

# Sonil Nanda

## List of Publications by Citations

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124  
papers

4,975  
citations

40  
h-index

68  
g-index

133  
ext. papers

6,619  
ext. citations

5.9  
avg, IF

6.9  
L-index

#	Paper	IF	Citations
124	Supercritical water gasification of biomass for hydrogen production. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 6912-6926	6.7	314
123	Pathways of lignocellulosic biomass conversion to renewable fuels. <i>Biomass Conversion and Biorefinery</i> , <b>2014</b> , 4, 157-191	2.3	228
122	Characterization of North American Lignocellulosic Biomass and Biochars in Terms of their Candidacy for Alternate Renewable Fuels. <i>Bioenergy Research</i> , <b>2013</b> , 6, 663-677	3.1	224
121	Effects of temperature on the physicochemical characteristics of fast pyrolysis bio-chars derived from Canadian waste biomass. <i>Fuel</i> , <b>2014</b> , 125, 90-100	7.1	213
120	Biochar as an Exceptional Bioresource for Energy, Agronomy, Carbon Sequestration, Activated Carbon and Specialty Materials. <i>Waste and Biomass Valorization</i> , <b>2016</b> , 7, 201-235	3.2	182
119	An assessment on the sustainability of lignocellulosic biomass for biorefining. <i>Renewable and Sustainable Energy Reviews</i> , <b>2015</b> , 50, 925-941	16.2	168
118	Evaluation of the physicochemical development of biochars obtained from pyrolysis of wheat straw, timothy grass and pinewood: Effects of heating rate. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2013</b> , 104, 485-493	6	167
117	Recent progress in the preparation, properties and applications of superhydrophobic nano-based coatings and surfaces: A review. <i>Progress in Organic Coatings</i> , <b>2019</b> , 132, 235-256	4.8	164
116	Gasification of fruit wastes and agro-food residues in supercritical water. <i>Energy Conversion and Management</i> , <b>2016</b> , 110, 296-306	10.6	148
115	Advanced synthesis strategies of mesoporous SBA-15 supported catalysts for catalytic reforming applications: A state-of-the-art review. <i>Applied Catalysis A: General</i> , <b>2018</b> , 559, 57-74	5.1	145
114	Supercritical water gasification of biomass: a state-of-the-art review of process parameters, reaction mechanisms and catalysis. <i>Sustainable Energy and Fuels</i> , <b>2019</b> , 3, 578-598	5.8	132
113	Municipal solid waste management and landfilling technologies: a review. <i>Environmental Chemistry Letters</i> , <b>2021</b> , 19, 1433-1456	13.3	101
112	A review on subcritical and supercritical water gasification of biogenic, polymeric and petroleum wastes to hydrogen-rich synthesis gas. <i>Renewable and Sustainable Energy Reviews</i> , <b>2020</b> , 119, 109546	16.2	93
111	The progressive routes for carbon capture and sequestration. <i>Energy Science and Engineering</i> , <b>2016</b> , 4, 99-122	3.4	90
110	Hydrothermal catalytic processing of waste cooking oil for hydrogen-rich syngas production. <i>Chemical Engineering Science</i> , <b>2019</b> , 195, 935-945	4.4	83
109	Fermentative production of butanol: Perspectives on synthetic biology. <i>New Biotechnology</i> , <b>2017</b> , 37, 210-221	6.4	82
108	Insights on pathways for hydrogen generation from ethanol. <i>Sustainable Energy and Fuels</i> , <b>2017</b> , 1, 1232-1245	18.45	81

107	Subcritical and supercritical water gasification of lignocellulosic biomass impregnated with nickel nanocatalyst for hydrogen production. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 4907-4921	6.7	77
106	Valorization of horse manure through catalytic supercritical water gasification. <i>Waste Management</i> , <b>2016</b> , 52, 147-58	8.6	75
105	Butanol and ethanol production from lignocellulosic feedstock: biomass pretreatment and bioconversion. <i>Energy Science and Engineering</i> , <b>2014</b> , 2, 138-148	3.4	74
104	A technical review of bioenergy and resource recovery from municipal solid waste. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 403, 123970	12.8	72
103	Thermochemical conversion of plastic waste to fuels: a review. <i>Environmental Chemistry Letters</i> , <b>2021</b> , 19, 123-148	13.3	68
102	Supercritical water gasification of fructose as a model compound for waste fruits and vegetables. <i>Journal of Supercritical Fluids</i> , <b>2015</b> , 104, 112-121	4.2	65
101	Supercritical water gasification of timothy grass as an energy crop in the presence of alkali carbonate and hydroxide catalysts. <i>Biomass and Bioenergy</i> , <b>2016</b> , 95, 378-387	5.3	63
100	Physico-Chemical Properties of Bio-Oils from Pyrolysis of Lignocellulosic Biomass with High and Slow Heating Rate. <i>Energy and Environment Research</i> , <b>2014</b> , 4,	1	62
99	An assessment of pinecone gasification in subcritical, near-critical and supercritical water. <i>Fuel Processing Technology</i> , <b>2017</b> , 168, 84-96	7.2	61
98	Microwave-assisted hydrothermal carbonization of corn stalk for solid biofuel production: Optimization of process parameters and characterization of hydrochar. <i>Energy</i> , <b>2019</b> , 186, 115795	7.9	61
97	Subcritical and supercritical water gasification of humic acid as a model compound of humic substances in sewage sludge. <i>Journal of Supercritical Fluids</i> , <b>2017</b> , 119, 130-138	4.2	61
96	Characteristic Studies on the Pyrolysis Products from Hydrolyzed Canadian Lignocellulosic Feedstocks. <i>Bioenergy Research</i> , <b>2014</b> , 7, 174-191	3.1	54
95	Biohydrogen Production Through Dark Fermentation. <i>Chemical Engineering and Technology</i> , <b>2020</b> , 43, 601-612	2	52
94	Optimization and modeling of process parameters during hydrothermal gasification of biomass model compounds to generate hydrogen-rich gas products. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 18275-18288	6.7	50
93	Chemistry and Specialty Industrial Applications of Lignocellulosic Biomass. <i>Waste and Biomass Valorization</i> , <b>2021</b> , 12, 2145-2169	3.2	50
92	Supercritical Water Gasification of Lactose as a Model Compound for Valorization of Dairy Industry Effluents. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2015</b> , 54, 9296-9306	3.9	48
91	Supercritical water gasification of glycerol and methanol mixtures as model waste residues from biodiesel refinery. <i>Chemical Engineering Research and Design</i> , <b>2016</b> , 113, 17-27	5.5	45
90	Catalytic gasification of wheat straw in hot compressed (subcritical and supercritical) water for hydrogen production. <i>Energy Science and Engineering</i> , <b>2018</b> , 6, 448-459	3.4	44

89	Lignocellulosic Biomass: A Review of Conversion Technologies and Fuel Products. <i>Current Biochemical Engineering</i> , <b>2015</b> , 3, 24-36	2	43
88	Hydrothermal pretreatment technologies for lignocellulosic biomass: A review of steam explosion and subcritical water hydrolysis. <i>Chemosphere</i> , <b>2021</b> , 284, 131372	8.4	42
87	Optimization, equilibrium, adsorption behavior and role of surface functional groups on graphene oxide-based nanocomposite towards diclofenac drug. <i>Journal of Environmental Sciences</i> , <b>2020</b> , 93, 137-150	6.4	41
86	Slow Pyrolysis of Deoiled Canola Meal: Product Yields and Characterization. <i>Energy &amp; Fuels</i> , <b>2013</b> , 27, 5268-5279	4.1	41
85	Hydrothermal gasification of soybean straw and flax straw for hydrogen-rich syngas production: Experimental and thermodynamic modeling. <i>Energy Conversion and Management</i> , <b>2020</b> , 208, 112545	10.6	40
84	Physico-chemistry of biochars produced through steam gasification and hydro-thermal gasification of canola hull and canola meal pellets. <i>Biomass and Bioenergy</i> , <b>2019</b> , 120, 458-470	5.3	39
83	Lewis acid catalyzed gasification of humic acid in supercritical water. <i>Catalysis Today</i> , <b>2017</b> , 291, 13-23	5.3	38
82	Effects of bio-additives on the physicochemical properties and mechanical behavior of canola hull fuel pellets. <i>Renewable Energy</i> , <b>2019</b> , 132, 296-307	8.1	38
81	Futuristic applications of hydrogen in energy, biorefining, aerospace, pharmaceuticals and metallurgy. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 8885-8905	6.7	37
80	Investigating the applicability of Athabasca bitumen as a feedstock for hydrogen production through catalytic supercritical water gasification. <i>Journal of Environmental Chemical Engineering</i> , <b>2018</b> , 6, 182-189	6.8	36
79	Ignition of hydrothermal flames. <i>RSC Advances</i> , <b>2015</b> , 5, 36404-36422	3.7	36
78	PDMS/camphor soot composite coating: towards a self-healing and a self-cleaning superhydrophobic surface. <i>RSC Advances</i> , <b>2017</b> , 7, 15027-15040	3.7	33
77	Comparative evaluation for catalytic gasification of petroleum coke and asphaltene in subcritical and supercritical water. <i>Journal of Energy Chemistry</i> , <b>2019</b> , 31, 107-118	12	32
76	A Review of Torrefaction Technology for Upgrading Lignocellulosic Biomass to Solid Biofuels. <i>Bioenergy Research</i> , <b>2021</b> , 14, 645-669	3.1	32
75	Effect of acidic pretreatment on the chemistry and distribution of lignin in aspen wood and wheat straw substrates. <i>Biomass and Bioenergy</i> , <b>2016</b> , 91, 56-68	5.3	32
74	Supercritical water gasification of biomass in diamond anvil cells and fluidized beds. <i>Biofuels, Bioproducts and Biorefining</i> , <b>2014</b> , 8, 728-737	5.3	29
73	Recent Applications of Advanced Atomic Force Microscopy in Polymer Science: A Review. <i>Polymers</i> , <b>2020</b> , 12,	4.5	28
72	Biochar production, activation and adsorptive applications: a review. <i>Environmental Chemistry Letters</i> , <b>2021</b> , 19, 2237-2259	13.3	27

71	Next-generation biofuels and platform biochemicals from lignocellulosic biomass. <i>International Journal of Energy Research</i> , <b>2021</b> , 45, 14145-14169	4.5	26
70	BiVO <sub>4</sub> photocatalysis design and applications to oxygen production and degradation of organic compounds: a review. <i>Environmental Chemistry Letters</i> , <b>2020</b> , 18, 1779-1801	13.3	24
69	Catalytic subcritical and supercritical water gasification as a resource recovery approach from waste tires for hydrogen-rich syngas production. <i>Journal of Supercritical Fluids</i> , <b>2019</b> , 154, 104627	4.2	23
68	Physico-Chemical Evolution in Lignocellulosic Feedstocks During Hydrothermal Pretreatment and Delignification. <i>Journal of Biobased Materials and Bioenergy</i> , <b>2015</b> , 9, 295-308	1.4	23
67	Artificial neural network modeling of cefixime photodegradation by synthesized CoBiO nanoparticles. <i>Environmental Science and Pollution Research</i> , <b>2021</b> , 28, 15436-15452	5.1	23
66	Modeling and process optimization of hydrothermal gasification for hydrogen production: A comprehensive review. <i>Journal of Supercritical Fluids</i> , <b>2021</b> , 173, 105199	4.2	23
65	Ignition of n-propanol in hydrothermal flames during supercritical water oxidation. <i>Proceedings of the Combustion Institute</i> , <b>2017</b> , 36, 2503-2511	5.9	22
64	Subcritical water gasification of lignocellulosic wastes for hydrogen production with Co modified Ni/Al <sub>2</sub> O <sub>3</sub> catalysts. <i>Journal of Supercritical Fluids</i> , <b>2020</b> , 162, 104863	4.2	19
63	Application of Fe-based metal-organic framework and its pyrolysis products for sulfonamide treatment. <i>Environmental Science and Pollution Research</i> , <b>2019</b> , 26, 28106-28126	5.1	19
62	Taguchi-based process optimization for activation of agro-food waste biochar and performance test for dye adsorption. <i>Chemosphere</i> , <b>2021</b> , 285, 131531	8.4	19
61	Hydrochar: A Review on Its Production Technologies and Applications. <i>Catalysts</i> , <b>2021</b> , 11, 939	4	18
60	Eco-friendly Transformation of Waste Biomass to Biofuels. <i>Current Biochemical Engineering</i> , <b>2020</b> , 6, 120-134	2	17
59	La-doped cobalt supported on mesoporous alumina catalysts for improved methane dry reforming and coke mitigation. <i>Journal of the Energy Institute</i> , <b>2020</b> , 93, 1571-1580	5.7	16
58	Development of Dual-Phobic Surfaces: Superamphiphobicity in Air and Oleophobicity Underwater. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2017</b> , 5, 6716-6726	8.3	16
57	Slow pyrolysis of agro-food wastes and physicochemical characterization of biofuel products. <i>Chemosphere</i> , <b>2021</b> , 285, 131431	8.4	16
56	Catalytic gasification of light and heavy gas oils in supercritical water. <i>Journal of the Energy Institute</i> , <b>2020</b> , 93, 2025-2032	5.7	15
55	Metal-organic framework-based functional catalytic materials for biodiesel production: a review. <i>Green Chemistry</i> , <b>2021</b> , 23, 2595-2618	10	15
54	Catalytic conversion of lignocellulosic polysaccharides to commodity biochemicals: a review. <i>Environmental Chemistry Letters</i> , <b>2021</b> , 1	13.3	15

53	Catalytic Supercritical Water Gasification of Soybean Straw: Effects of Catalyst Supports and Promoters. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2021</b> , 60, 5770-5782	3.9	14
52	Subcritical water hydrolysis of Phragmites for sugar extraction and catalytic conversion to platform chemicals. <i>Biomass and Bioenergy</i> , <b>2021</b> , 145, 105965	5.3	14
51	A Broad Introduction to First-, Second-, and Third-Generation Biofuels <b>2018</b> , 1-25		14
50	Impacts of oxidant characteristics on the ignition of n-propanol-air hydrothermal flames in supercritical water. <i>Combustion and Flame</i> , <b>2019</b> , 203, 46-55	5.3	13
49	Innovations in applications and prospects of bioplastics and biopolymers: a review. <i>Environmental Chemistry Letters</i> , <b>2021</b> , 1-17	13.3	13
48	Ethanol CO <sub>2</sub> reforming on La <sub>2</sub> O <sub>3</sub> and CeO <sub>2</sub> -promoted Cu/Al <sub>2</sub> O <sub>3</sub> catalysts for enhanced hydrogen production. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 18398-18410	6.7	13
47	Techno-economic evaluation and sensitivity analysis of a conceptual design for supercritical water gasification of soybean straw to produce hydrogen. <i>Bioresource Technology</i> , <b>2021</b> , 331, 125005	11	13
46	Cannabis: Chemistry, extraction and therapeutic applications. <i>Chemosphere</i> , <b>2021</b> , 289, 133012	8.4	12
45	Enhanced fuel characteristics and physical chemistry of microwave hydrochar for sustainable fuel pellet production via co-densification. <i>Environmental Research</i> , <b>2020</b> , 186, 109480	7.9	11
44	Application of biomass derived products in mid-size automotive industries: A review. <i>Chemosphere</i> , <b>2021</b> , 280, 130723	8.4	11
43	Recent Advances in Consolidated Bioprocessing for Microbe-Assisted Biofuel Production <b>2019</b> , 141-157		10
42	A Review of Thermochemical and Biochemical Conversion of Miscanthus to Biofuels <b>2020</b> , 195-220		10
41	Pyrolysis of Miscanthus and characterization of value-added bio-oil and biochar products. <i>Canadian Journal of Chemical Engineering</i> ,	2.3	9
40	Recent Developments and Challenges of Acetone-Butanol-Ethanol Fermentation <b>2018</b> , 111-123		9
39	Recent Advances in Steam Reforming of Glycerol for Syngas Production <b>2020</b> , 399-425		7
38	Current Advancements in Microbial Fuel Cell Technologies <b>2020</b> , 477-494		7
37	Technological Advancements in the Production and Application of Biomethanol <b>2020</b> , 127-139		7
36	Applications of Supercritical Fluids for Biodiesel Production <b>2018</b> , 261-284		7

35	Cultivation and Conversion of Algae for Wastewater Treatment and Biofuel Production <b>2019</b> , 159-175		6
34	Butanol from Renewable Biomass: Highlights of Downstream Processing and Recovery Techniques <b>2017</b> , 187-211		6
33	Improvements in hydrogen production from methane dry reforming on filament-shaped mesoporous alumina-supported cobalt nanocatalyst. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 46, 24781-24781	6.7	6
32	Densification of Agricultural Wastes and Forest Residues: A Review on Influential Parameters and Treatments <b>2018</b> , 27-51		6
31	Catalytic hydrothermal co-gasification of canola meal and low-density polyethylene using mixed metal oxides for hydrogen production. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> ,	6.7	6
30	An appraisal on biochar functionality and utility in agronomy <b>2018</b> , 389-410		5
29	Optimization studies for hydrothermal gasification of partially burnt wood from forest fires for hydrogen-rich syngas production using Taguchi experimental design. <i>Environmental Pollution</i> , <b>2021</b> , 283, 117040	9.3	5
28	Isolation of cellulose fibers from wetland reed grass through an integrated subcritical water hydrolysis-pulping-bleaching process. <i>Fuel</i> , <b>2021</b> , 311, 122618	7.1	4
27	A Spotlight on Butanol and Propanol as Next-Generation Synthetic Fuels <b>2020</b> , 105-126		4
26	A Review of Biomass Resources and Thermochemical Conversion Technologies. <i>Chemical Engineering and Technology</i> ,	2	4
25	A review of thermocatalytic conversion of biogenic wastes into crude biofuels and biochemical precursors. <i>Fuel</i> , <b>2022</b> , 320, 123857	7.1	4
24	Hydrogen: fuel of the near future <b>2020</b> , 1-20		3
23	Comparative study on fuel characteristics and pyrolysis kinetics of corn residue-based hydrochar produced via microwave hydrothermal carbonization. <i>Chemosphere</i> , <b>2021</b> , 132787	8.4	3
22	Pelletization of torrefied canola residue: Effects of microwave power, residence time and bio-additives on fuel pellet quality. <i>Fuel</i> , <b>2022</b> , 312, 122728	7.1	3
21	CHAPTER 19:Hydrothermal Events Occurring During Gasification in Supercritical Water. <i>RSC Green Chemistry</i> , <b>2018</b> , 560-587	0.9	3
20	Hydrodeoxygenation of oleic acid using $\gamma$ -Al <sub>2</sub> O <sub>3</sub> supported transition metallic catalyst systems: Insight into the development of novel FeCu/ $\gamma$ -Al <sub>2</sub> O <sub>3</sub> catalyst. <i>Molecular Catalysis</i> , <b>2021</b> , 111526	3.3	3
19	Steam and supercritical water gasification of densified canola meal fuel pellets. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> ,	6.7	2
18	Graphene Oxide-Induced Interfacial Transcrystallization of Single-Fiber Milkweed/Polycaprolactone/Polyvinylchloride Composites. <i>ACS Omega</i> , <b>2020</b> , 5, 22430-22439	3.9	2

17	Extraction of sugars and cellulose fibers from Cannabis stems by hydrolysis, pulping and bleaching. <i>Chemical Engineering and Technology</i> ,	2	1
16	A techno-economic assessment of biomethane and bioethanol production from crude glycerol through integrated hydrothermal gasification, syngas fermentation and biomethanation. <i>Energy Conversion and Management: X</i> , <b>2021</b> , 12, 100131	2.5	1
15	Conversion of Carbon Dioxide into Formaldehyde. <i>Environmental Chemistry for A Sustainable World</i> , <b>2020</b> , 159-183	0.8	1
14	Catalytic and Noncatalytic Upgrading of Bio-Oil to Synthetic Fuels: An Introductory Review. <i>ACS Symposium Series</i> , <b>2021</b> , 1-28	0.4	1
13	Hydroprocessing of oleic acid for the production of aviation turbine fuel range hydrocarbons over bimetallic Fe-Cu/SiO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> catalysts promoted by Sn, Ti and Zr. <i>Molecular Catalysis</i> , <b>2021</b> , 111358	3.3	1
12	Opportunities for Biodiesel Compatibility as a Modern Combustion Engine Fuel <b>2020</b> , 457-476		0
11	Hydrothermal flames for subaquatic, terrestrial and extraterrestrial applications. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 424, 127520	12.8	0
10	Thermochemical conversion of organic waste: New horizons for production of green energy <b>2022</b> , 1-21		0
9	Process optimization and investigating the effects of torrefaction and pelletization on steam gasification of canola residue. <i>Fuel</i> , <b>2022</b> , 323, 124239	7.1	0
8	Photocatalytic reforming for a sustainable hydrogen production over titania-based photocatalysts <b>2020</b> , 191-213		
7	Recent progress in ethanol steam reforming for hydrogen generation <b>2020</b> , 57-80		
6	Bioconversion of Waste Biomass to Biobutanol <b>2020</b> , 35-44		
5	Perspectives on Microbial Fuel Cells <b>2020</b> , 75-84		
4	Bioconversion of Waste Biomass to Biomethanol <b>2020</b> , 45-52		
3	Preface to the Special Issue on Heterogeneous Photocatalysts: From Fundamentals to Innovative Applications <i>Topics in Catalysis</i> , <b>2020</b> , 63, 955-955	2.3	
2	Subcritical and Supercritical Water Treatments for Bio-Oil Production and Upgrading. <i>ACS Symposium Series</i> , <b>2021</b> , 69-87	0.4	
1	Pyrolytic valorization of an invasive crop (Phragmites) to high-value biofuels and bioproducts <b>2022</b> , 89-115		