# Xianguo Li

## List of Publications by Citations



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| 174 papers | 9,007 citations | 51 h-index | 90 g-index |
| 188 ext. papers | 10,522 ext. citations | 6.9 avg, IF | 6.77 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 174 | Review of bipolar plates in PEM fuel cells: Flow-field designs. *International Journal of Hydrogen Energy*, **2005**, 30, 359-371 | 6.7 | 589 |
| 173 | Water transport in polymer electrolyte membrane fuel cells. *Progress in Energy and Combustion Science*, **2011**, 37, 221-291 | 33.6 | 505 |
| 172 | Carbon monoxide poisoning of proton exchange membrane fuel cells. *International Journal of Energy Research*, **2001**, 25, 695-713 | 4.5 | 403 |
| 171 | Mathematical modeling of proton exchange membrane fuel cells. *Journal of Power Sources*, **2001**, 102, 82-96 | 8.9 | 378 |
| 170 | Modelling of polymer electrolyte membrane fuel cells with variable degrees of water flooding. *Journal of Power Sources*, **2000**, 86, 181-196 | 8.9 | 297 |
| 169 | Composition and performance modelling of catalyst layer in a proton exchange membrane fuel cell. *Journal of Power Sources*, **1999**, 77, 17-27 | 8.9 | 237 |
| 168 | Thermal management of lithium-ion batteries for electric vehicles. *International Journal of Energy Research*, **2013**, 37, 13-24 | 4.5 | 227 |
| 167 | On the temporal instability of a two-dimensional viscous liquid sheet. *Journal of Fluid Mechanics*, **1991**, 226, 425-443 | 3.7 | 151 |
| 166 | A flow channel design procedure for PEM fuel cells with effective water removal. *Journal of Power Sources*, **2007**, 163, 933-942 | 8.9 | 143 |
| 165 | On the modeling of water transport in polymer electrolyte membrane fuel cells. *Electrochimica Acta*, **2009**, 54, 6913-6927 | 6.7 | 136 |
| 164 | Effective transport properties for polymer electrolyte membrane fuel cells □With a focus on the gas diffusion layer. *Progress in Energy and Combustion Science*, **2013**, 39, 111-146 | 33.6 | 131 |
| 163 | Effect of contaminants on polymer electrolyte membrane fuel cells. *Progress in Energy and Combustion Science*, **2011**, 37, 292-329 | 33.6 | 126 |
| 162 | Three-dimensional multiphase modeling of cold start processes in polymer electrolyte membrane fuel cells. *Electrochimica Acta*, **2009**, 54, 6876-6891 | 6.7 | 124 |
| 161 | A review of polymer electrolyte membrane fuel cell durability for vehicular applications: Degradation modes and experimental techniques. *Energy Conversion and Management*, **2019**, 199, 112022 | 10.6 | 122 |
| 160 | Effective transport coefficients in PEM fuel cell catalyst and gas diffusion layers: Beyond Bruggeman approximation. *Applied Energy*, **2010**, 87, 2785-2796 | 10.7 | 121 |
| 159 | Performance analyses of sensible heat storage systems for thermal applications. *International Journal of Energy Research*, **1997**, 21, 1157-1171 | 4.5 | 120 |
| 158 | Diversification and localization of energy systems for sustainable development and energy security. *Energy Policy*, **2005**, 33, 2237-2243 | 7.2 | 111 |

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| 157 | Experimental measurement of effective diffusion coefficient of gas diffusion layer/microporous layer in PEM fuel cells. *Electrochimica Acta*, **2012**, 65, 13-21 | 6.7 | 107 |
| 156 | Experimental investigations on liquid water removal from the gas diffusion layer by reactant flow in a PEM fuel cell. *Applied Energy*, **2010**, 87, 2770-2777 | 10.7 | 101 |
| 155 | An experimental and numerical investigation on the cross flow through gas diffusion layer in a PEM fuel cell with a serpentine flow channel. *Journal of Power Sources*, **2007**, 163, 853-863 | 8.9 | 99 |
| 154 | Correlation for the Effective Gas Diffusion Coefficient in Carbon Paper Diffusion Media. *Energy & Fuels*, **2009**, 23, 6070-6078 | 4.1 | 95 |
| 153 | Analysis of liquid water transport in cathode catalyst layer of PEM fuel cells. *International Journal of Hydrogen Energy*, **2010**, 35, 2403-2416 | 6.7 | 93 |
| 152 | Humidification strategy for polymer electrolyte membrane fuel cells – A review. *Applied Energy*, **2018**, 230, 643-662 | 10.7 | 93 |
| 151 | Effective removal and transport of water in a PEM fuel cell flow channel having a hydrophilic plate. *Applied Energy*, **2014**, 113, 116-126 | 10.7 | 92 |
| 150 | Experimental measurements of effective diffusion coefficient of oxygen–nitrogen mixture in PEM fuel cell diffusion media. *Chemical Engineering Science*, **2010**, 65, 931-937 | 4.4 | 91 |
| 149 | Modelling CO poisoning and O2 bleeding in a PEM fuel cell anode. *International Journal of Energy Research*, **2003**, 27, 1095-1116 | 4.5 | 91 |
| 148 | A review of gas diffusion layers for proton exchange membrane fuel cells—With a focus on characteristics, characterization techniques, materials and designs. *Progress in Energy and Combustion Science*, **2019**, 74, 50-102 | 33.6 | 87 |
| 147 | Multi-phase micro-scale flow simulation in the electrodes of a PEM fuel cell by lattice Boltzmann method. *Journal of Power Sources*, **2008**, 178, 248-257 | 8.9 | 85 |
| 146 | Effects of various operating and initial conditions on cold start performance of polymer electrolyte membrane fuel cells. *International Journal of Hydrogen Energy*, **2009**, 34, 8171-8184 | 6.7 | 83 |
| 145 | Measurement of through-plane effective thermal conductivity and contact resistance in PEM fuel cell diffusion media. *Electrochimica Acta*, **2010**, 55, 1619-1625 | 6.7 | 83 |
| 144 | Simultaneous measurement of current and temperature distributions in a proton exchange membrane fuel cell during cold start processes. *Electrochimica Acta*, **2011**, 56, 2967-2982 | 6.7 | 82 |
| 143 | Application of lattice Boltzmann method to a micro-scale flow simulation in the porous electrode of a PEM fuel cell. *Journal of Power Sources*, **2007**, 173, 404-414 | 8.9 | 82 |
| 142 | Non-isothermal transient modeling of water transport in PEM fuel cells. *Journal of Power Sources*, **2007**, 165, 232-243 | 8.9 | 80 |
| 141 | Effect of flow and temperature distribution on the performance of a PEM fuel cell stack. *Journal of Power Sources*, **2006**, 162, 444-459 | 8.9 | 80 |
| 140 | Enhancing fuel cell durability for fuel cell plug-in hybrid electric vehicles through strategic power management. *Applied Energy*, **2019**, 241, 483-490 | 10.7 | 78 |

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| 139 | Estimating effective thermal conductivity in carbon paper diffusion media. *Chemical Engineering Science*, **2010**, 65, 3994-4006 | 4.4 | 77 |
| 138 | Cold start characteristics of proton exchange membrane fuel cells. *International Journal of Hydrogen Energy*, **2011**, 36, 11832-11845 | 6.7 | 76 |
| 137 | Numerical investigations on liquid water removal from the porous gas diffusion layer by reactant flow. *Applied Energy*, **2010**, 87, 2180-2186 | 10.7 | 75 |
| 136 | Performance analysis and optimization of PEM fuel cell stacks using flow network approach. *Journal of Power Sources*, **2005**, 147, 162-177 | 8.9 | 72 |
| 135 | Cold start analysis of polymer electrolyte membrane fuel cells. *International Journal of Hydrogen Energy*, **2010**, 35, 5077-5094 | 6.7 | 69 |
| 134 | Measurements of heat generation in prismatic Li-ion batteries. *Journal of Power Sources*, **2014**, 261, 28-38 | 8.9 | 67 |
| 133 | Cross-leakage flow between adjacent flow channels in PEM fuel cells. *Journal of Power Sources*, **2006**, 162, 415-425 | 8.9 | 67 |
| 132 | Analytical approach to polymer electrolyte membrane fuel cell performance and optimization. *Journal of Electroanalytical Chemistry*, **2007**, 604, 72-90 | 4.1 | 66 |
| 131 | A general formulation for a mathematical PEM fuel cell model. *Journal of Power Sources*, **2005**, 142, 134-153 | 8.9 | 66 |
| 130 | Gas diffusion layer deformation and its effect on the transport characteristics and performance of proton exchange membrane fuel cell. *International Journal of Hydrogen Energy*, **2013**, 38, 12891-12903 | 6.7 | 65 |
| 129 | Measurement of in-plane thermal conductivity of carbon paper diffusion media in the temperature range of −20°C to +120°C. *Applied Energy*, **2011**, 88, 3042-3050 | 10.7 | 64 |
| 128 | Three-dimensional non-isothermal modeling of carbon monoxide poisoning in high temperature proton exchange membrane fuel cells with phosphoric acid doped polybenzimidazole membranes. *Fuel*, **2011**, 90, 568-582 | 7.1 | 61 |
| 127 | Nonlinear instability of plane liquid sheets. *Journal of Fluid Mechanics*, **2000**, 406, 281-308 | 3.7 | 59 |
| 126 | Effect of liquid water on transport properties of the gas diffusion layer of polymer electrolyte membrane fuel cells. *International Journal of Hydrogen Energy*, **2011**, 36, 5466-5478 | 6.7 | 56 |
| 125 | A Three-Dimensional Non-isothermal Model of High Temperature Proton Exchange Membrane Fuel Cells with Phosphoric Acid Doped Polybenzimidazole Membranes. *Fuel Cells*, **2010**, 10, 351-362 | 2.9 | 55 |
| 124 | A general electrolyte–electrode-assembly model for the performance characteristics of planar anode-supported solid oxide fuel cells. *Journal of Power Sources*, **2009**, 189, 916-928 | 8.9 | 52 |
| 123 | Numerical analysis of dynamic processes in fully humidified PEM fuel cells. *International Journal of Hydrogen Energy*, **2007**, 32, 2022-2031 | 6.7 | 51 |
| 122 | Transient analysis of carbon monoxide poisoning and oxygen bleeding in a PEM fuel cell anode catalyst layer. *International Journal of Hydrogen Energy*, **2008**, 33, 1335-1344 | 6.7 | 51 |

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|---|---|---|---|
| 121 | Numerical estimation of the effective electrical conductivity in carbon paper diffusion media. *Applied Energy*, **2012**, 93, 39-44 | 10.7 | 50 |
| 120 | A comprehensive, consistent and systematic mathematical model of PEM fuel cells. *Applied Energy*, **2009**, 86, 181-193 | 10.7 | 50 |
| 119 | Measurement of the through-plane thermal conductivity of carbon paper diffusion media for the temperature range from −30 to +120°C. *International Journal of Hydrogen Energy*, **2011**, 36, 12618-12625 | 6.7 | 49 |
| 118 | Steady and unsteady 3D non-isothermal modeling of PEM fuel cells with the effect of non-equilibrium phase transfer. *Applied Energy*, **2010**, 87, 2778-2784 | 10.7 | 48 |
| 117 | A three-dimensional agglomerate model for the cathode catalyst layer of PEM fuel cells. *Journal of Power Sources*, **2008**, 179, 186-199 | 8.9 | 48 |
| 116 | Multi-component mathematical model of solid oxide fuel cell anode. *International Journal of Energy Research*, **2005**, 29, 1083-1101 | 4.5 | 46 |
| 115 | Numerical investigation of water dynamics in a novel proton exchange membrane fuel cell flow channel. *Journal of Power Sources*, **2013**, 222, 150-160 | 8.9 | 44 |
| 114 | A parametric study of multi-phase and multi-species transport in the cathode of PEM fuel cells. *International Journal of Energy Research*, **2008**, 32, 698-721 | 4.5 | 44 |
| 113 | Gas permeability of catalyzed electrodes in polymer electrolyte membrane fuel cells. *Applied Energy*, **2018**, 209, 203-210 | 10.7 | 43 |
| 112 | Modeling of PEMFC Transients with Finite-Rate Phase-Transfer Processes. *Journal of the Electrochemical Society*, **2010**, 157, B1 | 3.9 | 42 |
| 111 | Effect of volumetric radiation on natural convection in a square cavity using lattice Boltzmann method with non-uniform lattices. *International Journal of Heat and Mass Transfer*, **2010**, 53, 4935-4948 | 4.9 | 42 |
| 110 | Assessment of graphene as an alternative microporous layer material for proton exchange membrane fuel cells. *Fuel*, **2018**, 215, 726-734 | 7.1 | 41 |
| 109 | Impact of manufacturing processes on proton exchange membrane fuel cell performance. *Applied Energy*, **2018**, 225, 1022-1032 | 10.7 | 40 |
| 108 | Effects of a microporous layer on the performance degradation of proton exchange membrane fuel cells through repetitive freezing. *Journal of Power Sources*, **2011**, 196, 1940-1947 | 8.9 | 39 |
| 107 | Measurement of in-plane effective thermal conductivity in PEM fuel cell diffusion media. *Electrochimica Acta*, **2011**, 56, 1670-1675 | 6.7 | 39 |
| 106 | Numerical simulations of carbon monoxide poisoning in high temperature proton exchange membrane fuel cells with various flow channel designs. *Applied Energy*, **2013**, 104, 21-41 | 10.7 | 38 |
| 105 | Experimental investigation on cellular breakup of a planar liquid sheet from an air-blast nozzle. *Physics of Fluids*, **2004**, 16, 625-632 | 4.4 | 38 |
| 104 | Through-plane thermal conductivity of the microporous layer in a polymer electrolyte membrane fuel cell. *International Journal of Hydrogen Energy*, **2012**, 37, 5161-5169 | 6.7 | 36 |

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| 103 | Multicomponent evaporation model for pure and blended biodiesel droplets in high temperature convective environment. *Applied Energy*, **2012**, 93, 71-79 | 10.7 | 36 |
| 102 | Three-dimensional simulation of water droplet movement in PEM fuel cell flow channels with hydrophilic surfaces. *International Journal of Energy Research*, **2011**, 35, 1200-1212 | 4.5 | 36 |
| 101 | Development and impact of sandwich wettability structure for gas distribution media on PEM fuel cell performance. *Applied Energy*, **2011**, 88, 2168-2175 | 10.7 | 36 |
| 100 | Degradation of gas diffusion layers through repetitive freezing. *Applied Energy*, **2011**, 88, 5111-5119 | 10.7 | 35 |
| 99 | Effect of humidity and thermal cycling on the catalyst layer structural changes in polymer electrolyte membrane fuel cells. *Energy Conversion and Management*, **2019**, 189, 24-32 | 10.6 | 33 |
| 98 | Effect of Pt loading and catalyst type on the pore structure of porous electrodes in polymer electrolyte membrane (PEM) fuel cells. *Energy*, **2018**, 150, 69-76 | 7.9 | 33 |
| 97 | Cathode catalyst layer design with gradients of ionomer distribution for proton exchange membrane fuel cells. *Energy Conversion and Management*, **2018**, 171, 1476-1486 | 10.6 | 33 |
| 96 | The impact of short side chain ionomer on polymer electrolyte membrane fuel cell performance and durability. *Applied Energy*, **2018**, 217, 295-302 | 10.7 | 32 |
| 95 | Modeling the depleting mechanism of urea-water-solution droplet for automotive selective catalytic reduction systems. *AICHE Journal*, **2011**, 57, 3210-3225 | 3.6 | 32 |
| 94 | Effects of catalyst layer structure and wettability on liquid water transport in polymer electrolyte membrane fuel cell. *International Journal of Energy Research*, **2011**, 35, 1325-1339 | 4.5 | 32 |
| 93 | Experimental study on the effect of reactant flow arrangements on the current distribution in proton exchange membrane fuel cells. *Electrochimica Acta*, **2011**, 56, 2591-2598 | 6.7 | 32 |
| 92 | Investigation of catalytic vs reactant transport effect of catalyst layers on proton exchange membrane fuel cell performance. *Fuel*, **2017**, 208, 321-328 | 7.1 | 31 |
| 91 | Pore structure and effective diffusion coefficient of catalyzed electrodes in polymer electrolyte membrane fuel cells. *International Journal of Hydrogen Energy*, **2018**, 43, 3776-3785 | 6.7 | 30 |
| 90 | Accurate determination of battery discharge characteristics □A comparison between two battery temperature control methods. *Journal of Power Sources*, **2014**, 247, 961-966 | 8.9 | 30 |
| 89 | Modelling of polymer electrolyte membrane fuel cell stacks based on a hydraulic network approach. *International Journal of Energy Research*, **2004**, 28, 697-724 | 4.5 | 30 |
| 88 | Development of a low temperature decal transfer method for the fabrication of proton exchange membrane fuel cells. *International Journal of Hydrogen Energy*, **2017**, 42, 11813-11822 | 6.7 | 29 |
| 87 | A graphene-based microporous layer for proton exchange membrane fuel cells: Characterization and performance comparison. *Renewable Energy*, **2018**, 126, 485-494 | 8.1 | 29 |
| 86 | Numerical simulation of air flow through turbocharger compressors with dual volute design. *Applied Energy*, **2009**, 86, 2494-2506 | 10.7 | 29 |

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| 85 | Oil cooling for disk-type transformer windings-part 1: theory and model development. *IEEE Transactions on Power Delivery*, **2006**, 21, 1318-1325 | 4.3 | 29 |
| 84 | Mathematical model of a PEM fuel cell incorporating CO poisoning and O2 (air) bleeding. *International Journal of Global Energy Issues*, **2003**, 20, 245 | 0.3 | 29 |
| 83 | Breakup of annular viscous liquid jets in two gas streams. *Journal of Propulsion and Power*, **1996**, 12, 752-759 | 1.8 | 29 |
| 82 | Experimental Observations of Microstructure Changes in the Catalyst Layers of Proton Exchange Membrane Fuel Cells under Wet-Dry Cycles. *Journal of the Electrochemical Society*, **2018**, 165, F3337-F3345 | 3.9 | 29 |
| 81 | Experiments and modeling of heat transfer in oil transformer winding with zigzag cooling ducts. *Applied Thermal Engineering*, **2008**, 28, 36-48 | 5.8 | 28 |
| 80 | Effect of wettability on water removal from the gas diffusion layer surface in a novel proton exchange membrane fuel cell flow channel. *International Journal of Hydrogen Energy*, **2013**, 38, 12879-12885 | 6.7 | 27 |
| 79 | A Droplet Vaporization Model for Spray Calculations. *Particle and Particle Systems Characterization*, **1992**, 9, 59-65 | 3.1 | 27 |
| 78 | A performance assessment study on solid oxide fuel cells for reduced operating temperatures. *International Journal of Hydrogen Energy*, **2015**, 40, 7791-7797 | 6.7 | 25 |
| 77 | Coolant flow distribution and pressure loss in ONAN transformer windings $Part I: Theory and model development. *IEEE Transactions on Power Delivery*, **2004**, 19, 186-193 | 4.3 | 25 |
| 76 | A Predictive Model for the Initial Droplet Size and Velocity Distributions in Sprays and Comparison with Experiments. *Particle and Particle Systems Characterization*, **2003**, 20, 135-149 | 3.1 | 25 |
| 75 | Oxygen transport in polymer electrolyte membrane fuel cells based on measured electrode pore structure and mass transport properties. *Energy Conversion and Management*, **2019**, 186, 570-585 | 10.6 | 24 |
| 74 | Effect of surface dynamic wettability in proton exchange membrane fuel cells. *International Journal of Hydrogen Energy*, **2010**, 35, 9095-9103 | 6.7 | 24 |
| 73 | Experimental diagnostics of PEM fuel cells. *International Journal of Environmental Studies*, **2006**, 63, 377-389 | 1.8 | 23 |
| 72 | Improved experimental method for measuring gas diffusivity through thin porous media. *AICHE Journal*, **2013**, 59, 1409-1419 | 3.6 | 21 |
| 71 | Analysis and modeling of PEM fuel cell stack performance: Effect of in situ reverse water gas shift reaction and oxygen bleeding. *Journal of Power Sources*, **2006**, 159, 943-950 | 8.9 | 21 |
| 70 | Effect of gas stream swirls on the instability of viscous annular liquid jets. *Acta Mechanica*, **2005**, 176, 61-81 | 2.1 | 21 |
| 69 | Impact of ionomer in the catalyst layers on proton exchange membrane fuel cell performance under different reactant flows and pressures. *Fuel*, **2018**, 227, 35-41 | 7.1 | 20 |
| 68 | Two-dimensional analysis of PEM fuel cells. *Journal of Applied Electrochemistry*, **2004**, 34, 205-215 | 2.6 | 20 |

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| 67 | Modeling of ion and water transport in the polymer electrolyte membrane of PEM fuel cells. *International Journal of Hydrogen Energy*, **2010**, 35, 5095-5103 | 6.7 | 19 |
| 66 | Modeling and Simulation of PEM Fuel Cells With CO Poisoning. *Journal of Energy Resources Technology, Transactions of the ASME*, **2003**, 125, 94-100 | 2.6 | 19 |
| 65 | Degradations in porous components of a proton exchange membrane fuel cell under freeze-thaw cycles: Morphology and microstructure effects. *International Journal of Hydrogen Energy*, **2020**, 45, 3618-3631 | 6.7 | 19 |
| 64 | A novel membrane electrode assembly design for proton exchange membrane fuel cells: Characterization and performance evaluation. *Electrochimica Acta*, **2019**, 299, 809-819 | 6.7 | 18 |
| 63 | Modeling of liquid water transport in a proton exchange membrane fuel cell gas flow channel with dynamic wettability. *International Journal of Energy Research*, **2018**, 42, 3315-3327 | 4.5 | 17 |
| 62 | Calculated Characteristics of Droplet Size and Velocity Distributions in liquid sprays. *Particle and Particle Systems Characterization*, **1990**, 7, 54-59 | 3.1 | 17 |
| 61 | A PREDICTIVE MODEL FOR DROPLET SIZE DISTRIBUTION IN SPRAYS. *Atomization and Sprays*, **1999**, 9, 29-50 | 1.2 | 17 |
| 60 | A modeling and experimental study of capacity fade for lithium-ion batteries. *Energy and AI*, **2020**, 2, 100032 | 12.6 | 17 |
| 59 | Coolant flow distribution and pressure loss in ONAN transformer windings. Part II: Optimization of design parameters. *IEEE Transactions on Power Delivery*, **2004**, 19, 194-199 | 4.3 | 16 |
| 58 | Effect of catalyst deposition on electrode structure, mass transport and performance of polymer electrolyte membrane fuel cells. *Applied Energy*, **2019**, 255, 113802 | 10.7 | 15 |
| 57 | Oil cooling for disk-type transformer windings-part II: parametric studies of design parameters. *IEEE Transactions on Power Delivery*, **2006**, 21, 1326-1332 | 4.3 | 15 |
| 56 | Experimental Study of Sprays from Annular Liquid Jet Breakup. *Journal of Propulsion and Power*, **1999**, 15, 103-110 | 1.8 | 15 |
| 55 | The impact of ionomer type on the morphological and microstructural degradations of proton exchange membrane fuel cell electrodes under freeze-thaw cycles. *Applied Energy*, **2019**, 238, 1048-1059 | 10.7 | 14 |
| 54 | Membrane and electrode engineering of high-performance lithium-sulfur batteries modified by stereotaxically-constructed graphene. *Journal of Alloys and Compounds*, **2020**, 834, 155096 | 5.7 | 14 |
| 53 | The role of flow-field layout on the conditioning of a proton exchange membrane fuel cell. *Fuel*, **2018**, 230, 98-103 | 7.1 | 14 |
| 52 | A Review of physics-based and data-driven models for real-time control of polymer electrolyte membrane fuel cells. *Energy and AI*, **2021**, 6, 100114 | 12.6 | 14 |
| 51 | Temporal instability of plane gas sheets in a viscous liquid medium. *Physics of Fluids*, **1996**, 8, 103-111 | 4.4 | 13 |
| 50 | On the Prediction of Droplet Size and Velocity distributions in sprays through maximum entropy principle. *Particle and Particle Systems Characterization*, **1992**, 9, 195-201 | 3.1 | 13 |

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| 49 | Thermodynamic Performance of Fuel Cells and Comparison with Heat Engines **2007**, 1, 1-46 | | 12 |
| 48 | On the Breakup of Viscous Liquid Sheets by Dual-Mode Linear Analysis. *Journal of Propulsion and Power*, **2001**, 17, 728-735 | 1.8 | 12 |
| 47 | Modelling of mechanical microstructure changes in the catalyst layer of a polymer electrolyte membrane fuel cell. *International Journal of Hydrogen Energy*, **2020**, 45, 29904-29916 | 6.7 | 12 |
| 46 | Large Eddy Simulation of Compressible Subsonic Turbulent Jet Starting From a Smooth Contraction Nozzle. *Flow, Turbulence and Combustion*, **2017**, 98, 83-108 | 2.5 | 11 |
| 45 | Energy Reality and Future Projections for Canada. *Energy Sources Part A Recovery, Utilization, and Environmental Effects*, **1997**, 19, 233-243 | | 11 |
| 44 | Superhydrophobic flow channel surface and its impact on PEM fuel cell performance. *International Journal of Low-Carbon Technologies*, **2014**, 9, 225-236 | 2.8 | 10 |
| 43 | An analytical analysis on the cross flow in a PEM fuel cell with serpentine flow channel. *International Journal of Energy Research*, **2011**, 35, 583-593 | 4.5 | 10 |
| 42 | The Influence of Channel Wettability on Two-Phase Flow and Polymer Electrolyte Membrane Fuel Cell Performance. *ECS Transactions*, **2012**, 42, 109-115 | 1 | 9 |
| 41 | Numerical simulation of biodiesel fuel combustion and emission characteristics in a direct injection diesel engine. *Frontiers of Energy and Power Engineering in China*, **2010**, 4, 252-261 | | 9 |
| 40 | Numerical Simulation of the Soot and NOx Formations in a Biodiesel-Fuelled Engine **2011**, | | 8 |
| 39 | Determination of the effective thermal conductivity of gas diffusion layers in polymer electrolyte membrane fuel cells: a comprehensive fractal approach. *International Journal of Energy Research*, **2011**, 35, 1351-1359 | 4.5 | 8 |
| 38 | Power management optimization in plug-in hybrid electric vehicles subject to uncertain driving cycles. *ETransportation*, **2020**, 3, 100029 | 12.7 | 8 |
| 37 | Synthesis and Ex-Situ characterizations of diamond-like carbon coatings for metallic bipolar plates in PEM fuel cells. *International Journal of Hydrogen Energy*, **2021**, 46, 11059-11070 | 6.7 | 7 |
| 36 | Dynamic characteristics of the local current density in proton exchange membrane fuel cells with different operating conditions. *International Journal of Energy Research*, **2018**, 42, 4610-4624 | 4.5 | 7 |
| 35 | A scaled-up proton exchange membrane fuel cell with enhanced performance and durability. *Applied Energy*, **2020**, 268, 114956 | 10.7 | 6 |
| 34 | The effect of ink dilution and evaporation on the microstructures of catalyst layers in polymer electrolyte membrane fuel cells. *International Journal of Energy Research*, **2019**, 43, 6799 | 4.5 | 6 |
| 33 | Numerical simulation of laminar flow development with heat and mass transfer in PEM fuel cell flow channels having oxygen and hydrogen suction at one channel wall. *International Journal of Energy Research*, **2011**, 35, 670-689 | 4.5 | 6 |
| 32 | Lattice Boltzmann simulation on the liquid junction potential in a microchannel. *Journal of Electroanalytical Chemistry*, **2006**, 591, 141-148 | 4.1 | 6 |

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| 31 | Numerical investigation of delamination onset and propagation in catalyst layers of PEM fuel cells under hygrothermal cycles. *International Journal of Hydrogen Energy*, **2021**, 46, 11071-11083 | 6.7 | 6 |
| 30 | Shear/rotation competition during the roll-up of acoustically excited shear layers. *Journal of Fluid Mechanics*, **2018**, 844, 831-854 | 3.7 | 5 |
| 29 | Structure of Liquid-Sheet Sprays. *Particle and Particle Systems Characterization*, **2000**, 17, 56-65 | 3.1 | 5 |
| 28 | Assessment and validation of liquid breakup models for high-pressure dense diesel sprays. *Frontiers in Energy*, **2016**, 10, 164-175 | 2.6 | 5 |
| 27 | Degradations in the surface wettability and gas permeability characteristics of proton exchange membrane fuel cell electrodes under freeze-thaw cycles: Effects of ionomer type. *International Journal of Hydrogen Energy*, **2020**, 45, 29892-29903 | 6.7 | 5 |
| 26 | Multi-plume sprays interacting with subsonic compressible gas jets. *Applied Energy*, **2017**, 190, 623-633 | 10.7 | 4 |
| 25 | A facile synthesis of high activity cube-like Pt/carbon composites for fuel cell application. *Frontiers in Energy*, **2017**, 11, 245-253 | 2.6 | 4 |
| 24 | Breakup mechanisms in air-assisted atomization of highly viscous pyrolysis oils. *Energy Conversion and Management*, **2020**, 220, 113122 | 10.6 | 4 |
| 23 | Influence of Ionomer Structures and Ratios on Performance and Degradation of PEM Fuel Cells. *ECS Transactions*, **2018**, 83, 71-78 | 1 | 4 |
| 22 | Self-adjusting anode catalyst layer for smart water management in anion exchange membrane fuel cells. *Cell Reports Physical Science*, **2021**, 2, 100377 | 6.1 | 4 |
| 21 | Gas Diffusion Layers for PEM Fuel Cells **2018**, 695-727 | | 3 |
| 20 | Numerical Study on the Effects of Biodiesel Fuel on Combustion and Emission Characteristics in a Direct Injection Diesel Engine **2010**, | | 3 |
| 19 | Non-isothermal multi-phase modeling of PEM fuel cell cathode. *International Journal of Energy Research*, **2009**, 34, n/a-n/a | 4.5 | 3 |
| 18 | Droplet Size Distribution in Sprays Based on Maximization of Entropy Generation. *Entropy*, **2003**, 5, 417-433 | 2.8 | 3 |
| 17 | Geometric pore surface area and fractal dimension of catalyzed electrodes in polymer electrolyte membrane fuel cells. *International Journal of Energy Research*, **2019**, 43, 3011-3019 | 4.5 | 3 |
| 16 | Curvature-induced deformations of the vortex rings generated at the exit of a rectangular duct. *Journal of Fluid Mechanics*, **2019**, 864, 141-180 | 3.7 | 2 |
| 15 | Flow uniformity in and its effect on the performance of polymer electrolyte membrane fuel cell stacks. *International Journal of Environmental Studies*, **2006**, 63, 391-419 | 1.8 | 2 |
| 14 | Interaction of a Particle-Laden Gaseous Jet with a Confined Annular Turbulent Flow. *Particle and Particle Systems Characterization*, **2001**, 18, 120 | 3.1 | 2 |

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| 13 | Fractal structures arising from interfacial instabilities in bio-oil atomization. *Scientific Reports*, **2021**, 11, 411 | 4.9 | 2 |
| 12 | Viscous diffusion effects on the self-induced distortions of rectangular vortex rings. *Physics of Fluids*, **2018**, 30, 124101 | 4.4 | 2 |
| 11 | Inverse cascade of the vortical structures near the contact line of evaporating sessile droplets. *Scientific Reports*, **2019**, 9, 6784 | 4.9 | 1 |
| 10 | Vortex break-down during the impact of a starting subsonic compressible gas jet on a multi-plume spray. *Journal of Visualization*, **2016**, 19, 679-689 | 1.6 | 1 |
| 9 | Investigation of the Effect of Inlet Turbulence and Reynolds Number on Developing Duct Flow. *Journal of Fluids Engineering, Transactions of the ASME*, **2019**, 141, | 2.1 | 1 |
| 8 | Analysis for Oil Thermosyphon Circulation and Winding Temperature in ON Transformers. *IEEE Power Engineering Society General Meeting*, **2007**, | | 1 |
| 7 | Natural convection in vertical slots with wall temperature oscillation. *Experiments in Fluids*, **1994**, 16, 308-315 | 2.5 | 1 |
| 6 | The effect of non-spherical platinum nanoparticle sizes on the performance and durability of proton exchange membrane fuel cells. *Advances in Applied Energy*, **2021**, 4, 100071 | | 1 |
| 5 | Numerical simulation of particulate matter interaction with the gas diffusion layer of proton-exchange membrane fuel cells under various relative humidity conditions. *International Journal of Energy Research*, **2021**, 45, 11084-11097 | 4.5 | 1 |
| 4 | Evolution of liquid and gas phases in multi-plume spray injection. *International Journal of Energy Research*, **2016**, 40, 1935-1950 | 4.5 | 1 |
| 3 | Microfluidic two-phase interactions under variable liquid to cross-flow gas momentum flux ratios. *Microfluidics and Nanofluidics*, **2018**, 22, 1 | 2.8 | 1 |
| 2 | Effect of Catalyst Ink and Formation Process on the Multiscale Structure of Catalyst Layers in PEM Fuel Cells. *Applied Sciences (Switzerland)*, **2022**, 12, 3776 | 2.6 | 0 |
| 1 | Cross-sectional reshaping of perturbed/unperturbed rectangular jets. *International Journal of Numerical Methods for Heat and Fluid Flow*, **2019**, 29, 2206-2223 | 4.5 | |