Wei Cai

List of Publications by Citations

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	Promoting sustainability of manufacturing industry through the lean energy-saving and emission-reduction strategy. *Science of the Total Environment*, **2019**, 665, 23-32	10.2	147
61	Carbon-dioxide mitigation in the residential building sector: A household scale-based assessment. *Energy Conversion and Management*, **2019**, 198, 111915	10.6	125
60	Forecasting short-term renewable energy consumption of China using a novel fractional nonlinear grey Bernoulli model. *Renewable Energy*, **2019**, 140, 70-87	8.1	121
59	Low carbon roadmap of residential building sector in China: Historical mitigation and prospective peak. *Applied Energy*, **2020**, 273, 115247	10.7	108
58	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. *Journal of Cleaner Production*, **2019**, 222, 193-205	10.3	99
57	Carbon abatement in China's commercial building sector: A bottom-up measurement model based on Kaya-LMDI methods. *Energy*, **2018**, 165, 350-368	7.9	93
56	Driving forces of China's CO emissions from energy consumption based on Kaya-LMDI methods. *Science of the Total Environment*, **2020**, 711, 134569	10.2	83
55	Developing the ecological compensation criterion of industrial solid waste based on emergy for sustainable development. *Energy*, **2018**, 157, 940-948	7.9	82
54	Application of the novel fractional grey model FAGMO(1,1,k) to predict China's nuclear energy consumption. *Energy*, **2018**, 165, 223-234	7.9	67
53	Energy performance certification in mechanical manufacturing industry: A review and analysis. *Energy Conversion and Management*, **2019**, 186, 415-432	10.6	65
52	Fine energy consumption allowance of workpieces in the mechanical manufacturing industry. *Energy*, **2016**, 114, 623-633	7.9	60
51	A review on energy, environment and economic assessment in remanufacturing based on life cycle assessment method. *Journal of Cleaner Production*, **2020**, 255, 120160	10.3	54
50	Data-driven ecological performance evaluation for remanufacturing process. *Energy Conversion and Management*, **2019**, 198, 111844	10.6	52
49	An energy management approach for the mechanical manufacturing industry through developing a multi-objective energy benchmark. *Energy Conversion and Management*, **2017**, 132, 361-371	10.6	50
48	Energy modeling method of machine-operator system for sustainable machining. *Energy Conversion and Management*, **2018**, 172, 265-276	10.6	47
47	Development of dynamic energy benchmark for mass production in machining systems for energy management and energy-efficiency improvement. *Applied Energy*, **2017**, 202, 715-725	10.7	46
46	Emergy based sustainability evaluation of remanufacturing machining systems. *Energy*, **2018**, 150, 670-680	7.9	46

45	A tool for assessing the energy demand and efficiency of machining systems: Energy benchmarking. *Energy*, **2017**, 138, 332-347	7.9	42
44	Emergy-based evaluation and improvement for sustainable manufacturing systems considering resource efficiency and environment performance. *Energy Conversion and Management*, **2018**, 177, 176-189	10.6	38
43	An energy-consumption model for establishing energy-consumption allowance of a workpiece in a machining system. *Journal of Cleaner Production*, **2016**, 135, 1580-1590	10.3	36
42	Energy benchmarking rules in machining systems. *Energy*, **2018**, 142, 258-263	7.9	28
41	A review on remanufacturing assembly management and technology. *International Journal of Advanced Manufacturing Technology*, **2019**, 105, 4797-4808	3.2	27
40	A sustainability evaluation method integrating the energy, economic and environment in remanufacturing systems. *Journal of Cleaner Production*, **2019**, 239, 118100	10.3	26
39	Optimisation of cutting parameters for improving energy efficiency in machining process. *Robotics and Computer-Integrated Manufacturing*, **2019**, 59, 406-416	9.2	25
38	An integrated optimization control method for remanufacturing assembly system. *Journal of Cleaner Production*, **2020**, 248, 119261	10.3	24
37	An integrated decision-making method for selecting machine tool guideways considering remanufacturability. *International Journal of Computer Integrated Manufacturing*, **2020**, 33, 686-700	4.3	23
36	Energy efficiency evaluation for machining systems through virtual part. *Energy*, **2018**, 159, 172-183	7.9	21
35	Establishing prediction models for feeding power and material drilling power to support sustainable machining. *International Journal of Advanced Manufacturing Technology*, **2019**, 100, 2243-2253	3.2	21
34	Data driven eco-efficiency evaluation and optimization in industrial production. *Energy*, **2021**, 224, 120170	7.9	19
33	A remanufacturing cost prediction model of used parts considering failure characteristics. *Robotics and Computer-Integrated Manufacturing*, **2019**, 59, 291-296	9.2	18
32	Task-Oriented Energy Benchmark of Machining Systems for Energy-Efficient Production. *International Journal of Precision Engineering and Manufacturing - Green Technology*, **2020**, 7, 205-218	3.8	18
31	Sustainability assessment of mechanical manufacturing systems in the industrial sector. *Renewable and Sustainable Energy Reviews*, **2021**, 135, 110169	16.2	18
30	Decoupling of wastewater eco-environmental damage and China's economic development. *Science of the Total Environment*, **2021**, 789, 147980	10.2	18
29	Parameters optimization considering the trade-off between cutting power and MRR based on Linear Decreasing Particle Swarm Algorithm in milling. *Journal of Cleaner Production*, **2020**, 262, 121388	10.3	17
28	Predicting China's energy consumption using a novel grey Riccati model. *Applied Soft Computing Journal*, **2020**, 95, 106555	7.5	17

27	An emergy-based sustainability evaluation method for outsourcing machining resources. *Journal of Cleaner Production*, **2020**, 245, 118849	10.3	16
26	The Complexity and Strategy for Establishing Product Energy Consumption Allowance in Discrete Manufacturing Industry. *Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering*, **2015**, 51, 138	1.3	12
25	Energy modeling and visualization analysis method of drilling processes in the manufacturing industry. *Energy*, **2021**, 228, 120567	7.9	10
24	Dynamic characteristics and energy consumption modelling of machine tools based on bond graph theory. *Energy*, **2020**, 212, 118767	7.9	9
23	An investigation into the method of energy monitoring and reduction for machining systems. *Journal of Manufacturing Systems*, **2020**, 57, 390-399	9.1	9
22	CO2 Emission and Energy Consumption from Automobile Industry in China: Decomposition and Analyses of Driving Forces. *Processes*, **2021**, 9, 810	2.9	9
21	Data- driven remanufacturability evaluation method of waste parts. *IEEE Transactions on Industrial Informatics*, **2021**, 1-1	11.9	8
20	An analytical investigation on energy efficiency of high-speed dry-cutting CNC hobbing machines. *International Journal of Sustainable Engineering*, **2018**, 11, 412-419	3.1	7
19	The Statue and Difficult Problems of Research on Energy Efficiency of Manufacturing Systems. *Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering*, **2017**, 53, 1	1.3	7
18	Energy Optimisation For End Face Turning With Variable Material Removal Rate Considering the Spindle Speed Changes. *International Journal of Precision Engineering and Manufacturing - Green Technology*, **2021**, 8, 625-638	3.8	7
17	Establishment of an Improved Material-Drilling Power Model to Support Energy Management of Drilling Processes. *Energies*, **2018**, 11, 2013	3.1	7
16	Remanufacturability evaluation of end-of-life products considering technology, economy and environment: A review. *Science of the Total Environment*, **2021**, 764, 142922	10.2	6
15	The coupling mechanism of reassembly quality with uncertainty of remanufactured parts. *Assembly Automation*, **2019**, 39, 548-555	2.1	4
14	Connotation and Assessment Method for Inherent Energy Efficiency of Machine Tools. *Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering*, **2018**, 54, 167	1.3	4
13	Emergy based intelligent decision-making model for remanufacturing process scheme integrating economic and environmental factors. *Journal of Cleaner Production*, **2021**, 291, 125247	10.3	4
12	Responsible Production for Sustainability: Concept Analysis and Bibliometric Review. *Sustainability*, **2021**, 13, 1275	3.6	4
11	Modelling approach for energy efficiency of machining system based on torque model and angular velocity. *Journal of Cleaner Production*, **2021**, 293, 126249	10.3	3
10	Research on the Characteristics and Methodology for Predicting Energy Efficiency during the Service Process of Machine Tools. *Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering*, **2019**, 55, 172	1.3	2

List of Publications

9	A review on methods of energy performance improvement towards sustainable manufacturing from perspectives of energy monitoring, evaluation, optimization and benchmarking. *Renewable and Sustainable Energy Reviews*, **2022**, 159, 112227	16.2	2
8	An Integrated Optimization Decision Method for Remanufacturing Process Based on Conditional Evidence Theory Under Uncertainty. *IEEE Access*, **2020**, 8, 221119-221126	3.5	1
7	Exploring the effect of un-deformed chip parameters on energy consumption for energy efficiency improvement in the milling. *Procedia CIRP*, **2018**, 72, 1380-1385	1.8	1
6	Dynamics analysis and energy consumption modelling based on bond graph: Taking the spindle system as an example. *Journal of Manufacturing Systems*, **2022**, 62, 539-549	9.1	0
5	. *IEEE Access*, **2021**, 9, 105270-105285	3.5	0
4	Multi-Objective Optimization of CNC Turning Process Parameters Considering Transient-Steady State Energy Consumption. *Sustainability*, **2021**, 13, 13803	3.6	0
3	Energy saving and high efficiency production oriented forward-and-reverse multidirectional turning: Energy modeling and applicatio. *Energy*, **2022**, 123981	7.9	0
2	Research on a Device of Seawater Desalination Based on Pressure-GAS Distillation Techniques. *Advanced Materials Research*, **2013**, 641-642, 92-96	0.5	
1	Energy Performance Evaluation Method for Machining Systems Towards Energy Saving and Emission Reduction. *International Journal of Precision Engineering and Manufacturing - Green Technology*,1	3.8	