

# Andrew Smallbone

## List of Publications by Year in descending order

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68  
papers

2,517  
citations

257357

24  
h-index

214721

47  
g-index

69  
all docs

69  
docs citations

69  
times ranked

2324  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mapping surrogate gasoline compositions into RON/MON space. Combustion and Flame, 2010, 157, 1122-1131.	2.8	231
2	Levelised Cost of Storage for Pumped Heat Energy Storage in comparison with other energy storage technologies. Energy Conversion and Management, 2017, 152, 221-228.	4.4	166
3	An operational and economic study of a reverse osmosis desalination system for potable water and land irrigation. Desalination, 2016, 397, 174-184.	4.0	145
4	Laminar flame speeds of C5 to C8 n-alkanes at elevated pressures: Experimental determination, fuel similarity, and stretch sensitivity. Proceedings of the Combustion Institute, 2011, 33, 963-970.	2.4	133
5	Screening and techno-economic assessment of biomass-based power generation with CCS technologies to meet 2050 CO2 targets. Applied Energy, 2017, 190, 481-489.	5.1	126
6	Post-combustion CO2 capture from a natural gas combined cycle power plant using activated carbon adsorption. Applied Energy, 2019, 245, 1-15.	5.1	106
7	A study and comparison of frictional losses in free-piston engine and crankshaft engines. Applied Thermal Engineering, 2018, 140, 217-224.	3.0	92
8	The future viability of algae-derived biodiesel under economic and technical uncertainties. Bioresource Technology, 2014, 151, 166-173.	4.8	90
9	Laminar flame speeds, non-premixed stagnation ignition, and reduced mechanisms in the oxidation of iso-octane. Proceedings of the Combustion Institute, 2011, 33, 501-508.	2.4	88
10	Design and simulation of a two- or four-stroke free-piston engine generator for range extender applications. Energy Conversion and Management, 2016, 111, 289-298.	4.4	85
11	Experimental and modeling study of laminar flame speed and non-premixed counterflow ignition of n-heptane. Proceedings of the Combustion Institute, 2009, 32, 1245-1252.	2.4	83
12	The carbon footprint and non-renewable energy demand of algae-derived biodiesel. Applied Energy, 2014, 113, 1632-1644.	5.1	83
13	Thermodynamics and economics of liquid desiccants for heating, ventilation and air-conditioning “An overview. Applied Energy, 2018, 220, 455-479.	5.1	81
14	Piston motion control of a free-piston engine generator: A new approach using cascade control. Applied Energy, 2016, 179, 1166-1175.	5.1	72
15	Macroscopic spray characteristics of next-generation bio-derived diesel fuels in comparison to mineral diesel. Applied Energy, 2017, 186, 562-573.	5.1	61
16	A fast response free-piston engine generator numerical model for control applications. Applied Energy, 2016, 162, 321-329.	5.1	60
17	Effect of closed-loop controlled resonance based mechanism to start free piston engine generator: Simulation and test results. Applied Energy, 2016, 164, 532-539.	5.1	60
18	A hybrid reverse osmosis/adsorption desalination plant for irrigation and drinking water. Desalination, 2018, 444, 44-52.	4.0	53

#	ARTICLE	IF	CITATIONS
19	Techno-economic assessment of carbon-negative algal biodiesel for transport solutions. Applied Energy, 2013, 106, 262-274.	5.1	49
20	Comparative study of using multi-wall carbon nanotube and two different sizes of cerium oxide nanopowders as fuel additives under various diesel engine conditions. Fuel, 2019, 256, 115904.	3.4	47
21	Particulate number and NO trade-off comparisons between HVO and mineral diesel in HD applications. Fuel, 2018, 215, 90-101.	3.4	45
22	Parametric study for small scale engine coolant and exhaust heat recovery system using different Organic Rankine cycle layouts. Applied Thermal Engineering, 2017, 127, 1252-1266.	3.0	40
23	Delivering authentic experiences for engineering students and professionals through e-labs. , 2010, , .		29
24	Disturbance analysis of a free-piston engine generator using a validated fast-response numerical model. Applied Energy, 2017, 185, 440-451.	5.1	29
25	The Key Techno-Economic and Manufacturing Drivers for Reducing the Cost of Power-to-Gas and a Hydrogen-Enabled Energy System. Hydrogen, 2021, 2, 273-300.	1.7	29
26	Design, modelling and validation of a linear Joule Engine generator designed for renewable energy sources. Energy Conversion and Management, 2018, 165, 25-34.	4.4	24
27	Implementing Detailed Chemistry and In-Cylinder Stratification into 0/1-D IC Engine Cycle Simulation Tools. , 0, , .		23
28	Evaluation of performance characteristics of a novel hydrogen-fuelled free-piston engine generator. International Journal of Hydrogen Energy, 2021, 46, 33314-33324.	3.8	21
29	Investigation of the optimum operating condition of a dual piston type free piston engine generator during engine cold start-up process. Applied Thermal Engineering, 2021, 182, 116124.	3.0	19
30	The techno-economics potential of hydrogen interconnectors for electrical energy transmission and storage. Journal of Cleaner Production, 2022, 335, 130045.	4.6	19
31	Comparative analysis on friction characteristics between free-piston engine generator and traditional crankshaft engine. Energy Conversion and Management, 2021, 245, 114630.	4.4	18
32	A combined heat and green hydrogen (CHH) generator integrated with a heat network. Energy Conversion and Management, 2021, 246, 114686.	4.4	18
33	The characteristics of a Linear Joule Engine Generator operating on a dry friction principle. Applied Energy, 2019, 237, 49-59.	5.1	17
34	Turbulent and Stable/Unstable Laminar Burning Velocity Measurements from Outwardly Propagating Spherical Hydrogen-Air Flames at Elevated Pressures. Journal of Thermal Science and Technology, 2006, 1, 31-41.	0.6	16
35	Simulating PM Emissions and Combustion Stability in Gasoline/Diesel Fuelled Engines. , 0, , .		16
36	Realization of a Novel Free-Piston Engine Generator for Hybrid-Electric Vehicle Applications. Energy & Fuels, 2020, 34, 12926-12939.	2.5	16

#	ARTICLE	IF	CITATIONS
37	Identifying Optimal Operating Points in Terms of Engineering Constraints and Regulated Emissions in Modern Diesel Engines. , 2011, , .		14
38	Lean ignition and blow-off behaviour of butyl butyrate and ethanol blends in a gas turbine combustor. Fuel, 2019, 239, 1351-1362.	3.4	14
39	Automated IC Engine Model Development with Uncertainty Propagation. , 0, , .		13
40	The first carbon atlas of the state of Kuwait. Energy, 2017, 133, 317-326.	4.5	13
41	Analysis of the Scavenging Process of a Two-Stroke Free-Piston Engine Based on the Selection of Scavenging Ports or Valves. Energies, 2018, 11, 324.	1.6	13
42	Dynamic and thermodynamic characteristics of a linear Joule engine generator with different operating conditions. Energy Conversion and Management, 2018, 173, 375-382.	4.4	13
43	The impact of disruptive powertrain technologies on energy consumption and carbon dioxide emissions from heavy-duty vehicles. Energy Conversion and Management: X, 2020, 6, 100030.	0.9	13
44	Effect of the stroke-to-bore ratio on the performance of a dual-piston free piston engine generator. Applied Thermal Engineering, 2021, 185, 116456.	3.0	12
45	Techno-economic analysis of the thermal energy saving options for high-voltage direct current interconnectors. Applied Energy, 2019, 247, 60-77.	5.1	11
46	Optimisation of Injection Strategy, Combustion Characteristics and Emissions for IC Engines Using Advanced Simulation Technologies. , 0, , .		10
47	Parametric analysis of a semi-closed-loop linear joule engine generator using argon and oxy-hydrogen combustion. Energy, 2021, 217, 119357.	4.5	10
48	Use Cases with Economics and Simulation for Thermo-Chemical District Networks. Sustainability, 2018, 10, 599.	1.6	9
49	Identification and analysis on the variation sources of a dual-cylinder free piston engine generator and their influence on system operating characteristics. Energy, 2022, 242, 123001.	4.5	9
50	Propagation and Quench of Premixed Turbulent Flames. , 0, , .		7
51	Virtual Performance and Emissions Mapping for Diesel Engine Design Optimization. , 0, , .		6
52	Fundamental Analysis of Thermal Overload in Diesel Engines: Hypothesis and Validation. Energies, 2017, 10, 329.	1.6	6
53	Investigation of the macroscopic characteristics of Hydrotreated Vegetable Oil (HVO) spray using CFD method. Fuel, 2019, 237, 28-39.	3.4	6
54	The performance and efficiency of novel oxy-hydrogen-argon gas power cycles for zero emission power generation. Energy Conversion and Management, 2021, 244, 114510.	4.4	6

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55	An overview of solutions for airborne viral transmission reduction related to HVAC systems including liquid desiccant air-scrubbing. Energy, 2022, 244, 122709.	4.5	6
56	Laminar Flame Speeds of C5 to C8 n-Alkanes at Elevated Pressures and Temperatures. , 2010, , .		5
57	Investigation on the Effect of the Gas Exchange Process on the Diesel Engine Thermal Overload with Experimental Results. Energies, 2017, 10, 766.	1.6	5
58	Performance Analysis of a Flexi-Fuel Turbine-Combined Free-Piston Engine Generator. Energies, 2019, 12, 2657.	1.6	5
59	Meeting the challenges associated with low-carbon alternative fuels through advanced CAE technologies. , 2013, , 137-147.		3
60	A Decoupled Design Parameter Analysis for Free-Piston Engine Generators. Energies, 2017, 10, 486.	1.6	3
61	Development of a Diesel Engine Thermal Overload Monitoring System with Applications and Test Results. Energies, 2017, 10, 830.	1.6	3
62	Hydrogen production via ammonia from methane integrated with enhanced oil recovery: A techno-economic analysis. Journal of Environmental Chemical Engineering, 2021, 9, 105050.	3.3	3
63	Investigation of performance of free-piston engine generator with variable-scavenging-timing technology under unsteady operation condition. Applied Thermal Engineering, 2021, 196, 117288.	3.0	3
64	Experimental and Numerical Investigation on the Macroscopic Characteristics of Hydrotreated Vegetable Oil (HVO) Spray. Energy Procedia, 2017, 142, 474-480.	1.8	2
65	The development of a screen valve for reciprocating heat pump/engine applications. Journal of Renewable and Sustainable Energy, 2020, 12, 054101.	0.8	2
66	High-Dimensional Sensitivity Analysis Applied at Vehicle Component and System Level in the Context of CO <sub>2</sub> Exhaust Emissions. , 0, , .		1
67	Collaborative Sustainability Strategies for Online Laboratories. , 2012, , 468-490.		1
68	Combustion and Emissions Performance Analysis of Conventional and Future Fuels using Advanced CAE. , 0, , .		0