

Ned Djilali

List of Publications by Year in descending order

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256
papers

12,491
citations

23500

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30010

103
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262
all docs

262
docs citations

262
times ranked

8084
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Three-dimensional computational analysis of transport phenomena in a PEM fuel cell. Journal of Power Sources, 2002, 106, 284-294. | 4.0 | 590 |
| 2 | An assessment of alkaline fuel cell technology. International Journal of Hydrogen Energy, 2002, 27, 507-526. | 3.8 | 517 |
| 3 | Microfluidic fuel cells: A review. Journal of Power Sources, 2009, 186, 353-369. | 4.0 | 507 |
| 4 | Ex situ visualization of liquid water transport in PEM fuel cell gas diffusion layers. Journal of Power Sources, 2006, 154, 95-105. | 4.0 | 365 |
| 5 | A 3D, Multiphase, Multicomponent Model of the Cathode and Anode of a PEM Fuel Cell. Journal of the Electrochemical Society, 2003, 150, A1589. | 1.3 | 353 |
| 6 | A Microfluidic Fuel Cell with Flow-Through Porous Electrodes. Journal of the American Chemical Society, 2008, 130, 4000-4006. | 6.6 | 301 |
| 7 | Smart technologies for promotion of energy efficiency, utilization of sustainable resources and waste management. Journal of Cleaner Production, 2019, 231, 565-591. | 4.6 | 282 |
| 8 | Effect of compression on liquid water transport and microstructure of PEMFC gas diffusion layers. Journal of Power Sources, 2007, 163, 784-792. | 4.0 | 281 |
| 9 | Three-dimensional computational analysis of transport phenomena in a PEM fuel cell—a parametric study. Journal of Power Sources, 2003, 124, 440-452. | 4.0 | 266 |
| 10 | CFD-based modelling of proton exchange membrane fuel cells. Journal of Power Sources, 2005, 141, 65-78. | 4.0 | 224 |
| 11 | Computational model of a PEM fuel cell with serpentine gas flow channels. Journal of Power Sources, 2004, 130, 149-157. | 4.0 | 221 |
| 12 | Computational modelling of polymer electrolyte membrane (PEM) fuel cells: Challenges and opportunities. Energy, 2007, 32, 269-280. | 4.5 | 209 |
| 13 | Influence of heat transfer on gas and water transport in fuel cells. International Journal of Thermal Sciences, 2002, 41, 29-40. | 2.6 | 196 |
| 14 | Dynamic water transport and droplet emergence in PEMFC gas diffusion layers. Journal of Power Sources, 2008, 176, 240-246. | 4.0 | 178 |
| 15 | Multi-variable optimization of PEMFC cathodes using an agglomerate model. Electrochimica Acta, 2007, 52, 6318-6337. | 2.6 | 167 |
| 16 | A two-dimensional analysis of mass transport in proton exchange membrane fuel cells. International Journal of Engineering Science, 1999, 37, 431-452. | 2.7 | 163 |
| 17 | Improved fuel utilization in microfluidic fuel cells: A computational study. Journal of Power Sources, 2005, 143, 57-66. | 4.0 | 162 |
| 18 | Pore Scale Simulation of Transport and Electrochemical Reactions in Reconstructed PEMFC Catalyst Layers. Journal of the Electrochemical Society, 2010, 157, B1434. | 1.3 | 157 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | PV array power output maximization under partial shading using new shifted PV array arrangements. <i>Applied Energy</i> , 2017, 187, 326-337. | 5.1 | 149 |
| 20 | Dynamic behaviour of liquid water emerging from a GDL pore into a PEMFC gas flow channel. <i>Journal of Power Sources</i> , 2007, 172, 287-295. | 4.0 | 141 |
| 21 | Three-dimensional numerical simulations of water droplet dynamics in a PEMFC gas channel. <i>Journal of Power Sources</i> , 2008, 181, 101-115. | 4.0 | 137 |
| 22 | Effect of Polytetrafluoroethylene (PTFE) and micro porous layer (MPL) on thermal conductivity of fuel cell gas diffusion layers: Modeling and experiments. <i>Journal of Power Sources</i> , 2014, 248, 632-641. | 4.0 | 135 |
| 23 | GridLAB-D: An Agent-Based Simulation Framework for Smart Grids. <i>Journal of Applied Mathematics</i> , 2014, 2014, 1-12. | 0.4 | 133 |
| 24 | High-performance microfluidic vanadium redox fuel cell. <i>Electrochimica Acta</i> , 2007, 52, 4942-4946. | 2.6 | 127 |
| 25 | Planar and three-dimensional microfluidic fuel cell architectures based on graphite rod electrodes. <i>Journal of Power Sources</i> , 2007, 168, 379-390. | 4.0 | 123 |
| 26 | Effective thermal conductivity and thermal contact resistance of gas diffusion layers in proton exchange membrane fuel cells. Part 1: Effect of compressive load. <i>Journal of Power Sources</i> , 2011, 196, 246-254. | 4.0 | 116 |
| 27 | Hydrogen Peroxide as an Oxidant for Microfluidic Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2007, 154, B1220. | 1.3 | 115 |
| 28 | Modeling framework and validation of a smart grid and demand response system for wind power integration. <i>Applied Energy</i> , 2014, 113, 199-207. | 5.1 | 113 |
| 29 | An alkaline microfluidic fuel cell based on formate and hypochlorite bleach. <i>Electrochimica Acta</i> , 2008, 54, 698-705. | 2.6 | 108 |
| 30 | Numerical investigation of water droplet dynamics in a low-temperature fuel cell microchannel: Effect of channel geometry. <i>Journal of Power Sources</i> , 2010, 195, 801-812. | 4.0 | 108 |
| 31 | Online voltage security assessment considering comfort-constrained demand response control of distributed heat pump systems. <i>Applied Energy</i> , 2012, 96, 104-114. | 5.1 | 108 |
| 32 | Determination of transport parameters for multiphase flow in porous gas diffusion electrodes using a capillary network model. <i>Journal of Power Sources</i> , 2007, 171, 706-717. | 4.0 | 98 |
| 33 | Determination of the effective diffusion coefficient in porous media including Knudsen effects. <i>Microfluidics and Nanofluidics</i> , 2008, 4, 257-260. | 1.0 | 92 |
| 34 | Lab-on-chip methodologies for the study of transport in porous media: energy applications. <i>Lab on A Chip</i> , 2008, 8, 689. | 3.1 | 90 |
| 35 | Transactive control of fast-acting demand response based on thermostatic loads in real-time retail electricity markets. <i>Applied Energy</i> , 2018, 210, 1310-1320. | 5.1 | 89 |
| 36 | Renewable resources portfolio optimization in the presence of demand response. <i>Applied Energy</i> , 2016, 162, 139-148. | 5.1 | 88 |

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| 37 | Pore scale modeling of a proton exchange membrane fuel cell catalyst layer: Effects of water vapor and temperature. <i>Journal of Power Sources</i> , 2011, 196, 3195-3203. | 4.0 | 86 |
| 38 | Experimental study on different preheating methods for the cold-start of PEMFC stacks. <i>Energy</i> , 2018, 162, 1029-1040. | 4.5 | 80 |
| 39 | Transport Phenomena in Polymer Electrolyte Membranes. <i>Journal of the Electrochemical Society</i> , 2005, 152, A1804. | 1.3 | 77 |
| 40 | Hierarchical market integration of responsive loads as spinning reserve. <i>Applied Energy</i> , 2013, 104, 229-238. | 5.1 | 77 |
| 41 | A techno-economic analysis of decentralized electrolytic hydrogen production for fuel cell vehicles. <i>International Journal of Hydrogen Energy</i> , 2005, 30, 1159-1179. | 3.8 | 76 |
| 42 | Numerical and microfluidic pore networks: Towards designs for directed water transport in GDLs. <i>Electrochimica Acta</i> , 2008, 53, 7630-7637. | 2.6 | 76 |
| 43 | A numerical study of the propulsive efficiency of a flapping hydrofoil. <i>International Journal for Numerical Methods in Fluids</i> , 2003, 42, 493-526. | 0.9 | 75 |
| 44 | Numerical optimization of proton exchange membrane fuel cell cathodes. <i>Electrochimica Acta</i> , 2007, 52, 2668-2682. | 2.6 | 74 |
| 45 | A novel approach to determine the in-plane thermal conductivity of gas diffusion layers in proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2011, 196, 3565-3571. | 4.0 | 74 |
| 46 | Analytic determination of the effective thermal conductivity of PEM fuel cell gas diffusion layers. <i>Journal of Power Sources</i> , 2008, 179, 200-208. | 4.0 | 72 |
| 47 | Aggregation and Bidirectional Charging Power Control of Plug-in Hybrid Electric Vehicles: Generation System Adequacy Analysis. <i>IEEE Transactions on Sustainable Energy</i> , 2015, 6, 325-335. | 5.9 | 67 |
| 48 | Natural Convection in an Enclosure with Distributed Heat Sources. <i>Numerical Heat Transfer; Part A: Applications</i> , 2006, 49, 655-667. | 1.2 | 65 |
| 49 | A new thermostat for real-time price demand response: Cost, comfort and energy impacts of discrete-time control without deadband. <i>Applied Energy</i> , 2015, 155, 816-825. | 5.1 | 65 |
| 50 | Experimental investigation of water droplet emergence in a model polymer electrolyte membrane fuel cell microchannel. <i>Journal of Power Sources</i> , 2012, 208, 248-256. | 4.0 | 64 |
| 51 | Systematic parameter estimation for PEM fuel cell models. <i>Journal of Power Sources</i> , 2005, 144, 83-93. | 4.0 | 63 |
| 52 | Determination of effective transport properties in a PEMFC catalyst layer using different reconstruction algorithms. <i>Journal of Power Sources</i> , 2012, 208, 354-365. | 4.0 | 63 |
| 53 | Effective thermal conductivity and thermal contact resistance of gas diffusion layers in proton exchange membrane fuel cells. Part 2: Hysteresis effect under cyclic compressive load. <i>Journal of Power Sources</i> , 2010, 195, 8104-8109. | 4.0 | 62 |
| 54 | Computational modeling of air-breathing microfluidic fuel cells with flow-over and flow-through anodes. <i>Journal of Power Sources</i> , 2014, 259, 15-24. | 4.0 | 62 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 55 | Turbulent Flow Around a Bluff Rectangular Plate. Part I: Experimental Investigation. Journal of Fluids Engineering, Transactions of the ASME, 1991, 113, 51-59. | 0.8 | 61 |
| 56 | Modeling of PEM Fuel Cell Catalyst Layers: Status and Outlook. Electrochemical Energy Reviews, 2019, 2, 428-466. | 13.1 | 60 |
| 57 | On the effects of non-uniform property distribution due to compression in the gas diffusion layer of a PEMFC. International Journal of Hydrogen Energy, 2010, 35, 2936-2948. | 3.8 | 59 |
| 58 | Modeling the Effect of Chemical Membrane Degradation on PEMFC Performance. Journal of the Electrochemical Society, 2018, 165, F3328-F3336. | 1.3 | 59 |
| 59 | Computational analysis of heat and mass transfer in a micro-structured PEMFC cathode. Journal of Power Sources, 2006, 156, 334-344. | 4.0 | 58 |
| 60 | Numerical simulation of emergence of a water droplet from a pore into a microchannel gas stream. Microfluidics and Nanofluidics, 2008, 4, 543-555. | 1.0 | 57 |
| 61 | A multi-criteria model analysis framework for assessing integrated water-energy system transformation pathways. Applied Energy, 2018, 210, 477-486. | 5.1 | 57 |
| 62 | A Continental-scale Hydroeconomic Model for Integrating Water-Energy-Land Nexus Solutions. Water Resources Research, 2018, 54, 7511-7533. | 1.7 | 57 |
| 63 | Mathematical modelling of ambient air-breathing fuel cells for portable devices. Electrochimica Acta, 2007, 52, 3849-3862. | 2.6 | 56 |
| 64 | Transient electrolyser response in a renewable-regenerative energy system. International Journal of Hydrogen Energy, 2009, 34, 64-70. | 3.8 | 53 |
| 65 | 3D Modeling of Catalyst Layers in PEM Fuel Cells. Journal of the Electrochemical Society, 2007, 154, B1167. | 1.3 | 51 |
| 66 | In-fibre Bragg grating sensors for distributed temperature measurement in a polymer electrolyte membrane fuel cell. Journal of Power Sources, 2009, 192, 376-380. | 4.0 | 50 |
| 67 | Analysis of coupled electron and mass transport in the gas diffusion layer of a PEM fuel cell. Journal of Power Sources, 2006, 161, 294-300. | 4.0 | 49 |
| 68 | Comfort-Constrained Distributed Heat Pump Management. Energy Procedia, 2011, 12, 849-855. | 1.8 | 49 |
| 69 | Flow Structures in a U-Shaped Fuel Cell Flow Channel: Quantitative Visualization Using Particle Image Velocimetry. Journal of Fuel Cell Science and Technology, 2005, 2, 70-80. | 0.8 | 48 |
| 70 | Modelling and simulations of carbon corrosion during operation of a Polymer Electrolyte Membrane fuel cell. Electrochimica Acta, 2009, 54, 5583-5592. | 2.6 | 48 |
| 71 | Balancing clean water-climate change mitigation trade-offs. Environmental Research Letters, 2019, 14, 014009. | 2.2 | 48 |
| 72 | Prediction of the effective diffusion coefficient in random porous media using the finite element method. Journal of Porous Materials, 2007, 14, 49-54. | 1.3 | 47 |

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| 73 | Advanced computational tools for PEM fuel cell design. <i>Journal of Power Sources</i> , 2008, 180, 410-422. | 4.0 | 47 |
| 74 | Transboundary cooperation a potential route to sustainable development in the Indus basin. <i>Nature Sustainability</i> , 2021, 4, 331-339. | 11.5 | 47 |
| 75 | Transport Phenomena in Polymer Electrolyte Membranes. <i>Journal of the Electrochemical Society</i> , 2005, 152, A1815. | 1.3 | 45 |
| 76 | A statistically-based thermal conductivity model for fuel cell Gas Diffusion Layers. <i>Journal of Power Sources</i> , 2013, 233, 369-379. | 4.0 | 45 |
| 77 | Dual-Beam FIB/SEM Characterization, Statistical Reconstruction, and Pore Scale Modeling of a PEMFC Catalyst Layer. <i>Journal of the Electrochemical Society</i> , 2014, 161, F415-F424. | 1.3 | 44 |
| 78 | Parametric study of a polymer-coated fibre-optic humidity sensor. <i>Measurement Science and Technology</i> , 2012, 23, 035103. | 1.4 | 43 |
| 79 | A self-humidifying acidic-alkaline bipolar membrane fuel cell. <i>Journal of Power Sources</i> , 2015, 299, 273-279. | 4.0 | 43 |
| 80 | Thermal conductivity of a graphite bipolar plate (BPP) and its thermal contact resistance with fuel cell gas diffusion layers: Effect of compression, PTFE, micro porous layer (MPL), BPP out-of-flatness and cyclic load. <i>Journal of Power Sources</i> , 2015, 273, 96-104. | 4.0 | 42 |
| 81 | Numerical analysis of ice-induced stresses in the membrane electrode assembly of a PEM fuel cell under sub-freezing operating conditions. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 4563-4582. | 3.8 | 41 |
| 82 | CALCULATION OF CONVECTIVE HEAT TRANSFER IN RECIRCULATING TURBULENT FLOW USING VARIOUS NEAR-WALL TURBULENCE MODELS. <i>Numerical Heat Transfer; Part A: Applications</i> , 1989, 16, 189-212. | 1.2 | 39 |
| 83 | Experimental and Computational Assessment of Windage Losses in Rotating Machinery. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 1996, 118, 116-122. | 0.8 | 39 |
| 84 | Analysis of coupled proton and water transport in a PEM fuel cell using the binary friction membrane model. <i>Electrochimica Acta</i> , 2006, 52, 1038-1052. | 2.6 | 39 |
| 85 | Multi-objective optimization of a polymer electrolyte fuel cell membrane electrode assembly. <i>Energy and Environmental Science</i> , 2008, 1, 378. | 15.6 | 39 |
| 86 | Convective transport and interface kinetics in liquid phase epitaxy. <i>Journal of Crystal Growth</i> , 1994, 143, 334-348. | 0.7 | 38 |
| 87 | Effect of Pt nano-particle size on the microstructure of PEM fuel cell catalyst layers: Insights from molecular dynamics simulations. <i>Electrochimica Acta</i> , 2010, 55, 1588-1597. | 2.6 | 38 |
| 88 | Simultaneous In Situ Measurement of Temperature and Relative Humidity in a PEMFC Using Optical Fiber Sensors. <i>Journal of the Electrochemical Society</i> , 2010, 157, B1173. | 1.3 | 37 |
| 89 | Optical distortion correction for liquid droplet visualization using the ray tracing method: further considerations. <i>Measurement Science and Technology</i> , 2007, 18, L23-L28. | 1.4 | 36 |
| 90 | Integrated electrochemical velocimetry for microfluidic devices. <i>Microfluidics and Nanofluidics</i> , 2007, 3, 403-416. | 1.0 | 36 |

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| 91 | Integrating renewable energy using a smart distribution system: Potential of self-regulating demand response. <i>Renewable Energy</i> , 2013, 52, 46-56. | 4.3 | 35 |
| 92 | A coupled machine learning and genetic algorithm approach to the design of porous electrodes for redox flow batteries. <i>Applied Energy</i> , 2021, 298, 117177. | 5.1 | 35 |
| 93 | Non-planar architecture for proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2001, 102, 178-185. | 4.0 | 34 |
| 94 | Micro-porous layer stochastic reconstruction and transport parameter determination. <i>Journal of Power Sources</i> , 2015, 282, 58-64. | 4.0 | 34 |
| 95 | A new model for thermal contact resistance between fuel cell gas diffusion layers and bipolar plates. <i>Journal of Power Sources</i> , 2014, 266, 51-59. | 4.0 | 33 |
| 96 | Computational modeling of alkaline air-breathing microfluidic fuel cells with an array of cylinder anodes. <i>Journal of Power Sources</i> , 2015, 288, 150-159. | 4.0 | 33 |
| 97 | Effect of compression on pore size distribution and porosity of PEM fuel cell catalyst layers. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 23396-23405. | 3.8 | 33 |
| 98 | Coupled stress-strain and transport in proton exchange membrane fuel cell with metallic bipolar plates. <i>Applied Energy</i> , 2019, 251, 113316. | 5.1 | 33 |
| 99 | Cell Interaction Phenomena in Polymer Electrolyte Fuel Cell Stacks. <i>Journal of the Electrochemical Society</i> , 2008, 155, B704. | 1.3 | 32 |
| 100 | Reduced-dimensional models for straight-channel proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2010, 195, 3240-3249. | 4.0 | 32 |
| 101 | Multi-level adaptive simulation of transient two-phase flow in heterogeneous porous media. <i>Computers and Fluids</i> , 2010, 39, 1585-1596. | 1.3 | 32 |
| 102 | Robust response to hydro-climatic change in electricity generation planning. <i>Climatic Change</i> , 2015, 130, 475-489. | 1.7 | 32 |
| 103 | Two-phase computational modelling of a membraneless microfluidic fuel cell with a flow-through porous anode. <i>Journal of Power Sources</i> , 2019, 420, 88-98. | 4.0 | 32 |
| 104 | Liquid water transport between graphite paper and a solid surface. <i>Journal of Power Sources</i> , 2008, 185, 1147-1153. | 4.0 | 31 |
| 105 | Transport phenomena in fuel cells: from microscale to macroscale. <i>International Journal of Computational Fluid Dynamics</i> , 2008, 22, 115-133. | 0.5 | 31 |
| 106 | The NExus Solutions Tool (NEST) v1.0: an open platform for optimizing multi-scale energy-water-land system transformations. <i>Geoscientific Model Development</i> , 2020, 13, 1095-1121. | 1.3 | 31 |
| 107 | Optimal Design of Ultralow-Platinum PEMFC Anode Electrodes. <i>Journal of the Electrochemical Society</i> , 2008, 155, B125. | 1.3 | 29 |
| 108 | Optimization of a proton exchange membrane fuel cell membrane electrode assembly. <i>Structural and Multidisciplinary Optimization</i> , 2010, 40, 563-583. | 1.7 | 29 |

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|-----|---|------|-----------|
| 109 | Large-eddy simulation of separated flow over a bluff rectangular plate. <i>International Journal of Heat and Fluid Flow</i> , 2000, 21, 655-663. | 1.1 | 26 |
| 110 | Two-scale modeling in porous media: Relative permeability predictions. <i>Physics of Fluids</i> , 2006, 18, 033101. | 1.6 | 26 |
| 111 | Active power regulation of wind power systems through demand response. <i>Science China Technological Sciences</i> , 2012, 55, 1667-1676. | 2.0 | 26 |
| 112 | Analysis of Water Transport in Proton Exchange Membranes Using a Phenomenological Model. <i>Journal of Fuel Cell Science and Technology</i> , 2005, 2, 149-155. | 0.8 | 24 |
| 113 | Wind integration in self-regulating electric load distributions. <i>Energy Systems</i> , 2012, 3, 341-377. | 1.8 | 24 |
| 114 | PEM fuel cell CL characterization using a standalone FIB and SEM: Experiments and simulation. <i>Electrochimica Acta</i> , 2012, 85, 322-331. | 2.6 | 24 |
| 115 | Climate and human development impacts on municipal water demand: A spatially-explicit global modeling framework. <i>Environmental Modelling and Software</i> , 2016, 85, 266-278. | 1.9 | 24 |
| 116 | Electric Vehicle Participation in Transactive Power Systems Using Real-Time Retail Prices. , 2016, , . | | 24 |
| 117 | A test bed for self-regulating distribution systems: Modeling integrated renewable energy and demand response in the GridLAB-D/MATLAB environment. , 2012, , . | | 23 |
| 118 | Impacts of Groundwater Constraints on Saudi Arabia's Low-Carbon Electricity Supply Strategy. <i>Environmental Science & Technology</i> , 2016, 50, 1653-1662. | 4.6 | 23 |
| 119 | Pore-scale modeling of oxygen transport in the catalyst layer of air-breathing cathode in membraneless microfluidic fuel cells. <i>Applied Energy</i> , 2020, 277, 115536. | 5.1 | 23 |
| 120 | Machine learning-assisted design of flow fields for redox flow batteries. <i>Energy and Environmental Science</i> , 2022, 15, 2874-2888. | 15.6 | 23 |
| 121 | A model for liquid phase electroepitaxy under an external magnetic field II. Application. <i>Journal of Crystal Growth</i> , 1995, 153, 131-139. | 0.7 | 22 |
| 122 | Advanced computational tools for PEM fuel cell design. <i>Journal of Power Sources</i> , 2008, 180, 423-432. | 4.0 | 22 |
| 123 | Transient supersonic release of hydrogen from a high pressure vessel: A computational analysis. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 5817-5827. | 3.8 | 22 |
| 124 | Spectroscopic detection of Hydrogen peroxide with an optical fiber probe using chemically deposited Prussian blue. <i>Electrochimica Acta</i> , 2014, 115, 416-424. | 2.6 | 22 |
| 125 | Power system operation risk analysis considering charging load self-management of plug-in hybrid electric vehicles. <i>Applied Energy</i> , 2014, 136, 662-670. | 5.1 | 22 |
| 126 | Theoretical design strategies of bipolar membrane fuel cell with enhanced self-humidification behavior. <i>Journal of Power Sources</i> , 2016, 307, 358-367. | 4.0 | 22 |

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| 127 | Woven gas diffusion layers for polymer electrolyte membrane fuel cells: Liquid water transport and conductivity trade-offs. <i>Journal of Power Sources</i> , 2018, 403, 192-198. | 4.0 | 22 |
| 128 | In situ measurement of relative humidity in a PEM fuel cell using fibre Bragg grating sensors. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 17638-17644. | 3.8 | 21 |
| 129 | Role of thermosolutal convection in liquid phase electroepitaxial growth of gallium arsenide. <i>Journal of Crystal Growth</i> , 1995, 149, 153-166. | 0.7 | 20 |
| 130 | Turbulent Flow Around a Bluff Rectangular Plate. Part II: Numerical Predictions. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 1991, 113, 60-67. | 0.8 | 19 |
| 131 | Fluid mechanics and mass transport in centrifugal membrane separation. <i>Journal of Membrane Science</i> , 2000, 176, 277-289. | 4.1 | 19 |
| 132 | Convective mass transfer in helical pipes: effect of curvature and torsion. <i>Heat and Mass Transfer</i> , 2006, 42, 387-397. | 1.2 | 19 |
| 133 | Three-dimensional modelling of catalyst layers in PEM fuel cells: Effects of non-uniform catalyst loading. <i>International Journal of Energy Research</i> , 2009, 33, 631-644. | 2.2 | 19 |
| 134 | Fractal Flow Patterns in Hydrophobic Microfluidic Pore Networks: Experimental Modeling of Two-Phase Flow in Porous Electrodes. <i>Journal of the Electrochemical Society</i> , 2010, 157, B760. | 1.3 | 19 |
| 135 | Long-term energy planning with uncertain environmental performance metrics. <i>Applied Energy</i> , 2015, 147, 402-412. | 5.1 | 19 |
| 136 | Investigation of PEMFC under Static Magnetic Field: Temperature, Relative Humidity and Performance. <i>Journal of the Electrochemical Society</i> , 2017, 164, F1-F8. | 1.3 | 19 |
| 137 | Climate-Land-Energy-Water Nexus Models Across Scales: Progress, Gaps and Best Accessibility Practices. <i>Frontiers in Environmental Science</i> , 2021, 9, . | 1.5 | 19 |
| 138 | A two-dimensional diffusion model for liquid phase electroepitaxial growth of GaAs. <i>Journal of Crystal Growth</i> , 1994, 143, 141-154. | 0.7 | 18 |
| 139 | Thermal Spreading Resistance of Arbitrary-Shape Heat Sources on a Half-Space: A Unified Approach. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2010, 33, 267-277. | 1.4 | 18 |
| 140 | Detection of hydrogen peroxide using an optical fiber-based sensing probe. <i>Sensors and Actuators B: Chemical</i> , 2013, 185, 166-173. | 4.0 | 18 |
| 141 | Counter-intuitive reduction of thermal contact resistance with porosity: A case study of polymer electrolyte membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 6833-6841. | 3.8 | 18 |
| 142 | Large eddy simulation of the influence of high free-stream turbulence on a spatially evolving boundary layer. <i>International Journal of Heat and Fluid Flow</i> , 2000, 21, 640-647. | 1.1 | 17 |
| 143 | Turbulent flow in the distribution header of a PEM fuel cell stack. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 7136-7151. | 3.8 | 17 |
| 144 | Interconnection-wide hour-ahead scheduling in the presence of intermittent renewables and demand response: A surplus maximizing approach. <i>Applied Energy</i> , 2017, 189, 336-351. | 5.1 | 17 |

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|-----|---|-----|-----------|
| 163 | On the Scaling of Separation Bubbles.. JSME International Journal Series B, 1995, 38, 541-548. | 0.3 | 12 |
| 164 | Numerical Modeling of PEM Fuel Cells Under Partially Hydrated Membrane Conditions. Journal of Energy Resources Technology, Transactions of the ASME, 2005, 127, 26-36. | 1.4 | 12 |
| 165 | A numerical study on preconditioning and partitioning schemes for reactive transport in a PEMFC catalyst layer. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 905-916. | 3.4 | 12 |
| 166 | Numerical and experimental investigation of buoyant gas release: Application to hydrogen jets. International Journal of Hydrogen Energy, 2011, 36, 2645-2655. | 3.8 | 12 |
| 167 | A compact closed-form Nusselt formula for laminar longitudinal flow between rectangular/square arrays of parallel cylinders with unequal row temperatures. International Journal of Thermal Sciences, 2016, 100, 248-254. | 2.6 | 12 |
| 168 | Multi-component high aspect ratio turbulent jets issuing from non-planar nozzles. International Journal of Hydrogen Energy, 2019, 44, 15262-15277. | 3.8 | 12 |
| 169 | FORCED LAMINAR CONVECTION IN AN ARRAY OF STACKED PLATES. Numerical Heat Transfer; Part A: Applications, 1994, 25, 393-408. | 1.2 | 11 |
| 170 | Fiber Bragg grating sensor for two-phase flow in microchannels. Microfluidics and Nanofluidics, 2012, 13, 99-106. | 1.0 | 11 |
| 171 | Using an ILU/Deflation Preconditioner for Simulation of a PEM Fuel Cell Cathode Catalyst Layer. Communications in Computational Physics, 2013, 14, 537-573. | 0.7 | 11 |
| 172 | Investigation of Two-Phase Flow in a Hydrophobic Fuel-Cell Micro-Channel. Energies, 2019, 12, 2061. | 1.6 | 11 |
| 173 | Techno-economic feasibility of a photovoltaic-equipped plug-in electric vehicle public parking lot with coordinated charging. IET Energy Systems Integration, 2020, 2, 261-272. | 1.1 | 11 |
| 174 | Liquid phase epitaxy of silicon: an experimental and numerical parametric study. Journal of Crystal Growth, 1996, 167, 516-524. | 0.7 | 10 |
| 175 | Structure of porous electrodes in polymer electrolyte membrane fuel cells: An optical reconstruction technique. Journal of Power Sources, 2010, 195, 1936-1939. | 4.0 | 10 |
| 176 | An Adaptive Operator Splitting Method for Two-Phase Flow in 3D Heterogeneous Porous Media. SIAM Journal of Scientific Computing, 2013, 35, B149-B175. | 1.3 | 10 |
| 177 | Dynamics of Emerging Water Droplet Subjected to Sidewall with Different Wettabilities in a Fuel Cell Cathode Channel. Fuel Cells, 2011, 11, 404-412. | 1.5 | 9 |
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