

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	Non-thermal plasma removal of naphthalene as tar model compound from biomass gasification. Energy Reports, 2022, 8, 97-103.	5.1	6
2	Kinetic and thermodynamic analyses for pyrolysis of hemp hurds using discrete distributed activation energy model. Case Studies in Thermal Engineering, 2022, 31, 101870.	5.7	12
3	Interpretable machine-learning model with a collaborative game approach to predict yields and higher heating value of torrefied biomass. Energy, 2022, 249, 123676.	8.8	30
4	Catalytic torrefaction of pelletized agro-residues with Cu/Al ₂ O ₃ catalysts. Biomass Conversion and Biorefinery, 2021, 11, 1847-1852.	4.6	10
5	Machine learning application to predict yields of solid products from biomass torrefaction. Renewable Energy, 2021, 167, 425-432.	8.9	49
6	Machine learning prediction of cellulose-rich materials from biomass pretreatment with ionic liquid solvents. Bioresource Technology, 2021, 323, 124642.	9.6	44
7	Conversion of tobacco processing waste to biocrude oil via hydrothermal liquefaction in a multiple batch reactor. Clean Technologies and Environmental Policy, 2021, , 1-11.	4.1	11
8	Enhancing the fuel properties of rubberwood biomass by moving bed torrefaction process for further applications. Renewable Energy, 2021, 170, 703-713.	8.9	46
9	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
10	Performances of functional groups and KOH-transformation in corn stover waste through catalytic pyrolysis. Journal of Analytical and Applied Pyrolysis, 2021, 157, 105234.	5.5	15
11	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
12	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
13	Compositional analysis of bio-oils from hydrothermal liquefaction of tobacco residues using two-dimensional gas chromatography and time-of-flight mass spectrometry. Science Progress, 2021, 104, 368504211064486.	1.9	6
14	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
15	Numerical Study of Electrochemical Kinetics and Mass Transport inside Nano-Structural Catalyst Layer of PEMFC Using Lattice Boltzmann Agglomeration Method. Journal of the Electrochemical Society, 2020, 167, 013516.	2.9	17
16	Torrefaction of Maize Residue Pellets with Dry Flue Gas. Bioenergy Research, 2020, 13, 358-368.	3.9	26
17	Evaluating tar production via the release of volatile matters for H ₂ -rich syngas production. International Journal of Hydrogen Energy, 2020, 45, 3712-3720.	7.1	12
18	Minimizing tar formation whilst enhancing syngas production by integrating biomass torrefaction pretreatment with chemical looping gasification. Applied Energy, 2020, 260, 114315.	10.1	75

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19	Reducing emission of NO _x and SO _x precursors while enhancing char production from pyrolysis of sewage sludge by torrefaction pretreatment. <i>Energy</i> , 2020, 192, 116620.	8.8	53
20	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
21	Effect of process conditions on properties of biochar from agricultural residues. <i>IOP Conference Series: Earth and Environmental Science</i> , 2020, 463, 012005.	0.3	7
22	Bio-oils from vacuum ablative pyrolysis of torrefied tobacco residues. <i>RSC Advances</i> , 2020, 10, 34986-34995.	3.6	25
23	Simulation and experimental analysis of shell and tube heat exchanger for the drying system. <i>IOP Conference Series: Earth and Environmental Science</i> , 2020, 463, 012132.	0.3	3
24	Supply chain analysis of smokeless charcoal from maize residues. <i>Energy Reports</i> , 2020, 6, 60-66.	5.1	6
25	Optimizing multiple reservoir system operation for maximum hydroelectric power generation. <i>Energy Reports</i> , 2020, 6, 67-75.	5.1	14
26	Characterization of hydrochar from hydrothermal carbonization of maize residues. <i>Energy Reports</i> , 2020, 6, 114-118.	5.1	4
27	Comparison between simulations and experiment for heat transfer characteristics in the re-burning kiln heat exchanger. <i>IOP Conference Series: Earth and Environmental Science</i> , 2020, 463, 012136.	0.3	3
28	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
29	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
30	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
31	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
32	Techno-economic assessment of a biomass torrefaction plant for pelletized agro-residues with flue gas as a main heat source. <i>Energy Reports</i> , 2020, 6, 92-96.	5.1	9
33	Removal of biomass tar model compound using reverse vortex flow gliding arc discharge. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2019, , 1-15.	2.3	2
34	Biomass derived N-doped biochar as efficient catalyst supports for CO ₂ methanation. <i>Journal of CO₂ Utilization</i> , 2019, 34, 733-741.	6.8	62
35	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
36	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

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37	Quantitative structure-reactivity relationships for pyrolysis and gasification of torrefied xylan. Energy, 2019, 188, 116119.	8.8	14
38	Upgrading of biomass pyrolysis oil model compound via esterification: Kinetic study using heteropoly acid. Energy Procedia, 2019, 160, 253-259.	1.8	8
39	Cost analysis of community scale smokeless charcoal briquette production from agricultural and forest residues. Energy Procedia, 2019, 160, 310-316.	1.8	17
40	Biomass gasification in a fixed bed downdraft reactor with oxygen enriched air: a modified equilibrium modeling study. Energy Procedia, 2019, 160, 317-323.	1.8	22
41	Multiscale Modeling of PEMFC Using Co-Simulation Approach. Journal of the Electrochemical Society, 2019, 166, F534-F543.	2.9	18
42	Torrefaction of pelletized corn residues with wet flue gas. Bioresource Technology, 2019, 285, 121330.	9.6	47
43	Performance investigation of a gasifier and gas engine system operated on municipal solid waste briquettes. International Journal of Renewable Energy Development, 2019, 8, 179-184.	2.4	10
44	Gasification of Pelletized Corn Residues with Oxygen Enriched Air and Steam. International Journal of Renewable Energy Development, 2019, 8, 215-224.	2.4	12
45	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
46	Simulation analysis of the catalytic cracking process of biomass pyrolysis oil with mixed catalysts: Optimization using the simplex lattice design. International Journal of Energy Research, 2018, 42, 2983-2996.	4.5	12
47	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
48	Optimization of process variables for drying of cashew nuts by superheated steam. Cogent Engineering, 2018, 5, 1531457.	2.2	1
49	Bio-oil Production from Ablative Pyrolysis of Corn cob Pellets in a Rotating Blade Reactor. IOP Conference Series: Earth and Environmental Science, 2018, 159, 012037.	0.3	9
50	Hydrochar Generation from Hydrothermal Carbonization of Organic Wastes. IOP Conference Series: Earth and Environmental Science, 2018, 159, 012001.	0.3	9
51	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
52	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
53	Optimization of Two-Step Biodiesel Production from Beef Tallow with Microwave Heating. Chemical Engineering Communications, 2017, 204, 618-624.	2.6	10
54	Simplex Lattice Approach to Optimize Yields of Light Oil Products from Catalytic Cracking of Bio-Oil with Mixed Catalysts. Chemical Engineering Communications, 2017, 204, 677-688.	2.6	6

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55	Exploring Suitable Utilization of Waste Tires in Chiang Mai. Energy Procedia, 2017, 110, 174-179.	1.8	0
56	Energetic and Economic Feasibility of RDF to Energy Plant for a Local Thai Municipality. Energy Procedia, 2017, 110, 115-120.	1.8	18
57	Performance evaluation of premixed burner fueled with biomass derived producer gas. Case Studies in Thermal Engineering, 2017, 9, 40-46.	5.7	29
58	Development and Performance Evaluation of a Biomass Gasification System for Ceramic Firing Process. Energy Procedia, 2017, 110, 53-58.	1.8	15
59	Fuel Recovery from Thermal Processing of Post-consumer Footwear Waste. Energy Engineering: Journal of the Association of Energy Engineers, 2017, 114, 7-16.	0.5	6
60	Application of Gaussian Smoothing Technique in Evaluation of Biomass Pyrolysis Kinetics in Macro-TGA. Energy Procedia, 2017, 138, 778-783.	1.8	8
61	Improvement of Airflow Distribution in a Glutinous Rice Cracker Drying Cabinet. Energy Procedia, 2017, 138, 325-330.	1.8	4
62	Utilization of Biomass Energy in Drying of Glutinous Rice Crackers. Energy Procedia, 2017, 138, 331-336.	1.8	6
63	Simulation of Producer Gas Combustion in a Premixed Burner for Ceramic Firing Process. Energy Procedia, 2017, 138, 622-627.	1.8	3
64	Superheated Steam Drying of Cashew Kernels with Testa. Energy Procedia, 2017, 138, 674-679.	1.8	7
65	Biochar Production from Cassava Rhizome in a Semi-continuous Carbonization System. Energy Procedia, 2017, 141, 109-113.	1.8	23
66	Characterization of Bio-oils from Jatropha Residues and Mixtures of Model Compounds. Chiang Mai University Journal of Natural Sciences, 2017, 16, .	0.1	3
67	Densification of Corncobs Using Algae as a Binder. Chiang Mai University Journal of Natural Sciences, 2017, 16, .	0.1	6
68	Thermal degradation kinetics of sawdust under intermediate heating rates. Applied Thermal Engineering, 2016, 103, 170-176.	6.0	33
69	Predicting Ash Deposit Tendency in Thermal Utilization of Biomass. Engineering Journal, 2016, 20, 15-24.	1.0	21
70	Sustainable Energy from Biogas Reforming in a Microwave Discharge Reactor. Procedia Engineering, 2015, 118, 120-127.	1.2	5
71	Thermal Degradation Characteristics and Kinetics of Oxy Combustion of Corn Residues. Advances in Materials Science and Engineering, 2015, 2015, 1-8.	1.8	25
72	Technical and Economic Analysis of A Biomass Pyrolysis Plant. Energy Procedia, 2015, 79, 950-955.	1.8	48

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73	Effect of densification parameters on the properties of maize residue pellets. <i>Biosystems Engineering</i> , 2015, 139, 111-120.	4.3	70
74	Field evaluation of an electrostatic PM10 mass monitor used for continuous ambient particulate air pollution measurements. <i>Journal of Electrostatics</i> , 2015, 78, 46-54.	1.9	2
75	Performance and emissions of a modified small engine operated on producer gas. <i>Energy Conversion and Management</i> , 2015, 94, 286-292.	9.2	57
76	Prediction of small spark ignited engine performance using producer gas as fuel. <i>Case Studies in Thermal Engineering</i> , 2015, 5, 98-103.	5.7	9
77	Converting LPG Stoves To Use Biomethane. <i>Distributed Generation and Alternative Energy Journal</i> , 2015, 30, 38-57.	0.8	8
78	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
79	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
80	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
81	Partial oxidation reforming of simulated biogas in gliding arc discharge system. <i>Periodica Polytechnica: Chemical Engineering</i> , 2014, 58, 31.	1.1	6
82	Experimental Investigation of Biogas Reforming in Gliding Arc Plasma Reactors. <i>International Journal of Chemical Engineering</i> , 2014, 2014, 1-9.	2.4	5
83	A biomethane solution for domestic cooking in Thailand. <i>Energy for Sustainable Development</i> , 2014, 23, 68-77.	4.5	17
84	Microwave plasma assisted pyrolysis of refuse derived fuels. <i>Open Engineering</i> , 2014, 4, .	1.6	6
85	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
86	Performance and Thermo-economic Analysis of a Biogas Engine Powered Ventilation System for Livestock Building. <i>Engineering Journal</i> , 2014, 18, 1-10.	1.0	4
87	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
88	Overview of livestock biogas technology development and implementation in Thailand. <i>Energy for Sustainable Development</i> , 2013, 17, 371-377.	4.5	61
89	Influence of Diffusion on the Resolution of a Multi-Channel Electrical Mobility Analyzer. <i>Particulate Science and Technology</i> , 2013, 31, 128-135.	2.1	0
90	Electrostatic Evaluation of a Unipolar Diffusion and Field Charger of Aerosol Particles by a Corona Discharge. <i>Particulate Science and Technology</i> , 2013, 31, 621-631.	2.1	3

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91	An electrostatic sensor for the continuous monitoring of particulate air pollution. Korean Journal of Chemical Engineering, 2013, 30, 2205-2212.	2.7	54
92	Effect of Operating Conditions on Catalytic Gasification of Bamboo in a Fluidized Bed. International Journal of Chemical Engineering, 2013, 2013, 1-9.	2.4	37
93	Investigation of a Small Biomass Gasifier's 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
94	Nonisothermal Thermogravimetric Analysis of Thai Lignite with High CaO Content. Scientific World Journal, The, 2013, 2013, 1-7.	2.1	11
95	Recovery of Value-Added Products from Hydrothermal Carbonization of Sewage Sludge. ISRN Chemical Engineering, 2013, 2013, 1-6.	1.2	37
96	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
97	Design and Evaluation of a High Concentration, High Penetration Unipolar Corona Ionizer for Electrostatic Discharge and Aerosol Charging. Journal of Electrical Engineering and Technology, 2013, 8, 1175-1181.	2.0	16
98	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
99	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
100	Continuous-flow transesterification of crude jatropha oil with microwave irradiation. Scientia Iranica, 2012, 19, 1324-1328.	0.4	27
101	Gasification of cashew nut shells for thermal application in local food processing factory. Energy for Sustainable Development, 2011, 15, 69-72.	4.5	31
102	Development of a fast-response, high-resolution electrical mobility spectrometer. Korean Journal of Chemical Engineering, 2011, 28, 279-286.	2.7	3
103	Performance evaluation of an electrometer system for ion and aerosol charge measurements. Korean Journal of Chemical Engineering, 2011, 28, 527-530.	2.7	5
104	Use of electrostatic precipitation for excess ion trapping in an electrical aerosol detector. Journal of Electrostatics, 2011, 69, 320-327.	1.9	5
105	An Overview of Unipolar Charger Developments for Nanoparticle Charging. Aerosol and Air Quality Research, 2011, 11, 187-209.	2.1	43
106	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
107	Effect of needle cone angle and air flow rate on electrostatic discharge characteristics of a corona-needle ionizer. Journal of Electrostatics, 2010, 68, 254-260.	1.9	37
108	Experimental investigation of an automotive air-conditioning system driven by a small biogas engine. Applied Thermal Engineering, 2010, 30, 400-405.	6.0	21

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109	Non-isothermal pyrolysis characteristics of giant sensitive plants using thermogravimetric analysis. <i>Bioresource Technology</i> , 2010, 101, 5638-5644.	9.6	66
110	Thermogravimetric analysis of giant sensitive plants under air atmosphere. <i>Bioresource Technology</i> , 2010, 101, 9314-9320.	9.6	57
111	Biogas quality upgrade by simultaneous removal of CO ₂ and H ₂ S in a packed column reactor. <i>Energy</i> , 2010, 35, 4531-4535.	8.8	258
112	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
113	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
114	Experimental characterization of a short electrical mobility spectrometer for aerosol size classification. <i>Korean Journal of Chemical Engineering</i> , 2009, 26, 1770-1777.	2.7	7
115	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
116	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
117	Indoor/outdoor relationships of size-resolved particle concentrations in naturally ventilated school environments. <i>Building and Environment</i> , 2009, 44, 188-197.	6.9	90
118	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
119	Thermo-fluid characterization of flue gas flows through a packed bed. <i>Journal of Mechanical Science and Technology</i> , 2008, 22, 973-980.	1.5	0
120	Energy efficiency improvements in longan drying practice. <i>Energy</i> , 2008, 33, 1137-1143.	8.8	62
121	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'uan</i> , 2008, 31, 587-603.	1.1	4
122	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
123	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'uan</i> , 2007, 30, 1077-1083.	1.1	5
124	Long-term operation of a small biogas/diesel dual-fuel engine for on-farm electricity generation. <i>Biosystems Engineering</i> , 2007, 98, 26-32.	4.3	82
125	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
126	Use of rice husk and corncob as renewable energy sources for tobacco-curing. <i>Energy for Sustainable Development</i> , 2006, 10, 68-73.	4.5	8

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127	Title is missing!. ScienceAsia, 2006, 32, 039.	0.5	1
128	Ethanolysis of soybean oil into biodiesel: process optimization via central composite design. Journal of Mechanical Science and Technology, 2005, 19, 1902-1909.	1.5	11
129	Long Term Direct Injection Diesel Engine Operation on Vegetable Oil/Diesel Blends. , 2003, , .		4
130	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