

# Abrar Inayat

## List of Publications by Year in descending order

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97  
papers

3,406  
citations

172207  
29  
h-index

149479  
56  
g-index

99  
all docs

99  
docs citations

99  
times ranked

2768  
citing authors

#	ARTICLE	IF	CITATIONS
1	Assessing the gasification performance of biomass: A review on biomass gasification process conditions, optimization and economic evaluation. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 53, 1333-1347.	8.2	398
2	Recent developments in physical, biological, chemical, and hybrid treatment techniques for removing emerging contaminants from wastewater. <i>Journal of Hazardous Materials</i> , 2021, 416, 125912.	6.5	300
3	The influence of catalysts in biomass steam gasification and catalytic potential of coal bottom ash in biomass steam gasification: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 73, 468-476.	8.2	209
4	Progress and challenges of contaminate removal from wastewater using microalgae biomass. <i>Chemosphere</i> , 2022, 286, 131656.	4.2	147
5	Mathematical and computational approaches for design of biomass gasification for hydrogen production: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2012, 16, 2304-2315.	8.2	122
6	Potential of biomass for bioenergy in Pakistan based on present case and future perspectives. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 81, 1247-1258.	8.2	122
7	District cooling system via renewable energy sources: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 107, 360-373.	8.2	116
8	A state of the art review on biomass processing and conversion technologies to produce hydrogen and its recovery via membrane separation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 15166-15195.	3.8	102
9	Artificial neural network approach for the steam gasification of palm oil waste using bottom ash and CaO. <i>Renewable Energy</i> , 2019, 132, 243-254.	4.3	101
10	Fuzzy modeling and parameters optimization for the enhancement of biodiesel production from waste frying oil over montmorillonite clay K-30. <i>Science of the Total Environment</i> , 2019, 666, 821-827.	3.9	96
11	Process modeling for parametric study on oil palm empty fruit bunch steam gasification for hydrogen production. <i>Fuel Processing Technology</i> , 2012, 93, 26-34.	3.7	81
12	Optimization of hydrogen and syngas production from PKS gasification by using coal bottom ash. <i>Bioresource Technology</i> , 2017, 241, 284-295.	4.8	81
13	Biomass Steam Gasification with In-Situ CO <sub>2</sub> Capture for Enriched Hydrogen Gas Production: A Reaction Kinetics Modelling Approach. <i>Energies</i> , 2010, 3, 1472-1484.	1.6	76
14	Syngas Production from Steam Gasification of Palm Kernel Shell with Subsequent CO <sub>2</sub> Capture Using CaO Sorbent: An Aspen Plus Modeling. <i>Energy &amp; Fuels</i> , 2017, 31, 12350-12357.	2.5	74
15	Kinetic and thermodynamic analyses of date palm surface fibers pyrolysis using Coats-Redfern method. <i>Renewable Energy</i> , 2022, 183, 67-77.	4.3	72
16	Application of response surface methodology to investigate the effect of different variables on conversion of palm kernel shell in steam gasification using coal bottom ash. <i>Applied Energy</i> , 2016, 184, 1306-1315.	5.1	70
17	Cleaner Production of Hydrogen and Syngas from Catalytic Steam Palm Kernel Shell Gasification Using CaO Sorbent and Coal Bottom Ash as a Catalyst. <i>Energy &amp; Fuels</i> , 2017, 31, 13824-13833.	2.5	59
18	Combustion and emissions analysis of Spent Pot lining (SPL) as alternative fuel in cement industry. <i>Science of the Total Environment</i> , 2019, 684, 519-526.	3.9	56

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19	Parametric analysis and optimization for the catalytic air gasification of palm kernel shell using coal bottom ash as catalyst. <i>Renewable Energy</i> , 2020, 145, 671-681.	4.3	53
20	Improving the environmental impact of palm kernel shell through maximizing its production of hydrogen and syngas using advanced artificial intelligence. <i>Science of the Total Environment</i> , 2019, 658, 1150-1160.	3.9	51
21	Pyrolysis of solid waste residues from Lemon Myrtle essential oils extraction for bio-oil production. <i>Bioresource Technology</i> , 2020, 318, 123913.	4.8	51
22	Greener and sustainable production of bioethylene from bioethanol: current status, opportunities and perspectives. <i>Reviews in Chemical Engineering</i> , 2022, 38, 185-207.	2.3	49
23	Air catalytic biomass (PKS) gasification in a fixed-bed downdraft gasifier using waste bottom ash as catalyst with NARX neural network modelling. <i>Computers and Chemical Engineering</i> , 2020, 142, 107048.	2.0	48
24	Environmental impacts of biodiesel production from waste spent coffee grounds and its implementation in a compression ignition engine. <i>Science of the Total Environment</i> , 2019, 675, 13-30.	3.9	45
25	Progress of artificial neural networks applications in hydrogen production. <i>Chemical Engineering Research and Design</i> , 2022, 182, 66-86.	2.7	45
26	Parametric Study for Production of Dimethyl Ether (DME) As a Fuel from Palm Wastes. <i>Energy Procedia</i> , 2017, 105, 1242-1249.	1.8	44
27	Progress of the Pyrolyzer Reactors and Advanced Technologies for Biomass Pyrolysis Processing. <i>Sustainability</i> , 2021, 13, 11061.	1.6	44
28	Parametric Study and Optimization of Methane Production in Biomass Gasification in the Presence of Coal Bottom Ash. <i>Procedia Engineering</i> , 2016, 148, 409-416.	1.2	41
29	NO and SO <sub>2</sub> emissions in palm kernel shell catalytic steam gasification with in-situ CO <sub>2</sub> adsorption for hydrogen production in a pilot-scale fluidized bed gasification system. <i>Journal of Cleaner Production</i> , 2019, 236, 117636.	4.6	38
30	Optimal operating parameter determination based on fuzzy logic modeling and marine predators algorithm approaches to improve the methane production via biomass gasification. <i>Energy</i> , 2022, 239, 122072.	4.5	29
31	Techno-Economical Evaluation of Bio-Oil Production via Biomass Fast Pyrolysis Process: A Review. <i>Frontiers in Energy Research</i> , 2022, 9, .	1.2	27
32	Potential of dates ( <i>Phoenix dactylifera</i> L.) as natural antioxidant source and functional food for healthy diet. <i>Science of the Total Environment</i> , 2020, 748, 141234.	3.9	24
33	Integrated adsorption steam gasification for enhanced hydrogen production from palm waste at bench scale plant. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 30581-30591.	3.8	23
34	Agro-industrial residue gasification feasibility in captive power plants: A South-Asian case study. <i>Energy</i> , 2021, 214, 118952.	4.5	22
35	Developing a fuzzy-model with particle swarm optimization-based for improving the conversion and gasification rate of palm kernel shell. <i>Renewable Energy</i> , 2020, 166, 125-135.	4.3	22
36	Design of Hybrid Solar Photovoltaics/Shrouded Wind Turbine Power System for Thermal Pyrolysis of Plastic Waste. <i>Case Studies in Thermal Engineering</i> , 2020, 22, 100773.	2.8	21

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37	Flowsheet Modeling and Simulation of Biomass Steam Gasification for Hydrogen Production. <i>Chemical Engineering and Technology</i> , 2020, 43, 649-660.	0.9	21
38	Crude Glycerol as a Potential Feedstock for Future Energy via Thermochemical Conversion Processes: A Review. <i>Sustainability</i> , 2021, 13, 12813.	1.6	21
39	Co-pyrolysis for bio-oil production via fixed bed reactor using date seeds and plastic waste as biomass. <i>Case Studies in Thermal Engineering</i> , 2022, 31, 101841.	2.8	21
40	Solar Assisted Pyrolysis of Plastic Waste: Pyrolysis oil Characterization and Grid-Tied Solar PV Power System Design. <i>Energy Procedia</i> , 2019, 159, 123-129.	1.8	20
41	Modeling and parametric optimization of air catalytic co-gasification of wood-oil palm fronds blend for clean syngas (H <sub>2</sub> +CO) production. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 30559-30580.	3.8	19
42	Desert Palm Date Seeds as a Biodiesel Feedstock: Extraction, Characterization, and Engine Testing. <i>Energies</i> , 2019, 12, 3147.	1.6	17
43	A comprehensive review on advanced thermochemical processes for bio-hydrogen production via microwave and plasma technologies. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 8593-8602.	2.9	17
44	Process Optimization for Biodiesel Production from Waste Frying Oil over Montmorillonite Clay K-30. <i>Procedia Engineering</i> , 2016, 148, 742-749.	1.2	16
45	Impact of layered and delaminated zeolites on catalytic fast pyrolysis of microalgae using fixed-bed reactor and Py-GC/MS. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 155, 105025.	2.6	16
46	Heat integration modeling of hydrogen production from date seeds via steam gasification. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 30592-30605.	3.8	16
47	Integration and simulation of solar energy with hot flue gas system for the district cooling application. <i>Case Studies in Thermal Engineering</i> , 2020, 19, 100620.	2.8	15
48	Co-Combustion of Blends of Coal and Underutilised Biomass Residues for Environmental Friendly Electrical Energy Production. <i>Sustainability</i> , 2021, 13, 4881.	1.6	15
49	Mitigation of CO <sub>2</sub> emissions by transforming to biofuels: Optimization of biofuels production processes. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 150, 111487.	8.2	15
50	Influence of Effective Parameters on Product Gas Ratios in Sorption Enhanced Gasification. <i>Procedia Engineering</i> , 2016, 148, 735-741.	1.2	14
51	Current progress in anaerobic digestion reactors and parameters optimization. <i>Biomass Conversion and Biorefinery</i> , 0, , 1.	2.9	14
52	Characterization and Reactivity Study of Coal Bottom Ash for Utilization in Biomass Gasification as an Adsorbent/Catalyst for Cleaner Fuel Production. <i>Energy &amp; Fuels</i> , 2019, 33, 11318-11327.	2.5	13
53	Preparation and characterization of amine (N-methyl diethanolamine)-based transition temperature mixtures (deep eutectic analogues solvents). <i>Journal of Chemical Thermodynamics</i> , 2019, 137, 108-118.	1.0	13
54	Fluidization of palm kernel shell, palm oil fronds, and empty fruit bunches in a swirling fluidized bed gasifier. <i>Particulate Science and Technology</i> , 2017, 35, 150-157.	1.1	12

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55	Upgradation of waste cooking oil to biodiesel in the presence of green catalyst derived from date seeds. <i>Biofuels</i> , 2021, 12, 1245-1250.	1.4	12
56	Economic analysis and optimization for bio-hydrogen production from oil palm waste via steam gasification. <i>Energy Sources, Part B: Economics, Planning and Policy</i> , 2017, 12, 158-165.	1.8	10
57	Kinetics and thermodynamic study of <i>Calligonum polygonoides</i> pyrolysis using model-free methods. <i>Chemical Engineering Research and Design</i> , 2022, 160, 130-138.	2.7	10
58	Simulation of Integrated Pressurized Steam Gasification of Biomass for Hydrogen Production using iCON. <i>Journal of Applied Sciences</i> , 2011, 11, 3593-3599.	0.1	9
59	Kinetic parameters determination using optimization approach in integrated catalytic adsorption steam gasification for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 8824-8832.	3.8	8
60	Heat Integration Study on Biomass Gasification Plant for Hydrogen Production. <i>Journal of Applied Sciences</i> , 2011, 11, 3600-3606.	0.1	7
61	Kinetic Study on Palm Oil Waste Decomposition. , 0, , .		6
62	Parametric study and optimization of bio-hydrogen production using steam reforming of glycerol and biodiesel fuel mixtures. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 8713-8725.	2.9	6
63	New performance correlations of municipal solid waste gasification for sustainable syngas fuel production. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 4271-4289.	2.9	6
64	High Pressure Oxydesulphurisation of Coal Using $KMnO_4$ Effect of Coal Slurry Concentration, pH and Alkali. <i>Energies</i> , 2016, 9, 289.	1.6	5
65	Decomposition of $N_2O$ at low temperature over $Co_3O_4$ prepared by different methods. <i>Environmental Progress and Sustainable Energy</i> , 2019, 38, 13129.	1.3	5
66	Technical readiness level of biohydrogen production process and its value chain. , 2022, , 335-355.		5
67	Simulation of the pyrolysis process using blend of date seeds and coffee waste as biomass. , 2020, , .		4
68	Experimental characterization and assessment of bio- and thermo-chemical energy potential of dromedary manure. <i>Biomass and Bioenergy</i> , 2021, 148, 106058.	2.9	4
69	Simulation of Oxygen-steam Gasification with $CO_2$ Adsorption for Hydrogen Production from Empty Fruit Bunch. <i>Journal of Applied Sciences</i> , 2011, 11, 2171-2178.	0.1	4
70	Recent progress in modeling and simulation of biomass conversion to biohydrogen. , 2022, , 301-315.		4
71	Fast Pyrolysis Process for Bio-oil Production from Coffee Waste in the UAE. , 2022, , .		4
72	Impact of Policy Instruments in the Implementation of Renewable Sources of Energy in Selected European Countries. <i>Sustainability</i> , 2022, 14, 6314.	1.6	4

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73	Sustainability of biodiesel production using immobilized enzymes: A strategy to meet future bioeconomy challenges. International Journal of Energy Research, 2022, 46, 19090-19108.	2.2	4
74	Performance analysis and biofuels conversion yield correlations for solar-thermal wood chips pyrolysis reactor using response surface methodology. Case Studies in Thermal Engineering, 2022, 36, 102225.	2.8	4
75	High Pressure Oxydesulphurisation of Coal—A Parametric Study. Energies, 2013, 6, 1930-1943.	1.6	3
76	Simulation of Anaerobic Co-Digestion Process for the Biogas Production using ASPEN PLUS. , 2019, , .		3
77	Biodiesel synthesis from neem oil using neem seeds residue as sustainable catalyst support. Biomass Conversion and Biorefinery, 0, , 1.	2.9	3
78	Review of Recent Progress in Wastewater Treatment Using Carbon Nanotubes. Current Analytical Chemistry, 2020, 17, 23-30.	0.6	3
79	Hydrogen and Syngas Generation from Gasification of Coal in an Integrated Fuel Processor. Applied Mechanics and Materials, 0, 625, 644-647.	0.2	2
80	Catalytic Cracking of Synthetic Bio-Oil: Kinetic Studies. Applied Mechanics and Materials, 0, 625, 259-262.	0.2	2
81	Biodiesel production from date seeds via microwave assisted technique. , 2018, , .		2
82	Integrated catalytic adsorption steam gasification in a bubbling fluidized bed for enhanced H <sub>2</sub> production: perspective of design and pilot plant experiences. Biofuels, Bioproducts and Biorefining, 2018, 12, 735-748.	1.9	2
83	Biomass Steam Gasification for Hydrogen Production: A Systematic Review. , 2014, , 329-343.		2
84	Optimization approach for kinetics parameters determination for oil palm waste steam gasification with in-situ CO <sub>2</sub> capture for hydrogen production. , 2011, , .		1
85	Process simulation of hydrogen production from bio-oil using iCON. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2016, 38, 730-736.	1.2	1
86	Parametric Study on the Heating Values of Products as via Steam Gasification of Palm Waste Using CaO as Sorbent Material. Advanced Materials Research, 2016, 1133, 654-658.	0.3	1
87	Designing of a 20 kW updraft fixed-bed biomass gasification power generation system. , 2020, , .		1
88	Development of Reaction Kinetics Model for the Production of Synthesis Gas from Dry Methane Reforming. Bulletin of Chemical Reaction Engineering and Catalysis, 2021, 16, 440-445.	0.5	1
89	Development of Morphology Dependent Titania Nanomaterial for Photo Degradation of Dyes. Applied Mechanics and Materials, 0, 625, 349-352.	0.2	0
90	Mathematical Modelling for Hydrogen Production from Steam Gasification of Cellulose. Applied Mechanics and Materials, 0, 625, 176-179.	0.2	0

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91	Lithium modified zeolite synthesis for conversion of biodiesel-derived glycerol to polyglycerol. , 2014, , .		0
92	Simulation of Oxygen-Steam Gasification for Hydrogen Production from Date Pits. Advanced Materials Research, 2015, 1113, 654-659.	0.3	0
93	High Pressure Oxydesulphurisation of Coalâ€™Effect of Oxidizing Agent, Solvent, Shear and Agitator Configuration. Energies, 2016, 9, 505.	1.6	0
94	Simulation for the production of synthetic natural gas for vehicles (SNGV) from palm waste via gasification with in-situ CO <sub>2</sub> capture. , 2017, , .		0
95	Synthesis and Characterization of Waste Eggshell-Based Montmorillonite Clay Catalyst for Biodiesel Production from Waste Cooking Oil. E3S Web of Conferences, 2021, 287, 02006.	0.2	0
96	Renewable Energy Power for A Sustainable Energy for Future. Current Graphene Science, 2019, 03, .	0.5	0
97	Recent advances in Photocatalysis for renewable energy production using Microbial Fuel Cell. Current Graphene Science, 2019, 03, .	0.5	0