

# Abrar Inayat

## List of Publications by Year in descending order

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97  
papers

3,406  
citations

172457

29  
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149698

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99  
all docs

99  
docs citations

99  
times ranked

2768  
citing authors

#	ARTICLE	IF	CITATIONS
1	A comprehensive review on advanced thermochemical processes for bio-hydrogen production via microwave and plasma technologies. Biomass Conversion and Biorefinery, 2023, 13, 8593-8602.	4.6	17
2	Parametric study and optimization of bio-hydrogen production using steam reforming of glycerol and biodiesel fuel mixtures. Biomass Conversion and Biorefinery, 2023, 13, 8713-8725.	4.6	6
3	Progress and challenges of contaminate removal from wastewater using microalgae biomass. Chemosphere, 2022, 286, 131656.	8.2	147
4	Optimal operating parameter determination based on fuzzy logic modeling and marine predators algorithm approaches to improve the methane production via biomass gasification. Energy, 2022, 239, 122072.	8.8	29
5	Greener and sustainable production of bioethylene from bioethanol: current status, opportunities and perspectives. Reviews in Chemical Engineering, 2022, 38, 185-207.	4.4	49
6	Kinetic and thermodynamic analyses of date palm surface fibers pyrolysis using Coats-Redfern method. Renewable Energy, 2022, 183, 67-77.	8.9	72
7	Technical readiness level of biohydrogen production process and its value chain. , 2022, , 335-355.		5
8	Recent progress in modeling and simulation of biomass conversion to biohydrogen. , 2022, , 301-315.		4
9	New performance correlations of municipal solid waste gasification for sustainable syngas fuel production. Biomass Conversion and Biorefinery, 2022, 12, 4271-4289.	4.6	6
10	Techno-Economical Evaluation of Bio-Oil Production via Biomass Fast Pyrolysis Process: A Review. Frontiers in Energy Research, 2022, 9, .	2.3	27
11	Co-pyrolysis for bio-oil production via fixed bed reactor using date seeds and plastic waste as biomass. Case Studies in Thermal Engineering, 2022, 31, 101841.	5.7	21
12	Kinetics and thermodynamic study of Calligonum polygonoides pyrolysis using model-free methods. Chemical Engineering Research and Design, 2022, 160, 130-138.	5.6	10
13	Fast Pyrolysis Process for Bio-oil Production from Coffee Waste in the UAE. , 2022, , .		4
14	Progress of artificial neural networks applications in hydrogen production. Chemical Engineering Research and Design, 2022, 182, 66-86.	5.6	45
15	Impact of Policy Instruments in the Implementation of Renewable Sources of Energy in Selected European Countries. Sustainability, 2022, 14, 6314.	3.2	4
16	Sustainability of biodiesel production using immobilized enzymes: A strategy to meet future bioeconomy challenges. International Journal of Energy Research, 2022, 46, 19090-19108.	4.5	4
17	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.	5.7	4
18	Upgradation of waste cooking oil to biodiesel in the presence of green catalyst derived from date seeds. Biofuels, 2021, 12, 1245-1250.	2.4	12

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19	Agro-industrial residue gasification feasibility in captive power plants: A South-Asian case study. Energy, 2021, 214, 118952.	8.8	22
20	Modeling and parametric optimization of air catalytic co-gasification of wood-oil palm fronds blend for clean syngas (H <sub>2</sub> +CO) production. International Journal of Hydrogen Energy, 2021, 46, 30559-30580.	7.1	19
21	Co-Combustion of Blends of Coal and Underutilised Biomass Residues for Environmental Friendly Electrical Energy Production. Sustainability, 2021, 13, 4881.	3.2	15
22	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.	1.1	1
23	Experimental characterization and assessment of bio- and thermo-chemical energy potential of dromedary manure. Biomass and Bioenergy, 2021, 148, 106058.	5.7	4
24	Impact of layered and delaminated zeolites on catalytic fast pyrolysis of microalgae using fixed-bed reactor and Py-GC/MS. Journal of Analytical and Applied Pyrolysis, 2021, 155, 105025.	5.5	16
25	Integrated adsorption steam gasification for enhanced hydrogen production from palm waste at bench scale plant. International Journal of Hydrogen Energy, 2021, 46, 30581-30591.	7.1	23
26	Heat integration modeling of hydrogen production from date seeds via steam gasification. International Journal of Hydrogen Energy, 2021, 46, 30592-30605.	7.1	16
27	Recent developments in physical, biological, chemical, and hybrid treatment techniques for removing emerging contaminants from wastewater. Journal of Hazardous Materials, 2021, 416, 125912.	12.4	300
28	Mitigation of CO <sub>2</sub> emissions by transforming to biofuels: Optimization of biofuels production processes. Renewable and Sustainable Energy Reviews, 2021, 150, 111487.	16.4	15
29	Synthesis and Characterization of Waste Eggshell-Based Montmorillonite Clay Catalyst for Biodiesel Production from Waste Cooking Oil. E3S Web of Conferences, 2021, 287, 02006.	0.5	0
30	Progress of the Pyrolyzer Reactors and Advanced Technologies for Biomass Pyrolysis Processing. Sustainability, 2021, 13, 11061.	3.2	44
31	Crude Glycerol as a Potential Feedstock for Future Energy via Thermochemical Conversion Processes: A Review. Sustainability, 2021, 13, 12813.	3.2	21
32	Parametric analysis and optimization for the catalytic air gasification of palm kernel shell using coal bottom ash as catalyst. Renewable Energy, 2020, 145, 671-681.	8.9	53
33	Air catalytic biomass (PKS) gasification in a fixed-bed downdraft gasifier using waste bottom ash as catalyst with NARX neural network modelling. Computers and Chemical Engineering, 2020, 142, 107048.	3.8	48
34	Simulation of the pyrolysis process using blend of date seeds and coffee waste as biomass. , 2020, , .		4
35	Pyrolysis of solid waste residues from Lemon Myrtle essential oils extraction for bio-oil production. Bioresource Technology, 2020, 318, 123913.	9.6	51
36	Potential of dates (Phoenix dactylifera L.) as natural antioxidant source and functional food for healthy diet. Science of the Total Environment, 2020, 748, 141234.	8.0	24

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37	Design of Hybrid Solar Photovoltaics/Shrouded Wind Turbine Power System for Thermal Pyrolysis of Plastic Waste. Case Studies in Thermal Engineering, 2020, 22, 100773.	5.7	21
38	A state of the art review on biomass processing and conversion technologies to produce hydrogen and its recovery via membrane separation. International Journal of Hydrogen Energy, 2020, 45, 15166-15195.	7.1	102
39	Integration and simulation of solar energy with hot flue gas system for the district cooling application. Case Studies in Thermal Engineering, 2020, 19, 100620.	5.7	15
40	Designing of a 20 kW updraft fixed-bed biomass gasification power generation system. , 2020, , .		1
41	Flowsheet Modeling and Simulation of Biomass Steam Gasification for Hydrogen Production. Chemical Engineering and Technology, 2020, 43, 649-660.	1.5	21
42	Developing a fuzzy-model with particle swarm optimization-based for improving the conversion and gasification rate of palm kernel shell. Renewable Energy, 2020, 166, 125-135.	8.9	22
43	Review of Recent Progress in Wastewater Treatment Using Carbon Nanotubes. Current Analytical Chemistry, 2020, 17, 23-30.	1.2	3
44	Artificial neural network approach for the steam gasification of palm oil waste using bottom ash and CaO. Renewable Energy, 2019, 132, 243-254.	8.9	101
45	Simulation of Anaerobic Co-Digestion Process for the Biogas Production using ASPEN PLUS. , 2019, , .		3
46	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. Journal of Cleaner Production, 2019, 236, 117636.	9.3	38
47	Desert Palm Date Seeds as a Biodiesel Feedstock: Extraction, Characterization, and Engine Testing. Energies, 2019, 12, 3147.	3.1	17
48	Characterization and Reactivity Study of Coal Bottom Ash for Utilization in Biomass Gasification as an Adsorbent/Catalyst for Cleaner Fuel Production. Energy & Fuels, 2019, 33, 11318-11327.	5.1	13
49	Solar Assisted Pyrolysis of Plastic Waste: Pyrolysis oil Characterization and Grid-Tied Solar PV Power System Design. Energy Procedia, 2019, 159, 123-129.	1.8	20
50	Decomposition of N <sub>2</sub> O at low temperature over Co <sub>3</sub> O <sub>4</sub> prepared by different methods. Environmental Progress and Sustainable Energy, 2019, 38, 13129.	2.3	5
51	Combustion and emissions analysis of Spent Pot lining (SPL) as alternative fuel in cement industry. Science of the Total Environment, 2019, 684, 519-526.	8.0	56
52	Environmental impacts of biodiesel production from waste spent coffee grounds and its implementation in a compression ignition engine. Science of the Total Environment, 2019, 675, 13-30.	8.0	45
53	District cooling system via renewable energy sources: A review. Renewable and Sustainable Energy Reviews, 2019, 107, 360-373.	16.4	116
54	Fuzzy modeling and parameters optimization for the enhancement of biodiesel production from waste frying oil over montmorillonite clay K-30. Science of the Total Environment, 2019, 666, 821-827.	8.0	96

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55	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.	8.0	51
56	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.	2.0	13
57	Renewable Energy Power for A Sustainable Energy for Future. <i>Current Graphene Science</i> , 2019, 03, .	0.5	0
58	Recent advances in Photocatalysis for renewable energy production using Microbial Fuel Cell. <i>Current Graphene Science</i> , 2019, 03, .	0.5	0
59	Biodiesel production from date seeds via microwave assisted technique. , 2018, , .		2
60	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.	16.4	122
61	Integrated catalytic adsorption steam gasification in a bubbling fluidized bed for enhanced $H_2$ production: perspective of design and pilot plant experiences. <i>Biofuels, Bioproducts and Biorefining</i> , 2018, 12, 735-748.	3.7	2
62	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.	2.1	12
63	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.	16.4	209
64	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.	3.4	10
65	Optimization of hydrogen and syngas production from PKS gasification by using coal bottom ash. <i>Bioresource Technology</i> , 2017, 241, 284-295.	9.6	81
66	Syngas Production from Steam Gasification of Palm Kernel Shell with Subsequent $CO_2$ Capture Using CaO Sorbent: An Aspen Plus Modeling. <i>Energy &amp; Fuels</i> , 2017, 31, 12350-12357.	5.1	74
67	Simulation for the production of synthetic natural gas for vehicles (SNGV) from palm waste via gasification with in-situ $CO_2$ capture. , 2017, , .		0
68	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.	5.1	59
69	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
70	High Pressure Oxydesulphurisation of Coal Using $KMnO_4$ —Effect of Coal Slurry Concentration, pH and Alkali. <i>Energies</i> , 2016, 9, 289.	3.1	5
71	High Pressure Oxydesulphurisation of Coal—Effect of Oxidizing Agent, Solvent, Shear and Agitator Configuration. <i>Energies</i> , 2016, 9, 505.	3.1	0
72	Process simulation of hydrogen production from bio-oil using iCON. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2016, 38, 730-736.	2.3	1

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73	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
74	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
75	Influence of Effective Parameters on Product Gas Ratios in Sorption Enhanced Gasification. <i>Procedia Engineering</i> , 2016, 148, 735-741.	1.2	14
76	Parametric Study on the Heating Values of Products as via Steam Gasification of Palm Waste Using CaO as Sorbent Material. <i>Advanced Materials Research</i> , 2016, 1133, 654-658.	0.3	1
77	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.	10.1	70
78	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.	16.4	398
79	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.	7.1	8
80	Simulation of Oxygen-Steam Gasification for Hydrogen Production from Date Pits. <i>Advanced Materials Research</i> , 2015, 1113, 654-659.	0.3	0
81	Lithium modified zeolite synthesis for conversion of biodiesel-derived glycerol to polyglycerol. , 2014, , .		0
82	Biomass Steam Gasification for Hydrogen Production: A Systematic Review. , 2014, , 329-343.		2
83	High Pressure Oxydesulphurisation of Coal—A Parametric Study. <i>Energies</i> , 2013, 6, 1930-1943.	3.1	3
84	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.	7.2	81
85	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.	16.4	122
86	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
87	Simulation of Oxygen-steam Gasification with CO <sub>2</sub> Adsorption for Hydrogen Production from Empty Fruit Bunch. <i>Journal of Applied Sciences</i> , 2011, 11, 2171-2178.	0.3	4
88	Simulation of Integrated Pressurized Steam Gasification of Biomass for Hydrogen Production using iCON. <i>Journal of Applied Sciences</i> , 2011, 11, 3593-3599.	0.3	9
89	Heat Integration Study on Biomass Gasification Plant for Hydrogen Production. <i>Journal of Applied Sciences</i> , 2011, 11, 3600-3606.	0.3	7
90	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.	3.1	76

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91	Kinetic Study on Palm Oil Waste Decomposition. , 0, , .		6
92	Development of Morphology Dependent Titania Nanomaterial for Photo Degradation of Dyes. Applied Mechanics and Materials, 0, 625, 349-352.	0.2	0
93	Mathematical Modelling for Hydrogen Production from Steam Gasification of Cellulose. Applied Mechanics and Materials, 0, 625, 176-179.	0.2	0
94	Hydrogen and Syngas Generation from Gasification of Coal in an Integrated Fuel Processor. Applied Mechanics and Materials, 0, 625, 644-647.	0.2	2
95	Catalytic Cracking of Synthetic Bio-Oil: Kinetic Studies. Applied Mechanics and Materials, 0, 625, 259-262.	0.2	2
96	Biodiesel synthesis from neem oil using neem seeds residue as sustainable catalyst support. Biomass Conversion and Biorefinery, 0, , 1.	4.6	3
97	Current progress in anaerobic digestion reactors and parameters optimization. Biomass Conversion and Biorefinery, 0, , 1.	4.6	14