

# Dieter Boer

## List of Publications by Year in descending order

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Version: 2024-02-01

73  
papers

2,909  
citations

126858

33  
h-index

168321

53  
g-index

73  
all docs

73  
docs citations

73  
times ranked

2948  
citing authors

#	ARTICLE	IF	CITATIONS
1	Design of environmentally conscious absorption cooling systems via multi-objective optimization and life cycle assessment. <i>Applied Energy</i> , 2009, 86, 1712-1722.	5.1	180
2	Integrated gasification combined cycle (IGCC) process simulation and optimization. <i>Computers and Chemical Engineering</i> , 2010, 34, 331-338.	2.0	172
3	Exergy analysis of multi-effect water-LiBr absorption systems: From half to triple effect. <i>Renewable Energy</i> , 2010, 35, 1773-1782.	4.3	139
4	Comparative life cycle assessment of thermal energy storage systems for solar power plants. <i>Renewable Energy</i> , 2012, 44, 166-173.	4.3	134
5	Life Cycle Assessment of the inclusion of phase change materials (PCM) in experimental buildings. <i>Energy and Buildings</i> , 2010, 42, 1517-1523.	3.1	128
6	Circular economy in the building and construction sector: A scientific evolution analysis. <i>Journal of Building Engineering</i> , 2021, 44, 102704.	1.6	122
7	Optimized demand side management (DSM) of peak electricity demand by coupling low temperature thermal energy storage (TES) and solar PV. <i>Applied Energy</i> , 2018, 211, 604-616.	5.1	113
8	Multi-objective optimization of solar Rankine cycles coupled with reverse osmosis desalination considering economic and life cycle environmental concerns. <i>Desalination</i> , 2012, 286, 358-371.	4.0	106
9	Multi-objective optimization coupled with life cycle assessment for retrofitting buildings. <i>Energy and Buildings</i> , 2014, 82, 92-99.	3.1	83
10	Enhanced thermal energy supply via central solar heating plants with seasonal storage: A multi-objective optimization approach. <i>Applied Energy</i> , 2016, 181, 549-561.	5.1	78
11	Environmental performance of recycled rubber as drainage layer in extensive green roofs. A comparative Life Cycle Assessment. <i>Building and Environment</i> , 2014, 74, 22-30.	3.0	72
12	Evaluation of the environmental impact of experimental buildings with different constructive systems using Material Flow Analysis and Life Cycle Assessment. <i>Applied Energy</i> , 2013, 109, 544-552.	5.1	67
13	Life Cycle Assessment of alveolar brick construction system incorporating phase change materials (PCMs). <i>Applied Energy</i> , 2013, 101, 600-608.	5.1	65
14	Material flow analysis of the residential building stock at the city of Rio de Janeiro. <i>Journal of Cleaner Production</i> , 2017, 149, 1249-1267.	4.6	64
15	A systematic tool for the minimization of the life cycle impact of solar assisted absorption cooling systems. <i>Energy</i> , 2010, 35, 3849-3862.	4.5	63
16	Evaluation of the environmental impact of experimental cubicles using Life Cycle Assessment: A highlight on the manufacturing phase. <i>Applied Energy</i> , 2012, 92, 534-544.	5.1	62
17	Multi-objective optimisation of bio-based thermal insulation materials in building envelopes considering condensation risk. <i>Applied Energy</i> , 2018, 224, 602-614.	5.1	60
18	Life Cycle Assessment of experimental cubicles including PCM manufactured from natural resources (esters): A theoretical study. <i>Renewable Energy</i> , 2013, 51, 398-403.	4.3	57

#	ARTICLE	IF	CITATIONS
19	Multi-objective design of reverse osmosis plants integrated with solar Rankine cycles and thermal energy storage. <i>Applied Energy</i> , 2013, 102, 1137-1147.	5.1	56
20	Embodied energy in thermal energy storage (TES) systems for high temperature applications. <i>Applied Energy</i> , 2015, 137, 793-799.	5.1	56
21	Multi-objective optimization of thermal modelled cubicles considering the total cost and life cycle environmental impact. <i>Energy and Buildings</i> , 2015, 88, 335-346.	3.1	56
22	Performance of double effect absorption compression cycles for air-conditioning using methanol-TEGDME and TFE-TEGDME systems as working pairs. <i>International Journal of Refrigeration</i> , 1998, 21, 542-555.	1.8	47
23	Life cycle assessment of a ventilated facade with PCM in its air chamber. <i>Solar Energy</i> , 2014, 104, 115-123.	2.9	47
24	Optimization of three new compositions of stabilized rammed earth incorporating PCM: Thermal properties characterization and LCA. <i>Construction and Building Materials</i> , 2013, 47, 872-878.	3.2	45
25	A bibliometric analysis of trends in solar cooling technology. <i>Solar Energy</i> , 2020, 199, 100-114.	2.9	44
26	Life cycle costing as a bottom line for the life cycle sustainability assessment in the solar energy sector: A review. <i>Solar Energy</i> , 2019, 192, 238-262.	2.9	42
27	Life Cycle Impact Assessment of masonry system as inner walls: A case study in Brazil. <i>Construction and Building Materials</i> , 2014, 70, 141-147.	3.2	39
28	Flexible heat pump integration to improve sustainable transition toward 4th generation district heating. <i>Energy Conversion and Management</i> , 2020, 225, 113379.	4.4	39
29	On the use of filters to facilitate the post-optimal analysis of the Pareto solutions in multi-objective optimization. <i>Computers and Chemical Engineering</i> , 2015, 74, 48-58.	2.0	38
30	Systematic approach for the life cycle multi-objective optimization of buildings combining objective reduction and surrogate modeling. <i>Energy and Buildings</i> , 2016, 130, 506-518.	3.1	38
31	Solar assisted absorption cooling cycles for reduction of global warming: A multi-objective optimization approach. <i>Solar Energy</i> , 2012, 86, 2083-2094.	2.9	37
32	Economic performance optimization of an absorption cooling system under uncertainty. <i>Applied Thermal Engineering</i> , 2009, 29, 3491-3500.	3.0	34
33	Minimization of the LCA impact of thermodynamic cycles using a combined simulation-optimization approach. <i>Applied Thermal Engineering</i> , 2012, 48, 367-377.	3.0	34
34	Economic and environmental potential for solar assisted central heating plants in the EU residential sector: Contribution to the 2030 climate and energy EU agenda. <i>Applied Energy</i> , 2019, 236, 318-339.	5.1	33
35	Densities, viscosities, and enthalpies of mixing of the binary system methanol + polyethylene glycol 250 dimethyl ether at 303.15 K. <i>Journal of Chemical &amp; Engineering Data</i> , 1994, 39, 767-769.	1.0	32
36	Uncertainty propagation and sensitivity analysis of thermo-physical properties of phase change materials (PCM) in the energy demand calculations of a test cell with passive latent thermal storage. <i>Applied Thermal Engineering</i> , 2015, 90, 596-608.	3.0	30

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37	Uncovering relationships between environmental metrics in the multi-objective optimization of energy systems: A case study of a thermal solar Rankine reverse osmosis desalination plant. <i>Energy</i> , 2013, 51, 50-60.	4.5	29
38	Stabilized rammed earth incorporating PCM: Optimization and improvement of thermal properties and Life Cycle Assessment. <i>Energy Procedia</i> , 2012, 30, 461-470.	1.8	28
39	Industrial heat recovery by absorption/compression heat pump using TFEâ€“H <sub>2</sub> Oâ€“TEGDME working mixture. <i>Applied Thermal Engineering</i> , 2000, 20, 355-369.	3.0	26
40	Optimum heat exchanger area estimation using coefficients of structural bonds: Application to an absorption chiller. <i>International Journal of Refrigeration</i> , 2010, 33, 529-537.	1.8	26
41	Life cycle assessment (LCA) of a pneumatic municipal waste collection system compared to traditional truck collection. Sensitivity study of the influence of the energy source. <i>Journal of Cleaner Production</i> , 2019, 231, 1122-1135.	4.6	25
42	A framework for the optimal integration of solar assisted district heating in different urban sized communities: A robust machine learning approach incorporating global sensitivity analysis. <i>Applied Energy</i> , 2020, 267, 114903.	5.1	25
43	Solar-driven absorption cycle for space heating and cooling. <i>Applied Thermal Engineering</i> , 2020, 168, 114836.	3.0	21
44	Approach for the analysis of TES technologies aiming towards a circular economy: Case study of building-like cubicles. <i>Renewable Energy</i> , 2020, 150, 589-597.	4.3	21
45	Reducing the cost, environmental impact and energy consumption of biofuel processes through heat integration. <i>Chemical Engineering Research and Design</i> , 2015, 93, 203-212.	2.7	20
46	Combined simulationâ€“optimization methodology for the design of environmental conscious absorption systems. <i>Computers and Chemical Engineering</i> , 2012, 46, 205-216.	2.0	19
47	Eco-costs evaluation for the optimal design of buildings with lower environmental impact. <i>Energy and Buildings</i> , 2016, 119, 189-199.	3.1	18
48	A real-time diagnostic tool for evaluating the thermal performance of nearly zero energy buildings. <i>Applied Energy</i> , 2021, 281, 116091.	5.1	14
49	Self-consumption possibilities by rooftop PV and building retrofit requirements for a regional building stock: The case of Catalonia. <i>Solar Energy</i> , 2022, 238, 150-161.	2.9	14
50	An Inquiry into the Life Cycle of Systems of Inner Walls: Comparison of Masonry and Drywall. <i>Sustainability</i> , 2015, 7, 7904-7925.	1.6	13
51	Systematic combination of insulation biomaterials to enhance energy and environmental efficiency in buildings. <i>Construction and Building Materials</i> , 2021, 267, 120973.	3.2	13
52	A framework for sustainable evaluation of thermal energy storage in circular economy. <i>Renewable Energy</i> , 2021, 175, 686-701.	4.3	13
53	Techno-economic analysis of control strategies for heat pumps integrated into solar district heating systems. <i>Journal of Energy Storage</i> , 2021, 42, 103011.	3.9	12
54	Sustainability insights on emerging solar district heating technologies to boost the nearly zero energy building concept. <i>Renewable Energy</i> , 2021, 180, 893-913.	4.3	12

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55	Absorption of organic fluid mixtures in plate heat exchangers. International Journal of Thermal Sciences, 2003, 42, 85-94.	2.6	9
56	Life Cycle Assessment: A Comparison of Ceramic Brick Inventories to Subsidize the Development of Databases in Brazil. Applied Mechanics and Materials, 0, 431, 370-377.	0.2	7
57	Economic Optimization of the Energy Supply for a Logistics Center Considering Variable-Rate Energy Tariffs and Integration of Photovoltaics. Applied Sciences (Switzerland), 2019, 9, 4711.	1.3	6
58	Life Cycle Inventory for Lead Azide Manufacture. Journal of Aerospace Technology and Management, 2014, 6, 53-60.	0.3	5
59	Framework for a Systematic Parametric Analysis to Maximize Energy Output of PV Modules Using an Experimental Design. Sustainability, 2019, 11, 2992.	1.6	5
60	Reducing the Life Cycle Environmental Impact of Buildings Following a Simulation-Optimization Approach. , 2017, , 823-839.		4
61	Multi-objective optimization of solar assisted absorption cooling system. Computer Aided Chemical Engineering, 2010, , 1033-1038.	0.3	3
62	Design of environmentally friendly absorption cooling systems via multi-objective optimization and life cycle assessment. Computer Aided Chemical Engineering, 2009, 26, 1099-1103.	0.3	2
63	Quality Indicators for Life Cycle Inventory: Real Cases Exploratory Application. Applied Mechanics and Materials, 0, 431, 350-355.	0.2	2
64	What, if Anything, is a Chemical Engineer?. Computer Aided Chemical Engineering, 2009, , 2121-2126.	0.3	1
65	Modelling and optimization framework for the multi-objective design of buildings. Computer Aided Chemical Engineering, 2016, , 883-888.	0.3	1
66	Cost-Effective Processes of Solar District Heating System Based on Optimal Artificial Neural Network. Computer Aided Chemical Engineering, 2020, 48, 403-408.	0.3	1
67	Sustainability Aspects of Thermal Energy Storage Systems. , 2020, , .		1
68	Targeting Energy Efficiency through Air Conditioning Operational Modes for Residential Buildings in Tropical Climates, Assisted by Solar Energy and Thermal Energy Storage. Case Study Brazil. Sustainability, 2021, 13, 12831.	1.6	1
69	Integrating process simulation and MINLP methods for the optimal design of absorption cooling systems. Computer Aided Chemical Engineering, 2011, , 301-305.	0.3	0
70	Systematic generation of insulation materials via DEA and Building modelling. Computer Aided Chemical Engineering, 2018, 43, 457-462.	0.3	0
71	Optimization of Time-Of-Use Tariffs Demand Side Management Coupled with Cold Thermal Energy Storage (TES) and Solar PV to Reduce On-Peak Demand. , 2016, , .		0
72	Price-Based Demand Side Management (DSM) Coupled with Cold Thermal Energy Storage (TES) and Solar PV for Peak-Load Reduction. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
73	A Multicriteria Approach to Evaluate Solar Assisted District Heating in the German Market. , 2020, , .		0