

Wei-Hsin Chen

List of Publications by Year in descending order

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454
papers

26,009
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460
docs citations

460
times ranked

15218
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1 | A state-of-the-art review of biomass torrefaction, densification and applications. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 44, 847-866. | 8.2 | 887 |
| 2 | Biorefineries in circular bioeconomy: A comprehensive review. <i>Bioresource Technology</i> , 2020, 299, 122585. | 4.8 | 483 |
| 3 | A study on torrefaction of various biomass materials and its impact on lignocellulosic structure simulated by a thermogravimetry. <i>Energy</i> , 2010, 35, 2580-2586. | 4.5 | 465 |
| 4 | Thermochemical conversion of microalgal biomass into biofuels: A review. <i>Bioresource Technology</i> , 2015, 184, 314-327. | 4.8 | 451 |
| 5 | Torrefaction and co-torrefaction characterization of hemicellulose, cellulose and lignin as well as torrefaction of some basic constituents in biomass. <i>Energy</i> , 2011, 36, 803-811. | 4.5 | 442 |
| 6 | Progress in biomass torrefaction: Principles, applications and challenges. <i>Progress in Energy and Combustion Science</i> , 2021, 82, 100887. | 15.8 | 429 |
| 7 | Catalytic thermochemical conversion of biomass for biofuel production: A comprehensive review. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 113, 109266. | 8.2 | 289 |
| 8 | Sustainability of direct biodiesel synthesis from microalgae biomass: A critical review. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 107, 59-74. | 8.2 | 283 |
| 9 | Recent developments on algal biochar production and characterization. <i>Bioresource Technology</i> , 2017, 246, 2-11. | 4.8 | 281 |
| 10 | Thermogravimetric analysis and kinetics of co-pyrolysis of raw/torrefied wood and coal blends. <i>Applied Energy</i> , 2013, 105, 57-65. | 5.1 | 274 |
| 11 | State of art review on conventional and advanced pyrolysis of macroalgae and microalgae for biochar, bio-oil and bio-syngas production. <i>Energy Conversion and Management</i> , 2020, 210, 112707. | 4.4 | 272 |
| 12 | Pyrolysis of high ash sewage sludge: Kinetics and thermodynamic analysis using Coats-Redfern method. <i>Renewable Energy</i> , 2019, 131, 854-860. | 4.3 | 260 |
| 13 | Impacts of COVID-19 pandemic on the global energy system and the shift progress to renewable energy: Opportunities, challenges, and policy implications. <i>Energy Policy</i> , 2021, 154, 112322. | 4.2 | 260 |
| 14 | Disruption of sugarcane bagasse lignocellulosic structure by means of dilute sulfuric acid pretreatment with microwave-assisted heating. <i>Applied Energy</i> , 2011, 88, 2726-2734. | 5.1 | 258 |
| 15 | Pyrolysis characteristics and kinetics of microalgae via thermogravimetric analysis (TGA): A state-of-the-art review. <i>Bioresource Technology</i> , 2017, 246, 88-100. | 4.8 | 258 |
| 16 | State of the art and prospective of lipase-catalyzed transesterification reaction for biodiesel production. <i>Energy Conversion and Management</i> , 2017, 141, 339-353. | 4.4 | 246 |
| 17 | A state-of-the-art review on thermochemical conversion of biomass for biofuel production: A TG-FTIR approach. <i>Energy Conversion and Management</i> , 2020, 209, 112634. | 4.4 | 238 |
| 18 | Isothermal torrefaction kinetics of hemicellulose, cellulose, lignin and xylan using thermogravimetric analysis. <i>Energy</i> , 2011, 36, 6451-6460. | 4.5 | 236 |

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|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 19 | Water gas shift reaction for hydrogen production and carbon dioxide capture: A review. <i>Applied Energy</i> , 2020, 258, 114078. | 5.1 | 231 |
| 20 | Investigation on the ignition and burnout temperatures of bamboo and sugarcane bagasse by thermogravimetric analysis. <i>Applied Energy</i> , 2015, 160, 49-57. | 5.1 | 228 |
| 21 | Sustainability of the four generations of biofuels – A review. <i>International Journal of Energy Research</i> , 2020, 44, 9266-9282. | 2.2 | 225 |
| 22 | An evaluation on improvement of pulverized biomass property for solid fuel through torrefaction. <i>Applied Energy</i> , 2011, 88, 3636-3644. | 5.1 | 224 |
| 23 | Optimization of biodiesel production by microwave irradiation-assisted transesterification for waste cooking oil-Calophyllum inophyllum oil via response surface methodology. <i>Energy Conversion and Management</i> , 2018, 158, 400-415. | 4.4 | 222 |
| 24 | Recent advances in lignocellulosic biomass for biofuels and value-added bioproducts - A critical review. <i>Bioresource Technology</i> , 2022, 344, 126195. | 4.8 | 222 |
| 25 | Thermal pretreatment of wood (Lauan) block by torrefaction and its influence on the properties of the biomass. <i>Energy</i> , 2011, 36, 3012-3021. | 4.5 | 218 |
| 26 | Evaluation of the engine performance and exhaust emissions of biodiesel-bioethanol-diesel blends using kernel-based extreme learning machine. <i>Energy</i> , 2018, 159, 1075-1087. | 4.5 | 217 |
| 27 | Recent advances in downstream processing of microalgae lipid recovery for biofuel production. <i>Bioresource Technology</i> , 2020, 304, 122996. | 4.8 | 217 |
| 28 | A review of thermochemical conversion of microalgal biomass for biofuels: chemistry and processes. <i>Green Chemistry</i> , 2017, 19, 44-67. | 4.6 | 216 |
| 29 | An experimental analysis on property and structure variations of agricultural wastes undergoing torrefaction. <i>Applied Energy</i> , 2012, 100, 318-325. | 5.1 | 206 |
| 30 | Torrefaction, pyrolysis and two-stage thermodegradation of hemicellulose, cellulose and lignin. <i>Fuel</i> , 2019, 258, 116168. | 3.4 | 201 |
| 31 | Hydrothermal carbonization of sugarcane bagasse via wet torrefaction in association with microwave heating. <i>Bioresource Technology</i> , 2012, 118, 195-203. | 4.8 | 196 |
| 32 | Recent advances in the pretreatment of microalgal and lignocellulosic biomass: A comprehensive review. <i>Bioresource Technology</i> , 2020, 298, 122476. | 4.8 | 195 |
| 33 | Sustainable biofuel and bioenergy production from biomass waste residues using microwave-assisted heating: A comprehensive review. <i>Chemical Engineering Journal</i> , 2021, 403, 126233. | 6.6 | 192 |
| 34 | Torrefaction and low temperature carbonization of oil palm fiber and eucalyptus in nitrogen and air atmospheres. <i>Bioresource Technology</i> , 2012, 123, 98-105. | 4.8 | 190 |
| 35 | Hydrolysis characteristics of sugarcane bagasse pretreated by dilute acid solution in a microwave irradiation environment. <i>Applied Energy</i> , 2012, 93, 237-244. | 5.1 | 179 |
| 36 | A comparison of gasification phenomena among raw biomass, torrefied biomass and coal in an entrained-flow reactor. <i>Applied Energy</i> , 2013, 112, 421-430. | 5.1 | 176 |

| # | ARTICLE | IF | CITATIONS |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Torrefaction performance and energy usage of biomass wastes and their correlations with torrefaction severity index. <i>Applied Energy</i> , 2018, 220, 598-604. | 5.1 | 175 |
| 38 | Modeling and simulation for the design of thermal-concentrated solar thermoelectric generator. <i>Energy</i> , 2014, 64, 287-297. | 4.5 | 171 |
| 39 | Design of heat sink for improving the performance of thermoelectric generator using two-stage optimization. <i>Energy</i> , 2012, 39, 236-245. | 4.5 | 170 |
| 40 | Catalytic effects of potassium on biomass pyrolysis, combustion and torrefaction. <i>Applied Energy</i> , 2019, 235, 346-355. | 5.1 | 170 |
| 41 | Adsorptive removal of cationic methylene blue and anionic Congo red dyes using wet-torrefied microalgal biochar: Equilibrium, kinetic and mechanism modeling. <i>Environmental Pollution</i> , 2021, 272, 115986. | 3.7 | 165 |
| 42 | A comprehensive review of hydrogen production from methanol thermochemical conversion for sustainability. <i>Energy</i> , 2021, 217, 119384. | 4.5 | 163 |
| 43 | Gasification performances of raw and torrefied biomass in a downdraft fixed bed gasifier using thermodynamic analysis. <i>Fuel</i> , 2014, 117, 1231-1241. | 3.4 | 161 |
| 44 | Microalgal biosorption of heavy metals: A comprehensive bibliometric review. <i>Journal of Hazardous Materials</i> , 2021, 402, 123431. | 6.5 | 151 |
| 45 | Impact of torrefaction on the composition, structure and reactivity of a microalga residue. <i>Applied Energy</i> , 2016, 181, 110-119. | 5.1 | 149 |
| 46 | Non-oxidative and oxidative torrefaction characterization and SEM observations of fibrous and ligneous biomass. <i>Applied Energy</i> , 2014, 114, 104-113. | 5.1 | 145 |
| 47 | Microalgae from wastewater treatment to biochar – Feedstock preparation and conversion technologies. <i>Energy Conversion and Management</i> , 2017, 150, 1-13. | 4.4 | 144 |
| 48 | Pretreatment of biomass by torrefaction and carbonization for coal blend used in pulverized coal injection. <i>Bioresource Technology</i> , 2014, 161, 333-339. | 4.8 | 139 |
| 49 | Experimental study on thermoelectric modules for power generation at various operating conditions. <i>Energy</i> , 2012, 45, 874-881. | 4.5 | 137 |
| 50 | A numerical study on the performance of miniature thermoelectric cooler affected by Thomson effect. <i>Applied Energy</i> , 2012, 89, 464-473. | 5.1 | 135 |
| 51 | Thermal decomposition dynamics and severity of microalgae residues in torrefaction. <i>Bioresource Technology</i> , 2014, 169, 258-264. | 4.8 | 135 |
| 52 | Overview: Comparison of pretreatment technologies and fermentation processes of bioethanol from microalgae. <i>Energy Conversion and Management</i> , 2018, 173, 81-94. | 4.4 | 134 |
| 53 | Pyrolysis: An effective technique for degradation of COVID-19 medical wastes. <i>Chemosphere</i> , 2021, 275, 130092. | 4.2 | 134 |
| 54 | Torrefied biomasses in a drop tube furnace to evaluate their utility in blast furnaces. <i>Bioresource Technology</i> , 2012, 111, 433-438. | 4.8 | 130 |

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|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 55 | Modeling and simulation of hydrogen generation from high-temperature and low-temperature water gas shift reactions. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 6644-6656. | 3.8 | 127 |
| 56 | Torrefaction of microalgal biochar as potential coal fuel and application as bio-adsorbent. <i>Energy Conversion and Management</i> , 2018, 165, 152-162. | 4.4 | 125 |
| 57 | Removal of methylene blue from wastewater using ternary nanocomposite aerogel systems: Carboxymethyl cellulose grafted by polyacrylic acid and decorated with graphene oxide. <i>Journal of Hazardous Materials</i> , 2022, 421, 126752. | 6.5 | 125 |
| 58 | Performance investigation and design optimization of a thermoelectric generator applied in automobile exhaust waste heat recovery. <i>Energy Conversion and Management</i> , 2016, 120, 71-80. | 4.4 | 124 |
| 59 | Thermodynamic analysis of hydrogen production from methane via autothermal reforming and partial oxidation followed by water gas shift reaction. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 11787-11797. | 3.8 | 122 |
| 60 | Biomass torrefaction characteristics in inert and oxidative atmospheres at various superficial velocities. <i>Bioresource Technology</i> , 2013, 146, 152-160. | 4.8 | 119 |
| 61 | A comprehensive study on pyrolysis kinetics of microalgal biomass. <i>Energy Conversion and Management</i> , 2017, 131, 109-116. | 4.4 | 116 |
| 62 | Power output analysis and optimization of two straight-bladed vertical-axis wind turbines. <i>Applied Energy</i> , 2017, 185, 223-232. | 5.1 | 115 |
| 63 | Assessment of energy performance and air pollutant emissions in a diesel engine generator fueled with water-containing ethanol-biodiesel diesel blend of fuels. <i>Energy</i> , 2011, 36, 5591-5599. | 4.5 | 114 |
| 64 | A comprehensive review of life cycle assessment (LCA) of microalgal and lignocellulosic bioenergy products from thermochemical processes. <i>Bioresource Technology</i> , 2019, 291, 121837. | 4.8 | 113 |
| 65 | Hygroscopic transformation of woody biomass torrefaction for carbon storage. <i>Applied Energy</i> , 2018, 231, 768-776. | 5.1 | 111 |
| 66 | One-step synthesis of dimethyl ether from the gas mixture containing CO ₂ with high space velocity. <i>Applied Energy</i> , 2012, 98, 92-101. | 5.1 | 110 |
| 67 | Isothermal and non-isothermal torrefaction characteristics and kinetics of microalga <i>Scenedesmus obliquus</i> CNW-N. <i>Bioresource Technology</i> , 2014, 155, 245-251. | 4.8 | 109 |
| 68 | Continuous cultivation of microalgae in photobioreactors as a source of renewable energy: Current status and future challenges. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 154, 111852. | 8.2 | 107 |
| 69 | Wet torrefaction of microalga <i>Chlorella vulgaris</i> ESP-31 with microwave-assisted heating. <i>Energy Conversion and Management</i> , 2017, 141, 163-170. | 4.4 | 103 |
| 70 | Liquid hot water as sustainable biomass pretreatment technique for bioenergy production: A review. <i>Bioresource Technology</i> , 2022, 344, 126207. | 4.8 | 103 |
| 71 | Pulverized coal burnout in blast furnace simulated by a drop tube furnace. <i>Energy</i> , 2010, 35, 576-581. | 4.5 | 101 |
| 72 | Torrefaction operation and optimization of microalga residue for energy densification and utilization. <i>Applied Energy</i> , 2015, 154, 622-630. | 5.1 | 101 |

| # | ARTICLE | IF | CITATIONS |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 73 | Product characteristics from the torrefaction of oil palm fiber pellets in inert and oxidative atmospheres. <i>Bioresource Technology</i> , 2016, 199, 367-374. | 4.8 | 101 |
| 74 | Thermal degradation of carbohydrates, proteins and lipids in microalgae analyzed by evolutionary computation. <i>Energy Conversion and Management</i> , 2018, 160, 209-219. | 4.4 | 101 |
| 75 | Characterization of solid and liquid products from bamboo torrefaction. <i>Applied Energy</i> , 2015, 160, 829-835. | 5.1 | 100 |
| 76 | Pyrolysis of microalgae residues – A kinetic study. <i>Bioresource Technology</i> , 2016, 199, 362-366. | 4.8 | 99 |
| 77 | Predictions of biochar yield and elemental composition during torrefaction of forest residues. <i>Bioresource Technology</i> , 2016, 215, 239-246. | 4.8 | 98 |
| 78 | Renewable aviation fuel by advanced hydroprocessing of biomass: Challenges and perspective. <i>Energy Conversion and Management</i> , 2019, 199, 112015. | 4.4 | 98 |
| 79 | An evaluation of hydrogen production from the perspective of using blast furnace gas and coke oven gas as feedstocks. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 11727-11737. | 3.8 | 97 |
| 80 | Nanomaterials Utilization in Biomass for Biofuel and Bioenergy Production. <i>Energies</i> , 2020, 13, 892. | 1.6 | 97 |
| 81 | Impact of dilute acid pretreatment on the structure of bagasse for bioethanol production. <i>International Journal of Energy Research</i> , 2010, 34, 265-274. | 2.2 | 95 |
| 82 | Oxidative torrefaction of biomass nutshells: Evaluations of energy efficiency as well as biochar transportation and storage. <i>Applied Energy</i> , 2019, 235, 428-441. | 5.1 | 93 |
| 83 | A comprehensive analysis of food waste derived liquefaction bio-oil properties for industrial application. <i>Applied Energy</i> , 2019, 237, 283-291. | 5.1 | 92 |
| 84 | An evaluation on rice husks and pulverized coal blends using a drop tube furnace and a thermogravimetric analyzer for application to a blast furnace. <i>Energy</i> , 2009, 34, 1458-1466. | 4.5 | 91 |
| 85 | Effect of torrefaction pretreatment on the pyrolysis of rubber wood sawdust analyzed by Py-GC/MS. <i>Bioresource Technology</i> , 2018, 259, 469-473. | 4.8 | 91 |
| 86 | A review of synthesis and morphology of SrTiO_3 for energy and other applications. <i>International Journal of Energy Research</i> , 2019, 43, 5151-5174. | 2.2 | 91 |
| 87 | Emulsification analysis of bio-oil and diesel under various combinations of emulsifiers. <i>Applied Energy</i> , 2016, 178, 746-757. | 5.1 | 90 |
| 88 | Variation of lignocellulosic biomass structure from torrefaction: A critical review. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 152, 111698. | 8.2 | 86 |
| 89 | Biomass-derived biochar: From production to application in removing heavy metal-contaminated water. <i>Chemical Engineering Research and Design</i> , 2022, 160, 704-733. | 2.7 | 86 |
| 90 | Performance optimization of thermoelectric generators designed by multi-objective genetic algorithm. <i>Applied Energy</i> , 2018, 209, 211-223. | 5.1 | 85 |

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|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 91 | A critical review on the principles, applications, and challenges of waste-to-hydrogen technologies. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 134, 110365. | 8.2 | 83 |
| 92 | Performance analysis and optimum operation of a thermoelectric generator by Taguchi method. <i>Applied Energy</i> , 2015, 158, 44-54. | 5.1 | 82 |
| 93 | Chemical recycling of plastic waste via thermocatalytic routes. <i>Journal of Cleaner Production</i> , 2021, 321, 128989. | 4.6 | 81 |
| 94 | An experimental study on carbon monoxide conversion and hydrogen generation from water gas shift reaction. <i>Energy Conversion and Management</i> , 2008, 49, 2801-2808. | 4.4 | 80 |
| 95 | Performances of pulverized coal injection in blowpipe and tuyere at various operational conditions. <i>Energy Conversion and Management</i> , 2007, 48, 2069-2076. | 4.4 | 78 |
| 96 | Enhanced lignin extraction and optimisation from oil palm biomass using neural network modelling. <i>Fuel</i> , 2021, 293, 120485. | 3.4 | 78 |
| 97 | Numerical investigation on performance of coal gasification under various injection patterns in an entrained flow gasifier. <i>Applied Energy</i> , 2012, 100, 218-228. | 5.1 | 77 |
| 98 | Independent parallel pyrolysis kinetics of cellulose, hemicelluloses and lignin at various heating rates analyzed by evolutionary computation. <i>Energy Conversion and Management</i> , 2020, 221, 113165. | 4.4 | 77 |
| 99 | An energy analysis of torrefaction for upgrading microalga residue as a solid fuel. <i>Bioresource Technology</i> , 2015, 185, 285-293. | 4.8 | 76 |
| 100 | Determination of rated wind speed for maximum annual energy production of variable speed wind turbines. <i>Applied Energy</i> , 2017, 205, 781-789. | 5.1 | 75 |
| 101 | A new design of solar thermoelectric generator with combination of segmented materials and asymmetrical legs. <i>Energy Conversion and Management</i> , 2018, 175, 11-20. | 4.4 | 75 |
| 102 | Characterization of biomass waste torrefaction under conventional and microwave heating. <i>Bioresource Technology</i> , 2018, 264, 7-16. | 4.8 | 75 |
| 103 | Overview on catalytic deoxygenation for biofuel synthesis using metal oxide supported catalysts. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 112, 834-852. | 8.2 | 75 |
| 104 | A review on valorization of oyster mushroom and waste generated in the mushroom cultivation industry. <i>Journal of Hazardous Materials</i> , 2020, 400, 123156. | 6.5 | 75 |
| 105 | Numerical prediction and practical improvement of pulverized coal combustion in blast furnace. <i>International Communications in Heat and Mass Transfer</i> , 2006, 33, 327-334. | 2.9 | 74 |
| 106 | Analysis on energy consumption and performance of reheating furnaces in a hot strip mill. <i>International Communications in Heat and Mass Transfer</i> , 2005, 32, 695-706. | 2.9 | 72 |
| 107 | Biochar production from microalgae cultivation through pyrolysis as a sustainable carbon sequestration and biorefinery approach. <i>Clean Technologies and Environmental Policy</i> , 2018, 20, 2047-2055. | 2.1 | 69 |
| 108 | Current status of biohydrogen production from lignocellulosic biomass, technical challenges and commercial potential through pyrolysis process. <i>Energy</i> , 2021, 226, 120433. | 4.5 | 67 |

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|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 109 | Power output and efficiency of a thermoelectric generator under temperature control. <i>Energy Conversion and Management</i> , 2016, 127, 404-415. | 4.4 | 65 |
| 110 | Assessment of agro-industrial residues for bioenergy potential by investigating thermo-kinetic behavior in a slow pyrolysis process. <i>Fuel</i> , 2020, 278, 118259. | 3.4 | 65 |
| 111 | Pretreatment, modification and applications of sewage sludge-derived biochar for resource recovery- A review. <i>Chemosphere</i> , 2022, 287, 131969. | 4.2 | 65 |
| 112 | Hydrogen generation from a catalytic water gas shift reaction under microwave irradiation. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 4789-4797. | 3.8 | 64 |
| 113 | Hydrogen production from steam reforming of coke oven gas and its utility for indirect reduction of iron oxides in blast furnace. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 11748-11758. | 3.8 | 64 |
| 114 | Carbon dioxide capture by single droplet using Selexol, Rectisol and water as absorbents: A theoretical approach. <i>Applied Energy</i> , 2013, 111, 731-741. | 5.1 | 63 |
| 115 | Synthesis of renewable heterogeneous acid catalyst from oil palm empty fruit bunch for glycerol-free biodiesel production. <i>Science of the Total Environment</i> , 2020, 727, 138534. | 3.9 | 63 |
| 116 | Microplastic degradation as a sustainable concurrent approach for producing biofuel and obliterating hazardous environmental effects: A state-of-the-art review. <i>Journal of Hazardous Materials</i> , 2021, 418, 126381. | 6.5 | 63 |
| 117 | Biochar production via pyrolysis of citrus peel fruit waste as a potential usage as solid biofuel. <i>Chemosphere</i> , 2022, 294, 133671. | 4.2 | 63 |
| 118 | Characteristics of products from the pyrolysis of oil palm fiber and its pellets in nitrogen and carbon dioxide atmospheres. <i>Energy</i> , 2016, 94, 569-578. | 4.5 | 62 |
| 119 | Effect of microwave double absorption on hydrogen generation from methanol steam reforming. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 1987-1997. | 3.8 | 61 |
| 120 | Comparison and characterization of property variation of microalgal biomass with non-oxidative and oxidative torrefaction. <i>Fuel</i> , 2019, 246, 375-385. | 3.4 | 61 |
| 121 | Burning characteristics of pulverized coal within blast furnace raceway at various injection operations and ways of oxygen enrichment. <i>Fuel</i> , 2015, 143, 98-106. | 3.4 | 60 |
| 122 | Volatile release and particle formation characteristics of injected pulverized coal in blast furnaces. <i>Energy Conversion and Management</i> , 2007, 48, 2025-2033. | 4.4 | 59 |
| 123 | Production of microalgal biochar and reducing sugar using wet torrefaction with microwave-assisted heating and acid hydrolysis pretreatment. <i>Renewable Energy</i> , 2020, 156, 349-360. | 4.3 | 59 |
| 124 | Thermodynamic approach and comparison of two-step and single step DME (dimethyl ether) syntheses with carbon dioxide utilization. <i>Energy</i> , 2016, 109, 326-340. | 4.5 | 58 |
| 125 | Surface grafting techniques on the improvement of membrane bioreactor: State-of-the-art advances. <i>Bioresource Technology</i> , 2018, 269, 489-502. | 4.8 | 58 |
| 126 | Utilization of microalgae for bio-jet fuel production in the aviation sector: Challenges and perspective. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 149, 111396. | 8.2 | 58 |

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|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 127 | Torrefaction performance prediction approached by torrefaction severity factor. <i>Fuel</i> , 2019, 251, 126-135. | 3.4 | 57 |
| 128 | Microalgal Torrefaction for Solid Biofuel Production. <i>Trends in Biotechnology</i> , 2020, 38, 1023-1033. | 4.9 | 57 |
| 129 | Taguchi approach for co-gasification optimization of torrefied biomass and coal. <i>Bioresource Technology</i> , 2013, 144, 615-622. | 4.8 | 56 |
| 130 | Pyrolysis of sewage sludge for sustainable biofuels and value-added biochar production. <i>Journal of Environmental Management</i> , 2021, 298, 113450. | 3.8 | 56 |
| 131 | Catalyst-Based Synthesis of 2,5-Dimethylfuran from Carbohydrates as a Sustainable Biofuel Production Route. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 3079-3115. | 3.2 | 56 |
| 132 | Development of bio-based lubricant from modified desert date oil (<i>balanites aegyptiaca</i>) with copper nanoparticles addition and their tribological analysis. <i>Fuel</i> , 2020, 259, 116259. | 3.4 | 55 |
| 133 | Bioethanol production from acid pretreated microalgal hydrolysate using microwave-assisted heating wet torrefaction. <i>Fuel</i> , 2020, 279, 118435. | 3.4 | 55 |
| 134 | Progress in the torrefaction technology for upgrading oil palm wastes to energy-dense biochar: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 151, 111645. | 8.2 | 55 |
| 135 | Biofuel production from microalgae: challenges and chances. <i>Phytochemistry Reviews</i> , 2023, 22, 1089-1126. | 3.1 | 55 |
| 136 | Sugarcane Bagasse Pyrolysis in a Carbon Dioxide Atmosphere with Conventional and Microwave-Assisted Heating. <i>Frontiers in Energy Research</i> , 2015, 3, . | 1.2 | 54 |
| 137 | Microwave-assisted wet torrefaction of microalgae under various acids for coproduction of biochar and sugar. <i>Journal of Cleaner Production</i> , 2020, 253, 119944. | 4.6 | 54 |
| 138 | Co-pyrolysis of microalgae and other biomass wastes for the production of high-quality bio-oil: Progress and prospective. <i>Bioresource Technology</i> , 2022, 344, 126096. | 4.8 | 53 |
| 139 | Thermal behavior and hydrogen production of methanol steam reforming and autothermal reforming with spiral preheating. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 3397-3408. | 3.8 | 52 |
| 140 | Ultrasonic assisted oil extraction and biodiesel synthesis of Spent Coffee Ground. <i>Fuel</i> , 2020, 261, 116121. | 3.4 | 52 |
| 141 | A Feed-Forward Back Propagation Neural Network Approach to Predict the Life Condition of Crude Oil Pipeline. <i>Processes</i> , 2020, 8, 661. | 1.3 | 52 |
| 142 | Organic Carbonate Production Utilizing Crude Glycerol Derived as By-Product of Biodiesel Production: A Review. <i>Energies</i> , 2020, 13, 1483. | 1.6 | 52 |
| 143 | Reuniting the Biogeochemistry of Algae for a Low-Carbon Circular Bioeconomy. <i>Trends in Plant Science</i> , 2021, 26, 729-740. | 4.3 | 52 |
| 144 | Thermal degradation and compositional changes of wood treated in a semi-industrial scale reactor in vacuum. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 130, 8-18. | 2.6 | 51 |

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| 145 | A computational fluid dynamics (CFD) approach of thermoelectric generator (TEG) for power generation. <i>Applied Thermal Engineering</i> , 2020, 173, 115203. | 3.0 | 51 |
| 146 | Geometric effect on cooling power and performance of an integrated thermoelectric generation-cooling system. <i>Energy Conversion and Management</i> , 2014, 87, 566-575. | 4.4 | 50 |
| 147 | Dilute sulfuric acid hydrolysis of red macroalgae <i>Eucheuma denticulatum</i> with microwave-assisted heating for biochar production and sugar recovery. <i>Bioresource Technology</i> , 2017, 246, 20-27. | 4.8 | 50 |
| 148 | Hydrogen and synthesis gas production from activated carbon and steam via reusing carbon dioxide. <i>Applied Energy</i> , 2013, 101, 551-559. | 5.1 | 49 |
| 149 | Hydrogen production from methanol partial oxidation over Pt/Al ₂ O ₃ catalyst with low Pt content. <i>Energy</i> , 2015, 88, 399-407. | 4.5 | 49 |
| 150 | Biofuel from Microalgae: Sustainable Pathways. <i>Sustainability</i> , 2020, 12, 8009. | 1.6 | 49 |
| 151 | Efficiency improvement of a vertical-axis wind turbine using a deflector optimized by Taguchi approach with modified additive method. <i>Energy Conversion and Management</i> , 2021, 245, 114609. | 4.4 | 49 |
| 152 | Unsteady absorption of sulfur dioxide by an atmospheric water droplet with internal circulation. <i>Atmospheric Environment</i> , 2001, 35, 2375-2393. | 1.9 | 48 |
| 153 | Thermal characterization of oil palm fiber and eucalyptus in torrefaction. <i>Energy</i> , 2014, 71, 40-48. | 4.5 | 48 |
| 154 | Thermodynamic analysis of the partial oxidation of coke oven gas for indirect reduction of iron oxides in a blast furnace. <i>Energy</i> , 2015, 86, 758-771. | 4.5 | 48 |
| 155 | Tailored hydrotalcite-based Mg-Ni-Al catalyst for hydrogen production via methane decomposition: Effect of nickel concentration and spinel-like structures. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 14424-14433. | 3.8 | 48 |
| 156 | A Review on Data-Driven Learning Approaches for Fault Detection and Diagnosis in Chemical Processes. <i>ChemBioEng Reviews</i> , 2021, 8, 239-259. | 2.6 | 48 |
| 157 | Applying microwave vacuum pyrolysis to design moisture retention and pH neutralizing palm kernel shell biochar for mushroom production. <i>Bioresource Technology</i> , 2020, 312, 123572. | 4.8 | 48 |
| 158 | Cultivation of microalgae <i>Chlorella</i> sp. in municipal sewage for biofuel production and utilization of biochar derived from residue for the conversion of hematite iron ore (Fe ₂ O ₃) to iron (Fe) in an integrated algal biorefinery. <i>Energy</i> , 2019, 189, 116128. | 4.5 | 47 |
| 159 | Iron oxide reduction by graphite and torrefied biomass analyzed by TG-FTIR for mitigating CO ₂ emissions. <i>Energy</i> , 2019, 180, 968-977. | 4.5 | 47 |
| 160 | Smart sustainable biorefineries for lignocellulosic biomass. <i>Bioresource Technology</i> , 2022, 344, 126215. | 4.8 | 47 |
| 161 | Partial oxidation of methanol over a Pt/Al ₂ O ₃ catalyst enhanced by sprays. <i>Energy</i> , 2016, 106, 1-12. | 4.5 | 46 |
| 162 | Torrefaction of de-oiled <i>Jatropha</i> seed kernel biomass for solid fuel production. <i>Energy</i> , 2019, 170, 367-374. | 4.5 | 46 |

| # | ARTICLE | IF | CITATIONS |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 163 | Two-step thermodegradation kinetics of cellulose, hemicelluloses, and lignin under isothermal torrefaction analyzed by particle swarm optimization. <i>Energy Conversion and Management</i> , 2021, 238, 114116. | 4.4 | 46 |
| 164 | Integrating Taguchi method and artificial neural network for predicting and maximizing biofuel production via torrefaction and pyrolysis. <i>Bioresource Technology</i> , 2022, 343, 126140. | 4.8 | 46 |
| 165 | Characterization of water gas shift reaction in association with carbon dioxide sequestration. <i>Journal of Power Sources</i> , 2007, 172, 368-375. | 4.0 | 45 |
| 166 | An experimental study on single-step dimethyl ether (DME) synthesis from hydrogen and carbon monoxide under various catalysts. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 13583-13593. | 3.8 | 45 |
| 167 | Optimization of food waste hydrothermal liquefaction by a two-step process in association with a double analysis. <i>Energy</i> , 2020, 199, 117438. | 4.5 | 45 |
| 168 | Product Yields and Characteristics of Corncob Waste under Various Torrefaction Atmospheres. <i>Energies</i> , 2014, 7, 13-27. | 1.6 | 44 |
| 169 | Hydrogen production and carbon dioxide enrichment from ethanol steam reforming followed by water gas shift reaction. <i>Journal of Cleaner Production</i> , 2017, 162, 1430-1441. | 4.6 | 44 |
| 170 | Fast hydrolysis of biomass Conversion: A comparative review. <i>Bioresource Technology</i> , 2021, 342, 126067. | 4.8 | 44 |
| 171 | Extinction of counterflow diffusion flames with radiative heat loss and nonunity Lewis numbers. <i>Combustion and Flame</i> , 2007, 148, 100-116. | 2.8 | 43 |
| 172 | Co-gasification performance of coal and petroleum coke blends in a pilot-scale pressurized entrained-flow gasifier. <i>International Journal of Energy Research</i> , 2012, 36, 499-508. | 2.2 | 43 |
| 173 | Geometry design for maximizing output power of segmented skutterudite thermoelectric generator by evolutionary computation. <i>Applied Energy</i> , 2020, 274, 115296. | 5.1 | 43 |
| 174 | Performance evaluation and improvement of thermoelectric generators (TEG): Fin installation and compromise optimization. <i>Energy Conversion and Management</i> , 2021, 250, 114858. | 4.4 | 43 |
| 175 | Microalgae Oil: Algae Cultivation and Harvest, Algae Residue Torrefaction and Diesel Engine Emissions Tests. <i>Aerosol and Air Quality Research</i> , 2015, 15, 81-98. | 0.9 | 42 |
| 176 | Effective utilization of tobacco (<i>Nicotiana Tabaccum</i>) for biodiesel production and its application on diesel engine using response surface methodology approach. <i>Fuel</i> , 2020, 273, 117793. | 3.4 | 42 |
| 177 | Hydrogen production from water gas shift reaction in a high gravity (Hige) environment using a rotating packed bed. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 10179-10189. | 3.8 | 41 |
| 178 | Performance of a thermoelectric generator intensified by temperature oscillation. <i>Energy</i> , 2017, 133, 257-269. | 4.5 | 41 |
| 179 | A Comprehensive Review on Thermal Coconversion of Biomass, Sludge, Coal, and Their Blends Using Thermogravimetric Analysis. <i>Journal of Chemistry</i> , 2020, 2020, 1-23. | 0.9 | 41 |
| 180 | Transient dynamic of hydrogen permeation through a palladium membrane. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 2440-2448. | 3.8 | 40 |

| # | ARTICLE | IF | CITATIONS |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 181 | Polarization phenomena of hydrogen-rich gas in high-permeance Pd and Pd-Cu membrane tubes. <i>Applied Energy</i> , 2014, 113, 41-50. | 5.1 | 40 |
| 182 | Analysis of methanol synthesis using CO ₂ hydrogenation and syngas produced from biogas-based reforming processes. <i>Chemical Engineering Journal</i> , 2021, 426, 130835. | 6.6 | 39 |
| 183 | Biomass torrefaction: An overview of process and technology assessment based on global readiness level. <i>Fuel</i> , 2022, 324, 124663. | 3.4 | 39 |
| 184 | A numerical investigation of multiple flame configurations in convective droplet gasification. <i>Combustion and Flame</i> , 1995, 103, 221-238. | 2.8 | 38 |
| 185 | Dynamics of sulfur dioxide absorption in a raindrop falling at terminal velocity. <i>Atmospheric Environment</i> , 2001, 35, 4777-4790. | 1.9 | 38 |
| 186 | Hydrogen permeation dynamics across a palladium membrane in a varying pressure environment. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 5410-5418. | 3.8 | 38 |
| 187 | A comprehensive analysis of the performance of thermoelectric generators with constant and variable properties. <i>Applied Energy</i> , 2019, 241, 11-24. | 5.1 | 38 |
| 188 | Optimization of a vertical axis wind turbine with a deflector under unsteady wind conditions via Taguchi and neural network applications. <i>Energy Conversion and Management</i> , 2022, 254, 115209. | 4.4 | 38 |
| 189 | Pyrolysis of marine algae for biochar production for adsorption of Ciprofloxacin from aqueous solutions. <i>Bioresource Technology</i> , 2022, 351, 127043. | 4.8 | 38 |
| 190 | A comprehensive review of thermogravimetric analysis in lignocellulosic and algal biomass gasification. <i>Chemical Engineering Journal</i> , 2022, 445, 136730. | 6.6 | 38 |
| 191 | A numerical approach of conjugate hydrogen permeation and polarization in a Pd membrane tube. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 12666-12679. | 3.8 | 37 |
| 192 | Predictions of biochar production and torrefaction performance from sugarcane bagasse using interpolation and regression analysis. <i>Bioresource Technology</i> , 2017, 246, 12-19. | 4.8 | 37 |
| 193 | Potential of sustainable bioenergy production from <i>Synechocystis</i> sp. cultivated in wastewater at large scale – A low cost biorefinery approach. <i>Energy Conversion and Management</i> , 2019, 186, 188-199. | 4.4 | 37 |
| 194 | Production of a sustainable fuel from microalgae <i>Chlorella minutissima</i> grown in a 1500L open raceway ponds. <i>Biomass and Bioenergy</i> , 2021, 149, 106073. | 2.9 | 37 |
| 195 | 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. <i>Aerosol and Air Quality Research</i> , 2020, 20, 1172-1196. | 0.9 | 37 |
| 196 | Effects of organosolv pretreatment and acid hydrolysis on palm empty fruit bunch (PEFB) as bioethanol feedstock. <i>Biomass and Bioenergy</i> , 2016, 95, 78-83. | 2.9 | 36 |
| 197 | Reaction phenomena of high-temperature water gas shift reaction in a membrane reactor. <i>Fuel</i> , 2017, 199, 358-371. | 3.4 | 36 |
| 198 | Supercritical water gasification (SCWG) as a potential tool for the valorization of phycoremediation-derived waste algal biomass for biofuel generation. <i>Journal of Hazardous Materials</i> , 2021, 418, 126278. | 6.5 | 36 |

| # | ARTICLE | IF | CITATIONS |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 199 | Hysteresis and reaction characterization of methane catalytic partial oxidation on rhodium catalyst. <i>Journal of Power Sources</i> , 2009, 194, 467-477. | 4.0 | 35 |
| 200 | Numerical characterization on concentration polarization of hydrogen permeation in a Pd-based membrane tube. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 14734-14744. | 3.8 | 35 |
| 201 | Non-catalytic in-situ (trans) esterification of lipids in wet microalgae <i>Chlorella vulgaris</i> under subcritical conditions for the synthesis of fatty acid methyl esters. <i>Applied Energy</i> , 2019, 248, 526-537. | 5.1 | 35 |
| 202 | An analysis of gas absorption by a liquid aerosol in a stationary environment. <i>Atmospheric Environment</i> , 2002, 36, 3671-3683. | 1.9 | 34 |
| 203 | A new configuration design of thermoelectric cooler driven by thermoelectric generator. <i>Applied Thermal Engineering</i> , 2019, 160, 114087. | 3.0 | 34 |
| 204 | Effects of dry and wet torrefaction pretreatment on microalgae pyrolysis analyzed by TG-FTIR and double-shot Py-GC/MS. <i>Energy</i> , 2020, 210, 118579. | 4.5 | 34 |
| 205 | Solid biofuel production from spent coffee ground wastes: Process optimisation, characterisation and kinetic studies. <i>Fuel</i> , 2021, 292, 120309. | 3.4 | 34 |
| 206 | A state-of-the-art review of biowaste biorefinery. <i>Environmental Pollution</i> , 2021, 269, 116149. | 3.7 | 33 |
| 207 | Catalytic level identification of ZSM-5 on biomass pyrolysis and aromatic hydrocarbon formation. <i>Chemosphere</i> , 2021, 271, 129510. | 4.2 | 33 |
| 208 | A critical review on second- and third-generation bioethanol production using microwaved-assisted heating (MAH) pretreatment. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 152, 111679. | 8.2 | 33 |
| 209 | Power generation of thermoelectric generator with plate fins for recovering low-temperature waste heat. <i>Applied Energy</i> , 2022, 306, 118012. | 5.1 | 33 |
| 210 | Co-liquefaction of mixed biomass feedstocks for bio-oil production: A critical review. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 154, 111814. | 8.2 | 33 |
| 211 | Valorization of animal manure via pyrolysis for bioenergy: A review. <i>Journal of Cleaner Production</i> , 2022, 343, 130965. | 4.6 | 33 |
| 212 | Atmospheric ammonia scavenging mechanisms around a liquid droplet in convective flow. <i>Atmospheric Environment</i> , 2004, 38, 1107-1116. | 1.9 | 32 |
| 213 | Hydrogen production from methane under the interaction of catalytic partial oxidation, water gas shift reaction and heat recovery. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 12808-12820. | 3.8 | 32 |
| 214 | Hydrogen permeation measurements of Pd and Pd-Cu membranes using dynamic pressure difference method. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 9355-9366. | 3.8 | 32 |
| 215 | Modeling and simulation of microwave double absorption on methanol steam reforming for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 333-344. | 3.8 | 32 |
| 216 | A bibliometric review on the application of fuzzy optimization to sustainable energy technologies. <i>International Journal of Energy Research</i> , 2022, 46, 6-27. | 2.2 | 32 |

| # | ARTICLE | IF | CITATIONS |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 217 | Ionic liquid dissolution utilized for biomass conversion into biofuels, value-added chemicals and advanced materials: A comprehensive review. <i>Chemical Engineering Journal</i> , 2022, 445, 136733. | 6.6 | 32 |
| 218 | Influences of geometry and flow pattern on hydrogen separation in a Pd-based membrane tube. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 1145-1156. | 3.8 | 31 |
| 219 | CO2 conversion for syngas production in methane catalytic partial oxidation. <i>Journal of CO2 Utilization</i> , 2014, 5, 1-9. | 3.3 | 31 |
| 220 | Effect of wet torrefaction on pyrolysis kinetics and conversion of microalgae carbohydrates, proteins, and lipids. <i>Energy Conversion and Management</i> , 2021, 227, 113609. | 4.4 | 31 |
| 221 | Engineered biochars from catalytic microwave pyrolysis for reducing heavy metals phytotoxicity and increasing plant growth. <i>Chemosphere</i> , 2021, 271, 129808. | 4.2 | 31 |
| 222 | Microphysics of atmospheric carbon dioxide uptake by a cloud droplet containing a solid nucleus. <i>Journal of Geophysical Research</i> , 2003, 108, . | 3.3 | 30 |
| 223 | Transient gasification and syngas formation from coal particles in a fixed-bed reactor. <i>International Journal of Energy Research</i> , 2007, 31, 895-911. | 2.2 | 30 |
| 224 | Enhancement effect of heat recovery on hydrogen production from catalytic partial oxidation of methane. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 7427-7440. | 3.8 | 30 |
| 225 | Characterization of catalytic partial oxidation of methane with carbon dioxide utilization and excess enthalpy recovery. <i>Applied Energy</i> , 2016, 162, 1141-1152. | 5.1 | 30 |
| 226 | Microalgae: The Future Supply House of Biohydrogen and Biogas. <i>Frontiers in Energy Research</i> , 2021, 9, . | 1.2 | 30 |
| 227 | Sampled Monte Carlo uncertainty analysis for photochemical grid models. <i>Atmospheric Environment</i> , 2001, 35, 4863-4876. | 1.9 | 29 |
| 228 | Gasification kinetics of raw and wet-torrefied microalgae <i>Chlorella vulgaris</i> ESP-31 in carbon dioxide. <i>Bioresource Technology</i> , 2017, 244, 1393-1399. | 4.8 | 29 |
| 229 | Simulation studies on microwave-assisted pyrolysis of biomass for bioenergy production with special attention on waveguide number and location. <i>Energy</i> , 2020, 190, 116474. | 4.5 | 29 |
| 230 | Optimization and analysis of syngas production from methane and CO2 via Taguchi approach, response surface methodology (RSM) and analysis of variance (ANOVA). <i>Fuel</i> , 2021, 296, 120642. | 3.4 | 29 |
| 231 | Hydrogen production and thermal behavior of methanol autothermal reforming and steam reforming triggered by microwave heating. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 9973-9983. | 3.8 | 28 |
| 232 | Reaction phenomena of catalytic partial oxidation of methane under the impact of carbon dioxide addition and heat recirculation. <i>Energy</i> , 2015, 82, 206-217. | 4.5 | 28 |
| 233 | Improving the stability of diesel emulsions with high pyrolysis bio-oil content by alcohol co-surfactants and high shear mixing strategies. <i>Energy</i> , 2017, 141, 1416-1428. | 4.5 | 28 |
| 234 | Heat treatment kinetics using three-stage approach for sustainable wood material production. <i>Industrial Crops and Products</i> , 2018, 124, 563-571. | 2.5 | 28 |

| # | ARTICLE | IF | CITATIONS |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 235 | Iron oxide reduction by torrefied microalgae for CO ₂ capture and abatement in chemical-looping combustion. <i>Energy</i> , 2019, 186, 115903. | 4.5 | 28 |
| 236 | Pyrolysis characteristics and non-isothermal torrefaction kinetics of industrial solid wastes. <i>Fuel</i> , 2019, 251, 118-125. | 3.4 | 28 |
| 237 | Independent parallel pyrolysis kinetics of extracted proteins and lipids as well as model carbohydrates in microalgae. <i>Applied Energy</i> , 2021, 300, 117372. | 5.1 | 28 |
| 238 | COVID-19 and industrial waste mitigation via thermochemical technologies towards a circular economy: A state-of-the-art review. <i>Journal of Hazardous Materials</i> , 2022, 423, 127215. | 6.5 | 28 |
| 239 | Flow-field design for improving hydrogen recovery in a palladium membrane tube. <i>Journal of Membrane Science</i> , 2014, 472, 45-54. | 4.1 | 27 |
| 240 | Oxidative reaction interaction and synergistic index of emulsified pyrolysis bio-oil/diesel fuels. <i>Renewable Energy</i> , 2019, 136, 223-234. | 4.3 | 27 |
| 241 | Microwave-assisted gasification of biomass for sustainable and energy-efficient biohydrogen and biosyngas production: A state-of-the-art review. <i>Chemosphere</i> , 2022, 287, 132014. | 4.2 | 27 |
| 242 | Engineered macroalgal and microalgal adsorbents: Synthesis routes and adsorptive performance on hazardous water contaminants. <i>Journal of Hazardous Materials</i> , 2022, 423, 126921. | 6.5 | 27 |
| 243 | Effect of torrefaction on the structure and reactivity of rice straw as well as life cycle assessment of torrefaction process. <i>Energy</i> , 2022, 240, 122470. | 4.5 | 27 |
| 244 | Life cycle assessment of microalgal biorefinery: A state-of-the-art review. <i>Bioresource Technology</i> , 2022, 360, 127615. | 4.8 | 27 |
| 245 | Efficient biomass-exopolysaccharide production from an identified wild-Serbian <i>Ganoderma lucidum</i> strain BCF4A1 mycelium in a controlled submerged fermentation. <i>Biocatalysis and Agricultural Biotechnology</i> , 2019, 21, 101305. | 1.5 | 26 |
| 246 | Thermal and solid electrolyte interphase characterization of lithium-ion battery. <i>Energy</i> , 2019, 174, 999-1011. | 4.5 | 26 |
| 247 | Modeling and prediction of devolatilization and elemental composition of wood during mild pyrolysis in a pilot-scale reactor. <i>Industrial Crops and Products</i> , 2019, 131, 357-370. | 2.5 | 26 |
| 248 | Emerging technologies for sustainable production of biohydrogen production from microalgae: A state-of-the-art review of upstream and downstream processes. <i>Bioresource Technology</i> , 2021, 342, 126057. | 4.8 | 26 |
| 249 | Single-step catalytic deoxygenation of palm feedstocks for the production of sustainable bio-jet fuel. <i>Energy</i> , 2022, 239, 122017. | 4.5 | 26 |
| 250 | Highly active iron-promoted hexagonal mesoporous silica (HMS) for deoxygenation of triglycerides to green hydrocarbon-like biofuel. <i>Fuel</i> , 2022, 308, 121860. | 3.4 | 26 |
| 251 | A review on the visible light active modified photocatalysts for water splitting for hydrogen production. <i>International Journal of Energy Research</i> , 2022, 46, 5467-5477. | 2.2 | 26 |
| 252 | Combustion characteristics and energy recovery of a small mass burn incinerator. <i>International Communications in Heat and Mass Transfer</i> , 2001, 28, 299-310. | 2.9 | 25 |

| # | ARTICLE | IF | CITATIONS |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 253 | Numerical predictions on thermal characteristic and performance of methanol steam reforming with microwave-assisted heating. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 8279-8291. | 3.8 | 25 |
| 254 | Evaluation of power generation from thermoelectric cooler at normal and low-temperature cooling conditions. <i>Energy for Sustainable Development</i> , 2015, 25, 8-16. | 2.0 | 25 |
| 255 | Thermodegradation characterization of hardwoods and softwoods in torrefaction and transition zone between torrefaction and pyrolysis. <i>Fuel</i> , 2022, 310, 122281. | 3.4 | 25 |
| 256 | Interfacial permeation phenomena of hydrogen purification and carbon dioxide separation in a non-isothermal palladium membrane tube. <i>Chemical Engineering Journal</i> , 2016, 305, 156-168. | 6.6 | 24 |
| 257 | A new design of catalytic tube reactor for hydrogen production from ethanol steam reforming. <i>Fuel</i> , 2020, 281, 118746. | 3.4 | 24 |
| 258 | Reduction of particulate matter and volatile organic compounds in biorefineries: A state-of-the-art review. <i>Journal of Hazardous Materials</i> , 2021, 403, 123955. | 6.5 | 24 |
| 259 | Spent coffee grounds biochar from torrefaction as a potential adsorbent for spilled diesel oil recovery and as an alternative fuel. <i>Energy</i> , 2022, 239, 122467. | 4.5 | 24 |
| 260 | A study of hygroscopic property of biomass pretreated by torrefaction. <i>Energy Procedia</i> , 2019, 158, 32-36. | 1.8 | 23 |
| 261 | Aging and emulsification analyses of hydrothermal liquefaction bio-oil derived from sewage sludge and swine leather residue. <i>Journal of Cleaner Production</i> , 2020, 266, 122050. | 4.6 | 23 |
| 262 | Geometry optimization and pressure analysis of a proton exchange membrane fuel cell stack. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 16717-16733. | 3.8 | 23 |
| 263 | Optimal integration of a biomass-based polygeneration system in an iron production plant for negative carbon emissions. <i>International Journal of Energy Research</i> , 2020, 44, 9350-9366. | 2.2 | 22 |
| 264 | Catalyst combination strategy for hydrogen production from methanol partial oxidation. <i>Energy</i> , 2020, 206, 118180. | 4.5 | 22 |
| 265 | Agro-industrial residue gasification feasibility in captive power plants: A South-Asian case study. <i>Energy</i> , 2021, 214, 118952. | 4.5 | 22 |
| 266 | Waste furniture gasification using rice husk based char catalysts for enhanced hydrogen generation. <i>Bioresource Technology</i> , 2021, 341, 125813. | 4.8 | 22 |
| 267 | Microwave-assisted pyrolysis technology for bioenergy recovery: Mechanism, performance, and prospect. <i>Fuel</i> , 2022, 326, 124983. | 3.4 | 22 |
| 268 | Hydrogen production characteristics of methanol partial oxidation under sprays with ultra-low Pt and Pd contents in catalysts. <i>Fuel</i> , 2018, 222, 599-609. | 3.4 | 21 |
| 269 | Investigation of reverse ionic diffusion in forward-osmosis-aided dewatering of microalgae: A molecular dynamics study. <i>Bioresource Technology</i> , 2019, 279, 181-188. | 4.8 | 21 |
| 270 | Pore volume upgrade of biochar from spent coffee grounds by sodium bicarbonate during torrefaction. <i>Chemosphere</i> , 2021, 275, 129999. | 4.2 | 21 |

| # | ARTICLE | IF | CITATIONS |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 271 | Current technologies of biochemical conversion of food waste into biogas production: A review. <i>Fuel</i> , 2022, 323, 124321. | 3.4 | 21 |
| 272 | Bioenergy production and metallic iron (Fe) conversion from <i>Botryococcus</i> sp. cultivated in domestic wastewater: Algal biorefinery concept. <i>Energy Conversion and Management</i> , 2019, 196, 1326-1334. | 4.4 | 20 |
| 273 | Prediction of higher heating values (HHVs) and energy yield during torrefaction via kinetics. <i>Energy Procedia</i> , 2019, 158, 111-116. | 1.8 | 20 |
| 274 | Theoretical analysis of performance of variable cross-section thermoelectric generators: Effects of shape factor and thermal boundary conditions. <i>Energy</i> , 2020, 201, 117660. | 4.5 | 20 |
| 275 | Comparative indexes, fuel characterization and thermogravimetric- Fourier transform infrared spectrometer-mass spectrogram (TG-FTIR-MS) analysis of microalga <i>Nannochloropsis Oceanica</i> under oxidative and inert torrefaction. <i>Energy</i> , 2021, 230, 120824. | 4.5 | 20 |
| 276 | Catalytic microwave-assisted torrefaction of sugarcane bagasse with calcium oxide optimized via Taguchi approach: Product characterization and energy analysis. <i>Fuel</i> , 2021, 305, 121543. | 3.4 | 20 |
| 277 | Flow Dynamics and PM2.5 Deposition in Healthy and Asthmatic Airways at Different Inhalation Statuses. <i>Aerosol and Air Quality Research</i> , 2018, 18, 866-883. | 0.9 | 20 |
| 278 | Progress in thermochemical conversion of aquatic weeds in shellfish aquaculture for biofuel generation: Technical and economic perspectives. <i>Bioresource Technology</i> , 2022, 344, 126202. | 4.8 | 20 |
| 279 | Hybrid liquid biphasic system for cell disruption and simultaneous lipid extraction from microalgae <i>Chlorella sorokiniana</i> CY-1 for biofuel production. <i>Biotechnology for Biofuels</i> , 2019, 12, 252. | 6.2 | 19 |
| 280 | Hydrogen production from partial oxidation and autothermal reforming of methanol from a cold start in sprays. <i>Fuel</i> , 2021, 287, 119638. | 3.4 | 19 |
| 281 | Simultaneous implementation of sludge dewatering and solid biofuel production by microwave torrefaction. <i>Environmental Research</i> , 2021, 195, 110775. | 3.7 | 19 |
| 282 | Hydrogen production from water gas shift reactions in association with separation using a palladium membrane tube. <i>International Journal of Energy Research</i> , 2012, 36, 346-354. | 2.2 | 18 |
| 283 | Analysis of physicochemical properties of liquefaction bio-oil from food waste. <i>Energy Procedia</i> , 2019, 158, 61-66. | 1.8 | 18 |
| 284 | Hydrogen production from methanol partial oxidation through the catalyst prepared using torrefaction liquid products. <i>Fuel</i> , 2020, 279, 118419. | 3.4 | 18 |
| 285 | Modeling and statistical analysis of the three-side membrane reactor for the optimization of hydrocarbon production from CO ₂ hydrogenation. <i>Energy Conversion and Management</i> , 2020, 207, 112481. | 4.4 | 18 |
| 286 | Hysteresis loops of methane catalytic partial oxidation for hydrogen production under the effects of varied Reynolds number and Damköhler number. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 6291-6302. | 3.8 | 17 |
| 287 | A theoretical analysis of the capture of greenhouse gases by single water droplet at atmospheric and elevated pressures. <i>Applied Energy</i> , 2011, 88, 5120-5130. | 5.1 | 17 |
| 288 | Chemical reactions and kinetics of a low-temperature water gas shift reaction heated by microwaves. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 276-289. | 3.8 | 17 |

| # | ARTICLE | IF | CITATIONS |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 289 | Influence of droplet mutual interaction on carbon dioxide capture process in sprays. <i>Applied Energy</i> , 2012, 92, 185-193. | 5.1 | 17 |
| 290 | Impact of vacuum operation on hydrogen permeation through a palladium membrane tube. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 14434-14444. | 3.8 | 17 |
| 291 | Evolutionary computation for maximizing CO ₂ and H ₂ separation in multiple-tube palladium-membrane systems. <i>Applied Energy</i> , 2019, 235, 299-310. | 5.1 | 17 |
| 292 | Impact of post-torrefaction process on biochar formation from wood pellets and self-heating phenomena for production safety. <i>Energy</i> , 2020, 207, 118324. | 4.5 | 17 |
| 293 | Leak Detection in Gas Mixture Pipelines under Transient Conditions Using Hammerstein Model and Adaptive Thresholds. <i>Processes</i> , 2020, 8, 474. | 1.3 | 17 |
| 294 | Increased aromatics production by co-feeding waste oil sludge to the catalytic pyrolysis of cellulose. <i>Energy</i> , 2022, 239, 122331. | 4.5 | 17 |
| 295 | Energy-saving drying strategy of spent coffee grounds for co-firing fuel by adding biochar for carbon sequestration to approach net zero. <i>Fuel</i> , 2022, 326, 124984. | 3.4 | 17 |
| 296 | Bidirectional scattering distribution function by screen imaging synthesis. <i>Optics Express</i> , 2012, 20, 1268. | 1.7 | 16 |
| 297 | A numerical approach of interaction of methane thermocatalytic decomposition and microwave irradiation. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 13260-13271. | 3.8 | 16 |
| 298 | Numerical prediction of CO ₂ capture process by a single droplet in alkaline spray. <i>Applied Energy</i> , 2013, 109, 125-134. | 5.1 | 16 |
| 299 | Synthesis of glycerol-free fatty acid methyl ester using transesterification reaction based on solid acid carbon catalyst derived from low-cost biomass wastes. <i>International Journal of Energy Research</i> , 2022, 46, 147-162. | 2.2 | 16 |
| 300 | 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. <i>International Journal of Biological Macromolecules</i> , 2022, 201, 133-142. | 3.6 | 16 |
| 301 | A simplified model of predicting coal reaction in a partial oxidation environment. <i>International Communications in Heat and Mass Transfer</i> , 2007, 34, 623-629. | 2.9 | 15 |
| 302 | Formation Characteristics of Aerosol Particles from Pulverized Coal Pyrolysis in High-Temperature Environments. <i>Journal of the Air and Waste Management Association</i> , 2008, 58, 702-710. | 0.9 | 15 |
| 303 | Hydrogen permeation and recovery from H ₂ -N ₂ gas mixtures by Pd membranes with high permeance. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 14730-14742. | 3.8 | 15 |
| 304 | Biogas partial oxidation in a heat recirculation reactor for syngas production and CO ₂ utilization. <i>Applied Energy</i> , 2018, 217, 113-125. | 5.1 | 15 |
| 305 | Transient supercooling behaviors of a novel two-stage Peltier cooler. <i>Applied Thermal Engineering</i> , 2018, 143, 248-256. | 3.0 | 15 |
| 306 | Product Characteristics of Torrefied Wood Sawdust in Normal and Vacuum Environments. <i>Energies</i> , 2019, 12, 3844. | 1.6 | 15 |

| # | ARTICLE | IF | CITATIONS |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 307 | Enrichment of surface oxygen functionalities on activated carbon for adsorptive removal of sevoflurane. <i>Chemosphere</i> , 2020, 260, 127496. | 4.2 | 15 |
| 308 | Life cycle assessment of torrefied microalgal biomass using torrefaction severity index with the consideration of up-scaling production. <i>Renewable Energy</i> , 2020, 162, 1113-1124. | 4.3 | 15 |
| 309 | Kinetic and thermodynamic analysis of iron oxide reduction by graphite for CO ₂ mitigation in chemical looping combustion. <i>International Journal of Energy Research</i> , 2020, 44, 3865-3882. | 2.2 | 15 |
| 310 | Valorization of sorghum distillery residue to produce bioethanol for pollution mitigation and circular economy. <i>Environmental Pollution</i> , 2021, 285, 117196. | 3.7 | 15 |
| 311 | A Simplified Model of Predicting SO ₂ Absorption by Single Atmospheric Raindrops with Chemical Dissociation and Internal Circulation. <i>Aerosol and Air Quality Research</i> , 2011, 11, 860-872. | 0.9 | 15 |
| 312 | Multiscale Principal Component Analysis-Signed Directed Graph Based Process Monitoring and Fault Diagnosis. <i>ACS Omega</i> , 2022, 7, 9496-9512. | 1.6 | 15 |
| 313 | Investigation of direct biodiesel production from wet microalgae using definitive screening design. <i>Energy Procedia</i> , 2019, 158, 1149-1154. | 1.8 | 14 |
| 314 | Novel Renewable Double-Energy System for Activated Biochar Production and Thermoelectric Generation from Waste Heat. <i>Energy & Fuels</i> , 2020, 34, 3383-3393. | 2.5 | 14 |
| 315 | Combustion performance and emissions from torrefied and water washed biomass using a kg-scale burner. <i>Journal of Hazardous Materials</i> , 2021, 402, 123468. | 6.5 | 14 |
| 316 | Synthesis of 5-hydroxymethylfurfural from glucose, fructose, cellulose and agricultural wastes over sulfur-doped peanut shell catalysts in ionic liquid. <i>Chemosphere</i> , 2022, 291, 132829. | 4.2 | 14 |
| 317 | Synthesis and regeneration of mesoporous Ni-Cu/Al ₂ O ₄ catalyst in sub-kilogram-scale for methanol steam reforming reaction. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 37542-37551. | 3.8 | 14 |
| 318 | Air pollutant absorption by single moving droplets with drag force at moderate Reynolds numbers. <i>Chemical Engineering Science</i> , 2006, 61, 449-458. | 1.9 | 13 |
| 319 | Influence of bio-solution pretreatment on the structure, reactivity and torrefaction of bamboo. <i>Energy Conversion and Management</i> , 2017, 141, 244-253. | 4.4 | 13 |
| 320 | Enhanced thermal conductivity of waste sawdust-based composite phase change materials with expanded graphite for thermal energy storage. <i>Bioresources and Bioprocessing</i> , 2017, 4, . | 2.0 | 13 |
| 321 | Hydrogen permeation enhancement in a Pd membrane tube system under various vacuum degrees. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 7401-7411. | 3.8 | 13 |
| 322 | Using low carbon footprint high-pressure carbon dioxide in bioconversion of aspen branch waste for sustainable bioethanol production. <i>Bioresource Technology</i> , 2020, 313, 123675. | 4.8 | 13 |
| 323 | Green additive to upgrade biochar from spent coffee grounds by torrefaction for pollution mitigation. <i>Environmental Pollution</i> , 2021, 285, 117244. | 3.7 | 13 |
| 324 | Syngas production via chemical looping reforming using methane-based feed and NiO/Al ₂ O ₃ oxygen carrier. <i>Energy</i> , 2022, 250, 123815. | 4.5 | 13 |

| # | ARTICLE | IF | CITATIONS |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 325 | A New Vehicle Detection with Distance Estimation for Lane Change Warning Systems. Intelligent Vehicles Symposium, 2009 IEEE, 2007, , . | 0.0 | 12 |
| 326 | Permeation characteristics of hydrogen through palladium membranes in binary and ternary gas mixtures. International Journal of Energy Research, 2017, 41, 1579-1595. | 2.2 | 12 |
| 327 | Coupled effect of torrefaction and blending on chemical and energy properties for combustion of major open burned agriculture residues in Thailand. Renewable Energy, 2018, 118, 113-121. | 4.3 | 12 |
| 328 | Biofuel and Bioenergy Technology. Energies, 2019, 12, 290. | 1.6 | 12 |
| 329 | Influence of vacuum degree on hydrogen permeation through a Pd membrane in different H ₂ /N ₂ gas mixtures. Renewable Energy, 2020, 155, 1245-1263. | 4.3 | 12 |
| 330 | Reaction and hydrogen production phenomena of ethanol steam reforming in a catalytic membrane reactor. Energy, 2021, 220, 119737. | 4.5 | 12 |
| 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. | 4.4 | 12 |
| 332 | 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. | 5.1 | 12 |
| 333 | Recent developments in biorefining of macroalgae metabolites and their industrial applications - A circular economy approach. Bioresource Technology, 2022, 359, 127235. | 4.8 | 12 |
| 334 | Oxidative torrefaction of microalga Nannochloropsis Oceanica activated by potassium carbonate for solid biofuel production. Environmental Research, 2022, 212, 113389. | 3.7 | 12 |
| 335 | Waste Burning and Heat Recovery Characteristics of a Mass Burn Incineration System. Journal of the Air and Waste Management Association, 2003, 53, 136-142. | 0.9 | 11 |
| 336 | Modeling of transient hydrogen permeation process across a palladium membrane. Applied Energy, 2010, 87, 1023-1032. | 5.1 | 11 |
| 337 | Transient reaction and exergy analysis of catalytic partial oxidation of methane in a Swiss-roll reactor for hydrogen production. International Journal of Hydrogen Energy, 2012, 37, 6608-6619. | 3.8 | 11 |
| 338 | Numerical studies of the influences of bypass on hydrogen separation in a multichannel Pd membrane system. Renewable Energy, 2017, 104, 259-270. | 4.3 | 11 |
| 339 | Fuel Property Variation of Biomass Undergoing Torrefaction. Energy Procedia, 2017, 105, 108-112. | 1.8 | 11 |
| 340 | Methanol partial oxidation accompanied by heat recirculation in a Swiss-roll reactor. Applied Energy, 2018, 232, 79-88. | 5.1 | 11 |
| 341 | An evaluation of thermal characteristics of bacterium Actinobacillus succinogenes for energy use and circular bioeconomy. Bioresource Technology, 2020, 301, 122774. | 4.8 | 11 |
| 342 | Flow field simulation and pressure drop modeling by a porous medium in <sc>PEM</sc> fuel cells. International Journal of Energy Research, 2022, 46, 163-177. | 2.2 | 11 |

| # | ARTICLE | IF | CITATIONS |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 343 | Single-Molecule Light-Sheet Microscopy with Local Nanopipette Delivery. <i>Analytical Chemistry</i> , 2021, 93, 4092-4099. | 3.2 | 11 |
| 344 | Analysis of microparticle deposition in the human lung by taguchi method and response surface methodology. <i>Environmental Research</i> , 2021, 197, 110975. | 3.7 | 11 |
| 345 | Diagnostic analysis of a small-scale incinerator by the Garson index. <i>Information Sciences</i> , 2008, 178, 4560-4570. | 4.0 | 10 |
| 346 | Effect of Wet Torrefaction on Thermal Decomposition Behavior of Microalga <i>Chlorella vulgaris</i> ESP-31. <i>Energy Procedia</i> , 2017, 105, 206-211. | 1.8 | 10 |
| 347 | Simultaneous Extraction and Emulsification of Food Waste Liquefaction Bio-Oil. <i>Energies</i> , 2018, 11, 3031. | 1.6 | 10 |
| 348 | Recent advancement in deoxygenation of fatty acids via homogeneous catalysis for biofuel production. <i>Molecular Catalysis</i> , 2022, 523, 111207. | 1.0 | 10 |
| 349 | Synergistic interaction and biochar improvement over co-torrefaction of intermediate waste epoxy resins and fir. <i>Environmental Technology and Innovation</i> , 2021, 21, 101218. | 3.0 | 10 |
| 350 | Integration of Biomass Torrefaction and Gasification based on Biomass Classification: A Review. <i>Energy Technology</i> , 2021, 9, 2001108. | 1.8 | 10 |
| 351 | Optimization for hydrogen production from methanol partial oxidation over Ni-Cu/Al ₂ O ₃ catalyst under sprays. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 40559-40572. | 3.8 | 10 |
| 352 | A Molecular Simulation Study of Silica/Polysulfone Mixed Matrix Membrane for Mixed Gas Separation. <i>Polymers</i> , 2021, 13, 2199. | 2.0 | 10 |
| 353 | Waste Plastics as an Effective Binder for Biochar Pelletization. <i>Energy & Fuels</i> , 2021, 35, 13840-13846. | 2.5 | 10 |
| 354 | Oxidative torrefaction performance of microalga <i>Nannochloropsis Oceanica</i> towards an upgraded microalgal solid biofuel. <i>Journal of Biotechnology</i> , 2021, 338, 81-90. | 1.9 | 10 |
| 355 | Redox degrees of iron-based oxygen carriers in cyclic chemical looping combustion using thermodynamic analysis. <i>Chemical Engineering Journal</i> , 2021, 426, 130834. | 6.6 | 10 |
| 356 | Valorization of Wet Oily Petrochemical Sludge via Slow Pyrolysis: Thermo-Kinetics Assessment and Artificial Neural Network Modeling. <i>Frontiers in Energy Research</i> , 2022, 9, . | 1.2 | 10 |
| 357 | Disposal of plastic mulching film through CO ₂ -assisted catalytic pyrolysis as a strategic means for microplastic mitigation. <i>Journal of Hazardous Materials</i> , 2022, 430, 128454. | 6.5 | 10 |
| 358 | A study of influence of acoustic excitation on carbon dioxide capture by a droplet. <i>Energy</i> , 2012, 37, 311-321. | 4.5 | 9 |
| 359 | Torrefaction. , 2015, , 173-192. | | 9 |
| 360 | Hydrogen production from coal-derived syngas undergoing high-temperature water gas shift reaction in a membrane reactor. <i>International Journal of Energy Research</i> , 2018, 42, 2940-2952. | 2.2 | 9 |

| # | ARTICLE | IF | CITATIONS |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 361 | Performance comparison of thermoelectric generators using different materials. <i>Energy Procedia</i> , 2019, 158, 1388-1393. | 1.8 | 9 |
| 362 | Factors Affecting the Performance of Membrane Osmotic Processes for Bioenergy Development. <i>Energies</i> , 2020, 13, 481. | 1.6 | 9 |
| 363 | Torrefaction Thermogravimetric Analysis and Kinetics of Sorghum Distilled Residue for Sustainable Fuel Production. <i>Sustainability</i> , 2021, 13, 4246. | 1.6 | 9 |
| 364 | Experimental Study on Sulfur Deactivation and Regeneration of Ni-Based Catalyst in Dry Reforming of Biogas. <i>Catalysts</i> , 2021, 11, 777. | 1.6 | 9 |
| 365 | A biorefinery approach for high value-added bioproduct (astaxanthin) from alga <i>Haematococcus</i> sp. and residue pyrolysis for biochar synthesis and metallic iron production from hematite (Fe ₂ O ₃). <i>Fuel</i> , 2021, 304, 121150. | 3.4 | 9 |
| 366 | Scavenging waves and influence distances of gas absorption around single liquid aerosols in clouds. <i>Atmospheric Environment</i> , 2006, 40, 500-511. | 1.9 | 8 |
| 367 | Hydrogen recovery and CO ₂ enrichment in single and dual Pd membrane tube systems. <i>Fuel</i> , 2018, 219, 182-195. | 3.4 | 8 |
| 368 | Performance Comparison of Industrially Produced Formaldehyde Using Two Different Catalysts. <i>Processes</i> , 2020, 8, 571. | 1.3 | 8 |
| 369 | Co-torrefaction followed by co-combustion of intermediate waste epoxy resins and woody biomass in the form of mini-pellet. <i>International Journal of Energy Research</i> , 2020, 44, 9317-9332. | 2.2 | 8 |
| 370 | Pyrolysis kinetics of potassium-impregnated rubberwood analyzed by evolutionary computation. <i>Bioresource Technology</i> , 2021, 319, 124145. | 4.8 | 8 |
| 371 | Low-temperature catalytic conversion of alkaline sewage sludge bio-oil to biodiesel: Product characteristics and reaction mechanisms. <i>Environmental Technology and Innovation</i> , 2021, 21, 101266. | 3.0 | 8 |
| 372 | Continuous amplified digital optical phase conjugator for focusing through thick, heavy scattering medium. <i>OSA Continuum</i> , 2019, 2, 703. | 1.8 | 8 |
| 373 | Flow Characterization in Healthy Airways and Airways with Chronic Obstructive Pulmonary Disease (COPD) during Different Inhalation Conditions. <i>Aerosol and Air Quality Research</i> , 2018, 18, 2680-2694. | 0.9 | 8 |
| 374 | One-Step Biodiesel Production from Waste Cooking Oil Using CaO Promoted Activated Carbon Catalyst from <i>Prunus persica</i> Seeds. <i>Catalysts</i> , 2022, 12, 592. | 1.6 | 8 |
| 375 | Convective Fuel Droplet Burning Accompanied by an Oxidizer Droplet. <i>Combustion Science and Technology</i> , 1994, 97, 271-301. | 1.2 | 7 |
| 376 | Combustion Hysteresis and Vaporization Interaction of Two Burning Droplets with Different Sizes. <i>Combustion Science and Technology</i> , 2000, 154, 229-257. | 1.2 | 7 |
| 377 | Double, Triple, and Tetra-Branchial Flame Structures around a Pair of Droplets in Tandem. <i>Combustion Science and Technology</i> , 2000, 151, 105-132. | 1.2 | 7 |
| 378 | Interactive Analysis of Waste Recycling and Energy Recovery Program in a Small-Scale Incinerator. <i>Journal of the Air and Waste Management Association</i> , 2005, 55, 1356-1366. | 0.9 | 7 |

| # | ARTICLE | IF | CITATIONS |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 379 | Exergy analysis of an EFC/PV/Battery-based hybrid power generation system. <i>International Journal of Energy Research</i> , 2015, 39, 406-417. | 2.2 | 7 |
| 380 | Effects of torrefaction and water washing on the properties and combustion reactivity of various wastes. <i>International Journal of Energy Research</i> , 2021, 45, 8125-8139. | 2.2 | 7 |
| 381 | Aerosol deposition and airflow dynamics in healthy and asthmatic human airways during inhalation. <i>Journal of Hazardous Materials</i> , 2021, 416, 125856. | 6.5 | 7 |
| 382 | Hydrogen permeation in a palladium membrane tube: Impacts of outlet and vacuum degree. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 40787-40802. | 3.8 | 7 |
| 383 | Catalytic microwave torrefaction of microalga <i>Chlorella vulgaris</i> FSP-E with magnesium oxide optimized via taguchi approach: A thermo-energetic analysis. <i>Chemosphere</i> , 2022, 290, 133374. | 4.2 | 7 |
| 384 | Investigation of Biomass Integrated Air Gasification Regenerative Gas Turbine Power Plants. <i>Energies</i> , 2022, 15, 741. | 1.6 | 7 |
| 385 | Double Flame and Multiple Solution Computations for a Wetted Porous Sphere Vaporizing in Reactive Flows. <i>Combustion Science and Technology</i> , 1994, 102, 115-143. | 1.2 | 6 |
| 386 | Hysteresis effects of two interactive droplets burning in convective flows. <i>Proceedings of the Combustion Institute</i> , 1998, 27, 1923-1932. | 0.3 | 6 |
| 387 | Designing Image Processing Pipeline for Color Imaging Systems. , 0, , . | | 6 |
| 388 | Entropy generation from hydrogen production of catalytic partial oxidation of methane with excess enthalpy recovery. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 14167-14177. | 3.8 | 6 |
| 389 | Enhancement of heat recirculation on the hysteresis effect of catalytic partial oxidation of methane. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 10394-10406. | 3.8 | 6 |
| 390 | Kinetics development and numerical simulation of methane thermocatalytic decomposition at the early stage and steady state. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 5270-5284. | 3.8 | 6 |
| 391 | Kinetics and thermodynamics dataset of iron oxide reduction using torrefied microalgae for chemical looping combustion. <i>Data in Brief</i> , 2020, 29, 105261. | 0.5 | 6 |
| 392 | Identification of Suitable Biomass Torrefaction Operation Envelops for Auto-Thermal Operation. <i>Frontiers in Energy Research</i> , 2021, 9, . | 1.2 | 6 |
| 393 | Multistage carbon dioxide compressor efficiency enhancement using waste heat powered absorption chillers. <i>Energy Science and Engineering</i> , 2021, 9, 1373-1384. | 1.9 | 6 |
| 394 | Thermodynamic analysis of integrated adiabatic chemical looping combustion and supercritical CO ₂ cycle. <i>Energy Conversion and Management: X</i> , 2021, 10, 100078. | 0.9 | 6 |
| 395 | Performance Analysis of a Printed Circuit Heat Exchanger with a Novel Mirror-Symmetric Channel Design. <i>Energies</i> , 2021, 14, 4252. | 1.6 | 6 |
| 396 | Heat transfer performance comparison of printed circuit heat exchangers with straight, zigzag and serpentine flow channels for waste heat recovery. <i>International Journal of Energy Research</i> , 2022, 46, 1722-1735. | 2.2 | 6 |

| # | ARTICLE | IF | CITATIONS |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 397 | Assessment of the emission factors for potentially toxic elements from coal-fired boilers and sintering furnaces in a steel production plant. <i>Science of the Total Environment</i> , 2021, 792, 148329. | 3.9 | 6 |
| 398 | Two-phase Flow Dynamics and PM2.5 Deposition in Healthy and Obstructed Human Airways during Inhalation. <i>Aerosol and Air Quality Research</i> , 2020, 20, 1091-1110. | 0.9 | 6 |
| 399 | Simultaneous fault diagnosis based on multiple kernel support vector machine in nonlinear dynamic distillation column. <i>Energy Science and Engineering</i> , 2022, 10, 814-839. | 1.9 | 6 |
| 400 | Transient SO2 uptake dynamics in an atmospheric water aerosol with internal circulation and chemical dissociation. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2012, 77, 67-77. | 0.6 | 5 |
| 401 | A theoretical approach of absorption processes of air pollutants in sprays under droplet-droplet interaction. <i>Science of the Total Environment</i> , 2013, 444, 336-346. | 3.9 | 5 |
| 402 | Effects of impregnated potassium on biomass torrefaction. <i>Energy Procedia</i> , 2019, 158, 55-60. | 1.8 | 5 |
| 403 | System Identification of Industrial Debutanizer Column. , 2019, , . | | 5 |
| 404 | Modelling drying kinetic of oyster mushroom dehydration – The optimization of drying conditions for dehydration of <i>Pleurotus</i> species. <i>Materials Science for Energy Technologies</i> , 2020, 3, 840-845. | 1.0 | 5 |
| 405 | An investigation for airflow and deposition of PM2.5 contaminated with SAR-CoV-2 virus in healthy and diseased human airway. <i>Environmental Research</i> , 2021, 197, 111096. | 3.7 | 5 |
| 406 | Energy balance of torrefied microalgal biomass with production upscale approached by life cycle assessment. <i>Journal of Environmental Management</i> , 2021, 294, 112992. | 3.8 | 5 |
| 407 | Partially Premixed Flame Structure and Stability of Twin Droplets in Flows. <i>Journal of Heat Transfer</i> , 2000, 122, 730-740. | 1.2 | 4 |
| 408 | Comparative study on temperature-dependent characteristics of InP-InGaAs single- and double-heterojunction bipolar transistors. <i>Journal of Vacuum Science & Technology B</i> , 2008, 26, 618-623. | 1.3 | 4 |
| 409 | Bamboo Torrefaction in a High Gravity (Hige) Environment Using a Rotating Packed Bed. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 7052-7062. | 3.2 | 4 |
| 410 | Exploring the potency of integrating semi-batch operation into lipid yield performance of <i>Chlamydomonas</i> sp. Tai-03. <i>Bioresource Technology</i> , 2019, 285, 121331. | 4.8 | 4 |
| 411 | Process system analysis on oil processing facility and economic viability from oil well-to-tank. <i>SN Applied Sciences</i> , 2021, 3, 1. | 1.5 | 4 |
| 412 | Ultra-low PCDD/F emissions and their particle size and mass distribution in a hazardous waste treatment system. <i>Journal of Hazardous Materials</i> , 2022, 423, 127032. | 6.5 | 4 |
| 413 | Characterization of Transient CO2 Transport in Two Convecting Aerosol Droplets in Tandem. <i>Aerosol and Air Quality Research</i> , 2014, 14, 207-219. | 0.9 | 4 |
| 414 | Upgrading spent battery separator into syngas and hydrocarbons through CO2-Assisted thermochemical platform. <i>Energy</i> , 2022, 242, 122552. | 4.5 | 4 |

| # | ARTICLE | IF | CITATIONS |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 415 | Elemental loss, enrichment, transformation and life cycle assessment of torrefied corncob. <i>Energy</i> , 2022, 242, 123019. | 4.5 | 4 |
| 416 | Simulation of steam gasification of halophyte biomass for syngas production using Aspen Plus®. <i>Biomass Conversion and Biorefinery</i> , 0, , 1. | 2.9 | 4 |
| 417 | Application of unthresholded recurrence plots and texture analysis for industrial loops with faulty valves. <i>Soft Computing</i> , 2022, 26, 10477-10492. | 2.1 | 4 |
| 418 | Reactor design of methanol steam reforming by evolutionary computation and hydrogen production maximization by machine learning. <i>International Journal of Energy Research</i> , 2022, 46, 20685-20703. | 2.2 | 4 |
| 419 | MODEL OF UNSTEADY _n -OCTANE DROPLET BURNING IN HIGH-TEMPERATURE STREAMS. <i>Combustion Science and Technology</i> , 2004, 176, 183-213. | 1.2 | 3 |
| 420 | Temperature-dependent characteristics of an InP/InGaAs double heterojunction bipolar transistor with a step-graded InAlGaAs collector. <i>Journal of Applied Physics</i> , 2008, 103, 114506. | 1.1 | 3 |
| 421 | Influence of reactor rotating speed on bamboo torrefaction. <i>Energy Procedia</i> , 2017, 142, 131-135. | 1.8 | 3 |
| 422 | Density Functional Theory-based modeling and calculations of a polyamide molecular unit for studying forward-osmosis-dewatering of microalgae. , 2018, , . | | 3 |
| 423 | Thermochemical conversion of microalgal biomass. , 2019, , 345-382. | | 3 |
| 424 | Green Energy Technology. <i>Energies</i> , 2021, 14, 6842. | 1.6 | 3 |
| 425 | Computational thermodynamics-assisted design of nitrate-based phase change materials for waste heat recovery. <i>International Journal of Energy Research</i> , 2022, 46, 14452-14461. | 2.2 | 3 |
| 426 | Hydrogen production optimization from methanol partial oxidation via ultrasonic sprays using response surface methodology and analysis of variance. <i>International Journal of Energy Research</i> , 2022, 46, 16839-16853. | 2.2 | 3 |
| 427 | Transient Mass Transfer and Vortex Bifurcation of an Aerosol Droplet in Motion. <i>Aerosol Science and Technology</i> , 2003, 37, 640-658. | 1.5 | 2 |
| 428 | Planning of methane emission control from hoggerly using an inexact two-stage optimization model. <i>Journal of the Air and Waste Management Association</i> , 2014, 64, 1140-1153. | 0.9 | 2 |
| 429 | Catalytic pyrolysis of biomass using shape-selective zeolites for bio-oil enhancement. , 2021, , 39-60. | | 2 |
| 430 | https://www.crossref.org/webDeposit/ . <i>Aerosol and Air Quality Research</i> , 2021, , 200624. | 0.9 | 2 |
| 431 | Editorial: "Torrefaction Pretreatment for Biomass Upgrading: Fundamentals and Technologies". <i>Frontiers in Energy Research</i> , 2021, 9, . | 1.2 | 2 |
| 432 | BRACHIAL BURNING AND GASIFICATION SPLIT OF A CONVECTING TWO-DROPLET SYSTEM. , 2002, 12, 29-48. | | 2 |

| # | ARTICLE | IF | CITATIONS |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 433 | Optimization of hydrogen enrichment via palladium membrane in vacuum environments using Taguchi method and normalized regression analysis. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 42280-42292. | 3.8 | 2 |
| 434 | Influence of the heating rate on the thermodegradation during the mild pyrolysis of the wood. <i>Wood Material Science and Engineering</i> , 2023, 18, 412-421. | 1.1 | 2 |
| 435 | Synthesis of Mesoporous Cu-Ni/Al ₂ O ₄ Catalyst for Hydrogen Production via Hydrothermal Reconstruction Route. <i>Catalysts</i> , 2022, 12, 32. | 1.6 | 2 |
| 436 | Tri-brachial flames around two interactive droplets in flows with fuel vapor. <i>International Communications in Heat and Mass Transfer</i> , 2001, 28, 545-554. | 2.9 | 1 |
| 437 | Newborn Screening for Phenylketonuria: Machine Learning vs Clinicians. , 2012, , . | | 1 |
| 438 | Preface to the special issue on "Advanced Hydrogen Production Technology". <i>International Journal of Hydrogen Energy</i> , 2019, 44, 14257. | 3.8 | 1 |
| 439 | Editorial for the special issue on Sustainable Energy and Green Technologies (<sc>SEGT</sc> 2018). <i>International Journal of Energy Research</i> , 2020, 44, 9244-9245. | 2.2 | 1 |
| 440 | Feasibility study of polypropylene-based aluminium-air battery. <i>IOP Conference Series: Earth and Environmental Science</i> , 2020, 463, 012155. | 0.2 | 1 |
| 441 | Guest Editorial for the special issue on Sustainable Energy Technologies. <i>International Journal of Energy Research</i> , 2022, 46, 5-5. | 2.2 | 1 |
| 442 | Behavior of wood during the thermal transition between torrefaction and pyrolysis: chemical and physical modifications.. <i>Wood Material Science and Engineering</i> , 2023, 18, 244-253. | 1.1 | 1 |
| 443 | Optimization analysis of hydrogen separation from an H ₂ /CO ₂ gas mixture via a palladium membrane with a vacuum using response surface methodology. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 42266-42279. | 3.8 | 1 |
| 444 | Major Air Components. <i>Chromatographic Science</i> , 2005, , 243-261. | 0.1 | 0 |
| 445 | Diagnosis analysis of a small-scale incinerator by neural networks model. <i>Civil Engineering and Environmental Systems</i> , 2008, 25, 201-213. | 0.4 | 0 |
| 446 | Investigation of InP/InGaAs Double Heterojunction Bipolar Transistor (DHBT) with a step-graded InAlGaAs/InP collector structure. , 2008, , . | | 0 |
| 447 | Characteristics of an InP-InGaAs Double Heterojunction Bipolar Transistor with an InAlGaAs-InP Composite Collector Structure. <i>Journal of the Electrochemical Society</i> , 2008, 155, H136. | 1.3 | 0 |
| 448 | Biogas partial oxidation in a heat recirculation reactor for syngas production. <i>Energy Procedia</i> , 2017, 142, 125-130. | 1.8 | 0 |
| 449 | Determining the Sustainability of a Community Micro Hydro Power System using Real Options Analysis. <i>IOP Conference Series: Earth and Environmental Science</i> , 2019, 268, 012108. | 0.2 | 0 |
| 450 | The Environmental Performance of Torrefied Microalgae Biomass using Torrefaction Severity Factor. , 2019, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 451 | For the special issue on “Sustainable Hydrogen Technology, December 11–14, 2018, Kuala Lumpur, Malaysia”, International Journal of Hydrogen Energy, 2020, 45, 22207-22208. | 3.8 | 0 |
| 452 | Numerical studies on flame structure of two interactive droplets in spray. , 1999, , . | | 0 |
| 453 | Two-Wavelength Optical Microscope Optical Axis Adjustment by Five Incident Parallel Laser Beams. Lecture Notes in Electrical Engineering, 2016, , 773-782. | 0.3 | 0 |
| 454 | Fast measurement of chromatic BSDF and its application to LED lighting. , 2019, , . | | 0 |