induced chemical activation: Optimisation using surface response methodology. Chemical Engineering Research and Design, 2013, 91, 2447-2456.	5.6	86
35	Parametric modelling of Pb(II) adsorption onto chitosan-coated Fe3O4 particles through RSM and DE hybrid evolutionary optimization framework. Journal of Molecular Liquids, 2020, 297, 111893.	4.9	76
36	A combination of computational fluid dynamics (CFD) and adaptive neuro-fuzzy system (ANFIS) for prediction of the bubble column hydrodynamics. Powder Technology, 2015, 274, 466-481.	4.2	75

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37	Sustainable waste management policy in Bangladesh for reduction of greenhouse gases. Sustainable Cities and Society, 2017, 33, 18-26.	10.4	75
38	Process optimization and adsorption modeling using activated carbon derived from palm oil kernel shell for Zn (II) disposal from the aqueous environment using differential evolution embedded neural network. Journal of Molecular Liquids, 2018, 265, 592-602.	4.9	74
39	Hydrothermal carbonization of oil palm shell. Korean Journal of Chemical Engineering, 2015, 32, 1789-1797.	2.7	72
40	Rapid adsorption of toxic Pb(II) ions from aqueous solution using multiwall carbon nanotubes synthesized by microwave chemical vapor deposition technique. Journal of Environmental Sciences, 2016, 45, 143-155.	6.1	72
41	Effect of temperature on dielectric properties and penetration depth of oil palm shell (OPS) and OPS char synthesized by microwave pyrolysis of OPS. Fuel, 2015, 153, 257-266.	6.4	69
42	Plam oil empty fruit bunch based magnetic biochar composite comparison for synthesis by microwave-assisted and conventional heating. Journal of Analytical and Applied Pyrolysis, 2016, 120, 521-528.	5.5	69
43	Modelling of fluidised-bed reactor by differential evolution optimization for phenol removal using coconut shells based activated carbon. Journal of Molecular Liquids, 2017, 231, 249-262.	4.9	67
44	Performance of a modified multi-stage bubble column reactor for lead(II) and biological oxygen demand removal from wastewater using activated rice husk. Journal of Hazardous Materials, 2009, 161, 317-324.	12.4	65
45	Synthesis and characterization of hydrochars produced by hydrothermal carbonization of oil palm shell. Canadian Journal of Chemical Engineering, 2015, 93, 1916-1921.	1.7	65
46	Microwave pyrolysis of oil palm fiber (OPF) for hydrogen production: Parametric investigation. Energy Conversion and Management, 2016, 115, 232-243.	9.2	65
47	Statistical modelling and optimization of hydrolysis of urea to generate ammonia for flue gas conditioning. Journal of Hazardous Materials, 2010, 182, 603-610.	12.4	57
48	Synthesis of green fuels from biogenic waste through thermochemical route â€" The role of heterogeneous catalyst: A review. Renewable and Sustainable Energy Reviews, 2014, 38, 131-153.	16.4	56
49	Numerical study for enhancement of solidification of phase change materials using trapezoidal cavity. Powder Technology, 2014, 268, 38-47.	4.2	55
50	Comparative kinetic study of functionalized carbon nanotubes and magnetic biochar for removal of Cd^{2+} ions from wastewater. Korean Journal of Chemical Engineering, 2015, 32, 446-457.	2.7	54
51	Kinetic studies on hydrolysis of urea in a semi-batch reactor at atmospheric pressure for safe use of ammonia in a power plant for flue gas conditioning. Journal of Hazardous Materials, 2010, 175, 629-637.	12.4	51
52	Prediction of multiphase flow pattern inside a 3D bubble column reactor using a combination of CFD and ANFIS. RSC Advances, 2015, 5, 85652-85672.	3.6	51
53	Single stage production of carbon nanotubes using microwave technology. Diamond and Related Materials, 2014, 48, 52-59.	3.9	49
54	Microwave-assisted production of activated carbons from oil palm shell in the presence of CO_2 or N_2 for CO_2 adsorption. Journal of Industrial and Engineering Chemistry, 2015, 24, 196-205.	5.8	48

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55	Current Perspectives and Future Prospects of Nano-Biotechnology in Wastewater Treatment. Separation and Purification Reviews, 2021, 50, 139-158.	5.5	48
56	Effect of bubble diameter size on prediction of flow pattern in Euler–Euler simulation of homogeneous bubble column regime. Measurement: Journal of the International Measurement Confederation, 2015, 76, 255-270.	5.0	47
57	Removal of Methylene Blue and Orange-G from Waste Water Using Magnetic Biochar. International Journal of Nanoscience, 2015, 14, 1550009.	0.7	46
58	Effect of microwave frequency on dielectric properties of oil palm shell (OPS) and OPS char synthesized by microwave pyrolysis of OPS. Journal of Analytical and Applied Pyrolysis, 2015, 112, 306-312.	5.5	40
59	Equilibrium and Kinetic Studies on the Hydrolysis of Urea for Ammonia Generation in a Semibatch Reactor. Industrial & Engineering Chemistry Research, 2008, 47, 4689-4696.	3.7	39
60	Application of colloidal gas aphrons for pollution remediation. Journal of Chemical Technology and Biotechnology, 2012, 87, 305-324.	3.2	38
61	Adsorption of chromium (VI) on functionalized and non-functionalized carbon nanotubes. Korean Journal of Chemical Engineering, 2014, 31, 1582-1591.	2.7	36
62	Feasibility study for catalytic cracking of waste plastic to produce fuel oil with reference to <scp>M</scp>alaysia and simulation using <scp>ASPEN</scp> Plus. Environmental Progress and Sustainable Energy, 2014, 33, 298-307.	2.3	36
63	Bioreactor temperature profile controller using inverse neural network (INN) for production of ethanol. Journal of Process Control, 2013, 23, 731-742.	3.3	35
64	Recovery of Liquid Fuel from the Aqueous Phase of Pyrolysis Oil Using Catalytic Conversion. Energy & Fuels, 2014, 28, 3074-3085.	5.1	35
65	Microwave assisted multiwall carbon nanotubes enhancing Cd(II) adsorption capacity in aqueous media. Journal of Industrial and Engineering Chemistry, 2015, 24, 24-33.	5.8	34
66	Comparison of a plant based natural surfactant with SDS for washing of As(V) from Fe rich soil. Journal of Environmental Sciences, 2013, 25, 2247-2256.	6.1	32
67	Microwave-assisted synthesis of multi-walled carbon nanotubes for enhanced removal of Zn(II) from wastewater. Research on Chemical Intermediates, 2016, 42, 3257-3281.	2.7	32
68	Optimisation of the process variables in production of activated carbon by microwave heating. RSC Advances, 2015, 5, 35899-35908.	3.6	31
69	Thermophysical characterization of oil palm shell (OPS) and OPS char synthesized by the microwave pyrolysis of OPS. Applied Thermal Engineering, 2016, 105, 605-612.	6.0	31
70	Combined cycle power plant performance evaluation using exergy and energy analysis. Environmental Progress and Sustainable Energy, 2017, 36, 1180-1186.	2.3	27
71	Catalytic Hydrolysis of Urea with Fly Ash for Generation of Ammonia in a Batch Reactor for Flue Gas Conditioning and NO_{<i>x</i>} Reduction. Industrial & Engineering Chemistry Research, 2009, 48, 727-734.	3.7	26
72	Optimization of sootblowing frequency to improve boiler performance and reduce combustion pollution. Clean Technologies and Environmental Policy, 2015, 17, 1897-1906.	4.1	26

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73	Optimization of ammonia production from urea in continuous process using ASPEN Plus and computational fluid dynamics study of the reactor used for hydrolysis process. Journal of Industrial and Engineering Chemistry, 2010, 16, 577-586.	5.8	23
74	A comparative study of biopolymers and alum in the separation and recovery of pulp fibres from paper mill effluent by flocculation. Journal of Environmental Sciences, 2014, 26, 1851-1860.	6.1	23
75	Evaluation of the quality of dried distiller's grains with solubles for normal and high sugary corn genotypes during dry–grind ethanol production. Journal of Cleaner Production, 2017, 142, 4282-4293.	9.3	23
76	Numerical study of co–axial bubble coalescence characteristics. Asia-Pacific Journal of Chemical Engineering, 2015, 10, 670-680.	1.5	22
77	Clarification of rubber mill wastewater by a plant based biopolymer – comparison with common inorganic coagulants. Journal of Chemical Technology and Biotechnology, 2013, 88, 1864-1873.	3.2	21
78	Bioreactor profile control by a nonlinear auto regressive moving average neuro and two degree of freedom PID controllers. Journal of Process Control, 2014, 24, 1761-1777.	3.3	21
79	Effect of orifice size and bond number on bubble formation characteristics: A CFD study. Canadian Journal of Chemical Engineering, 2015, 93, 1869-1879.	1.7	20
80	A comparative evaluation of agronomic performance and kernel composition of normal and high sugary corn genotypes (Zea mays L.) grown for dry-grind ethanol production. Industrial Crops and Products, 2016, 94, 9-19.	5.2	20
81	Equilibrium and Kinetic Studies of in Situ Generation of Ammonia from Urea in a Batch Reactor for Flue Gas Conditioning of Thermal Power Plants. Industrial & Engineering Chemistry Research, 2009, 48, 2705-2712.	3.7	18
82	ADSORPTION AND KINETIC STUDY ON Sn^{2+} REMOVAL USING MODIFIED CARBON NANOTUBE AND MAGNETIC BIOCHAR. International Journal of Nanoscience, 2013, 12, 1350044.	0.7	18
83	Optimization for the Production of Ammonia from Urea in a Semi-batch Reactor for Safe Feedstock in Power Plants: Experimental and Statistical Studies. Clean - Soil, Air, Water, 2010, 38, 533-542.	1.1	17
84	Response surface modeling and optimization for production of ammonia from urea in a batch reactor. Asia-Pacific Journal of Chemical Engineering, 2009, 4, 462-470.	1.5	16
85	Optimization of lead (II) sorption potential using developed activated carbon from tamarind wood with chemical activation by zinc chloride. Desalination and Water Treatment, 2016, 57, 2006-2017.	1.0	16
86	Equilibrium studies on hydrolysis of urea in a semi-batch reactor for production of ammonia to reduce hazardous pollutants from flue gases. Journal of Hazardous Materials, 2009, 164, 659-664.	12.4	15
87	Water quality assessment of an unusual ritual well in Bangladesh and impact of mass bathing on this quality. Science of the Total Environment, 2014, 472, 363-369.	8.0	14
88	Studies on the hydrolysis of urea for production of ammonia and modeling for flow characterization in presence of stirring in a batch reactor using computational fluid dynamics. Korean Journal of Chemical Engineering, 2011, 28, 1380-1385.	2.7	12
89	Influence of coke structure on coke quality using image analysis method. International Journal of Coal Science and Technology, 2018, 5, 473-485.	6.0	10
90	In situ synthesis of ammonia by catalytic hydrolysis of urea in the presence of aluminium oxide for safe use of ammonia in power plants for flue gas conditioning. Journal of Chemical Technology and Biotechnology, 2011, 86, 1282-1288.	3.2	9

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91	Toxicological and hematological effect of Terminalia arjuna bark extract on a freshwater catfish, Heteropneustes fossilis. Fish Physiology and Biochemistry, 2016, 42, 431-444.	2.3	9
92	Hydrothermal Gasification of Palm Shell Biomass for Synthesis of Hydrogen Fuel. BioResources, 2013, 8, .	1.0	8
93	Steady state modeling on energy and exergy analysis of a pulverized coal fired thermal power plant. Asia-Pacific Journal of Chemical Engineering, 2015, 10, 876-884.	1.5	8
94	Optimization process parameters for in-situ synthesis of ammonia by catalytic hydrolysis of urea with fly ash in a batch reactor for safe feedstock in power plants. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2011, 46, 874-886.	1.7	7
95	Catalytic synthesis of biodiesel from pongamia glabra over zirconia and its modified forms. Korean Journal of Chemical Engineering, 2013, 30, 2186-2190.	2.7	7
96	Coal mine gas: a new fuel utilization technique for India. International Journal of Green Energy, 2018, 15, 732-743.	3.8	6
97	<i>In€situ</i> catalytic synthesis of ammonia from urea in a semi€batch reactor for safe utilization in thermal power plant. Asia-Pacific Journal of Chemical Engineering, 2010, 5, 533-543.	1.5	5
98	Effect of column angles to rise velocity of a single bubble: a CFD study. Progress in Computational Fluid Dynamics, 2016, 16, 288.	0.2	5
99	Mass Production of Carbon Nanofibers Using Microwave Technology. Journal of Nanoscience and Nanotechnology, 2015, 15, 9571-9577.	0.9	4
100	Thermophysical properties of a novel copper reinforced oil palm shell (OPS) composite: Effect of copper volume fraction and temperature. Materials Chemistry and Physics, 2016, 182, 418-428.	4.0	4
101	Computational Fluid Dynamics Modeling for Urea Hydrolysis in a Batch Reactor for Flue Gas Conditioning. Chemical Engineering and Technology, 2011, 34, 1347-1352.	1.5	3
102	Microwave Assisted Carbon Nanofibers for Removal of Zinc and Copper from Waste Water. Journal of Nanoscience and Nanotechnology, 2017, 17, 1847-1856.	0.9	3
103	Column performance of carbon nanotube packed bed for methylene blue and orange red dye removal from waste water. IOP Conference Series: Materials Science and Engineering, 2017, 206, 012081.	0.6	3
104	Effect of Microlithotype Maceral Distribution on Coke Quality. Coke and Chemistry, 2020, 63, 294-302.	0.4	3
105	Sensitivity study of Bubble diameter for prediction of flow pattern in homogeneous bubble column regime. IOP Conference Series: Materials Science and Engineering, 2015, 88, 012004.	0.6	2
106	Microwave pyrolysis of OPS to synthesize micro porous OPS char: Effect of process parameters. AIP Conference Proceedings, 2019, , .	0.4	2
107	Study of Pyrolyzates from a Variety of Indian Coals and Their Dependency on Coal Type and Intrinsic Properties â€" An Analytical Fast Pyrolysis Study. Combustion Science and Technology, 0, , 1-22.	2.3	1
108	AIR POLLUTION AND ITS CONTROL. , 2012, , 1-39.		1

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109	AIR POLLUTION PROBLEMS AND CONTROL MEASURES IN STEEL MAKING THROUGH DRI ROUTE. , 2012, , 93-148.		0
110	Optimization of bioreactor profile control. , 2013, , .		0
111	Performance of a Biosurfactant Obtained from Sapindus Mukurossi in Removing Cadmium from Soil. , 2012, , .		0