

# Salman Raza Naqvi

## List of Publications by Year in descending order

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110  
papers

4,287  
citations

94433

37  
h-index

133252

59  
g-index

113  
all docs

113  
docs citations

113  
times ranked

3433  
citing authors

#	ARTICLE	IF	CITATIONS
1	Pyrolysis of high ash sewage sludge: Kinetics and thermodynamic analysis using Coats-Redfern method. <i>Renewable Energy</i> , 2019, 131, 854-860.	8.9	260
2	Synergistic effect on co-pyrolysis of rice husk and sewage sludge by thermal behavior, kinetics, thermodynamic parameters and artificial neural network. <i>Waste Management</i> , 2019, 85, 131-140.	7.4	157
3	Pyrolysis of high-ash sewage sludge: Thermo-kinetic study using TGA and artificial neural networks. <i>Fuel</i> , 2018, 233, 529-538.	6.4	148
4	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
5	Applications of artificial intelligence in COVID-19 pandemic: A comprehensive review. <i>Expert Systems With Applications</i> , 2021, 185, 115695.	7.6	119
6	Current challenges and innovative developments in pretreatment of lignocellulosic residues for biofuel production: A review. <i>Fuel</i> , 2021, 287, 119670.	6.4	114
7	Copper and calcium-based metal organic framework (MOF) catalyst for biodiesel production from waste cooking oil: A process optimization study. <i>Energy Conversion and Management</i> , 2020, 215, 112934.	9.2	112
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.	7.1	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.	8.9	101
10	Demonstrating the suitability of canola residue biomass to biofuel conversion via pyrolysis through reaction kinetics, thermodynamics and evolved gas analyses. <i>Bioresource Technology</i> , 2019, 279, 67-73.	9.6	100
11	Catalytic pyrolysis of paddy husk in a drop type pyrolyzer for bio-oil production: The role of temperature and catalyst. <i>Journal of Analytical and Applied Pyrolysis</i> , 2014, 106, 57-62.	5.5	93
12	Characterization of South Asian Agricultural Residues for Potential Utilization in Future "energy mix". <i>Energy Procedia</i> , 2015, 75, 2974-2980.	1.8	90
13	Thermo-kinetics and gaseous product analysis of banana peel pyrolysis for its bioenergy potential. <i>Biomass and Bioenergy</i> , 2019, 122, 193-201.	5.7	86
14	Prediction of Bio-oil Yield and Hydrogen Contents Based on Machine Learning Method: Effect of Biomass Compositions and Pyrolysis Conditions. <i>Energy &amp; Fuels</i> , 2020, 34, 11050-11060.	5.1	86
15	PVA/starch/propolis/anthocyanins rosemary extract composite films as active and intelligent food packaging materials. <i>Journal of Food Safety</i> , 2020, 40, e12725.	2.3	81
16	Machine learning prediction of pyrolytic gas yield and compositions with feature reduction methods: Effects of pyrolysis conditions and biomass characteristics. <i>Bioresource Technology</i> , 2021, 339, 125581.	9.6	81
17	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.	5.1	74
18	Recent developments on sewage sludge pyrolysis and its kinetics: Resources recovery, thermogravimetric platforms, and innovative prospects. <i>Computers and Chemical Engineering</i> , 2021, 150, 107325.	3.8	74

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19	An integrated future approach for the energy security of Pakistan: Replacement of fossil fuels with syngas for better environment and socio-economic development. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 156, 111978.	16.4	68
20	Current status of biohydrogen production from lignocellulosic biomass, technical challenges and commercial potential through pyrolysis process. <i>Energy</i> , 2021, 226, 120433.	8.8	67
21	Kinetic analysis of <i>Botryococcus braunii</i> pyrolysis using model-free and model fitting methods. <i>Fuel</i> , 2018, 214, 369-380.	6.4	65
22	Assessment of agro-industrial residues for bioenergy potential by investigating thermo-kinetic behavior in a slow pyrolysis process. <i>Fuel</i> , 2020, 278, 118259.	6.4	65
23	Microplastic degradation as a sustainable concurrent approach for producing biofuel and obliterating hazardous environmental effects: A state-of-the-art review. <i>Journal of Hazardous Materials</i> , 2021, 418, 126381.	12.4	63
24	Recent progress in microalgae-derived biochar for the treatment of textile industry wastewater. <i>Chemosphere</i> , 2022, 306, 135565.	8.2	62
25	Kinetic and thermodynamic analyses of dried oily sludge pyrolysis. <i>Journal of the Energy Institute</i> , 2021, 95, 30-40.	5.3	59
26	Production and Characterization of Controlled Release Urea Using Biopolymer and Geopolymer as Coating Materials. <i>Polymers</i> , 2020, 12, 400.	4.5	58
27	3D hierarchical heterostructured LSTN@NiMn-layered double hydroxide as a bifunctional water splitting electrocatalyst for hydrogen production. <i>Fuel</i> , 2021, 285, 119174.	6.4	55
28	Kinetic and Thermodynamic Analyses of Sugar Cane Bagasse and Sewage Sludge Co-pyrolysis Process. <i>Energy &amp; Fuels</i> , 2018, 32, 9551-9558.	5.1	52
29	Modeling and simulation of coupled pyrolysis and gasification of oily sludge in a rotary kiln. <i>Fuel</i> , 2020, 279, 118152.	6.4	51
30	Challenges and opportunities in biomass ash management and its utilization in novel applications. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 150, 111451.	16.4	51
31	Kinetic study of the catalytic pyrolysis of paddy husk by use of thermogravimetric data and the Coats&Redfern model. <i>Research on Chemical Intermediates</i> , 2015, 41, 9743-9755.	2.7	50
32	Tailored hydrotalcite-based Mg-Ni-Al catalyst for hydrogen production via methane decomposition: Effect of nickel concentration and spinel-like structures. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 14424-14433.	7.1	48
33	Hydrogeochemical and health risk evaluation of arsenic in shallow and deep aquifers along the different floodplains of Punjab, Pakistan. <i>Journal of Hazardous Materials</i> , 2021, 402, 124074.	12.4	46
34	A performance evaluation study of nano-biochar as a potential slow-release nano-fertilizer from wheat straw residue for sustainable agriculture. <i>Chemosphere</i> , 2021, 285, 131382.	8.2	46
35	Catalytic fast pyrolysis of rice husk: Influence of commercial and synthesized microporous zeolites on deoxygenation of biomass pyrolysis vapors. <i>International Journal of Energy Research</i> , 2018, 42, 1352-1362.	4.5	45
36	Biomass ash characterization, fusion analysis and its application in catalytic decomposition of methane. <i>Fuel</i> , 2021, 285, 119107.	6.4	44

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37	Progress of the Pyrolyzer Reactors and Advanced Technologies for Biomass Pyrolysis Processing. Sustainability, 2021, 13, 11061.	3.2	44
38	A Comprehensive Review on Thermal Coconversion of Biomass, Sludge, Coal, and Their Blends Using Thermogravimetric Analysis. Journal of Chemistry, 2020, 2020, 1-23.	1.9	41
39	A state-of-the-art review on spent coffee ground (SCG) pyrolysis for future biorefinery. Chemosphere, 2022, 286, 131730.	8.2	39
40	In situ catalytic fast pyrolysis of paddy husk pyrolysis vapors over MCM-22 and ITQ-2 zeolites. Journal of Analytical and Applied Pyrolysis, 2015, 114, 32-39.	5.5	38
41	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
42	Role of perovskites as a bifunctional catalyst for electrochemical water splitting: A review. International Journal of Energy Research, 2020, 44, 9714-9747.	4.5	38
43	The Role of Zeolite Structure and Acidity in Catalytic Deoxygenation of Biomass Pyrolysis Vapors. Energy Procedia, 2015, 75, 793-800.	1.8	34
44	New trends in improving gasoline quality and octane through naphtha isomerization: a short review. Applied Petrochemical Research, 2018, 8, 131-139.	1.3	33
45	Use of Gasoline, LPG and LPG-HHO Blend in SI Engine: A Comparative Performance for Emission Control and Sustainable Environment. Processes, 2020, 8, 74.	2.8	33
46	Off-grid electricity generation using mixed biomass compost: A scenario-based study with sensitivity analysis. Applied Energy, 2017, 201, 363-370.	10.1	32
47	Catalytic Pyrolysis Of Botryococcus Braunii (microalgae) Over Layered and Delaminated Zeolites For Aromatic Hydrocarbon Production. Energy Procedia, 2017, 142, 381-385.	1.8	32
48	Landfill site selection by integrating fuzzy logic, AHP, and WLC method based on multi-criteria decision analysis. Environmental Science and Pollution Research, 2021, 28, 19726-19741.	5.3	32
49	Thermokinetics synergistic effects on co-pyrolysis of coal and rice husk blends for bioenergy production. Fuel, 2022, 318, 123685.	6.4	32
50	Investigating the characterisation, kinetic mechanism, and thermodynamic behaviour of coal-biomass blends in co-pyrolysis process. Chemical Engineering Research and Design, 2022, 163, 645-658.	5.6	32
51	Waste Biomass Gasification Based off-grid Electricity Generation: A Case Study in Pakistan. Energy Procedia, 2016, 103, 406-412.	1.8	30
52	Production and characterization of bio-oils from fast pyrolysis of tobacco processing wastes in an ablative reactor under vacuum. PLoS ONE, 2021, 16, e0254485.	2.5	30
53	Hydrogen production optimization from sewage sludge supercritical gasification process using machine learning methods integrated with genetic algorithm. Chemical Engineering Research and Design, 2022, 184, 614-626.	5.6	29
54	Improved project control for sustainable development of construction sector to reduce environment risks. Journal of Cleaner Production, 2019, 240, 118214.	9.3	27

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55	Oxidative reaction interaction and synergistic index of emulsified pyrolysis bio-oil/diesel fuels. <i>Renewable Energy</i> , 2019, 136, 223-234.	8.9	27
56	A new design of catalytic tube reactor for hydrogen production from ethanol steam reforming. <i>Fuel</i> , 2020, 281, 118746.	6.4	24
57	Methane decomposition for hydrogen production over biomass fly ash-based CeO <sub>2</sub> nanowires promoted cobalt catalyst. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105816.	6.7	24
58	Catalytic Consequences of Micropore Topology on Biomass Pyrolysis Vapors over Shape Selective Zeolites. <i>Energy Procedia</i> , 2017, 105, 557-561.	1.8	23
59	HF free greener Cl terminated MXene as novel electrocatalyst for overall water splitting in alkaline media. <i>International Journal of Energy Research</i> , 2022, 46, 10942-10954.	4.5	23
60	Optimal integration of a biomass based polygeneration system in an iron production plant for negative carbon emissions. <i>International Journal of Energy Research</i> , 2020, 44, 9350-9366.	4.5	22
61	Agro-industrial residue gasification feasibility in captive power plants: A South-Asian case study. <i>Energy</i> , 2021, 214, 118952.	8.8	22
62	Effect of ultra-violet cross-linking on the properties of boric acid and glycerol co-plasticized thermoplastic starch films. <i>Food Packaging and Shelf Life</i> , 2019, 19, 184-192.	7.5	21
63	Performance, Emission and Combustion Characteristics of a Diesel Engine Powered by Macadamia and Grapeseed Biodiesels. <i>Energies</i> , 2020, 13, 2748.	3.1	20
64	Investigation of slow pyrolysis mechanism and kinetic modeling of <i>Scenedesmus quadricauda</i> biomass. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 158, 105149.	5.5	20
65	A highly efficient A-site deficient perovskite interlaced within two dimensional MXene nanosheets as an active electrocatalyst for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 37476-37489.	7.1	20
66	Monitoring lipids profile, CO <sub>2</sub> fixation, and water recyclability for the economic viability of microalgae <i>Chlorella vulgaris</i> cultivation at different initial nitrogen. <i>Journal of Biotechnology</i> , 2022, 345, 30-39.	3.8	20
67	An integrated framework of data-driven, metaheuristic, and mechanistic modeling approach for biomass pyrolysis. <i>Chemical Engineering Research and Design</i> , 2022, 162, 337-345.	5.6	20
68	Performance Analysis of TiO <sub>2</sub> -Modified Co/MgAl <sub>2</sub> O <sub>4</sub> Catalyst for Dry Reforming of Methane in a Fixed Bed Reactor for Syngas (H <sub>2</sub> , CO) Production. <i>Energies</i> , 2021, 14, 3347.	3.1	19
69	Production and Evaluation of Physicochemical Characteristics of Paddy Husk Bio-char for its C Sequestration Applications. <i>Bioenergy Research</i> , 2015, 8, 1800-1809.	3.9	18
70	A comparative assessment of solid fuel pellets production from torrefied agro-residues and their blends. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 156, 105125.	5.5	18
71	Recent developments in catalyst synthesis using DBD plasma for reforming applications. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 15367-15388.	7.1	17
72	Experimental Study of CO <sub>2</sub> Conversion into Methanol by Synthesized Photocatalyst (ZnFe <sub>2</sub> O <sub>4</sub> /TiO <sub>2</sub> ) Using Visible Light as an Energy Source. <i>Catalysts</i> , 2020, 10, 163.	3.5	16

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73	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.	5.5	16
74	Reutilizing Methane Reforming Spent Catalysts as Efficient Overall Water-Splitting Electrocatalysts. <i>ACS Omega</i> , 2021, 6, 21316-21326.	3.5	16
75	Sorption enhanced steam reforming of methane over waste-derived CaO promoted MgNiAl hydrotalcite catalyst for sustainable H <sub>2</sub> production. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107651.	6.7	15
76	Hydrogen Production from Methane Cracking in Dielectric Barrier Discharge Catalytic Plasma Reactor Using a Nanocatalyst. <i>Energies</i> , 2020, 13, 5921.	3.1	14
77	Decomposition of benzene as a biomass gasification tar in CH <sub>4</sub> carrier gas using non-thermal plasma: Parametric and kinetic study. <i>Journal of the Energy Institute</i> , 2022, 102, 190-195.	5.3	14
78	Air gasification of high-ash sewage sludge for hydrogen production: Experimental, sensitivity and predictive analysis. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 37374-37384.	7.1	14
79	Fruit Waste to Energy through Open Fermentation. <i>Energy Procedia</i> , 2017, 142, 904-909.	1.8	13
80	Evolved Gas Analysis and Kinetics of Catalytic and Non-Catalytic Pyrolysis of Microalgae <i>Chlorella</i> sp. Biomass With Ni/Al <sub>2</sub> O <sub>3</sub> Catalyst via Thermogravimetric Analysis. <i>Frontiers in Energy Research</i> , 0, 9, .	2.3	12
81	Impact Analysis of Large-Scale Wind Farms Integration in Weak Transmission Grid from Technical Perspectives. <i>Energies</i> , 2020, 13, 5513.	3.1	11
82	Gasification Integrated with Small Chemical Pulp Mills for Fuel and Energy Production. <i>Energy Procedia</i> , 2017, 142, 977-983.	1.8	10
83	Polygeneration system integrated with small non-wood pulp mills for substitute natural gas production. <i>Applied Energy</i> , 2018, 224, 636-646.	10.1	10
84	Synthesis, characterization and catalytic testing of MCM-22 derived catalysts for n-hexane cracking. <i>Scientific Reports</i> , 2020, 10, 21786.	3.3	10
85	Enhanced Methane Production from Anaerobic Co-Digestion of Wheat Straw Rice Straw and Sugarcane Bagasse: A Kinetic Analysis. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 6069.	2.5	10
86	Valorization of Wet Oily Petrochemical Sludge via Slow Pyrolysis: Thermo-Kinetics Assessment and Artificial Neural Network Modeling. <i>Frontiers in Energy Research</i> , 2022, 9, .	2.3	10
87	Thermodynamic Performance Analysis of Hydrofluoroolefins (HFO) Refrigerants in Commercial Air-Conditioning Systems for Sustainable Environment. <i>Processes</i> , 2020, 8, 187.	2.8	9
88	Torrefaction Thermogravimetric Analysis and Kinetics of Sorghum Distilled Residue for Sustainable Fuel Production. <i>Sustainability</i> , 2021, 13, 4246.	3.2	9
89	Performance Comparison of Industrially Produced Formaldehyde Using Two Different Catalysts. <i>Processes</i> , 2020, 8, 571.	2.8	8
90	A mathematical model-based approach for DC multi- $\mu$ m microgrid performance evaluations considering intermittent distributed energy resources, energy storage, multiple load classes, and system components variations. <i>Energy Science and Engineering</i> , 2021, 9, 1919-1934.	4.0	8

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91	Thermodynamic and economic assessment of cyano functionalized anion based ionic liquid for CO <sub>2</sub> removal from natural gas integrated with, single mixed refrigerant liquefaction process for clean energy. <i>Energy</i> , 2022, 239, 122425.	8.8	8
92	One-Step Biodiesel Production from Waste Cooking Oil Using CaO Promoted Activated Carbon Catalyst from <i>Prunus persica</i> Seeds. <i>Catalysts</i> , 2022, 12, 592.	3.5	8
93	Physiochemical Properties of Pyrolysis Oil Derived from Fast Pyrolysis of Wet and Dried Rice Husk in a Free Fall Reactor. <i>Applied Mechanics and Materials</i> , 0, 625, 604-607.	0.2	7
94	Nano-catalysts for upgrading bio-oil: Catalytic decarboxylation and hydrodeoxygenation. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	7
95	Effect of drying parameters on the physical, morphological and thermal properties of spray-dried inulin. <i>Journal of Polymer Engineering</i> , 2018, 38, 775-783.	1.4	7
96	Influence of Plasticizers on Mechanical and Thermal Properties of Methyl Cellulose-Based Edible Films. <i>Journal of Polymers and the Environment</i> , 2018, 26, 291-300.	5.0	7
97	Investigation of Biomass Integrated Air Gasification Regenerative Gas Turbine Power Plants. <i>Energies</i> , 2022, 15, 741.	3.1	7
98	Multistage carbon dioxide compressor efficiency enhancement using waste heat powered absorption chillers. <i>Energy Science and Engineering</i> , 2021, 9, 1373-1384.	4.0	6
99	Simultaneous fault diagnosis based on multiple kernel support vector machine in nonlinear dynamic distillation column. <i>Energy Science and Engineering</i> , 2022, 10, 814-839.	4.0	6
100	Decomposition of N <sub>2</sub> O at low temperature over Co <sub>3</sub> O <sub>4</sub> prepared by different methods. <i>Environmental Progress and Sustainable Energy</i> , 2019, 38, 13129.	2.3	5
101	Impact of Varying Load Conditions and Cooling Energy Comparison of a Double-Inlet Pulse Tube Refrigerator. <i>Processes</i> , 2020, 8, 352.	2.8	4
102	Process system analysis on oil processing facility and economic viability from oil well-to-tank. <i>SN Applied Sciences</i> , 2021, 3, 1.	2.9	4
103	Simulation of steam gasification of halophyte biomass for syngas production using Aspen Plus®. <i>Biomass Conversion and Biorefinery</i> , 0, , 1.	4.6	4
104	Synthesis of Ash Derived Co/Zelite Catalyst for Hydrogen Rich Syngas Production via Partial Oxidation of Methane. <i>Bulletin of Chemical Reaction Engineering and Catalysis</i> , 2021, 16, 507-516.	1.1	3
105	Catalytic pyrolysis of biomass using shape-selective zeolites for bio-oil enhancement. , 2021, , 39-60.		2
106	Inexpensive Sol Gel Synthesis of Highly Active and Environmentally Benign Expanded Graphite/TiO <sub>2</sub> Hybrid Photocatalysts. <i>Journal of Nanoelectronics and Optoelectronics</i> , 2019, 14, 1482-1490.	0.5	2
107	Potential application of essential and fat oils of <i>Myristica Argentea</i> Warb for pharmacochemical industry and green energy production: experiment and modeling. <i>Biomass Conversion and Biorefinery</i> , 0, , .	4.6	2
108	Development of Reaction Kinetics Model for the Production of Synthesis Gas from Dry Methane Reforming. <i>Bulletin of Chemical Reaction Engineering and Catalysis</i> , 2021, 16, 440-445.	1.1	1

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109	Polyetherimide-Montmorillonite Nano-Hybrid Composite Membranes: CO2 Permeance Study via Theoretical Models. Processes, 2020, 8, 118.	2.8	1
110	Advance strategies for tar elimination from biomass gasification techniques. , 2021, , 61-88.		0