

# Wei Cai

## 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.

62  
papers

1,913  
citations

24  
h-index

43  
g-index

66  
ext. papers

2,472  
ext. citations

7.1  
avg, IF

5.92  
L-index

#	Paper	IF	Citations
62	Dynamics analysis and energy consumption modelling based on bond graph: Taking the spindle system as an example. <i>Journal of Manufacturing Systems</i> , <b>2022</b> , 62, 539-549	9.1	0
61	A review on methods of energy performance improvement towards sustainable manufacturing from perspectives of energy monitoring, evaluation, optimization and benchmarking. <i>Renewable and Sustainable Energy Reviews</i> , <b>2022</b> , 159, 112227	16.2	2
60	Energy saving and high efficiency production oriented forward-and-reverse multidirectional turning: Energy modeling and applicatio. <i>Energy</i> , <b>2022</b> , 123981	7.9	0
59	Data- driven remanufacturability evaluation method of waste parts. <i>IEEE Transactions on Industrial Informatics</i> , <b>2021</b> , 1-1	11.9	8
58	Modelling approach for energy efficiency of machining system based on torque model and angular velocity. <i>Journal of Cleaner Production</i> , <b>2021</b> , 293, 126249	10.3	3
57	CO2 Emission and Energy Consumption from Automobile Industry in China: Decomposition and Analyses of Driving Forces. <i>Processes</i> , <b>2021</b> , 9, 810	2.9	9
56	Data driven eco-efficiency evaluation and optimization in industrial production. <i>Energy</i> , <b>2021</b> , 224, 1201709	7.9	19
55	Energy Optimisation For End Face Turning With Variable Material Removal Rate Considering the Spindle Speed Changes. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , <b>2021</b> , 8, 625-638	3.8	7
54	Sustainability assessment of mechanical manufacturing systems in the industrial sector. <i>Renewable and Sustainable Energy Reviews</i> , <b>2021</b> , 135, 110169	16.2	18
53	Energy based intelligent decision-making model for remanufacturing process scheme integrating economic and environmental factors. <i>Journal of Cleaner Production</i> , <b>2021</b> , 291, 125247	10.3	4
52	Remanufacturability evaluation of end-of-life products considering technology, economy and environment: A review. <i>Science of the Total Environment</i> , <b>2021</b> , 764, 142922	10.2	6
51	. <i>IEEE Access</i> , <b>2021</b> , 9, 105270-105285	3.5	0
50	Energy modeling and visualization analysis method of drilling processes in the manufacturing industry. <i>Energy</i> , <b>2021</b> , 228, 120567	7.9	10
49	Decoupling of wastewater eco-environmental damage and China's economic development. <i>Science of the Total Environment</i> , <b>2021</b> , 789, 147980	10.2	18
48	Responsible Production for Sustainability: Concept Analysis and Bibliometric Review. <i>Sustainability</i> , <b>2021</b> , 13, 1275	3.6	4
47	Multi-Objective Optimization of CNC Turning Process Parameters Considering Transient-Steady State Energy Consumption. <i>Sustainability</i> , <b>2021</b> , 13, 13803	3.6	0
46	Low carbon roadmap of residential building sector in China: Historical mitigation and prospective peak. <i>Applied Energy</i> , <b>2020</b> , 273, 115247	10.7	108

45	A review on energy, environment and economic assessment in remanufacturing based on life cycle assessment method. <i>Journal of Cleaner Production</i> , <b>2020</b> , 255, 120160	10.3	54
44	Parameters optimization considering the trade-off between cutting power and MRR based on Linear Decreasing Particle Swarm Algorithm in milling. <i>Journal of Cleaner Production</i> , <b>2020</b> , 262, 121388	10.3	17
43	An energy-based sustainability evaluation method for outsourcing machining resources. <i>Journal of Cleaner Production</i> , <b>2020</b> , 245, 118849	10.3	16
42	An integrated optimization control method for remanufacturing assembly system. <i>Journal of Cleaner Production</i> , <b>2020</b> , 248, 119261	10.3	24
41	Driving forces of China's CO emissions from energy consumption based on Kaya-LMDI methods. <i>Science of the Total Environment</i> , <b>2020</b> , 711, 134569	10.2	83
40	Dynamic characteristics and energy consumption modelling of machine tools based on bond graph theory. <i>Energy</i> , <b>2020</b> , 212, 118767	7.9	9
39	An investigation into the method of energy monitoring and reduction for machining systems. <i>Journal of Manufacturing Systems</i> , <b>2020</b> , 57, 390-399	9.1	9
38	Predicting China's energy consumption using a novel grey Riccati model. <i>Applied Soft Computing Journal</i> , <b>2020</b> , 95, 106555	7.5	17
37	An Integrated Optimization Decision Method for Remanufacturing Process Based on Conditional Evidence Theory Under Uncertainty. <i>IEEE Access</i> , <b>2020</b> , 8, 221119-221126	3.5	1
36	An integrated decision-making method for selecting machine tool guideways considering remanufacturability. <i>International Journal of Computer Integrated Manufacturing</i> , <b>2020</b> , 33, 686-700	4.3	23
35	Task-Oriented Energy Benchmark of Machining Systems for Energy-Efficient Production. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , <b>2020</b> , 7, 205-218	3.8	18
34	Data-driven ecological performance evaluation for remanufacturing process. <i>Energy Conversion and Management</i> , <b>2019</b> , 198, 111844	10.6	52
33	Carbon-dioxide mitigation in the residential building sector: A household scale-based assessment. <i>Energy Conversion and Management</i> , <b>2019</b> , 198, 111915	10.6	125
32	Whether carbon intensity in the commercial building sector decouples from economic development in the service industry? Empirical evidence from the top five urban agglomerations in China. <i>Journal of Cleaner Production</i> , <b>2019</b> , 222, 193-205	10.3	99
31	Optimisation of cutting parameters for improving energy efficiency in machining process. <i>Robotics and Computer-Integrated Manufacturing</i> , <b>2019</b> , 59, 406-416	9.2	25
30	The coupling mechanism of reassembly quality with uncertainty of remanufactured parts. <i>Assembly Automation</i> , <b>2019</b> , 39, 548-555	2.1	4
29	A remanufacturing cost prediction model of used parts considering failure characteristics. <i>Robotics and Computer-Integrated Manufacturing</i> , <b>2019</b> , 59, 291-296	9.2	18
28	Energy performance certification in mechanical manufacturing industry: A review and analysis. <i>Energy Conversion and Management</i> , <b>2019</b> , 186, 415-432	10.6	65

27	Forecasting short-term renewable energy consumption of China using a novel fractional nonlinear grey Bernoulli model. <i>Renewable Energy</i> , <b>2019</b> , 140, 70-87	8.1	121
26	Promoting sustainability of manufacturing industry through the lean energy-saving and emission-reduction strategy. <i>Science of the Total Environment</i> , <b>2019</b> , 665, 23-32	10.2	147
25	A sustainability evaluation method integrating the energy, economic and environment in remanufacturing systems. <i>Journal of Cleaner Production</i> , <b>2019</b> , 239, 118100	10.3	26
24	Research on the Characteristics and Methodology for Predicting Energy Efficiency during the Service Process of Machine Tools. <i>Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering</i> , <b>2019</b> , 55, 172	1.3	2
23	A review on remanufacturing assembly management and technology. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2019</b> , 105, 4797-4808	3.2	27
22	Establishing prediction models for feeding power and material drilling power to support sustainable machining. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2019</b> , 100, 2243-2253 <sup>2</sup>	3.2	21
21	Energy based sustainability evaluation of remanufacturing machining systems. <i>Energy</i> , <b>2018</b> , 150, 670-680	7.9	46
20	An analytical investigation on energy efficiency of high-speed dry-cutting CNC hobbing machines. <i>International Journal of Sustainable Engineering</i> , <b>2018</b> , 11, 412-419	3.1	7
19	Energy benchmarking rules in machining systems. <i>Energy</i> , <b>2018</b> , 142, 258-263	7.9	28
18	Energy efficiency evaluation for machining systems through virtual part. <i>Energy</i> , <b>2018</b> , 159, 172-183	7.9	21
17	Energy modeling method of machine-operator system for sustainable machining. <i>Energy Conversion and Management</i> , <b>2018</b> , 172, 265-276	10.6	47
16	Developing the ecological compensation criterion of industrial solid waste based on energy for sustainable development. <i>Energy</i> , <b>2018</b> , 157, 940-948	7.9	82
15	Connotation and Assessment Method for Inherent Energy Efficiency of Machine Tools. <i>Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering</i> , <b>2018</b> , 54, 167	1.3	4
14	Establishment of an Improved Material-Drilling Power Model to Support Energy Management of Drilling Processes. <i>Energies</i> , <b>2018</b> , 11, 2013	3.1	7
13	Exploring the effect of un-deformed chip parameters on energy consumption for energy efficiency improvement in the milling. <i>Procedia CIRP</i> , <b>2018</b> , 72, 1380-1385	1.8	1
12	Application of the novel fractional grey model FAGMO(1,1,k) to predict China's nuclear energy consumption. <i>Energy</i> , <b>2018</b> , 165, 223-234	7.9	67
11	Energy-based evaluation and improvement for sustainable manufacturing systems considering resource efficiency and environment performance. <i>Energy Conversion and Management</i> , <b>2018</b> , 177, 176-189	10.6	38
10	Carbon abatement in China's commercial building sector: A bottom-up measurement model based on Kaya-LMDI methods. <i>Energy</i> , <b>2018</b> , 165, 350-368	7.9	93

9	Development of dynamic energy benchmark for mass production in machining systems for energy management and energy-efficiency improvement. <i>Applied Energy</i> , <b>2017</b> , 202, 715-725	10.7	46
8	A tool for assessing the energy demand and efficiency of machining systems: Energy benchmarking. <i>Energy</i> , <b>2017</b> , 138, 332-347	7.9	42
7	An energy management approach for the mechanical manufacturing industry through developing a multi-objective energy benchmark. <i>Energy Conversion and Management</i> , <b>2017</b> , 132, 361-371	10.6	50
6	The Statue and Difficult Problems of Research on Energy Efficiency of Manufacturing Systems. <i>Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering</i> , <b>2017</b> , 53, 1	1.3	7
5	Fine energy consumption allowance of workpieces in the mechanical manufacturing industry. <i>Energy</i> , <b>2016</b> , 114, 623-633	7.9	60
4	An energy-consumption model for establishing energy-consumption allowance of a workpiece in a machining system. <i>Journal of Cleaner Production</i> , <b>2016</b> , 135, 1580-1590	10.3	36
3	The Complexity and Strategy for Establishing Product Energy Consumption Allowance in Discrete Manufacturing Industry. <i>Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering</i> , <b>2015</b> , 51, 138	1.3	12
2	Research on a Device of Seawater Desalination Based on Pressure-GAS Distillation Techniques. <i>Advanced Materials Research</i> , <b>2013</b> , 641-642, 92-96	0.5	
1	Energy Performance Evaluation Method for Machining Systems Towards Energy Saving and Emission Reduction. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 1	3.8	