

Nakorn Tippayawong

List of Publications by Year in descending order

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130
papers

2,774
citations

186265
28
h-index

233421
45
g-index

131
all docs

131
docs citations

131
times ranked

2658
citing authors

#	ARTICLE	IF	CITATIONS
1	Biogas quality upgrade by simultaneous removal of CO ₂ and H ₂ S in a packed column reactor. Energy, 2010, 35, 4531-4535.	8.8	258
2	Indoor/outdoor relationships of size-resolved particle concentrations in naturally ventilated school environments. Building and Environment, 2009, 44, 188-197.	6.9	90
3	Long-term operation of a small biogas/diesel dual-fuel engine for on-farm electricity generation. Biosystems Engineering, 2007, 98, 26-32.	4.3	82
4	Minimizing tar formation whilst enhancing syngas production by integrating biomass torrefaction pretreatment with chemical looping gasification. Applied Energy, 2020, 260, 114315.	10.1	75
5	Effect of densification parameters on the properties of maize residue pellets. Biosystems Engineering, 2015, 139, 111-120.	4.3	70
6	Non-isothermal pyrolysis characteristics of giant sensitive plants using thermogravimetric analysis. Bioresource Technology, 2010, 101, 5638-5644.	9.6	66
7	Energy efficiency improvements in longan drying practice. Energy, 2008, 33, 1137-1143.	8.8	62
8	Biomass derived N-doped biochar as efficient catalyst supports for CO ₂ methanation. Journal of CO ₂ Utilization, 2019, 34, 733-741.	6.8	62
9	Overview of livestock biogas technology development and implementation in Thailand. Energy for Sustainable Development, 2013, 17, 371-377.	4.5	61
10	Pyrolysis behavior and kinetics of corn residue pellets and eucalyptus wood chips in a macro thermogravimetric analyzer. Case Studies in Thermal Engineering, 2018, 12, 546-556.	5.7	60
11	Thermogravimetric analysis of giant sensitive plants under air atmosphere. Bioresource Technology, 2010, 101, 9314-9320.	9.6	57
12	Performance and emissions of a modified small engine operated on producer gas. Energy Conversion and Management, 2015, 94, 286-292.	9.2	57
13	An electrostatic sensor for the continuous monitoring of particulate air pollution. Korean Journal of Chemical Engineering, 2013, 30, 2205-2212.	2.7	54
14	Reducing emission of NO _x and SO _x precursors while enhancing char production from pyrolysis of sewage sludge by torrefaction pretreatment. Energy, 2020, 192, 116620.	8.8	53
15	Production and characterization of bio-oil and biochar from ablative pyrolysis of lignocellulosic biomass residues. Chemical Engineering Communications, 2020, 207, 153-160.	2.6	49
16	Machine learning application to predict yields of solid products from biomass torrefaction. Renewable Energy, 2021, 167, 425-432.	8.9	49
17	Technical and Economic Analysis of A Biomass Pyrolysis Plant. Energy Procedia, 2015, 79, 950-955.	1.8	48
18	Torrefaction of pelletized corn residues with wet flue gas. Bioresource Technology, 2019, 285, 121330.	9.6	47

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19	Enhancing the fuel properties of rubberwood biomass by moving bed torrefaction process for further applications. <i>Renewable Energy</i> , 2021, 170, 703-713.	8.9	46
20	Machine learning prediction of cellulose-rich materials from biomass pretreatment with ionic liquid solvents. <i>Bioresource Technology</i> , 2021, 323, 124642.	9.6	44
21	Progress in unipolar corona discharger designs for airborne particle charging: A literature review. <i>Journal of Electrostatics</i> , 2009, 67, 605-615.	1.9	43
22	An Overview of Unipolar Charger Developments for Nanoparticle Charging. <i>Aerosol and Air Quality Research</i> , 2011, 11, 187-209.	2.1	43
23	Effect of needle cone angle and air flow rate on electrostatic discharge characteristics of a corona-needle ionizer. <i>Journal of Electrostatics</i> , 2010, 68, 254-260.	1.9	37
24	Effect of Operating Conditions on Catalytic Gasification of Bamboo in a Fluidized Bed. <i>International Journal of Chemical Engineering</i> , 2013, 2013, 1-9.	2.4	37
25	Recovery of Value-Added Products from Hydrothermal Carbonization of Sewage Sludge. <i>ISRN Chemical Engineering</i> , 2013, 2013, 1-6.	1.2	37
26	An experimental study of relative humidity and air flow effects on positive and negative corona discharges in a corona-needle charger. <i>Journal of Electrostatics</i> , 2015, 77, 116-122.	1.9	33
27	Thermal degradation kinetics of sawdust under intermediate heating rates. <i>Applied Thermal Engineering</i> , 2016, 103, 170-176.	6.0	33
28	Gasification of cashew nut shells for thermal application in local food processing factory. <i>Energy for Sustainable Development</i> , 2011, 15, 69-72.	4.5	31
29	Transesterification of palm oil into biodiesel using ChOH ionic liquid in a microwave heated continuous flow reactor. <i>Renewable Energy</i> , 2020, 154, 925-936.	8.9	30
30	Production and characterization of bio-oils from fast pyrolysis of tobacco processing wastes in an ablative reactor under vacuum. <i>PLoS ONE</i> , 2021, 16, e0254485.	2.5	30
31	Interpretable machine-learning model with a collaborative game approach to predict yields and higher heating value of torrefied biomass. <i>Energy</i> , 2022, 249, 123676.	8.8	30
32	Performance evaluation of premixed burner fueled with biomass derived producer gas. <i>Case Studies in Thermal Engineering</i> , 2017, 9, 40-46.	5.7	29
33	Yields and Gaseous Composition from Slow Pyrolysis of Refuse-derived Fuels. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2008, 30, 1572-1580.	2.3	27
34	Energy conservation in drying of peeled longan by forced convection and hot air recirculation. <i>Biosystems Engineering</i> , 2009, 104, 199-204.	4.3	27
35	Continuous-flow transesterification of crude jatropha oil with microwave irradiation. <i>Scientia Iranica</i> , 2012, 19, 1324-1328.	0.4	27
36	Torrefaction of Maize Residue Pellets with Dry Flue Gas. <i>Bioenergy Research</i> , 2020, 13, 358-368.	3.9	26

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37	Particulate Emission Reduction from Biomass Burning in Small Combustion Systems with a Multiple Tubular Electrostatic Precipitator. <i>Particulate Science and Technology</i> , 2010, 28, 547-565.	2.1	25
38	Thermal Degradation Characteristics and Kinetics of Oxy Combustion of Corn Residues. <i>Advances in Materials Science and Engineering</i> , 2015, 2015, 1-8.	1.8	25
39	A high-performance oxygen carrier with high oxygen transport capacity and redox stability for chemical looping combustion. <i>Energy Conversion and Management</i> , 2019, 202, 112209.	9.2	25
40	Bio-oils from vacuum ablative pyrolysis of torrefied tobacco residues. <i>RSC Advances</i> , 2020, 10, 34986-34995.	3.6	25
41	Biochar Production from Cassava Rhizome in a Semi-continuous Carbonization System. <i>Energy Procedia</i> , 2017, 141, 109-113.	1.8	23
42	Biomass gasification in a fixed bed downdraft reactor with oxygen enriched air: a modified equilibrium modeling study. <i>Energy Procedia</i> , 2019, 160, 317-323.	1.8	22
43	Experimental investigation of an automotive air-conditioning system driven by a small biogas engine. <i>Applied Thermal Engineering</i> , 2010, 30, 400-405.	6.0	21
44	Predicting Ash Deposit Tendency in Thermal Utilization of Biomass. <i>Engineering Journal</i> , 2016, 20, 15-24.	1.0	21
45	Characterization of ambient aerosols in Northern Thailand and their probable sources. <i>International Journal of Environmental Science and Technology</i> , 2006, 3, 359-369.	3.5	19
46	Energetic and Economic Feasibility of RDF to Energy Plant for a Local Thai Municipality. <i>Energy Procedia</i> , 2017, 110, 115-120.	1.8	18
47	Multiscale Modeling of PEMFC Using Co-Simulation Approach. <i>Journal of the Electrochemical Society</i> , 2019, 166, F534-F543.	2.9	18
48	A biomethane solution for domestic cooking in Thailand. <i>Energy for Sustainable Development</i> , 2014, 23, 68-77.	4.5	17
49	Cost analysis of community scale smokeless charcoal briquette production from agricultural and forest residues. <i>Energy Procedia</i> , 2019, 160, 310-316.	1.8	17
50	Numerical Study of Electrochemical Kinetics and Mass Transport inside Nano-Structural Catalyst Layer of PEMFC Using Lattice Boltzmann Agglomeration Method. <i>Journal of the Electrochemical Society</i> , 2020, 167, 013516.	2.9	17
51	Optimization of process variables for esterification of bio-oil model compounds by a heteropolyacid catalyst. <i>Energy Reports</i> , 2020, 6, 1-9.	5.1	17
52	Brownian diffusion effect on nanometer aerosol classification in electrical mobility spectrometer. <i>Korean Journal of Chemical Engineering</i> , 2009, 26, 269-276.	2.7	16
53	Development and Evaluation of a Faraday Cup Electrometer for Measuring and Sampling Atmospheric Ions and Charged Aerosols. <i>Particulate Science and Technology</i> , 2015, 33, 257-263.	2.1	16
54	Analysis of reaction kinetics for torrefaction of pelletized agricultural biomass with dry flue gas. <i>Energy Reports</i> , 2020, 6, 61-65.	5.1	16

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55	Design and Evaluation of a High Concentration, High Penetration Unipolar Corona Ionizer for Electrostatic Discharge and Aerosol Charging. <i>Journal of Electrical Engineering and Technology</i> , 2013, 8, 1175-1181.	2.0	16
56	Development and Performance Evaluation of a Biomass Gasification System for Ceramic Firing Process. <i>Energy Procedia</i> , 2017, 110, 53-58.	1.8	15
57	Performances of functional groups and KOH-transformation in corn stover waste through catalytic pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 157, 105234.	5.5	15
58	Quantitative structure-reactivity relationships for pyrolysis and gasification of torrefied xylan. <i>Energy</i> , 2019, 188, 116119.	8.8	14
59	Optimizing multiple reservoir system operation for maximum hydroelectric power generation. <i>Energy Reports</i> , 2020, 6, 67-75.	5.1	14
60	Development of a laboratory scale air plasma torch and its application to electronic waste treatment. <i>International Journal of Environmental Science and Technology</i> , 2009, 6, 407-414.	3.5	12
61	Simulation analysis of the catalytic cracking process of biomass pyrolysis oil with mixed catalysts: Optimization using the simplex lattice design. <i>International Journal of Energy Research</i> , 2018, 42, 2983-2996.	4.5	12
62	Gasification of Pelletized Corn Residues with Oxygen Enriched Air and Steam. <i>International Journal of Renewable Energy Development</i> , 2019, 8, 215-224.	2.4	12
63	Evaluating tar production via the release of volatile matters for H ₂ -rich syngas production. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 3712-3720.	7.1	12
64	Kinetic and thermodynamic analyses for pyrolysis of hemp hurds using discrete distributed activation energy model. <i>Case Studies in Thermal Engineering</i> , 2022, 31, 101870.	5.7	12
65	Ethanolysis of soybean oil into biodiesel: process optimization via central composite design. <i>Journal of Mechanical Science and Technology</i> , 2005, 19, 1902-1909.	1.5	11
66	Nonisothermal Thermogravimetric Analysis of Thai Lignite with High CaO Content. <i>Scientific World Journal</i> , The, 2013, 2013, 1-7.	2.1	11
67	Characterization of Slag from Combustion of Pulverized Lignite with High Calcium Content in Utility Boiler. <i>Energy Exploration and Exploitation</i> , 2014, 32, 471-482.	2.3	11
68	The use of ferrites as highly active oxygen storage materials for chemical looping hydrogen production under intermediate temperature. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 28638-28648.	7.1	11
69	Conversion of tobacco processing waste to biocrude oil via hydrothermal liquefaction in a multiple batch reactor. <i>Clean Technologies and Environmental Policy</i> , 2021, , 1-11.	4.1	11
70	Optimization of Two-Step Biodiesel Production from Beef Tallow with Microwave Heating. <i>Chemical Engineering Communications</i> , 2017, 204, 618-624.	2.6	10
71	Performance investigation of a gasifier and gas engine system operated on municipal solid waste briquettes. <i>International Journal of Renewable Energy Development</i> , 2019, 8, 179-184.	2.4	10
72	Catalytic torrefaction of pelletized agro-residues with Cu/Al ₂ O ₃ catalysts. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 1847-1852.	4.6	10

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73	Investigation of a Small Biomass Gasifierâ€‘engine System Operation and Its Application to Water Pumping in Rural Thailand. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2013, 35, 476-486.	2.3	9
74	Prediction of small spark ignited engine performance using producer gas as fuel. Case Studies in Thermal Engineering, 2015, 5, 98-103.	5.7	9
75	Bio-oil Production from Ablative Pyrolysis of Corncob Pellets in a Rotating Blade Reactor. IOP Conference Series: Earth and Environmental Science, 2018, 159, 012037.	0.3	9
76	Hydrochar Generation from Hydrothermal Carbonization of Organic Wastes. IOP Conference Series: Earth and Environmental Science, 2018, 159, 012001.	0.3	9
77	Techno-economic assessment of a biomass torrefaction plant for pelletized agro-residues with flue gas as a main heat source. Energy Reports, 2020, 6, 92-96.	5.1	9
78	Use of rice husk and corncob as renewable energy sources for tobacco-curing. Energy for Sustainable Development, 2006, 10, 68-73.	4.5	8
79	Development of a PM2.5 sampler with inertial impaction for sampling airborne particulate matter. Korean Journal of Chemical Engineering, 2012, 29, 1044-1049.	2.7	8
80	Converting LPG Stoves To Use Biomethane. Distributed Generation and Alternative Energy Journal, 2015, 30, 38-57.	0.8	8
81	Application of Gaussian Smoothing Technique in Evaluation of Biomass Pyrolysis Kinetics in Macro-TGA. Energy Procedia, 2017, 138, 778-783.	1.8	8
82	Pyrolysis of Corn Residues: Kinetic Analysis using Discrete Distributed Activation Energy Model. IOP Conference Series: Earth and Environmental Science, 2018, 159, 012036.	0.3	8
83	Upgrading of biomass pyrolysis oil model compound via esterification: Kinetic study using heteropoly acid. Energy Procedia, 2019, 160, 253-259.	1.8	8
84	Technical and economic analysis of retrofitting a post-combustion carbon capture system in a Thai coal-fired power plant. Energy Reports, 2021, 7, 308-313.	5.1	8
85	Experimental characterization of a short electrical mobility spectrometer for aerosol size classification. Korean Journal of Chemical Engineering, 2009, 26, 1770-1777.	2.7	7
86	Superheated Steam Drying of Cashew Kernels with Testa. Energy Procedia, 2017, 138, 674-679.	1.8	7
87	Effect of process conditions on properties of biochar from agricultural residues. IOP Conference Series: Earth and Environmental Science, 2020, 463, 012005.	0.3	7
88	An approach to characterization and after-treatment of particulate emissions from gasoline engines. International Journal of Engine Research, 2000, 1, 291-300.	2.3	6
89	Partial oxidation reforming of simulated biogas in gliding arc discharge system. Periodica Polytechnica: Chemical Engineering, 2014, 58, 31.	1.1	6
90	Microwave plasma assisted pyrolysis of refuse derived fuels. Open Engineering, 2014, 4, .	1.6	6

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91	Simplex Lattice Approach to Optimize Yields of Light Oil Products from Catalytic Cracking of Bio-Oil with Mixed Catalysts. <i>Chemical Engineering Communications</i> , 2017, 204, 677-688.	2.6	6
92	Fuel Recovery from Thermal Processing of Post-consumer Footwear Waste. <i>Energy Engineering: Journal of the Association of Energy Engineers</i> , 2017, 114, 7-16.	0.5	6
93	Utilization of Biomass Energy in Drying of Glutinous Rice Crackers. <i>Energy Procedia</i> , 2017, 138, 331-336.	1.8	6
94	Supply chain analysis of smokeless charcoal from maize residues. <i>Energy Reports</i> , 2020, 6, 60-66.	5.1	6
95	Developing the high energy performance standards for oil-injected air-cooled screw air compressor for Thailand. <i>Energy Reports</i> , 2020, 6, 617-621.	5.1	6
96	Densification of Corncobs Using Algae as a Binder. <i>Chiang Mai University Journal of Natural Sciences</i> , 2017, 16, .	0.1	6
97	Demonstration of a Modular Electrostatic Precipitator to Control Particulate Emissions from a Small Municipal Waste Incinerator. <i>Journal of Electrical Engineering and Technology</i> , 2014, 9, 239-246.	2.0	6
98	Non-thermal plasma removal of naphthalene as tar model compound from biomass gasification. <i>Energy Reports</i> , 2022, 8, 97-103.	5.1	6
99	Compositional analysis of bio-oils from hydrothermal liquefaction of tobacco residues using two-dimensional gas chromatography and time-of-flight mass spectrometry. <i>Science Progress</i> , 2021, 104, 368504211064486.	1.9	6
100	Model prediction of indoor particle concentrations in a public school classroom. <i>Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an</i> , 2007, 30, 1077-1083.	1.1	5
101	Performance evaluation of an electrometer system for ion and aerosol charge measurements. <i>Korean Journal of Chemical Engineering</i> , 2011, 28, 527-530.	2.7	5
102	Use of electrostatic precipitation for excess ion trapping in an electrical aerosol detector. <i>Journal of Electrostatics</i> , 2011, 69, 320-327.	1.9	5
103	Experimental Investigation of Biogas Reforming in Gliding Arc Plasma Reactors. <i>International Journal of Chemical Engineering</i> , 2014, 2014, 1-9.	2.4	5
104	Sustainable Energy from Biogas Reforming in a Microwave Discharge Reactor. <i>Procedia Engineering</i> , 2015, 118, 120-127.	1.2	5
105	Microwave Assisted Production of Biodiesel From Beef Tallow. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2015, 37, 1513-1519.	2.3	5
106	Upgrading biomass pyrolysis oil model compound via esterification with ethanol over a heteropoly acid. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2020, , 1-12.	2.3	5
107	Long Term Direct Injection Diesel Engine Operation on Vegetable Oil/Diesel Blends. , 2003, , .		4
108	Investigation and characterization of cross ventilating flows through openings in a school classroom. <i>Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an</i> , 2008, 31, 587-603.	1.1	4

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109	Improvement of Airflow Distribution in a Glutinous Rice Cracker Drying Cabinet. Energy Procedia, 2017, 138, 325-330.	1.8	4
110	Characterization of hydrochar from hydrothermal carbonization of maize residues. Energy Reports, 2020, 6, 114-118.	5.1	4
111	Biogas production from high solids digestion of Pennisetum purpureum x Pennisetum typhoideum: Suitable conditions and microbial communities. Journal of Environmental Management, 2021, 299, 113570.	7.8	4
112	Performance and Thermo-economic Analysis of a Biogas Engine Powered Ventilation System for Livestock Building. Engineering Journal, 2014, 18, 1-10.	1.0	4
113	Development of a fast-response, high-resolution electrical mobility spectrometer. Korean Journal of Chemical Engineering, 2011, 28, 279-286.	2.7	3
114	Electrostatic Evaluation of a Unipolar Diffusion and Field Charger of Aerosol Particles by a Corona Discharge. Particulate Science and Technology, 2013, 31, 621-631.	2.1	3
115	Simulation of Producer Gas Combustion in a Premixed Burner for Ceramic Firing Process. Energy Procedia, 2017, 138, 622-627.	1.8	3
116	Simulation and experimental analysis of shell and tube heat exchanger for the drying system. IOP Conference Series: Earth and Environmental Science, 2020, 463, 012132.	0.3	3
117	Comparison between simulations and experiment for heat transfer characteristics in the re-burning kiln heat exchanger. IOP Conference Series: Earth and Environmental Science, 2020, 463, 012136.	0.3	3
118	Characterization of laminar premixed flame firing biomass derived syngas with oxygen enriched air. International Journal of Smart Grid and Clean Energy, 2019, , 702-709.	0.4	3
119	Characterization of Bio-oils from Jatropha Residues and Mixtures of Model Compounds. Chiang Mai University Journal of Natural Sciences, 2017, 16, .	0.1	3
120	Field evaluation of an electrostatic PM10 mass monitor used for continuous ambient particulate air pollution measurements. Journal of Electrostatics, 2015, 78, 46-54.	1.9	2
121	Removal of biomass tar model compound using reverse vortex flow gliding arc discharge. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2019, , 1-15.	2.3	2
122	Investigation on the Electrical Discharge Characteristics of a Unipolar Corona-Wire Aerosol Charger. Journal of Electrical Engineering and Technology, 2011, 6, 556-562.	2.0	2
123	Simulation of flow and thermal comfort zones in a Thai state school. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an, 2012, 35, 115-128.	1.1	1
124	Design and Performance Analysis of a Biodiesel Engine Driven Refrigeration System for Vaccine Storage. International Journal of Renewable Energy Development, 2013, 2, 117-124.	2.4	1
125	Optimization of process variables for drying of cashew nuts by superheated steam. Cogent Engineering, 2018, 5, 1531457.	2.2	1
126	Experimental Investigation of hot Water Generation from Small CaO/Ca(OH) ₂ Thermochemical Energy Storage System. IOP Conference Series: Earth and Environmental Science, 2018, 159, 012002.	0.3	1

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127	Title is missing!. ScienceAsia, 2006, 32, 039.	0.5	1
128	Thermo-fluid characterization of flue gas flows through a packed bed. Journal of Mechanical Science and Technology, 2008, 22, 973-980.	1.5	0
129	Influence of Diffusion on the Resolution of a Multi-Channel Electrical Mobility Analyzer. Particulate Science and Technology, 2013, 31, 128-135.	2.1	0
130	Exploring Suitable Utilization of Waste Tires in Chiang Mai. Energy Procedia, 2017, 110, 174-179.	1.8	0