

Sushil Adhikari

List of Publications by Year in descending order

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papers

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61945

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121
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121
times ranked

8490
citing authors

#	ARTICLE	IF	CITATIONS
1	Current Status of Hydrogen Production Techniques by Steam Reforming of Ethanol: A Review. Energy & Fuels, 2005, 19, 2098-2106.	2.5	1,225
2	Hydrogen Membrane Separation Techniques. Industrial & Engineering Chemistry Research, 2006, 45, 875-881.	1.8	562
3	Biorefineries: Current Status, Challenges, and Future Direction. Energy & Fuels, 2006, 20, 1727-1737.	2.5	560
4	A review on biomass gasification syngas cleanup. Applied Energy, 2015, 155, 294-307.	5.1	359
5	A thermodynamic analysis of hydrogen production by steam reforming of glycerol. International Journal of Hydrogen Energy, 2007, 32, 2875-2880.	3.8	275
6	Catalytic pyrolysis of green algae for hydrocarbon production using H+ZSM-5 catalyst. Bioresource Technology, 2012, 118, 150-157.	4.8	255
7	Hydrogen production from glycerol: An update. Energy Conversion and Management, 2009, 50, 2600-2604.	4.4	234
8	Physiochemical properties of bio-oil produced at various temperatures from pine wood using an auger reactor. Bioresource Technology, 2010, 101, 8389-8395.	4.8	205
9	Production of hydrogen by steam reforming of glycerin over alumina-supported metal catalysts. Catalysis Today, 2007, 129, 355-364.	2.2	202
10	Hydrogen production from glycerin by steam reforming over nickel catalysts. Renewable Energy, 2008, 33, 1097-1100.	4.3	195
11	Conversion of Glycerol to Hydrogen via a Steam Reforming Process over Nickel Catalysts. Energy & Fuels, 2008, 22, 1220-1226.	2.5	162
12	Effect of Alkali and Alkaline Earth Metals on in-Situ Catalytic Fast Pyrolysis of Lignocellulosic Biomass: A Microreactor Study. Energy & Fuels, 2016, 30, 3045-3056.	2.5	154
13	A review on current status of hydrogen production from bio-oil. Renewable and Sustainable Energy Reviews, 2012, 16, 2366-2372.	8.2	153
14	Production of hydrocarbon fuels from biomass using catalytic pyrolysis under helium and hydrogen environments. Bioresource Technology, 2011, 102, 6742-6749.	4.8	152
15	Catalytic Pyrolysis of Biomass over H ⁺ ZSM-5 under Hydrogen Pressure. Energy & Fuels, 2012, 26, 5300-5306.	2.5	152
16	Effect of temperature and Na ₂ CO ₃ catalyst on hydrothermal liquefaction of algae. Algal Research, 2015, 12, 80-90.	2.4	149
17	A Comparative Thermodynamic and Experimental Analysis on Hydrogen Production by Steam Reforming of Glycerin. Energy & Fuels, 2007, 21, 2306-2310.	2.5	139
18	Effect of torrefaction on biomass structure and hydrocarbon production from fast pyrolysis. Green Chemistry, 2015, 17, 2406-2417.	4.6	112

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19	Influence of biochemical composition during hydrothermal liquefaction of algae on product yields and fuel properties. <i>Bioresource Technology</i> , 2017, 243, 1112-1120.	4.8	102
20	Effect of bio-char on methane generation from glucose and aqueous phase of algae liquefaction using mixed anaerobic cultures. <i>Biomass and Bioenergy</i> , 2018, 108, 479-486.	2.9	96
21	Review of NMR Characterization of Pyrolysis Oils. <i>Energy & Fuels</i> , 2016, 30, 6863-6880.	2.5	94
22	Catalytic Pyrolysis of Torrefied Biomass for Hydrocarbons Production. <i>Energy & Fuels</i> , 2012, 26, 7347-7353.	2.5	87
23	Upgrading of syngas derived from biomass gasification: A thermodynamic analysis. <i>Biomass and Bioenergy</i> , 2009, 33, 882-889.	2.9	82
24	Glycerol based automotive fuels from future biorefineries. <i>Fuel</i> , 2007, 86, 2806-2809.	3.4	73
25	Progress in the solvent depolymerization of lignin. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 133, 110359.	8.2	72
26	Influence of Pyrolysis Operating Conditions on Bio-Oil Components: A Microscale Study in a Pyroprobe. <i>Energy & Fuels</i> , 2011, 25, 1191-1199.	2.5	71
27	Biomass Gasification Using Carbon Dioxide: Effect of Temperature, CO ₂ /C Ratio, and the Study of Reactions Influencing the Process. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 2883-2891.	1.8	70
28	Catalytic upgrading of bio-oil produced from hydrothermal liquefaction of <i>Nannochloropsis</i> sp.. <i>Bioresource Technology</i> , 2018, 252, 28-36.	4.8	68
29	Thermal and Storage Stability of Bio-Oil from Pyrolysis of Torrefied Wood. <i>Energy & Fuels</i> , 2015, 29, 5117-5126.	2.5	66
30	Conversion of Solid Wastes to Fuels and Chemicals Through Pyrolysis. , 2018, , 239-263.		58
31	Modeling for proximate analysis and heating value of torrefied biomass with vibration spectroscopy. <i>Bioresource Technology</i> , 2013, 133, 1-8.	4.8	57
32	Effect of torrefaction temperature on lignin macromolecule and product distribution from HZSM-5 catalytic pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2016, 122, 95-105.	2.6	57
33	Enhancement of biogas production from wastewater sludge via anaerobic digestion assisted with biochar amendment. <i>Bioresource Technology</i> , 2020, 309, 123368.	4.8	56
34	Nutrient removal and energy production from aqueous phase of bio-oil generated via hydrothermal liquefaction of algae. <i>Bioresource Technology</i> , 2017, 230, 43-48.	4.8	54
35	Catalytic Pyrolysis of Raw and Thermally Treated Lignin Using Different Acidic Zeolites. <i>Energy & Fuels</i> , 2014, 28, 4532-4538.	2.5	53
36	Treatment of aqueous phase of bio-oil by granular activated carbon and evaluation of biogas production. <i>Bioresource Technology</i> , 2017, 223, 115-120.	4.8	53

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37	Enriched hydrogen production over air and air-steam fluidized bed gasification in a bubbling fluidized bed reactor with CaO: Effects of biomass and bed material catalyst. <i>Energy Conversion and Management</i> , 2020, 225, 113408.	4.4	53
38	Southern pines char gasification with CO ₂ Kinetics and effect of alkali and alkaline earth metals. <i>Fuel Processing Technology</i> , 2016, 150, 64-70.	3.7	51
39	Hydrogen production from biogas reforming and the effect of H ₂ S on CH ₄ conversion. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 19905-19911.	3.8	50
40	Co-pyrolysis of lignin and plastics using red clay as catalyst in a micro-pyrolyzer. <i>Bioresource Technology</i> , 2018, 270, 311-319.	4.8	50
41	Upgrading of hydrothermal liquefaction biocrude from algae grown in municipal wastewater. <i>Fuel Processing Technology</i> , 2016, 142, 147-156.	3.7	48
42	Ultrahigh temperature water gas shift catalysts to increase hydrogen yield from biomass gasification. <i>Catalysis Today</i> , 2007, 129, 269-274.	2.2	47
43	Effects of Temperature and Equivalence Ratio on Pine Syngas Primary Gases and Contaminants in a Bench-Scale Fluidized Bed Gasifier. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 5767-5777.	1.8	47
44	Hydrogen Production through the Water-Gas Shift Reaction: Thermodynamic Equilibrium versus Experimental Results over Supported Ni Catalysts. <i>Energy & Fuels</i> , 2009, 23, 3097-3102.	2.5	46
45	Synthesis and Characterization of Bio-oil-Based Self-Curing Epoxy Resin. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 9389-9400.	1.8	45
46	Chemical looping dry reforming of benzene as a gasification tar model compound with Ni- and Fe-based oxygen carriers in a fluidized bed reactor. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 18790-18800.	3.8	45
47	Catalytic Pyrolysis of Raw and Thermally Treated Cellulose Using Different Acidic Zeolites. <i>Bioenergy Research</i> , 2014, 7, 867-875.	2.2	42
48	Hydrothermal liquefaction of municipal sewage sludge: Effect of red mud catalyst in ethylene and inert ambiances. <i>Energy Conversion and Management</i> , 2021, 245, 114615.	4.4	42
49	Distinct Roles of Residual Xylan and Lignin in Limiting Enzymatic Hydrolysis of Organosolv Pretreated Loblolly Pine and Sweetgum. <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 646-654.	2.4	41
50	Physical and Chemical Properties and Accelerated Aging Test of Bio-oil Produced from <i>in Situ</i> Catalytic Pyrolysis in a Bench-Scale Fluidized-Bed Reactor. <i>Energy & Fuels</i> , 2015, 29, 841-848.	2.5	41
51	Experimental study of torrefied pine as a gasification fuel using a bubbling fluidized bed gasifier. <i>Renewable Energy</i> , 2016, 93, 460-468.	4.3	41
52	Physical and flow properties of pecan shells Particle size and moisture effects. <i>Powder Technology</i> , 2011, 212, 173-180.	2.1	39
53	Hydrogen production via thermocatalytic decomposition of methane using carbon-based catalysts. <i>RSC Advances</i> , 2020, 10, 40882-40893.	1.7	36
54	Blended Feedstocks for Thermochemical Conversion: Biomass Characterization and Bio-Oil Production From Switchgrass-Pine Residues Blends. <i>Frontiers in Energy Research</i> , 2018, 6, .	1.2	35

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55	Leaching and anaerobic digestion of poultry litter for biogas production and nutrient transformation. <i>Waste Management</i> , 2019, 84, 413-422.	3.7	35
56	Effective Cu/Re promoted Ni-supported γ -Al ₂ O ₃ catalyst for upgrading algae bio-crude oil produced by hydrothermal liquefaction. <i>Fuel Processing Technology</i> , 2021, 216, 106670.	3.7	35
57	Kinetics and Mechanisms for Cofpyrolysis of Palm Empty Fruit Bunch Fiber (EFBF) with Palm Oil Mill Effluent (POME) Sludge. <i>Energy & Fuels</i> , 2017, 31, 8217-8227.	2.5	31
58	Effect of autohydrolysis pretreatment on biomass structure and the resulting bio-oil from a pyrolysis process. <i>Fuel</i> , 2017, 206, 494-503.	3.4	30
59	Estimation of Biomass Synthesis Gas Composition using Equilibrium Modeling. <i>Energy & Fuels</i> , 2010, 24, 2692-2698.	2.5	29
60	Catalytic upgrading of fractionated microalgae bio-oil (<i>Nannochloropsis oculata</i>) using a noble metal (Pd/C) catalyst. <i>Algal Research</i> , 2017, 24, 188-198.	2.4	29
61	Direct biodiesel production from wet microalgae assisted by radio frequency heating. <i>Fuel</i> , 2019, 256, 115994.	3.4	29
62	Characterization of bamboo species at different ages and bio-oil production. <i>Journal of Analytical and Applied Pyrolysis</i> , 2015, 116, 215-222.	2.6	28
63	Effects of surfactant on biochemical and hydrothermal conversion of softwood hemicellulose to ethanol and furan derivatives. <i>Process Biochemistry</i> , 2011, 46, 1785-1792.	1.8	27
64	Potential of sustainable energy technologies under CDM in Thailand: Opportunities and barriers. <i>Renewable Energy</i> , 2008, 33, 2122-2133.	4.3	26
65	Catalytic Upgrading of Methane to Higher Hydrocarbon in a Nonoxidative Chemical Conversion. <i>Energy & Fuels</i> , 2016, 30, 2584-2593.	2.5	26
66	Improvement in HPLC separation of acetic acid and levulinic acid in the profiling of biomass hydrolysate. <i>Bioresource Technology</i> , 2011, 102, 4938-4942.	4.8	25
67	Inhibitory Activity of Carbonyl Compounds on Alcoholic Fermentation by <i>Saccharomyces cerevisiae</i> . <i>Journal of Agricultural and Food Chemistry</i> , 2014, 62, 918-926.	2.4	25
68	Chemometric modeling of thermogravimetric data for the compositional analysis of forest biomass. <i>PLoS ONE</i> , 2017, 12, e0172999.	1.1	25
69	Energy and environmental implications of NO _x emission reduction from the transport sector of Beijing: a least-cost planning analysis. <i>Transportation Research, Part D: Transport and Environment</i> , 2005, 10, 1-11.	3.2	24
70	Experimental investigation of hardwood air gasification in a pilot scale bubbling fluidized bed reactor and CFD simulation of jet/grid and pressure conditions. <i>Energy Conversion and Management</i> , 2018, 168, 599-610.	4.4	23
71	Effect of ammonia removal and biochar detoxification on anaerobic digestion of aqueous phase from municipal sludge hydrothermal liquefaction. <i>Bioresource Technology</i> , 2021, 326, 124730.	4.8	23
72	Production of green transportation fuels from <i>Brassica carinata</i> oil: A comparative study of noble and transition metal catalysts. <i>Fuel Processing Technology</i> , 2021, 215, 106737.	3.7	23

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73	Conversion of carbon dioxide and methane in biomass synthesis gas for liquid fuels production. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 18031-18039.	3.8	22
74	Ignition and volatilization behavior of dust from loblolly pine wood. <i>Fuel Processing Technology</i> , 2014, 127, 117-123.	3.7	22
75	Role and Responsibility of Sustainable Chemistry and Engineering in Providing Safe and Sufficient Nitrogen Fertilizer Supply at Turbulent Times. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 8997-9001.	3.2	22
76	Synthesis and characterization of epoxy resins from fast pyrolysis bio-oil. <i>Green Materials</i> , 2018, 6, 76-84.	1.1	21
77	The effect of ethanol on hydroxyl and carbonyl groups in biopolyol produced by hydrothermal liquefaction of loblolly pine: ³¹ P-NMR and ¹⁹ F-NMR analysis. <i>Bioresource Technology</i> , 2016, 214, 37-44.	4.8	19
78	Biopolymers Fractionation and Synthesis of Nanocellulose/Silica Nanoparticles from Agricultural Byproducts. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 6284-6295.	3.2	19
79	Synthesis of Novel Biolubricants from Waste Cooking Oil and Cyclic Oxygenates through an Integrated Catalytic Process. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 13424-13437.	3.2	18
80	Adsorption of glycerol from biodiesel washwaters. <i>Environmental Technology (United Kingdom)</i> , 2009, 30, 505-510.	1.2	17
81	Simulation, Analysis, and Assessment of CO ₂ Enhanced Biomass Gasification. <i>Computer Aided Chemical Engineering</i> , 2013, 32, 421-426.	0.3	17
82	Pyrolysis oil substituted epoxy resin: Improved ratio optimization and crosslinking efficiency. <i>Journal of Applied Polymer Science</i> , 2015, 132, .	1.3	17
83	Hydrotreatment of solvent-extracted biocrude from hydrothermal liquefaction of municipal sewage sludge. <i>Energy Conversion and Management</i> , 2022, 263, 115719.	4.4	16
84	Effects of temperature and equivalence ratio on mass balance and energy analysis in loblolly pine oxygen gasification. <i>Energy Science and Engineering</i> , 2016, 4, 256-268.	1.9	15
85	Alternative Hydrocarbon Biofuel Production via Hydrotreating under a Synthesis Gas Atmosphere. <i>Energy & Fuels</i> , 2017, 31, 12256-12262.	2.5	15
86	Effect of Autohydrolysis Pretreatment Conditions on Sugarcane Bagasse Structures and Product Distribution Resulting from Pyrolysis. <i>Energy Technology</i> , 2018, 6, 640-648.	1.8	15
87	Synthesis of Biobased Novolac Phenol-Formaldehyde Wood Adhesives from Biorefinery-Derived Lignocellulosic Biomass. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 10990-11002.	3.2	15
88	Inhibition effect of aromatic aldehydes on butanol fermentation by <i>Clostridium acetobutylicum</i> . <i>RSC Advances</i> , 2017, 7, 1241-1250.	1.7	13
89	Bubbling fluidized bed gasification of short rotation Eucalyptus: Effect of harvesting age and bark. <i>Biomass and Bioenergy</i> , 2018, 110, 98-104.	2.9	13
90	Fast pyrolysis bio-oil as precursor of thermosetting epoxy resins. <i>Polymer Engineering and Science</i> , 2018, 58, 1296-1307.	1.5	13

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91	Performance of biochar assisted catalysts during hydroprocessing of non-edible vegetable oil: Effect of transition metal source on catalytic activity. <i>Energy Conversion and Management</i> , 2022, 252, 115131.	4.4	13
92	Response of Titanium-Isopropoxide-Based Heterogeneous Amphiphilic Polymer Catalysts for Transesterification. <i>Energy & Fuels</i> , 2010, 24, 4123-4129.	2.5	12
93	Economic analysis of municipal power generation from gasification of urban green wastes: case study of <i>Fulton</i> , <i>Alabama</i> , <i>USA</i> . <i>Biofuels, Bioproducts and Biorefining</i> , 2012, 6, 521-533.	1.9	12
94	Effect of liquefaction temperature on hydroxyl groups of bio-oil from loblolly pine (<i>Pinus taeda</i>). <i>Bioresource Technology</i> , 2014, 169, 808-811.	4.8	12
95	Fast Pyrolysis of Biomass: Effect of Blending Southern Pine and Switchgrass. <i>Transactions of the ASABE</i> , 2016, 59, 5-10.	1.1	12
96	Performance of household grid-connected PV system in Thailand. <i>Progress in Photovoltaics: Research and Applications</i> , 2003, 11, 557-564.	4.4	10
97	The effect of storage time and moisture content on grindability of loblolly pine (<i>Pinus taeda</i> L.). <i>European Journal of Wood and Wood Products</i> , 2016, 74, 857-866.	1.3	10
98	Aspen plus simulation to predict steady state performance of biomass-CO ₂ gasification in a fluidized bed gasifier. <i>Biofuels, Bioproducts and Biorefining</i> , 2018, 12, 379-389.	1.9	10
99	Production of <i>Daphnia</i> zooplankton on wastewater-grown algae for sustainable conversion of waste nutrients to fish feed. <i>Journal of Cleaner Production</i> , 2021, 310, 127501.	4.6	10
100	Sorption and recovery of phenolic compounds from aqueous phase of sewage sludge hydrothermal liquefaction using bio-char. <i>Chemosphere</i> , 2022, 287, 131934.	4.2	10
101	Moisture effect on fluidization behavior of loblolly pine Wood grinds. <i>Biomass Conversion and Biorefinery</i> , 2017, 7, 207-220.	2.9	9
102	Process Modeling of Fluidized Bed Biomass-CO ₂ Gasification using ASPEN Plus. <i>Computer Aided Chemical Engineering</i> , 2017, , 2509-2514.	0.3	9
103	Hot water extraction as a pretreatment for reducing syngas inorganics impurities – A parametric investigation on switchgrass and loblolly pine bark. <i>Fuel</i> , 2018, 220, 177-184.	3.4	9
104	Fast Pyrolysis of <i>Opuntia ficus-indica</i> (Prickly Pear) and <i>Grindelia squarrosa</i> (Gumweed). <i>Energy & Fuels</i> , 2018, 32, 3510-3518.	2.5	8
105	Production of Novolac Resin after Partial Substitution of Phenol from Bio-Oil. <i>Transactions of the ASABE</i> , 2020, 63, 901-912.	1.1	8
106	Techno-economic analysis of novolac resin production by partial substitution of petroleum-derived phenol with bio-oil phenol. <i>Biofuels, Bioproducts and Biorefining</i> , 2021, 15, 1611-1620.	1.9	8
107	Production of Bio-oil from Underutilized Forest Biomass Using an Auger Reactor. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2015, 37, 750-757.	1.2	7
108	Physical and Flow Properties of Fractionated Loblolly Pine Grinds. <i>Transactions of the ASABE</i> , 2016, 59, 999-1008.	1.1	6

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109	Reforming glycerol under electro-statically charged surface conditions. Energy and Environmental Science, 2010, 3, 1593.	15.6	5
110	Fast Pyrolysis Bio-Oil-Based Epoxy as an Adhesive in Oriented Strand Board Production. Polymers, 2022, 14, 1244.	2.0	5
111	Friction and wear properties of biomass-derived oils via thermochemical conversion processes. Biomass and Bioenergy, 2021, 155, 106269.	2.9	4
112	Physical, Ignition, and Volatilization Properties of Biomass Feedstock Dusts. Transactions of the ASABE, 2015, 58, 1425-1437.	1.1	3
113	Dynamic Variation of Fuel Properties of Tonkin Cane (<i>Pseudosasa amabilis</i>) during Maturation. Energy & Fuels, 2015, 29, 2408-2415.	2.5	3
114	Effect of Soil on Fast Pyrolysis Products from Pine (<i>Pinus taeda</i>) Biomass. Transactions of the ASABE, 2018, 61, 355-366.	1.1	3
115	Influence of Biomass Inorganics on the Functionality of H+ZSM-5 Catalyst during In-Situ Catalytic Fast Pyrolysis. Catalysts, 2021, 11, 124.	1.6	3
116	Fast Pyrolysis of Agricultural Wastes for Bio-fuel and Bio-char. Environmental Footprints and Eco-design of Products and Processes, 2016, , 301-332.	0.7	2
117	Effect of Calcium Formate on Hydrodeoxygenation of Biomass Model Compounds. Energy & Fuels, 2019, 33, 1314-1324.	2.5	2
118	Effect of Pyrolysis Method on Physical Properties of Activated Biochar and its Application as Cathode Material for Lithium-Sulfur Battery. Transactions of the ASABE, 2020, 63, 485-493.	1.1	1
119	Strategies for the promotion of cleaner and energy efficient technologies in the urban transport system in selected Asian cities. International Journal of Environment and Pollution, 2007, 30, 45.	0.2	0
120	Biomass Gasification and Effect of Physical Properties on Products. , 2018, , 101-125.		0
121	Multiscale Catalytic Fast Pyrolysis of Grindelia Reveals Opportunities for Generating Low Oxygen Content Bio-Oils from Drought Tolerant Biomass. Energy & Fuels, 0, , .	2.5	0