

Philip A Davies

List of Publications by Year in descending order

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80
papers

3,029
citations

186265

28
h-index

168389

53
g-index

82
all docs

82
docs citations

82
times ranked

3188
citing authors

#	ARTICLE	IF	CITATIONS
1	Pyrolysis liquids and gases as alternative fuels in internal combustion engines – A review. <i>Renewable and Sustainable Energy Reviews</i> , 2013, 21, 165-189.	16.4	216
2	Effects of nanoparticle-enhanced phase change material (NPCM) on solar still productivity. <i>Journal of Cleaner Production</i> , 2018, 192, 9-29.	9.3	197
3	Plant oils as fuels for compression ignition engines: A technical review and life-cycle analysis. <i>Renewable Energy</i> , 2010, 35, 1-13.	8.9	190
4	Solar stills: A comprehensive review of designs, performance and material advances. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 63, 464-496.	16.4	178
5	Removal of non-CO ₂ greenhouse gases by large-scale atmospheric solar photocatalysis. <i>Progress in Energy and Combustion Science</i> , 2017, 60, 68-96.	31.2	117
6	Evaluation of options for energy recovery from municipal solid waste in India using the hierarchical analytical network process. <i>Energy</i> , 2013, 59, 215-223.	8.8	110
7	Which is the best solar thermal collection technology for electricity generation in north-west India? Evaluation of options using the analytical hierarchy process. <i>Energy</i> , 2010, 35, 5230-5240.	8.8	106
8	The feasibility of hybrid solar-biomass power plants in India. <i>Energy</i> , 2012, 46, 541-554.	8.8	101
9	A solar cooling system for greenhouse food production in hot climates. <i>Solar Energy</i> , 2005, 79, 661-668.	6.1	83
10	Experimental investigation of performance, emission and combustion characteristics of an indirect injection multi-cylinder CI engine fuelled by blends of de-inking sludge pyrolysis oil with biodiesel. <i>Fuel</i> , 2013, 105, 135-142.	6.4	80
11	Modelling and experimental verification of a solar-powered liquid desiccant cooling system for greenhouse food production in hot climates. <i>Energy</i> , 2012, 40, 116-130.	8.8	75
12	Comparison of Configurations for High-Recovery Inland Desalination Systems. <i>Water (Switzerland)</i> , 2012, 4, 690-706.	2.7	72
13	Complementary methods to investigate the development of clogging within a horizontal sub-surface flow tertiary treatment wetland. <i>Water Research</i> , 2010, 44, 320-330.	11.3	70
14	Performance evaluation of reverse osmosis (RO) pre-treatment technologies for in-land brackish water treatment. <i>Desalination</i> , 2017, 406, 44-50.	8.2	62
15	Cost-exergy optimisation of linear Fresnel reflectors. <i>Solar Energy</i> , 2012, 86, 147-156.	6.1	60
16	Solar thermophotovoltaics: brief review and a new look. <i>Solar Energy Materials and Solar Cells</i> , 1994, 33, 11-22.	6.2	59
17	A comparative assessment of waste incinerators in the UK. <i>Waste Management</i> , 2013, 33, 2234-2244.	7.4	58
18	The seawater greenhouse in the United Arab Emirates: Thermal modelling and evaluation of design options. <i>Desalination</i> , 2005, 173, 103-111.	8.2	55

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19	Design of a novel solar thermal collector using a multi-criteria decision-making methodology. <i>Journal of Cleaner Production</i> , 2013, 59, 150-159.	9.3	53
20	Combustion of fuel blends containing digestate pyrolysis oil in a multi-cylinder compression ignition engine. <i>Fuel</i> , 2016, 171, 18-28.	6.4	53
21	Seawater bitterns as a source of liquid desiccant for use in solar-cooled greenhouses. <i>Desalination</i> , 2006, 196, 266-279.	8.2	45
22	Techno-economic analysis of solar stills using integrated fuzzy analytical hierarchy process and data envelopment analysis. <i>Solar Energy</i> , 2018, 159, 820-833.	6.1	43
23	Performance, emission and combustion characteristics of an indirect injection (IDI) multi-cylinder compression ignition (CI) engine operating on neat jatropha and karanj oils preheated by jacket water. <i>Biomass and Bioenergy</i> , 2012, 46, 332-342.	5.7	41
24	Isothermal Organic Rankine Cycle (ORC) driving Reverse Osmosis (RO) desalination: Experimental investigation and case study using R245fa working fluid. <i>Applied Thermal Engineering</i> , 2018, 136, 740-746.	6.0	33
25	Nucleate pool boiling heat transfer of SES36 fluid on nanoporous surfaces obtained by electrophoretic deposition of Al ₂ O ₃ . <i>Applied Thermal Engineering</i> , 2018, 141, 143-152.	6.0	33
26	Solar pond powered liquid desiccant evaporative cooling. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 58, 124-140.	16.4	32
27	An efficient optimization and comparative analysis of cascade refrigeration system using NH ₃ /CO ₂ and C ₃ H ₈ /CO ₂ refrigerant pairs. <i>International Journal of Refrigeration</i> , 2019, 102, 62-76.	3.4	32
28	Design, modelling and optimisation of a batch reverse osmosis (RO) desalination system using a free piston for brackish water treatment. <i>Desalination</i> , 2020, 494, 114625.	8.2	32
29	Concentration polarization model of spiral-wound membrane modules with application to batch-mode RO desalination of brackish water. <i>Desalination</i> , 2015, 368, 36-47.	8.2	31
30	Review of low-temperature vapour power cycle engines with quasi-isothermal expansion. <i>Energy</i> , 2014, 70, 22-34.	8.8	30
31	A solar-powered reverse osmosis system for high recovery of freshwater from saline groundwater. <i>Desalination</i> , 2011, 271, 72-79.	8.2	28
32	Low mass fraction impregnation with graphene oxide (GO) enhances thermo-physical properties of paraffin for heat storage applications. <i>Thermochimica Acta</i> , 2017, 655, 226-233.	2.7	27
33	Perspectives on removal of atmospheric methane. <i>Advances in Applied Energy</i> , 2022, 5, 100085.	13.2	27
34	Supply chain optimisation of pyrolysis plant deployment using goal programming. <i>Energy</i> , 2014, 68, 262-271.	8.8	26
35	Uniform design for the optimization of Al ₂ O ₃ nanofilms produced by electrophoretic deposition. <i>Surface and Coatings Technology</i> , 2016, 286, 268-278.	4.8	26
36	A method for the in-situ determination of the hydraulic conductivity of gravels as used in constructed wetlands for wastewater treatment. <i>Desalination and Water Treatment</i> , 2009, 5, 257-266.	1.0	25

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37	Longitudinal dispersion in spiral wound RO modules and its effect on the performance of batch mode RO operations. <i>Desalination</i> , 2012, 288, 1-7.	8.2	25
38	A desalination system with efficiency approaching the theoretical limits. <i>Desalination and Water Treatment</i> , 2016, 57, 23206-23216.	1.0	25
39	Liquid desiccant dehumidification and regeneration process to meet cooling and freshwater needs of desert greenhouses. <i>Desalination and Water Treatment</i> , 2016, 57, 23430-23442.	1.0	25
40	Heat and mass transfer in membrane distillation used for desalination with slip flow. <i>Desalination</i> , 2016, 381, 135-142.	8.2	25
41	A free-piston batch reverse osmosis (RO) system for brackish water desalination: Experimental study and model validation. <i>Desalination</i> , 2022, 527, 115524.	8.2	25
42	Brine utilisation for cooling and salt production in wind-driven seawater greenhouses: Design and modelling. <i>Desalination</i> , 2018, 426, 135-154.	8.2	24
43	Properties of seawater bitterns with regard to liquid-desiccant cooling. <i>Desalination</i> , 2010, 250, 172-178.	8.2	23
44	A compact hybrid batch/semi-batch reverse osmosis (HBSRO) system for high-recovery, low-energy desalination. <i>Desalination</i> , 2021, 504, 114976.	8.2	22
45	Investigation of 2-butoxyethanol as biodiesel additive on fuel property and combustion characteristics of two neat biodiesels. <i>Renewable Energy</i> , 2021, 164, 285-297.	8.9	20
46	Self-Powered Desalination of Geothermal Saline Groundwater: Technical Feasibility. <i>Water (Switzerland)</i> , 2014, 6, 3409-3432.	2.7	19
47	An experimental study on performance and emission characteristics of an IDI diesel engine operating with neat oil-diesel blend emulsion. <i>Renewable Energy</i> , 2020, 146, 1041-1050.	8.9	19
48	Omnigen: Providing electricity, food preparation, cold storage and pure water using a variety of local fuels. <i>Renewable Energy</i> , 2013, 49, 197-202.	8.9	18
49	Hollow fibre membrane-based liquid desiccant humidity control for controlled environment agriculture. <i>Biosystems Engineering</i> , 2019, 183, 47-57.	4.3	18
50	Comparative review of membrane-based desalination technologies for energy-efficient regeneration in liquid desiccant air conditioning of greenhouses. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 154, 111815.	16.4	18
51	Life cycle assessment in the food supply chain: a case study. <i>International Journal of Logistics Research and Applications</i> , 2015, 18, 140-154.	8.8	17
52	Ideal performance of a self-cooling greenhouse. <i>Applied Thermal Engineering</i> , 2019, 149, 502-511.	6.0	17
53	Combined effects of composite thermal energy storage and magnetic field to enhance productivity in solar desalination. <i>Renewable Energy</i> , 2022, 181, 219-234.	8.9	17
54	Analysis of clogging in constructed wetlands using magnetic resonance. <i>Analyst, The</i> , 2011, 136, 2283.	3.5	16

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55	The scope to improve the efficiency of solar-powered reverse osmosis. <i>Desalination and Water Treatment</i> , 2011, 35, 14-32.	1.0	13
56	Effects of Engine Cooling Water Temperature on Performance and Emission Characteristics of a Compression Ignition Engine Operated with Biofuel Blend. <i>Journal of Sustainable Development of Energy, Water and Environment Systems</i> , 2017, 5, 46-57.	1.9	12
57	Solar thermal decomposition of desalination reject brine for carbon dioxide removal and neutralisation of ocean acidity. <i>Environmental Science: Water Research and Technology</i> , 2015, 1, 131-137.	2.4	11
58	Development of an integrated reverse osmosis-greenhouse system driven by solar photovoltaic generators. <i>Desalination and Water Treatment</i> , 2010, 22, 161-173.	1.0	10
59	ENERGY SAVING AND SOLAR ELECTRICITY IN FAN-VENTILATED GREENHOUSES. <i>Acta Horticulturae</i> , 2008, , 339-346.	0.2	9
60	A cost-effective steam-driven RO plant for brackish groundwater. <i>Desalination</i> , 2016, 385, 167-177.	8.2	9
61	Batch reverse osmosis (BRO)-adsorption desalination (AD) hybrid system for multipurpose desalination and minimal liquid discharge. <i>Desalination</i> , 2022, 539, 115945.	8.2	9
62	Concentrated seawater brines for use in solar-powered desiccant cooling cycles. <i>RSC Advances</i> , 2012, 2, 7978.	3.6	8
63	Construction and Experimental Study of an Elevation Linear Fresnel Reflector. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2016, 138, .	1.8	8
64	Desalination as a negative emissions technology. <i>Environmental Science: Water Research and Technology</i> , 2018, 4, 839-850.	2.4	8
65	DesaLink: solar powered desalination of brackish groundwater giving high output and high recovery. <i>Desalination and Water Treatment</i> , 2013, 51, 1279-1289.	1.0	7
66	Proof of Concept: Pozzolan Bricks for Saline Water Evaporative Cooling in Controlled Environment Agriculture. <i>Applied Engineering in Agriculture</i> , 2018, 34, 929-937.	0.7	6
67	Feasibility of Solar Updraft Towers as Photocatalytic Reactors for Removal of Atmospheric Methane – The Role of Catalysts and Rate Limiting Steps. <i>Frontiers in Chemistry</i> , 2021, 9, 745347.	3.6	6
68	Stand-alone groundwater desalination system using reverse osmosis combined with a cooled greenhouse for use in arid and semi-arid zones of India. <i>Desalination and Water Treatment</i> , 2009, 5, 223-234.	1.0	5
69	Trigeneration using biomass energy for sustainable development. <i>International Journal of Energy Sector Management</i> , 2013, 7, 309-320.	2.3	5
70	Challenges surrounding nanosheets and their application to solar-driven photocatalytic water treatment. <i>Materials Advances</i> , 2022, 3, 4103-4131.	5.4	5
71	A high-efficiency solar Rankine engine with isothermal expansion. <i>International Journal of Low-Carbon Technologies</i> , 2013, 8, i27-i33.	2.6	4
72	Low-temperature organic Rankine cycle engine with isothermal expansion for use in desalination. <i>Desalination and Water Treatment</i> , 2015, 55, 3694-3703.	1.0	4

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73	A Finite Element Approach to Modelling the Hydrological Regime in Horizontal Subsurface Flow Constructed Wetlands for Wastewater Treatment. , 2010, , 85-101.		3
74	A SOLAR POWERED LIQUID-DESICCANT COOLING SYSTEM FOR GREENHOUSES. Acta Horticulturae, 2008, , 95-109.	0.2	2
75	Small-scale reverse osmosis brackish water desalting system combined with greenhouse application for use in remote arid communities. Desalination and Water Treatment, 2009, 3, 229-235.	1.0	2
76	Foam flows in turbulent liquid exfoliation of layered materials and implications for graphene production and inline characterisation. Chemical Engineering Research and Design, 2022, 177, 245-254.	5.6	2
77	Long term monitoring of constructed wetlands using an NMR sensor. , 2009, , .		1
78	An interdisciplinary approach to designing and evaluating a hybrid solar-biomass power plant. International Journal of Energy Sector Management, 2013, 7, 321-337.	2.3	0
79	Sustainable Energy Systems for Seawater Reverse Osmosis Desalination. , 2016, , 111-134.		0
80	Solar Pond Driven Air Conditioning Using Seawater Bitterns and MgCl ₂ as the Desiccant Source. , 2020, , .		0