Adam Hawkes

List of Publications by Year in Descending Order

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

5,833 129 34 75 h-index g-index citations papers 6.64 8.7 136 7,574 L-index avg, IF ext. citations ext. papers

| # | Paper | IF | Citations |
|-----|--|------|-----------|
| 129 | Translating observed household energy behavior to agent-based technology choices in an integrated modeling framework <i>IScience</i> , 2022 , 25, 103905 | 6.1 | O |
| 128 | Solidarity measures: Assessment of strategic gas storage on EU regional risk groups natural gas supply resilience. <i>Applied Energy</i> , 2022 , 308, 118356 | 10.7 | 0 |
| 127 | An optimisation model to determine the capacity of a distributed energy resource to contract with a balancing services aggregator. <i>Applied Energy</i> , 2022 , 306, 117984 | 10.7 | |
| 126 | Hydrogen supply chain optimisation for the transport sector (Focus on hydrogen purity and purification requirements. <i>Applied Energy</i> , 2022 , 305, 117740 | 10.7 | 2 |
| 125 | Life cycle assessment of negative emission technologies for effectiveness in carbon sequestration. <i>Procedia CIRP</i> , 2022 , 105, 357-361 | 1.8 | O |
| 124 | Hydrogen emissions from the hydrogen value chain-emissions profile and impact to global warming <i>Science of the Total Environment</i> , 2022 , 154624 | 10.2 | О |
| 123 | Geospatial and temporal estimation of climatic, end-use demands, and socioeconomic drivers of energy consumption in the residential sector in Ecuador. <i>Energy Conversion and Management</i> , 2022 , 261, 115629 | 10.6 | 1 |
| 122 | Cost reductions in renewables can substantially erode the value of carbon capture and storage in mitigation pathways. <i>One Earth</i> , 2021 , 4, 1588-1601 | 8.1 | 3 |
| 121 | A multi-model analysis of long-term emissions and warming implications of current mitigation efforts. <i>Nature Climate Change</i> , 2021 , 11, 1055-1062 | 21.4 | 8 |
| 120 | The policy implications of an uncertain carbon dioxide removal potential. <i>Joule</i> , 2021 , 5, 2593-2605 | 27.8 | 1 |
| 119 | What is the future potential of CCS in Brazil? An expert elicitation study on the role of CCS in the country. <i>International Journal of Greenhouse Gas Control</i> , 2021 , 112, 103503 | 4.2 | 2 |
| 118 | The role of energy storage in the uptake of renewable energy: A model comparison approach. <i>Energy Policy</i> , 2021 , 151, 112159 | 7.2 | 13 |
| 117 | Low-cost emissions cuts in container shipping: Thinking inside the box. <i>Transportation Research,</i> Part D: Transport and Environment, 2021 , 94, 102815 | 6.4 | 5 |
| 116 | Confronting mitigation deterrence in low-carbon scenarios. <i>Environmental Research Letters</i> , 2021 , 16, 064099 | 6.2 | 5 |
| 115 | Pathways to commercialisation of biogas fuelled solid oxide fuel cells in European wastewater treatment plants. <i>Applied Energy</i> , 2021 , 282, 116127 | 10.7 | 1 |
| 114 | North American energy system responses to natural gas price shocks. <i>Energy Policy</i> , 2021 , 149, 112046 | 7.2 | 3 |
| 113 | Perspective of comprehensive and comprehensible multi-model energy and climate science in Europe. <i>Energy</i> , 2021 , 215, 119153 | 7.9 | 28 |

(2020-2021)

| 112 | A bottom-up appraisal of the technically installable capacity of biogas-based solid oxide fuel cells for self power generation in wastewater treatment plants. <i>Journal of Environmental Management</i> , 2021 , 279, 111753 | 7.9 | 1 | |
|-----|---|-----------------|----|--|
| 111 | How can LNG-fuelled ships meet decarbonisation targets? An environmental and economic analysis. <i>Energy</i> , 2021 , 227, 120462 | 7.9 | 11 | |
| 110 | Challenges in the harmonisation of global integrated assessment models: A comprehensive methodology to reduce model response heterogeneity. <i>Science of the Total Environment</i> , 2021 , 783, 146861 | 10.2 | 8 | |
| 109 | The quantification of methane emissions and assessment of emissions data for the largest natural gas supply chains. <i>Journal of Cleaner Production</i> , 2021 , 320, 128856 | 10.3 | 2 | |
| 108 | Organic waste to energy: Resource potential and barriers to uptake in Chile. <i>Sustainable Production and Consumption</i> , 2021 , 28, 1522-1537 | 8.2 | 4 | |
| 107 | Strategic natural gas storage coordination among EU member states in response to disruption in the trans Austria gas pipeline: A stochastic approach to solidarity. <i>Energy</i> , 2021 , 235, 121426 | 7.9 | 2 | |
| 106 | Where is the EU headed given its current climate policy? A stakeholder-driven model inter-comparison. <i>Science of the Total Environment</i> , 2021 , 793, 148549 | 10.2 | 7 | |
| 105 | Agent-based scenarios comparison for assessing fuel-switching investment in long-term energy transitions of the India's industry sector. <i>Applied Energy</i> , 2020 , 274, 115295 | 10.7 | 5 | |
| 104 | An agent-based modelling approach to simulate the investment decision of industrial enterprises. Journal of Cleaner Production, 2020 , 267, 121835 | 10.3 | 5 | |
| 103 | The appropriate use of reference scenarios in mitigation analysis. <i>Nature Climate Change</i> , 2020 , 10, 605- | 6104 | 23 | |
| 102 | Modelling the technical potential of bioelectricity production under land use constraints: A multi-region Brazil case study. <i>Renewable and Sustainable Energy Reviews</i> , 2020 , 123, 109765 | 16.2 | 5 | |
| 101 | Spatially-resolved urban energy systems model to study decarbonisation pathways for energy services in cities. <i>Applied Energy</i> , 2020 , 262, 114445 | 10.7 | 13 | |
| 100 | Private landlords and energy efficiency: Evidence for policymakers from a large-scale study in the United Kingdom. <i>Energy Policy</i> , 2020 , 142, 111446 | 7. 2 | 8 | |
| 99 | Long-term development of the industrial sector © ase study about electrification, fuel switching, and CCS in the USA. <i>Computers and Chemical Engineering</i> , 2020 , 133, 106602 | 4 | 22 | |
| 98 | A geographic information system-based global variable renewable potential assessment using spatially resolved simulation. <i>Energy</i> , 2020 , 193, 116630 | 7.9 | 14 | |
| 97 | Key findings from the core North American scenarios in the EMF34 intermodel comparison. <i>Energy Policy</i> , 2020 , 144, 111599 | 7.2 | 15 | |
| 96 | Reply to "High energy and materials requirement for direct air capture calls for further analysis and R&D". <i>Nature Communications</i> , 2020 , 11, 3286 | 17.4 | 6 | |
| 95 | Optimal mix of climate-related energy in global electricity systems. <i>Renewable Energy</i> , 2020 , 160, 955-96 | 63 1 | 5 | |

| 94 | The impact of liquefied natural gas and storage on the EU natural gas infrastructure resilience. <i>Energy</i> , 2020 , 209, 118367 | 7.9 | 11 |
|----|---|-----------------|-----|
| 93 | Assessment of Greenhouse Gases and Pollutant Emissions in the Road Freight Transport Sector: A Case Study for SB Paulo State, Brazil. <i>Energies</i> , 2020 , 13, 5433 | 3.1 | 4 |
| 92 | A Simulator to Determine the Evolution of Disparities in Food Consumption between Socio-Economic Groups: A Brazilian Case Study. <i>Sustainability</i> , 2020 , 12, 6132 | 3.6 | |
| 91 | Modelling Future Agricultural Mechanisation of Major Crops in China: An Assessment of Energy Demand, Land Use and Emissions. <i>Energies</i> , 2020 , 13, 6636 | 3.1 | O |
| 90 | Results from Industrial Size Biogas-Fed SOFC Plant (DEMOSOFC Project). <i>ECS Transactions</i> , 2019 , 91, 107-116 | 1 | 4 |
| 89 | Modelling cost-effective pathways for natural gas infrastructure: A southern Brazil case study. <i>Applied Energy</i> , 2019 , 255, 113799 | 10.7 | 9 |
| 88 | Decision making to book oil reserves for different Brazilian fiscal agreements using dependence structure. <i>Energy Strategy Reviews</i> , 2019 , 26, 100377 | 9.8 | |
| 87 | Demand side flexibility from residential heating to absorb surplus renewables in low carbon futures. <i>Renewable Energy</i> , 2019 , 138, 598-609 | 8.1 | 13 |
| 86 | The role of advanced demand-sector technologies and energy demand reduction in achieving ambitious carbon budgets. <i>Applied Energy</i> , 2019 , 238, 351-367 | 10.7 | 25 |
| 85 | Levelized cost of CO2 mitigation from hydrogen production routes. <i>Energy and Environmental Science</i> , 2019 , 12, 19-40 | 35.4 | 139 |
| 84 | Asset stranding in natural gas export facilities: An agent-based simulation. <i>Energy Policy</i> , 2019 , 132, 132 | 2- ქ.5 5 | 6 |
| 83 | A novel energy systems model to explore the role of land use and reforestation in achieving carbon mitigation targets: A Brazil case study. <i>Journal of Cleaner Production</i> , 2019 , 232, 796-821 | 10.3 | 17 |
| 82 | Clustered spatially and temporally resolved global heat and cooling energy demand in the residential sector. <i>Applied Energy</i> , 2019 , 250, 48-62 | 10.7 | 20 |
| 81 | The impact of demand uncertainties and China-US natural gas tariff on global gas trade. <i>Energy</i> , 2019 , 175, 205-217 | 7.9 | 5 |
| 80 | Life cycle environmental impacts of natural gas drivetrains used in UK road freighting and impacts to UK emission targets. <i>Science of the Total Environment</i> , 2019 , 674, 482-493 | 10.2 | 19 |
| 79 | Assessing the impact of future greenhouse gas emissions from natural gas production. <i>Science of the Total Environment</i> , 2019 , 668, 1242-1258 | 10.2 | 19 |
| 78 | Thermodynamic and thermal comfort optimisation of a coastal social house considering the influence of the thermal breeze. <i>Building and Environment</i> , 2019 , 155, 224-246 | 6.5 | 2 |
| 77 | An agent-based model for energy investment decisions in the residential sector. <i>Energy</i> , 2019 , 172, 752 | 2-7638 | 29 |

(2018-2019)

| 76 | Going smart, staying confused: Perceptions and use of smart thermostats in British homes. <i>Energy Research and Social Science</i> , 2019 , 57, 101228 | 7.7 | 8 |
|----|--|--------------|-----|
| 75 | An inter-model assessment of the role of direct air capture in deep mitigation pathways. <i>Nature Communications</i> , 2019 , 10, 3277 | 17.4 | 129 |
| 74 | Carbon Sequestration Potential from Large-Scale Reforestation and Sugarcane Expansion on Abandoned Agricultural Lands in Brazil. <i>Polytechnica</i> , 2019 , 2, 9-25 | 1 | 2 |
| 73 | Global levelised cost of electricity from offshore wind. <i>Energy</i> , 2019 , 189, 116357 | 7.9 | 42 |
| 72 | Societal Transformations in Models for Energy and Climate Policy: The Ambitious Next Step. <i>One Earth</i> , 2019 , 1, 423-433 | 8.1 | 52 |
| 71 | How to decarbonise international shipping: Options for fuels, technologies and policies. <i>Energy Conversion and Management</i> , 2019 , 182, 72-88 | 10.6 | 190 |
| 70 | Projecting the Future Levelized Cost of Electricity Storage Technologies. <i>Joule</i> , 2019 , 3, 81-100 | 27.8 | 245 |
| 69 | A greener gas grid: What are the options. <i>Energy Policy</i> , 2018 , 118, 291-297 | 7.2 | 44 |
| 68 | Spatially Resolved Optimization for Studying the Role of Hydrogen for Heat Decarbonization Pathways. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 5835-5842 | 8.3 | 2 |
| 67 | A dynamic model of global natural gas supply. <i>Applied Energy</i> , 2018 , 218, 452-469 | 10.7 | 32 |
| 66 | Assessing domestic heat storage requirements for energy flexibility over varying timescales. <i>Applied Thermal Engineering</i> , 2018 , 136, 602-616 | 5.8 | 11 |
| 65 | Spatially resolved model for studying decarbonisation pathways for heat supply and infrastructure trade-offs. <i>Applied Energy</i> , 2018 , 210, 1051-1072 | 10.7 | 26 |
| 64 | Simulating the game-theoretic market equilibrium and contract-driven investment in global gas trade using an agent-based method. <i>Energy</i> , 2018 , 160, 820-834 | 7.9 | 10 |
| 63 | An optimization method to estimate the SOFC market in waste water treatment. <i>Computer Aided Chemical Engineering</i> , 2018 , 43, 415-420 | 0.6 | 1 |
| 62 | The role of CCS and biomass-based processes in the refinery sector for different carbon scenarios. <i>Computer Aided Chemical Engineering</i> , 2018 , 43, 1365-1370 | 0.6 | 1 |
| 61 | Temporally explicit and spatially resolved global offshore wind energy potentials. <i>Energy</i> , 2018 , 163, 766-781 | 7.9 | 57 |
| 60 | Decarbonisation of the Industrial Sector by means of Fuel Switching, Electrification and CCS. <i>Computer Aided Chemical Engineering</i> , 2018 , 1311-1316 | 0.6 | 3 |
| 59 | Open Sugarcane Process Simulation Platform. <i>Computer Aided Chemical Engineering</i> , 2018 , 44, 1819-18 | 2⊕ .6 | 2 |

| 58 | An assessment of CCS costs, barriers and potential. <i>Energy Strategy Reviews</i> , 2018 , 22, 61-81 | 9.8 | 154 |
|----|---|------|-----|
| 57 | The carbon credentials of hydrogen gas networks and supply chains. <i>Renewable and Sustainable Energy Reviews</i> , 2018 , 91, 1077-1088 | 16.2 | 24 |
| 56 | Techno-economic assessment of biogas-fed solid oxide fuel cell combined heat and power system at industrial scale. <i>Applied Energy</i> , 2018 , 211, 689-704 | 10.7 | 48 |
| 55 | Characterising the distribution of methane and carbon dioxide emissions from the natural gas supply chain. <i>Journal of Cleaner Production</i> , 2018 , 172, 2019-2032 | 10.3 | 49 |
| 54 | A Simple Assessment of Housing Retrofit Policies for the UK: What Should Succeed the Energy Company Obligation?. <i>Energies</i> , 2018 , 11, 2070 | 3.1 | 5 |
| 53 | Impact of Drilling Costs on the US Gas Industry: Prospects for Automation. <i>Energies</i> , 2018 , 11, 2241 | 3.1 | 3 |
| 52 | A Multi-period Mixed Integer Linear Program for Assessing the Benefits of Power to Heat Storage in a Dwelling Energy System. <i>Computer Aided Chemical Engineering</i> , 2018 , 43, 1451-1456 | 0.6 | |
| 51 | Methane emissions: choosing the right climate metric and time horizon. <i>Environmental Sciences: Processes and Impacts</i> , 2018 , 20, 1323-1339 | 4.3 | 51 |
| 50 | An Optimisation Study on Integrating and Incentivising Thermal Energy Storage (TES) in a Dwelling Energy System. <i>Energies</i> , 2018 , 11, 1095 | 3.1 | 3 |
| 49 | The effect of spatial resolution on outcomes from energy systems modelling of heat decarbonisation. <i>Energy</i> , 2018 , 155, 339-350 | 7.9 | 19 |
| 48 | Supply Chain Mixed Integer Linear Program Model Integrating a Biorefining Technology Superstructure. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 9849-9865 | 3.9 | 7 |
| 47 | Impact of dynamic aspects on economics of fuel cell based micro co-generation in low carbon futures. <i>Energy</i> , 2018 , 155, 874-886 | 7.9 | 11 |
| 46 | A two-step optimization model for quantifying the flexibility potential of power-to-heat systems in dwellings. <i>Applied Energy</i> , 2018 , 228, 215-228 | 10.7 | 13 |
| 45 | Temporally-explicit and spatially-resolved global onshore wind energy potentials. <i>Energy</i> , 2017 , 131, 207-217 | 7.9 | 54 |
| 44 | The value of electricity and reserve services in low carbon electricity systems. <i>Applied Energy</i> , 2017 , 201, 111-123 | 10.7 | 17 |
| 43 | Modelling the natural gas dynamics in the Southern Cone of Latin America. <i>Applied Energy</i> , 2017 , 201, 219-239 | 10.7 | 15 |
| 42 | Can Carbon Capture and Storage Unlock Unburnable Carbon Lenergy Procedia, 2017, 114, 7504-7515 | 2.3 | 3 |
| 41 | The Impact of Shale Gas on the Cost and Feasibility of Meeting Climate Targets Global Energy System Model Analysis and an Exploration of Uncertainties. <i>Energies</i> , 2017 , 10, 158 | 3.1 | 9 |

(2013-2017)

| 40 | Future cost and performance of water electrolysis: An expert elicitation study. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 30470-30492 | 6.7 | 730 |
|----|---|------------------|-----|
| 39 | The future cost of electrical energy storage based on experience rates. <i>Nature Energy</i> , 2017 , 2, | 62.3 | 507 |
| 38 | The Natural Gas Supply Chain: The Importance of Methane and Carbon Dioxide Emissions. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 3-20 | 8.3 | 61 |
| 37 | Analysis of power production and emission reduction through the use of biogas and carbon capture and storage. <i>Computer Aided Chemical Engineering</i> , 2017 , 40, 2635-2640 | 0.6 | О |
| 36 | Assessing the Feasibility of Global Long-Term Mitigation Scenarios. <i>Energies</i> , 2017 , 10, 89 | 3.1 | 37 |
| 35 | Exploring the Feasibility of Low-Carbon Scenarios Using Historical Energy Transitions Analysis. <i>Energies</i> , 2017 , 10, 116 | 3.1 | 24 |
| 34 | The Contribution of Non-CO2 Greenhouse Gas Mitigation to Achieving Long-Term Temperature Goals. <i>Energies</i> , 2017 , 10, 602 | 3.1 | 16 |
| 33 | The Techno-Economics of Small-Scale Residential Heating in Low Carbon Futures. <i>Energies</i> , 2017 , 10, 1915 | 3.1 | 7 |
| 32 | Techno-economic assessment of the effects of biogas rate fluctuations on industrial applications of solid-oxide fuel cells. <i>Computer Aided Chemical Engineering</i> , 2017 , 895-900 | 0.6 | |
| 31 | A framework for modelling investment decisions in gas infrastructures. <i>Computer Aided Chemical Engineering</i> , 2016 , 38, 259-264 | 0.6 | 1 |
| 30 | Hydrogen and fuel cell technologies for heating: A review. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 2065-2083 | 6.7 | 407 |
| 29 | Estimation of inter-fuel substitution possibilities in China's transport industry using ridge regression. <i>Energy</i> , 2015 , 88, 260-267 | 7.9 | 30 |
| 28 | Integration of biomass into urban energy systems for heat and power. Part I: An MILP based spatial optimization methodology. <i>Energy Conversion and Management</i> , 2014 , 83, 347-361 | 10.6 | 45 |
| 27 | Biomass supply chain optimisation for Organosolv-based biorefineries. <i>Bioresource Technology</i> , 2014 , 159, 387-96 | 11 | 7 |
| 26 | Performance assessment of tariff-based air source heat pump load shifting in a UK detached dwelling featuring phase change-enhanced buffering. <i>Applied Thermal Engineering</i> , 2014 , 71, 809-820 | 5.8 | 48 |
| 25 | Long-run marginal CO2 emissions factors in national electricity systems. <i>Applied Energy</i> , 2014 , 125, 197 | - 2:0:5 7 | 63 |
| 24 | Energy systems modeling for twenty-first century energy challenges. <i>Renewable and Sustainable Energy Reviews</i> , 2014 , 33, 74-86 | 16.2 | 503 |
| 23 | Fair electricity transfer price and unit capacity selection for microgrids. <i>Energy Economics</i> , 2013 , 36, 581 | -893 | 40 |

| 22 | A review of domestic heat pumps. Energy and Environmental Science, 2012, 5, 9291 | 35.4 | 175 |
|----|---|------------------------------------|-----|
| 21 | Design of fuel-cell micro-cogeneration systems through modeling and optimization. <i>Wiley Interdisciplinary Reviews: Energy and Environment</i> , 2012 , 1, 181-193 | 4.7 | 5 |
| 20 | Fuel cell systems for small and micro combined heat and power (CHP) applications 2011, 233-261 | | 6 |
| 19 | Role of fuel cell based micro-cogeneration in low carbon heating. <i>Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy</i> , 2011 , 225, 198-207 | 1.6 | 9 |
| 18 | Techno-economic assessment of small and micro combined heat and power (CHP) systems 2011 , 17-41 | | 4 |
| 17 | Optimal selection of generators for a microgrid under uncertainty 2010 , | | 4 |
| 16 | Feasibility of domestic micro combined heat and power units with Real Time Pricing 2010, | | 3 |
| 15 | UK microgeneration. Part II: technology overviews. <i>Proceedings of Institution of Civil Engineers: Energy</i> , 2010 , 163, 143-165 | 0.7 | 10 |
| 14 | Estimating marginal CO2 emissions rates for national electricity systems. Energy Policy, 2010, 38, 5977- | 5 9 &7 | 135 |
| 13 | Fuel cell micro-CHP techno-economics: Part 1 Imodel concept and formulation. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 9545-9557 | 6.7 | 63 |
| 12 | Fuel cell micro-CHP techno-economics: Part 2 IModel application to consider the economic and environmental impact of stack degradation. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 9558-95 | 5697 | 52 |
| 11 | Modelling high level system design and unit commitment for a microgrid. <i>Applied Energy</i> , 2009 , 86, 125 | 3 ₁ 152 7 65 | 241 |
| 10 | Fuel cells for micro-combined heat and power generation. <i>Energy and Environmental Science</i> , 2009 , 2, 729 | 35.4 | 130 |
| 9 | UK microgeneration. Part I: policy and behavioural aspects. <i>Proceedings of Institution of Civil Engineers: Energy</i> , 2009 , 162, 23-36 | 0.7 | 15 |
| 8 | The capacity credit of micro-combined heat and power. Energy Policy, 2008, 36, 1457-1469 | 7.2 | 20 |
| 7 | On policy instruments for support of micro combined heat and power. <i>Energy Policy</i> , 2008 , 36, 2973-298 | B Z 7.2 | 31 |
| 6 | Cost-effective operating strategy for residential micro-combined heat and power. <i>Energy</i> , 2007 , 32, 711 | I <i>-7.2</i> ₃ 3 | 219 |
| 5 | Solid oxide fuel cell micro combined heat and power system operating strategy: Options for provision of residential space and water heating. <i>Journal of Power Sources</i> , 2007 , 164, 260-271 | 8.9 | 66 |

LIST OF PUBLICATIONS

| 4 | Techno-economic modelling of a solid oxide fuel cell stack for micro combined heat and power. Journal of Power Sources, 2006 , 156, 321-333 | 8.9 | 54 |
|---|---|-----|-----|
| 3 | Solid oxide fuel cell systems for residential micro-combined heat and power in the UK: Key economic drivers. <i>Journal of Power Sources</i> , 2005 , 149, 72-83 | 8.9 | 67 |
| 2 | Impacts of temporal precision in optimisation modelling of micro-Combined Heat and Power. <i>Energy</i> , 2005 , 30, 1759-1779 | 7.9 | 104 |
| 1 | Methane detection and quantification in the upstream oil and gas sector: the role of satellites in emissions detection, reconciling and reporting. <i>Environmental Science Atmospheres</i> , | | 1 |