Wei-Hsin Chen

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

431 papers	16,169 citations	71 h-index	110 g-index
460 ext. papers	20,878 ext. citations	7.8 avg, IF	7.75 L-index

#	Paper	IF	Citations
431	Investigation of Biomass Integrated Air Gasification Regenerative Gas Turbine Power Plants. *Energies*, **2022**, 15, 741	3.1	1
430	Optimization of a vertical axis wind turbine with a deflector under unsteady wind conditions via Taguchi and neural network applications. *Energy Conversion and Management*, **2022**, 254, 115209	10.6	3
429	Biochar production via pyrolysis of citrus peel fruit waste as a potential usage as solid biofuel.. *Chemosphere*, **2022**, 294, 133671	8.4	3
428	Disposal of plastic mulching film through CO-assisted catalytic pyrolysis as a strategic means for microplastic mitigation.. *Journal of Hazardous Materials*, **2022**, 430, 128454	12.8	1
427	Co-liquefaction of mixed biomass feedstocks for bio-oil production: A critical review. *Renewable and Sustainable Energy Reviews*, **2022**, 154, 111814	16.2	5
426	Continuous cultivation of microalgae in photobioreactors as a source of renewable energy: Current status and future challenges. *Renewable and Sustainable Energy Reviews*, **2022**, 154, 111852	16.2	19
425	Elemental loss, enrichment, transformation and life cycle assessment of torrefied corncob. *Energy*, **2022**, 242, 123019	7.9	1
424	A novel environmentally friendly nanocomposite aerogel based on the semi-interpenetrating network of polyacrylic acid into Xanthan gum containing hydroxyapatite for efficient removal of methylene blue from wastewater.. *International Journal of Biological Macromolecules*, **2022**, 201, 133-142	7.9	1
423	Co-pyrolysis of microalgae and other biomass wastes for the production of high-quality bio-oil: Progress and prospective. *Bioresource Technology*, **2022**, 344, 126096	11	5
422	Recent advances in lignocellulosic biomass for biofuels and value-added bioproducts - A critical review. *Bioresource Technology*, **2022**, 344, 126195	11	28
421	Progress in thermochemical conversion of aquatic weeds in shellfish aquaculture for biofuel generation: Technical and economic perspectives. *Bioresource Technology*, **2022**, 344, 126202	11	5
420	Liquid hot water as sustainable biomass pretreatment technique for bioenergy production: A review. *Bioresource Technology*, **2022**, 344, 126207	11	25
419	Smart sustainable biorefineries for lignocellulosic biomass. *Bioresource Technology*, **2022**, 344, 126215	11	4
418	Power generation of thermoelectric generator with plate fins for recovering low-temperature waste heat. *Applied Energy*, **2022**, 306, 118012	10.7	2
417	Increased aromatics production by co-feeding waste oil sludge to the catalytic pyrolysis of cellulose. *Energy*, **2022**, 239, 122331	7.9	3
416	Integrating Taguchi method and artificial neural network for predicting and maximizing biofuel production via torrefaction and pyrolysis. *Bioresource Technology*, **2022**, 343, 126140	11	6
415	Thermodegradation characterization of hardwoods and softwoods in torrefaction and transition zone between torrefaction and pyrolysis. *Fuel*, **2022**, 310, 122281	7.1	3

414	Pretreatment, modification and applications of sewage sludge-derived biochar for resource recovery- A review. *Chemosphere*, **2022**, 287, 131969	8.4	13
413	Microwave-assisted gasification of biomass for sustainable and energy-efficient biohydrogen and biosyngas production: A state-of-the-art review. *Chemosphere*, **2022**, 287, 132014	8.4	6
412	Ultra-low PCDD/F emissions and their particle size and mass distribution in a hazardous waste treatment system. *Journal of Hazardous Materials*, **2022**, 423, 127032	12.8	1
411	COVID-19 and industrial waste mitigation via thermochemical technologies towards a circular economy: A state-of-the-art review. *Journal of Hazardous Materials*, **2022**, 423, 127215	12.8	5
410	Single-step catalytic deoxygenation of palm feedstocks for the production of sustainable bio-jet fuel. *Energy*, **2022**, 239, 122017	7.9	5
409	Removal of methylene blue from wastewater using ternary nanocomposite aerogel systems: Carboxymethyl cellulose grafted by polyacrylic acid and decorated with graphene oxide. *Journal of Hazardous Materials*, **2022**, 421, 126752	12.8	19
408	Highly active iron-promoted hexagonal mesoporous silica (HMS) for deoxygenation of triglycerides to green hydrocarbon-like biofuel. *Fuel*, **2022**, 308, 121860	7.1	5
407	Engineered macroalgal and microalgal adsorbents: Synthesis routes and adsorptive performance on hazardous water contaminants. *Journal of Hazardous Materials*, **2022**, 423, 126921	12.8	6
406	Catalyst-Based Synthesis of 2,5-Dimethylfuran from Carbohydrates as a Sustainable Biofuel Production Route. *ACS Sustainable Chemistry and Engineering*, **2022**, 10, 3079-3115	8.3	8
405	Multiscale Principal Component Analysis-Signed Directed Graph Based Process Monitoring and Fault Diagnosis.. *ACS Omega*, **2022**, 7, 9496-9512	3.9	1
404	Biomass-derived biochar: From production to application in removing heavy metal-contaminated water. *Chemical Engineering Research and Design*, **2022**, 160, 704-733	5.5	8
403	Valorization of animal manure via pyrolysis for bioenergy: A review. *Journal of Cleaner Production*, **2022**, 343, 130965	10.3	4
402	Optimization design by evolutionary computation for minimizing thermal stress of a thermoelectric generator with varied numbers of square pin fins. *Applied Energy*, **2022**, 314, 118995	10.7	0
401	Pyrolysis of marine algae for biochar production for adsorption of Ciprofloxacin from aqueous solutions.. *Bioresource Technology*, **2022**, 351, 127043	11	3
400	Syngas production via chemical looping reforming using methane-based feed and NiO/Al2O3 oxygen carrier. *Energy*, **2022**, 250, 123815	7.9	0
399	A review on the visible light active modified photocatalysts for water splitting for hydrogen production. *International Journal of Energy Research*, **2022**, 46, 5467-5477	4.5	4
398	Synthesis of Mesoporous Cu-Ni/Al2O4 Catalyst for Hydrogen Production via Hydrothermal Reconstruction Route. *Catalysts*, **2022**, 12, 32	4	0
397	Recent technologies in biorefining of macroalgae metabolites and their industrial applications - A circular economy approach.. *Bioresource Technology*, **2022**, 127235	11	0

396	Oxidative torrefaction of microalga Nannochloropsis Oceanica activated by potassium carbonate for solid biofuel production.. *Environmental Research*, **2022**, 212, 113389	7.9	0
395	Current technologies of biochemical conversion of food waste into biogas production: A review. *Fuel*, **2022**, 323, 124321	7.1	1
394	A comprehensive review of thermogravimetric analysis in lignocellulosic and algal biomass gasification. *Chemical Engineering Journal*, **2022**, 445, 136730	14.7	2
393	Ionic liquid dissolution utilized for biomass conversion into biofuels, value-added chemicals and advanced materials: A comprehensive review. *Chemical Engineering Journal*, **2022**, 445, 136733	14.7	2
392	Biomass torrefaction: An overview of process and technology assessment based on global readiness level. *Fuel*, **2022**, 324, 124663	7.1	1
391	One-Step Biodiesel Production from Waste Cooking Oil Using CaO Promoted Activated Carbon Catalyst from Prunus persica Seeds. *Catalysts*, **2022**, 12, 592	4	2
390	Upgrading spent battery separator into syngas and hydrocarbons through CO2-Assisted thermochemical platform. *Energy*, **2021**, 122552	7.9	1
389	Synthesis of 5-hydroxymethylfurfural from glucose, fructose, cellulose and agricultural wastes over sulfur-doped peanut shell catalysts in ionic liquid. *Chemosphere*, **2021**, 291, 132829	8.4	2
388	Catalytic microwave torrefaction of microalga Chlorella vulgaris FSP-E with magnesium oxide optimized via taguchi approach: A thermo-energetic analysis.. *Chemosphere*, **2021**, 290, 133374	8.4	0
387	Performance evaluation and improvement of thermoelectric generators (TEG): Fin installation and compromise optimization. *Energy Conversion and Management*, **2021**, 250, 114858	10.6	8
386	Spent coffee grounds biochar from torrefaction as a potential adsorbent for spilled diesel oil recovery and as an alternative fuel. *Energy*, **2021**, 122467	7.9	2
385	Effect of torrefaction on the structure and reactivity of rice straw as well as life cycle assessment of torrefaction process. *Energy*, **2021**, 240, 122470	7.9	4
384	Integration of Biomass Torrefaction and Gasification based on Biomass Classification: A Review. *Energy Technology*, **2021**, 9, 2001108	3.5	3
383	Identification of Suitable Biomass Torrefaction Operation Envelops for Auto-Thermal Operation. *Frontiers in Energy Research*, **2021**, 9,	3.8	3
382	Simultaneous implementation of sludge dewatering and solid biofuel production by microwave torrefaction. *Environmental Research*, **2021**, 195, 110775	7.9	8
381	Reaction and hydrogen production phenomena of ethanol steam reforming in a catalytic membrane reactor. *Energy*, **2021**, 220, 119737	7.9	6
380	Torrefaction Thermogravimetric Analysis and Kinetics of Sorghum Distilled Residue for Sustainable Fuel Production. *Sustainability*, **2021**, 13, 4246	3.6	3
379	Microalgae: The Future Supply House of Biohydrogen and Biogas. *Frontiers in Energy Research*, **2021**, 9,	3.8	8

378	Solid biofuel production from spent coffee ground wastes: Process optimisation, characterisation and kinetic studies. *Fuel*, **2021**, 292, 120309	7.1	15
377	Geometry optimization and pressure analysis of a proton exchange membrane fuel cell stack. *International Journal of Hydrogen Energy*, **2021**, 46, 16717-16733	6.7	2
376	Engineered biochars from catalytic microwave pyrolysis for reducing heavy metals phytotoxicity and increasing plant growth. *Chemosphere*, **2021**, 271, 129808	8.4	15
375	Catalytic level identification of ZSM-5 on biomass pyrolysis and aromatic hydrocarbon formation. *Chemosphere*, **2021**, 271, 129510	8.4	12
374	Multistage carbon dioxide compressor efficiency enhancement using waste heat powered absorption chillers. *Energy Science and Engineering*, **2021**, 9, 1373-1384	3.4	1
373	An investigation for airflow and deposition of PM contaminated with SAR-CoV-2 virus in healthy and diseased human airway. *Environmental Research*, **2021**, 197, 111096	7.9	0
372	Experimental Study on Sulfur Deactivation and Regeneration of Ni-Based Catalyst in Dry Reforming of Biogas. *Catalysts*, **2021**, 11, 777	4	2
371	Thermodynamic analysis of integrated adiabatic chemical looping combustion and supercritical CO2 cycle. *Energy Conversion and Management: X*, **2021**, 10, 100078	2.5	3
370	Analysis of microparticle deposition in the human lung by taguchi method and response surface methodology. *Environmental Research*, **2021**, 197, 110975	7.9	4
369	Two-step thermodegradation kinetics of cellulose, hemicelluloses, and lignin under isothermal torrefaction analyzed by particle swarm optimization. *Energy Conversion and Management*, **2021**, 238, 114116	10.6	16
368	Process system analysis on oil processing facility and economic viability from oil well-to-tank. *SN Applied Sciences*, **2021**, 3, 1	1.8	1
367	Production of a sustainable fuel from microalgae Chlorella minutissima grown in a 1500 L open raceway ponds. *Biomass and Bioenergy*, **2021**, 149, 106073	5.3	11
366	Enhanced lignin extraction and optimisation from oil palm biomass using neural network modelling. *Fuel*, **2021**, 293, 120485	7.1	18
365	Performance Analysis of a Printed Circuit Heat Exchanger with a Novel Mirror-Symmetric Channel Design. *Energies*, **2021**, 14, 4252	3.1	0
364	Optimization and analysis of syngas production from methane and CO2 via Taguchi approach, response surface methodology (RSM) and analysis of variance (ANOVA). *Fuel*, **2021**, 296, 120642	7.1	7
363	Impacts of COVID-19 pandemic on the global energy system and the shift progress to renewable energy: Opportunities, challenges, and policy implications. *Energy Policy*, **2021**, 154, 112322	7.2	85
362	Current status of biohydrogen production from lignocellulosic biomass, technical challenges and commercial potential through pyrolysis process. *Energy*, **2021**, 226, 120433	7.9	24
361	Reuniting the Biogeochemistry of Algae for a Low-Carbon Circular Bioeconomy. *Trends in Plant Science*, **2021**, 26, 729-740	13.1	23

360	Optimization for hydrogen production from methanol partial oxidation over Ni□u/Al2O3 catalyst under sprays. *International Journal of Hydrogen Energy*, **2021**,	6.7	1
359	Pore volume upgrade of biochar from spent coffee grounds by sodium bicarbonate during torrefaction. *Chemosphere*, **2021**, 275, 129999	8.4	5
358	Effects of torrefaction and water washing on the properties and combustion reactivity of various wastes. *International Journal of Energy Research*, **2021**, 45, 8125-8139	4.5	3
357	Adsorptive removal of cationic methylene blue and anionic Congo red dyes using wet-torrefied microalgal biochar: Equilibrium, kinetic and mechanism modeling. *Environmental Pollution*, **2021**, 272, 115986	9.3	65
356	Combustion performance and emissions from torrefied and water washed biomass using a kg-scale burner. *Journal of Hazardous Materials*, **2021**, 402, 123468	12.8	5
355	Microalgal biosorption of heavy metals: A comprehensive bibliometric review. *Journal of Hazardous Materials*, **2021**, 402, 123431	12.8	78
354	Sustainable biofuel and bioenergy production from biomass waste residues using microwave-assisted heating: A comprehensive review. *Chemical Engineering Journal*, **2021**, 403, 126233	14.7	77
353	Agro-industrial residue gasification feasibility in captive power plants: A South-Asian case study. *Energy*, **2021**, 214, 118952	7.9	9
352	Reduction of particulate matter and volatile organic compounds in biorefineries: A state-of-the-art review. *Journal of Hazardous Materials*, **2021**, 403, 123955	12.8	12
351	Pyrolysis kinetics of potassium-impregnated rubberwood analyzed by evolutionary computation. *Bioresource Technology*, **2021**, 319, 124145	11	2
350	A state-of-the-art review of biowaste biorefinery. *Environmental Pollution*, **2021**, 269, 116149	9.3	14
349	A comprehensive review of hydrogen production from methanol thermochemical conversion for sustainability. *Energy*, **2021**, 217, 119384	7.9	38
348	Low-temperature catalytic conversion of alkaline sewage sludge bio-oil to biodiesel: Product characteristics and reaction mechanisms. *Environmental Technology and Innovation*, **2021**, 21, 101266	7	3
347	Hydrogen production from partial oxidation and autothermal reforming of methanol from a cold start in sprays. *Fuel*, **2021**, 287, 119638	7.1	6
346	Effect of wet torrefaction on pyrolysis kinetics and conversion of microalgae carbohydrates, proteins, and lipids. *Energy Conversion and Management*, **2021**, 227, 113609	10.6	15
345	Synergistic interaction and biochar improvement over co-torrefaction of intermediate waste epoxy resins and fir. *Environmental Technology and Innovation*, **2021**, 21, 101218	7	4
344	Progress in biomass torrefaction: Principles, applications and challenges. *Progress in Energy and Combustion Science*, **2021**, 82, 100887	33.6	147
343	Catalytic pyrolysis of biomass using shape-selective zeolites for bio-oil enhancement **2021**, 39-60		1

342	https://www.crossref.org/webDeposit/. *Aerosol and Air Quality Research*, **2021**, 200624	4.6	2
341	A Review on Data-Driven Learning Approaches for Fault Detection and Diagnosis in Chemical Processes. *ChemBioEng Reviews*, **2021**, 8, 239-259	5.2	9
340	Single-Molecule Light-Sheet Microscopy with Local Nanopipette Delivery. *Analytical Chemistry*, **2021**, 93, 4092-4099	7.8	4
339	A Molecular Simulation Study of Silica/Polysulfone Mixed Matrix Membrane for Mixed Gas Separation. *Polymers*, **2021**, 13,	4.5	1
338	Pyrolysis: An effective technique for degradation of COVID-19 medical wastes. *Chemosphere*, **2021**, 275, 130092	8.4	43
337	Aerosol deposition and airflow dynamics in healthy and asthmatic human airways during inhalation. *Journal of Hazardous Materials*, **2021**, 416, 125856	12.8	3
336	Waste Plastics as an Effective Binder for Biochar Pelletization. *Energy & Fuels*, **2021**, 35, 13840-13846	4.1	0
335	Oxidative torrefaction performance of microalga Nannochloropsis Oceanica towards an upgraded microalgal solid biofuel. *Journal of Biotechnology*, **2021**, 338, 81-90	3.7	3
334	Energy balance of torrefied microalgal biomass with production upscale approached by life cycle assessment. *Journal of Environmental Management*, **2021**, 294, 112992	7.9	1
333	Valorization of sorghum distillery residue to produce bioethanol for pollution mitigation and circular economy. *Environmental Pollution*, **2021**, 285, 117196	9.3	5
332	Supercritical water gasification (SCWG) as a potential tool for the valorization of phycoremediation-derived waste algal biomass for biofuel generation. *Journal of Hazardous Materials*, **2021**, 418, 126278	12.8	11
331	Conversion of bio-jet fuel from palm kernel oil and its blending effect with jet A-1 fuel. *Energy Conversion and Management*, **2021**, 243, 114311	10.6	1
330	Comparative indexes, fuel characterization and thermogravimetric- Fourier transform infrared spectrometer-mass spectrogram (TG-FTIR-MS) analysis of microalga Nannochloropsis Oceanica under oxidative and inert torrefaction. *Energy*, **2021**, 230, 120824	7.9	5
329	Microplastic degradation as a sustainable concurrent approach for producing biofuel and obliterating hazardous environmental effects: A state-of-the-art review. *Journal of Hazardous Materials*, **2021**, 418, 126381	12.8	9
328	Emerging technologies for sustainable production of biohydrogen production from microalgae: A state-of-the-art review of upstream and downstream processes. *Bioresource Technology*, **2021**, 342, 126057	11	4
327	Green additive to upgrade biochar from spent coffee grounds by torrefaction for pollution mitigation. *Environmental Pollution*, **2021**, 285, 117244	9.3	2
326	Efficiency improvement of a vertical-axis wind turbine using a deflector optimized by Taguchi approach with modified additive method. *Energy Conversion and Management*, **2021**, 245, 114609	10.6	11
325	Independent parallel pyrolysis kinetics of extracted proteins and lipids as well as model carbohydrates in microalgae. *Applied Energy*, **2021**, 300, 117372	10.7	5

324	Utilization of microalgae for bio-jet fuel production in the aviation sector: Challenges and perspective. *Renewable and Sustainable Energy Reviews*, **2021**, 149, 111396	16.2	12
323	Assessment of the emission factors for potentially toxic elements from coal-fired boilers and sintering furnaces in a steel production plant. *Science of the Total Environment*, **2021**, 792, 148329	10.2	0
322	Chemical recycling of plastic waste via thermocatalytic routes. *Journal of Cleaner Production*, **2021**, 321, 128989	10.3	19
321	Fast hydropyrolysis of biomass Conversion: A comparative review. *Bioresource Technology*, **2021**, 342, 126067	11	6
320	A biorefinery approach for high value-added bioproduct (astaxanthin) from alga Haematococcus sp. and residue pyrolysis for biochar synthesis and metallic iron production from hematite (Fe2O3). *Fuel*, **2021**, 304, 121150	7.1	2
319	Progress in the torrefaction technology for upgrading oil palm wastes to energy-dense biochar: A review. *Renewable and Sustainable Energy Reviews*, **2021**, 151, 111645	16.2	5
318	Pyrolysis of sewage sludge for sustainable biofuels and value-added biochar production. *Journal of Environmental Management*, **2021**, 298, 113450	7.9	16
317	A critical review on second- and third-generation bioethanol production using microwaved-assisted heating (MAH) pretreatment. *Renewable and Sustainable Energy Reviews*, **2021**, 152, 111679	16.2	8
316	Waste furniture gasification using rice husk based char catalysts for enhanced hydrogen generation. *Bioresource Technology*, **2021**, 341, 125813	11	4
315	Analysis of methanol synthesis using CO2 hydrogenation and syngas produced from biogas-based reforming processes. *Chemical Engineering Journal*, **2021**, 426, 130835	14.7	5
314	Redox degrees of iron-based oxygen carriers in cyclic chemical looping combustion using thermodynamic analysis. *Chemical Engineering Journal*, **2021**, 426, 130834	14.7	0
313	Catalytic microwave-assisted torrefaction of sugarcane bagasse with calcium oxide optimized via Taguchi approach: Product characterization and energy analysis. *Fuel*, **2021**, 305, 121543	7.1	5
312	Variation of lignocellulosic biomass structure from torrefaction: A critical review. *Renewable and Sustainable Energy Reviews*, **2021**, 152, 111698	16.2	5
311	Synthesis and regeneration of mesoporous NiCu/Al2O4 catalyst in sub-kilogram-scale for methanol steam reforming reaction. *International Journal of Hydrogen Energy*, **2021**,	6.7	3
310	Modelling drying kinetic of oyster mushroom dehydration The optimization of drying conditions for dehydratation of Pleurotus species. *Materials Science for Energy Technologies*, **2020**, 3, 840-845	5.2	2
309	Performance Comparison of Industrially Produced Formaldehyde Using Two Different Catalysts. *Processes*, **2020**, 8, 571	2.9	4
308	Aging and emulsification analyses of hydrothermal liquefaction bio-oil derived from sewage sludge and swine leather residue. *Journal of Cleaner Production*, **2020**, 266, 122050	10.3	10
307	Using low carbon footprint high-pressure carbon dioxide in bioconversion of aspen branch waste for sustainable bioethanol production. *Bioresource Technology*, **2020**, 313, 123675	11	8

306	Sustainability of the four generations of biofuels □A review. *International Journal of Energy Research*, **2020**, 44, 9266-9282	4.5	87
305	A review on valorization of oyster mushroom and waste generated in the mushroom cultivation industry. *Journal of Hazardous Materials*, **2020**, 400, 123156	12.8	30
304	Geometry design for maximizing output power of segmented skutterudite thermoelectric generator by evolutionary computation. *Applied Energy*, **2020**, 274, 115296	10.7	15
303	A Feed-Forward Back Propagation Neural Network Approach to Predict the Life Condition of Crude Oil Pipeline. *Processes*, **2020**, 8, 661	2.9	20
302	Assessment of agro-industrial residues for bioenergy potential by investigating thermo-kinetic behavior in a slow pyrolysis process. *Fuel*, **2020**, 278, 118259	7.1	37
301	A computational fluid dynamics (CFD) approach of thermoelectric generator (TEG) for power generation. *Applied Thermal Engineering*, **2020**, 173, 115203	5.8	20
300	Organic Carbonate Production Utilizing Crude Glycerol Derived as By-Product of Biodiesel Production: A Review. *Energies*, **2020**, 13, 1483	3.1	25
299	Kinetics and thermodynamics dataset of iron oxide reduction using torrefied microalgae for chemical looping combustion. *Data in Brief*, **2020**, 29, 105261	1.2	3
298	State of art review on conventional and advanced pyrolysis of macroalgae and microalgae for biochar, bio-oil and bio-syngas production. *Energy Conversion and Management*, **2020**, 210, 112707	10.6	131
297	Microalgal Torrefaction for Solid Biofuel Production. *Trends in Biotechnology*, **2020**, 38, 1023-1033	15.1	36
296	Catalyst combination strategy for hydrogen production from methanol partial oxidation. *Energy*, **2020**, 206, 118180	7.9	12
295	Production of microalgal biochar and reducing sugar using wet torrefaction with microwave-assisted heating and acid hydrolysis pretreatment. *Renewable Energy*, **2020**, 156, 349-360	8.1	27
294	Bioethanol production from acid pretreated microalgal hydrolysate using microwave-assisted heating wet torrefaction. *Fuel*, **2020**, 279, 118435	7.1	35
293	Hydrogen production from methanol partial oxidation through the catalyst prepared using torrefaction liquid products. *Fuel*, **2020**, 279, 118419	7.1	11
292	Factors Affecting the Performance of Membrane Osmotic Processes for Bioenergy Development. *Energies*, **2020**, 13, 481	3.1	5
291	Kinetic and thermodynamic analysis of iron oxide reduction by graphite for CO2 mitigation in chemical-looping combustion. *International Journal of Energy Research*, **2020**, 44, 3865-3882	4.5	7
290	Modeling and statistical analysis of the three-side membrane reactor for the optimization of hydrocarbon production from CO2 hydrogenation. *Energy Conversion and Management*, **2020**, 207, 112481	10.6	11
289	Nanomaterials Utilization in Biomass for Biofuel and Bioenergy Production. *Energies*, **2020**, 13, 892	3.1	44

288	A state-of-the-art review on thermochemical conversion of biomass for biofuel production: A TG-FTIR approach. *Energy Conversion and Management*, **2020**, 209, 112634	10.6	115
287	Novel Renewable Double-Energy System for Activated Biochar Production and Thermoelectric Generation from Waste Heat. *Energy & Fuels*, **2020**, 34, 3383-3393	4.1	5
286	Recent advances in downstream processing of microalgae lipid recovery for biofuel production. *Bioresource Technology*, **2020**, 304, 122996	11	126
285	Co-torrefaction followed by co-combustion of intermediate waste epoxy resins and woody biomass in the form of mini-pellet. *International Journal of Energy Research*, **2020**, 44, 9317-9332	4.5	4
284	Theoretical analysis of performance of variable cross-section thermoelectric generators: Effects of shape factor and thermal boundary conditions. *Energy*, **2020**, 201, 117660	7.9	10
283	Leak Detection in Gas Mixture Pipelines under Transient Conditions Using Hammerstein Model and Adaptive Thresholds. *Processes*, **2020**, 8, 474	2.9	9
282	Feasibility study of polypropylene-based aluminium-air battery. *IOP Conference Series: Earth and Environmental Science*, **2020**, 463, 012155	0.3	
281	Optimization of food waste hydrothermal liquefaction by a two-step process in association with a double analysis. *Energy*, **2020**, 199, 117438	7.9	20
280	Synthesis of renewable heterogeneous acid catalyst from oil palm empty fruit bunch for glycerol-free biodiesel production. *Science of the Total Environment*, **2020**, 727, 138534	10.2	34
279	Two-phase Flow Dynamics and PM2.5 Deposition in Healthy and Obstructed Human Airways during Inhalation. *Aerosol and Air Quality Research*, **2020**, 20, 1091-1110	4.6	4
278	An Overview of Experiments and Numerical Simulations on Airflow and Aerosols Deposition in Human Airways and the Role of Bioaerosol Motion in COVID-19 Transmission. *Aerosol and Air Quality Research*, **2020**, 20, 1172-1196	4.6	16
277	Applying microwave vacuum pyrolysis to design moisture retention and pH neutralizing palm kernel shell biochar for mushroom production. *Bioresource Technology*, **2020**, 312, 123572	11	32
276	Optimal integration of a biomass-based polygeneration system in an iron production plant for negative carbon emissions. *International Journal of Energy Research*, **2020**, 44, 9350-9366	4.5	14
275	An evaluation of thermal characteristics of bacterium Actinobacillus succinogenes for energy use and circular bioeconomy. *Bioresource Technology*, **2020**, 301, 122774	11	6
274	Water gas shift reaction for hydrogen production and carbon dioxide capture: A review. *Applied Energy*, **2020**, 258, 114078	10.7	105
273	Microwave-assisted wet torrefaction of microalgae under various acids for coproduction of biochar and sugar. *Journal of Cleaner Production*, **2020**, 253, 119944	10.3	32
272	Biorefineries in circular bioeconomy: A comprehensive review. *Bioresource Technology*, **2020**, 299, 122585	11	272
271	Recent advances in the pretreatment of microalgal and lignocellulosic biomass: A comprehensive review. *Bioresource Technology*, **2020**, 298, 122476	11	102

270	Simulation studies on microwave-assisted pyrolysis of biomass for bioenergy production with special attention on waveguide number and location. *Energy*, **2020**, 190, 116474	7.9	19
269	A critical review on the principles, applications, and challenges of waste-to-hydrogen technologies. *Renewable and Sustainable Energy Reviews*, **2020**, 134, 110365	16.2	28
268	Recent advancement in deoxygenation of fatty acids via homogeneous catalysis for biofuel production. *Molecular Catalysis*, **2020**, 111207	3.3	6
267	Enrichment of surface oxygen functionalities on activated carbon for adsorptive removal of sevoflurane. *Chemosphere*, **2020**, 260, 127496	8.4	10
266	Independent parallel pyrolysis kinetics of cellulose, hemicelluloses and lignin at various heating rates analyzed by evolutionary computation. *Energy Conversion and Management*, **2020**, 221, 113165	10.6	31
265	Impact of post-torrefaction process on biochar formation from wood pellets and self-heating phenomena for production safety. *Energy*, **2020**, 207, 118324	7.9	12
264	A bibliometric review on the application of fuzzy optimization to sustainable energy technologies. *International Journal of Energy Research*, **2020**,	4.5	18
263	A new design of catalytic tube reactor for hydrogen production from ethanol steam reforming. *Fuel* , **2020**, 281, 118746	7.1	13
262	A Comprehensive Review on Thermal Coconversion of Biomass, Sludge, Coal, and Their Blends Using Thermogravimetric Analysis. *Journal of Chemistry*, **2020**, 2020, 1-23	2.3	20
261	Effects of dry and wet torrefaction pretreatment on microalgae pyrolysis analyzed by TG-FTIR and double-shot Py-GC/MS. *Energy*, **2020**, 210, 118579	7.9	13
260	Life cycle assessment of torrefied microalgal biomass using torrefaction severity index with the consideration of up-scaling production. *Renewable Energy*, **2020**, 162, 1113-1124	8.1	5
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