

# Nakorn Tippayawong

## List of Publications by Year in descending order

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Version: 2024-02-01

130  
papers

2,774  
citations

212478

28  
h-index

263392

45  
g-index

131  
all docs

131  
docs citations

131  
times ranked

2980  
citing authors

#	ARTICLE	IF	CITATIONS
1	Non-thermal plasma removal of naphthalene as tar model compound from biomass gasification. <i>Energy Reports</i> , 2022, 8, 97-103.	2.5	6
2	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.	2.8	12
3	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.	4.5	30
4	Catalytic torrefaction of pelletized agro-residues with Cu/Al <sub>2</sub> O <sub>3</sub> catalysts. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 1847-1852.	2.9	10
5	Machine learning application to predict yields of solid products from biomass torrefaction. <i>Renewable Energy</i> , 2021, 167, 425-432.	4.3	49
6	Machine learning prediction of cellulose-rich materials from biomass pretreatment with ionic liquid solvents. <i>Bioresource Technology</i> , 2021, 323, 124642.	4.8	44
7	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.	2.1	11
8	Enhancing the fuel properties of rubberwood biomass by moving bed torrefaction process for further applications. <i>Renewable Energy</i> , 2021, 170, 703-713.	4.3	46
9	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.	1.1	30
10	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.	2.6	15
11	Technical and economic analysis of retrofitting a post-combustion carbon capture system in a Thai coal-fired power plant. <i>Energy Reports</i> , 2021, 7, 308-313.	2.5	8
12	Biogas production from high solids digestion of <i>Pennisetum purpureum</i> x <i>Pennisetum typhoideum</i> : Suitable conditions and microbial communities. <i>Journal of Environmental Management</i> , 2021, 299, 113570.	3.8	4
13	Compositional analysis of bio-oils from hydrothermal liquefaction of tobacco residues using two-dimensional gas chromatography and time-of-flight mass spectrometry. <i>Science Progress</i> , 2021, 104, 368504211064486.	1.0	6
14	Production and characterization of bio-oil and biochar from ablative pyrolysis of lignocellulosic biomass residues. <i>Chemical Engineering Communications</i> , 2020, 207, 153-160.	1.5	49
15	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.	1.3	17
16	Torrefaction of Maize Residue Pellets with Dry Flue Gas. <i>Bioenergy Research</i> , 2020, 13, 358-368.	2.2	26
17	Evaluating tar production via the release of volatile matters for H <sub>2</sub> -rich syngas production. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 3712-3720.	3.8	12
18	Minimizing tar formation whilst enhancing syngas production by integrating biomass torrefaction pretreatment with chemical looping gasification. <i>Applied Energy</i> , 2020, 260, 114315.	5.1	75

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19	Reducing emission of NO <sub>x</sub> and SO <sub>x</sub> precursors while enhancing char production from pyrolysis of sewage sludge by torrefaction pretreatment. <i>Energy</i> , 2020, 192, 116620.	4.5	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.	2.5	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.	0.2	7
22	Bio-oils from vacuum ablative pyrolysis of torrefied tobacco residues. <i>RSC Advances</i> , 2020, 10, 34986-34995.	1.7	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.	0.2	3
24	Supply chain analysis of smokeless charcoal from maize residues. <i>Energy Reports</i> , 2020, 6, 60-66.	2.5	6
25	Optimizing multiple reservoir system operation for maximum hydroelectric power generation. <i>Energy Reports</i> , 2020, 6, 67-75.	2.5	14
26	Characterization of hydrochar from hydrothermal carbonization of maize residues. <i>Energy Reports</i> , 2020, 6, 114-118.	2.5	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.	0.2	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.	1.2	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.	2.5	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.	4.3	30
31	Analysis of reaction kinetics for torrefaction of pelletized agricultural biomass with dry flue gas. <i>Energy Reports</i> , 2020, 6, 61-65.	2.5	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.	2.5	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.	1.2	2
34	Biomass derived N-doped biochar as efficient catalyst supports for CO <sub>2</sub> methanation. <i>Journal of CO<sub>2</sub> Utilization</i> , 2019, 34, 733-741.	3.3	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.	4.4	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.	3.8	11

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37	Quantitative structure-reactivity relationships for pyrolysis and gasification of torrefied xylan. Energy, 2019, 188, 116119.	4.5	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.	1.3	18
42	Torrefaction of pelletized corn residues with wet flue gas. Bioresource Technology, 2019, 285, 121330.	4.8	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.	1.2	10
44	Gasification of Pelletized Corn Residues with Oxygen Enriched Air and Steam. International Journal of Renewable Energy Development, 2019, 8, 215-224.	1.2	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.	2.2	12
47	Pyrolysis of Corn Residues: Kinetic Analysis using Discrete Distributed Activation Energy Model. IOP Conference Series: Earth and Environmental Science, 2018, 159, 012036.	0.2	8
48	Optimization of process variables for drying of cashew nuts by superheated steam. Cogent Engineering, 2018, 5, 1531457.	1.1	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.	0.2	9
50	Hydrochar Generation from Hydrothermal Carbonization of Organic Wastes. IOP Conference Series: Earth and Environmental Science, 2018, 159, 012001.	0.2	9
51	Experimental Investigation of hot Water Generation from Small CaO/Ca(OH) <sub>2</sub> Thermochemical Energy Storage System. IOP Conference Series: Earth and Environmental Science, 2018, 159, 012002.	0.2	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.	2.8	60
53	Optimization of Two-Step Biodiesel Production from Beef Tallow with Microwave Heating. Chemical Engineering Communications, 2017, 204, 618-624.	1.5	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.	1.5	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.	2.8	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.	0.3	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.	3.0	33
69	Predicting Ash Deposit Tendency in Thermal Utilization of Biomass. Engineering Journal, 2016, 20, 15-24.	0.5	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.	1.0	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.	1.9	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.	1.0	2
75	Performance and emissions of a modified small engine operated on producer gas. <i>Energy Conversion and Management</i> , 2015, 94, 286-292.	4.4	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.	2.8	9
77	Converting LPG Stoves To Use Biomethane. <i>Distributed Generation and Alternative Energy Journal</i> , 2015, 30, 38-57.	1.1	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.	1.2	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.	1.0	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.	1.1	16
81	Partial oxidation reforming of simulated biogas in gliding arc discharge system. <i>Periodica Polytechnica: Chemical Engineering</i> , 2014, 58, 31.	0.5	6
82	Experimental Investigation of Biogas Reforming in Gliding Arc Plasma Reactors. <i>International Journal of Chemical Engineering</i> , 2014, 2014, 1-9.	1.4	5
83	A biomethane solution for domestic cooking in Thailand. <i>Energy for Sustainable Development</i> , 2014, 23, 68-77.	2.0	17
84	Microwave plasma assisted pyrolysis of refuse derived fuels. <i>Open Engineering</i> , 2014, 4, .	0.7	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.	1.1	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.	0.5	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.	1.2	6
88	Overview of livestock biogas technology development and implementation in Thailand. <i>Energy for Sustainable Development</i> , 2013, 17, 371-377.	2.0	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.	1.1	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.	1.1	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.	1.2	54
92	Effect of Operating Conditions on Catalytic Gasification of Bamboo in a Fluidized Bed. International Journal of Chemical Engineering, 2013, 2013, 1-9.	1.4	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.	1.2	9
94	Nonisothermal Thermogravimetric Analysis of Thai Lignite with High CaO Content. Scientific World Journal, The, 2013, 2013, 1-7.	0.8	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.	1.2	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.	1.2	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.	0.6	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.	1.2	8
100	Continuous-flow transesterification of crude jatropha oil with microwave irradiation. Scientia Iranica, 2012, 19, 1324-1328.	0.3	27
101	Gasification of cashew nut shells for thermal application in local food processing factory. Energy for Sustainable Development, 2011, 15, 69-72.	2.0	31
102	Development of a fast-response, high-resolution electrical mobility spectrometer. Korean Journal of Chemical Engineering, 2011, 28, 279-286.	1.2	3
103	Performance evaluation of an electrometer system for ion and aerosol charge measurements. Korean Journal of Chemical Engineering, 2011, 28, 527-530.	1.2	5
104	Use of electrostatic precipitation for excess ion trapping in an electrical aerosol detector. Journal of Electrostatics, 2011, 69, 320-327.	1.0	5
105	An Overview of Unipolar Charger Developments for Nanoparticle Charging. Aerosol and Air Quality Research, 2011, 11, 187-209.	0.9	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.	1.2	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.	1.0	37
108	Experimental investigation of an automotive air-conditioning system driven by a small biogas engine. Applied Thermal Engineering, 2010, 30, 400-405.	3.0	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.	4.8	66
110	Thermogravimetric analysis of giant sensitive plants under air atmosphere. <i>Bioresource Technology</i> , 2010, 101, 9314-9320.	4.8	57
111	Biogas quality upgrade by simultaneous removal of CO <sub>2</sub> and H <sub>2</sub> S in a packed column reactor. <i>Energy</i> , 2010, 35, 4531-4535.	4.5	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.	1.1	25
113	Brownian diffusion effect on nanometer aerosol classification in electrical mobility spectrometer. <i>Korean Journal of Chemical Engineering</i> , 2009, 26, 269-276.	1.2	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.	1.2	7
115	Progress in unipolar corona discharger designs for airborne particle charging: A literature review. <i>Journal of Electrostatics</i> , 2009, 67, 605-615.	1.0	43
116	Energy conservation in drying of peeled longan by forced convection and hot air recirculation. <i>Biosystems Engineering</i> , 2009, 104, 199-204.	1.9	27
117	Indoor/outdoor relationships of size-resolved particle concentrations in naturally ventilated school environments. <i>Building and Environment</i> , 2009, 44, 188-197.	3.0	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.	1.8	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.	0.7	0
120	Energy efficiency improvements in longan drying practice. <i>Energy</i> , 2008, 33, 1137-1143.	4.5	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.	0.6	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.	1.2	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.	0.6	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.	1.9	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.	1.8	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.	2.0	8



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127	Title is missing!. ScienceAsia, 2006, 32, 039.	0.2	1
128	Ethanolysis of soybean oil into biodiesel: process optimization via central composite design. Journal of Mechanical Science and Technology, 2005, 19, 1902-1909.	0.7	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.	1.4	6