

Christoph Herrmann

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5086804/publications.pdf>

Version: 2024-02-01

205
papers

7,049
citations

81743

39
h-index

76769

74
g-index

211
all docs

211
docs citations

211
times ranked

4616
citing authors

#	ARTICLE	IF	CITATIONS
1	Enabling Energy Efficient HVAC Operation Through IWSNs. IEEE Transactions on Green Communications and Networking, 2022, 6, 132-147.	3.5	5
2	Synergetic Modelling of Energy and Resource Efficiency as well as Occupational Safety and Health Risks of Plating Process Chains. International Journal of Precision Engineering and Manufacturing - Green Technology, 2022, 9, 795-815.	2.7	5
3	Digitalization Platform for Mechanistic Modeling of Battery Cell Production. Sustainability, 2022, 14, 1530.	1.6	5
4	How to characterize a NDT method for weld inspection in battery cell manufacturing using deep learning. International Journal of Advanced Manufacturing Technology, 2022, 119, 4829.	1.5	5
5	Life cycle assessment of natural graphite production for lithium-ion battery anodes based on industrial primary data. Journal of Cleaner Production, 2022, 336, 130474.	4.6	38
6	LCA based analysis of product portfolios - towards decarbonization. Procedia CIRP, 2022, 105, 519-524.	1.0	2
7	Comparison of conventional and electric passenger aircraft for short-haul flights – A life cycle sustainability assessment. Procedia CIRP, 2022, 105, 464-469.	1.0	7
8	A creativity-driven Case-Based Reasoning Approach for the systematic Engineering of Sustainable Business Models. Procedia CIRP, 2022, 105, 470-475.	1.0	0
9	Ontology-based approach to support life cycle engineering: Development of a data and knowledge structure. Procedia CIRP, 2022, 105, 398-403.	1.0	6
10	Multi-scale Simulation for Energy Flexible Factories and Factory Networks: A System of Systems Perspective. Procedia CIRP, 2022, 105, 404-409.	1.0	2
11	Methodology for a combined uncertainty analysis and data quality rating of existing graphite datasets in context of battery LCAs. Procedia CIRP, 2022, 105, 577-582.	1.0	5
12	Life Cycle Engineering Modelling Framework for batteries powering electric aircrafts – the contribution of eVTOLs towards a more sustainable urban mobility. Procedia CIRP, 2022, 105, 368-373.	1.0	4
13	Model-based energy flexibility analysis of a dry room HVAC system in battery cell production. Procedia CIRP, 2022, 105, 410-415.	1.0	5
14	Systematic Development of Sustainability-Oriented Cyber-Physical Production Systems. Sustainability, 2022, 14, 2080.	1.6	4
15	A data mining approach for continuous battery cell manufacturing processes from development towards production. Advances in Industrial and Manufacturing Engineering, 2022, 4, 100078.	1.2	4
16	Energy efficiency of Heating, Ventilation and Air Conditioning systems in production environments through model-predictive control schemes: The case of battery production. Journal of Cleaner Production, 2022, 350, 131354.	4.6	7
17	Preface for Green Manufacturing Coping with Climate Change and Pandemics. International Journal of Precision Engineering and Manufacturing - Green Technology, 2022, 9, 693.	2.7	0
18	Combining Life Cycle Assessment and Manufacturing System Simulation: Evaluating Dynamic Impacts from Renewable Energy Supply on Product-Specific Environmental Footprints. International Journal of Precision Engineering and Manufacturing - Green Technology, 2021, 8, 1007-1026.	2.7	27

#	ARTICLE	IF	CITATIONS
19	Data based analysis and improvement of energy efficiency in the automotive body shop. Journal of Cleaner Production, 2021, 284, 125269.	4.6	0
20	Cyber-physical production system approach for energy and resource efficient planning and operation of plating process chains. Journal of Cleaner Production, 2021, 280, 125160.	4.6	23
21	A modular LCA/LCC-modelling concept for evaluating material and process innovations in carbon fibre manufacturing. Procedia CIRP, 2021, 98, 529-534.	1.0	15
22	Systematic Design of Body Concepts Regarding Mini-Mal Environmental Impacts in an Early Concept Phase. Zukunftstechnologien Für Den Multifunktionalen Leichtbau, 2021, , 97-109.	0.1	0
23	Life Cycle Engineering of Composite Materials. , 2021, , 235-244.		2
24	Data-driven energy analysis of supermarkets: a multi-level approach for different stakeholders. Procedia CIRP, 2021, 98, 61-66.	1.0	0
25	Integrated Material-Energy-Quality Assessment for Lithium-ion Battery Cell Manufacturing. Procedia CIRP, 2021, 98, 388-393.	1.0	12
26	Development of a Decision Support System for 3D Printing Processes based on Cyber Physical Production Systems. Procedia CIRP, 2021, 98, 348-353.	1.0	12
27	Life cycle sustainability assessment of potential battery systems for electric aircraft. Procedia CIRP, 2021, 98, 660-665.	1.0	16
28	A case study on the observability of cutting fluid flow and the associated contact mechanics in scaled rough surfaces. SN Applied Sciences, 2021, 3, 1.	1.5	1
29	Machine learning and simulation-based surrogate modeling for improved process chain operation. International Journal of Advanced Manufacturing Technology, 2021, 117, 2297-2307.	1.5	8
30	Modelling and analysis of the energy intensity in polyacrylonitrile (PAN) precursor and carbon fibre manufacturing. Journal of Cleaner Production, 2021, 303, 127105.	4.6	24
31	Battery production design using multi-output machine learning models. Energy Storage Materials, 2021, 38, 93-112.	9.5	45
32	Process Modeling and Simulation of Tableting – An Agent-Based Simulation Methodology for Direct Compression. Pharmaceutics, 2021, 13, 996.	2.0	8
33	Versatile IT-system architecture for smart manufacturing solutions: the example for green manufacturing. International Journal of Computer Integrated Manufacturing, 2021, 34, 1067-1085.	2.9	0
34	Data-driven failure mode and effect analysis (FMEA) to enhance maintenance planning. Computers in Industry, 2021, 129, 103451.	5.7	41
35	Energy efficiency of technical building services in production environments – Application to dry rooms in battery production. CIRP Annals - Manufacturing Technology, 2021, 70, 21-24.	1.7	5
36	A Concept for Blockchain-Based LCA and its Application in the Context of Aircraft MRO. Procedia CIRP, 2021, 98, 394-399.	1.0	14

#	ARTICLE	IF	CITATIONS
37	Model-based energy analysis of a dry room HVAC system in battery cell production. Procedia CIRP, 2021, 98, 157-162.	1.0	16
38	Integrating Environmental Assessment of Emerging Materials into the Material Selection Process. Sustainable Production, Life Cycle Engineering and Management, 2021, , 83-98.	0.2	0
39	Bottleneck reduction strategies for energy efficiency in the battery manufacturing. Procedia CIRP, 2021, 104, 1017-1022.	1.0	11
40	Ontology-based Traceability System for Interoperable Data Acquisition in Battery Cell Manufacturing. Procedia CIRP, 2021, 104, 1215-1220.	1.0	8
41	Data-driven Analysis of Product Property Propagation to Support Process-integrated Quality Management in Manufacturing Systems. Procedia CIRP, 2021, 104, 900-905.	1.0	3
42	Model-based identification of production tolerances in battery production. Procedia CIRP, 2021, 104, 1059-1064.	1.0	5
43	Toward Data-Driven Applications in Lithium-Ion Battery Cell Manufacturing. Energy Technology, 2020, 8, 1900136.	1.8	79
44	Urban factoriesâ€™ interdisciplinary perspectives on resource efficiency. , 2020, , 41-52.		6
45	Towards knowledge based LCE of battery technologies. Procedia CIRP, 2020, 90, 683-688.	1.0	5
46	Transferring life cycle engineering to surface engineering. Procedia CIRP, 2020, 90, 557-562.	1.0	10
47	Life Cycle Engineering of future aircraft systems: the case of eVTOL vehicles. Procedia CIRP, 2020, 90, 297-302.	1.0	18
48	Combining Simulation and Machine Learning as Digital Twin for the Manufacturing of Overmolded Thermoplastic Composites. Journal of Manufacturing and Materials Processing, 2020, 4, 92.	1.0	31
49	Recycling 4.0 â€“ Mapping smart manufacturing solutions to remanufacturing and recycling operations. Procedia CIRP, 2020, 90, 600-605.	1.0	25
50	Data-driven cyber-physical System for Quality Gates in Lithium-ion Battery Cell Manufacturing. Procedia CIRP, 2020, 93, 168-173.	1.0	21
51	Machine learning based analysis of factory energy load curves with focus on transition times for anomaly detection. Procedia CIRP, 2020, 93, 461-466.	1.0	3
52	Enabling smart manufacturing through a systematic planning framework for edge computing. CIRP Journal of Manufacturing Science and Technology, 2020, 31, 351-369.	2.3	16
53	Virtual Quality Gates in Manufacturing Systems: Framework, Implementation and Potential. Journal of Manufacturing and Materials Processing, 2020, 4, 106.	1.0	15
54	Sustainability Assessment and Engineering of Emerging Aircraft Technologiesâ€™ Challenges, Methods and Tools. Sustainability, 2020, 12, 5663.	1.6	32

#	ARTICLE	IF	CITATIONS
55	Model-based analysis, control and dosing of electroplating electrolytes. International Journal of Advanced Manufacturing Technology, 2020, 111, 1751-1766.	1.5	6
56	End-of-Life Options for Bio-Based Plastics in a Circular Economy – Status Quo and Potential from a Life Cycle Assessment Perspective. Resources, 2020, 9, 90.	1.6	33
57	Design of Eco-Efficient Body Parts for Electric Vehicles Considering Life Cycle Environmental Information. Sustainability, 2020, 12, 5838.	1.6	10
58	Integrated computational product and production engineering for multi-material lightweight structures. International Journal of Advanced Manufacturing Technology, 2020, 110, 2551-2571.	1.5	10
59	Biological transformation of manufacturing as a pathway towards environmental sustainability: Calling for systemic thinking. CIRP Journal of Manufacturing Science and Technology, 2020, 34, 157-157.	2.3	4
60	Tracking and Tracing for Data Mining Application in the Lithium-ion Battery Production. Procedia CIRP, 2020, 93, 162-167.	1.0	23
61	Data-Driven Digital Twins for Technical Building Services Operation in Factories: A Cooling Tower Case Study. Journal of Manufacturing and Materials Processing, 2020, 4, 97.	1.0	23
62	Multi-Criteria Optimization in the Production of Lithium-Ion Batteries. Procedia Manufacturing, 2020, 43, 720-727.	1.9	13
63	Modeling the Impact of Manufacturing Uncertainties on Lithium-Ion Batteries. Journal of the Electrochemical Society, 2020, 167, 060501.	1.3	55
64	Urban production: State of the art and future trends for urban factories. CIRP Annals - Manufacturing Technology, 2020, 69, 764-787.	1.7	38
65	Life cycle assessment of an automotive factory: Identifying challenges for the decarbonization of automotive production – A case study. Journal of Cleaner Production, 2020, 270, 122330.	4.6	28
66	Smart Manufacturing for Smart Cities – Overview, Insights, and Future Directions. Advanced Intelligent Systems, 2020, 2, 2000043.	3.3	29
67	Life cycle assessment of a disposable and a reusable surgery instrument set for spinal fusion surgeries. Resources, Conservation and Recycling, 2020, 156, 104704.	5.3	42
68	Machine learning approach for systematic analysis of energy efficiency potentials in manufacturing processes: A case of battery production. CIRP Annals - Manufacturing Technology, 2020, 69, 21-24.	1.7	39
69	Architecture and development approach for integrated cyber-physical production-service systems (CPPSS). Procedia CIRP, 2020, 90, 742-747.	1.0	5
70	Data Analytics of Energy and Compressed Air Flows for Process and Quality Monitoring in Electro-Pneumatic Handling Systems. Sustainable Production, Life Cycle Engineering and Management, 2020, , 109-116.	0.2	0
71	Indo-German Center for Sustainable Manufacturing: A Collaboration Between Birla Institute of Technology and Science Pilani and Technische Universität Braunschweig. Sustainable Production, Life Cycle Engineering and Management, 2020, , 1-12.	0.2	0
72	Choosing Products for Decentralized Manufacturing: Utilizing Recycled 3D Printing Filament in India and Germany. Sustainable Production, Life Cycle Engineering and Management, 2020, , 31-39.	0.2	0

#	ARTICLE	IF	CITATIONS
73	3-CYCLE" A Modular Process Chain for Recycling of Plastic Waste with Filament-Based 3D Printing for Learning Factories. Sustainable Production, Life Cycle Engineering and Management, 2020, , 79-87.	0.2	1
74	Evaluation of the Recyclability of Traction Batteries Using the Concept of Information Theory Entropy. , 2019, , 93-103.		2
75	Analyzing different material supply strategies in matrix-structured manufacturing systems. Procedia CIRP, 2019, 81, 1004-1009.	1.0	14
76	Integrative simulation of information flows in manufacturing systems. Procedia CIRP, 2019, 81, 647-652.	1.0	4
77	Data-and Expert-Driven Analysis of Cause-Effect Relationships in the Production of Lithium-Ion Batteries. , 2019, , .		12
78	Simulation-based assessment of the energy demand in battery cell manufacturing. Procedia CIRP, 2019, 80, 126-131.	1.0	37
79	Automated statistical evaluation of energy data in the automotive production. Procedia CIRP, 2019, 81, 1154-1159.	1.0	9
80	Life Cycle Assessment for the comparison of urban and non-urban produced products. Procedia CIRP, 2019, 80, 405-410.	1.0	13
81	The Influence of Manufacturing Plant Site Selection on Environmental Impact of Machining Processes. Procedia CIRP, 2019, 80, 186-191.	1.0	12
82	Exploring the Opportunities of System of Systems Engineering to Complement Sustainable Manufacturing and Life Cycle Engineering. Procedia CIRP, 2019, 80, 637-642.	1.0	15
83	Integrating environmental impact targets in early phases of production planning for lightweight structures. Procedia CIRP, 2019, 80, 168-173.	1.0	6
84	Implementing mixed reality in automotive life cycle engineering: A visual analytics based approach. Procedia CIRP, 2019, 80, 717-722.	1.0	6
85	Cradle-to-Gate Analysis of the Embodied Energy in Lithium Ion Batteries. Procedia CIRP, 2019, 80, 304-309.	1.0	13
86	A Multivariate KPI-Based Method for Quality Assurance in Lithium-Ion-Battery Production. Procedia CIRP, 2019, 81, 75-80.	1.0	33
87	Towards energy flexible and energy self-sufficient manufacturing systems. Procedia CIRP, 2019, 81, 683-688.	1.0	19
88	Energy flexible management of industrial technical building services: a synergetic data-driven and simulation approach for cooling towers. Procedia CIRP, 2019, 81, 775-780.	1.0	6
89	Implementation of a cyber-physical cooling storage station in a learning factory. Procedia Manufacturing, 2019, 31, 142-147.	1.9	5
90	Research-based Learning for Skill Development of Engineering Graduates: An empirical study. Procedia Manufacturing, 2019, 31, 323-329.	1.9	7

#	ARTICLE	IF	CITATIONS
91	An Investigation into Holistic Planning of Urban Factories. Procedia CIRP, 2019, 80, 649-654.	1.0	5
92	Multiscale simulation approach for production systems. International Journal of Advanced Manufacturing Technology, 2019, 102, 1373-1390.	1.5	28
93	The role of life cycle engineering (LCE) in meeting the sustainable development goals "report from a consultation of LCE experts. Journal of Cleaner Production, 2019, 230, 378-382.	4.6	33
94	Integration of product entropy and LCA to screen the potential environmental impacts of complex product systems at the end-of-life stage. CIRP Annals - Manufacturing Technology, 2019, 68, 25-28.	1.7	2
95	Data mining in battery production chains towards multi-criterial quality prediction. CIRP Annals - Manufacturing Technology, 2019, 68, 463-466.	1.7	67
96	Investigation on the Effects of Nanoparticles on Cutting Fluid Properties and Tribological Characteristics. International Journal of Precision Engineering and Manufacturing - Green Technology, 2019, 6, 433-447.	2.7	19
97	Feature Selection Based on Visual Analytics for Quality Prediction in Aluminium Die Casting. , 2019, , .		5
98	Edge Computing for the Production Industry A Systematic Approach to Enable Decision Support and Planning of Edge. , 2019, , .		2
99	Cutting fluid emissions in grinding processes: influence of process parameters on particle size and mass concentration. International Journal of Advanced Manufacturing Technology, 2019, 101, 773-783.	1.5	5
100	Cooling tower management in manufacturing companies: A cyber-physical system approach. Journal of Cleaner Production, 2019, 211, 428-441.	4.6	27
101	Urban Factories: Identifying Products for Production in Cities. , 2019, , 185-198.		4
102	Load profile analysis for reducing energy demands of production systems in non-production times. Applied Energy, 2019, 237, 117-130.	5.1	29
103	Towards Eco-Factories of the Future. Sustainable Production, Life Cycle Engineering and Management, 2019, , 1-15.	0.2	2
104	Life Cycle Assessment of Industrial Cooling Towers. Sustainable Production, Life Cycle Engineering and Management, 2019, , 135-146.	0.2	2
105	Product System Modularization in LCA Towards a Graph Theory Based Optimization for Product Design Alternatives. Sustainable Production, Life Cycle Engineering and Management, 2019, , 37-44.	0.2	3
106	Die Handlungsfelder effektiver Stadtfabriken für die nachhaltige Entwicklung im urbanen Raum. , 2019, , 519-536.		1
107	Bio-based plastics - A review of environmental, social and economic impact assessments. Journal of Cleaner Production, 2018, 185, 476-491.	4.6	303
108	Toolbox zur Steigerung der Ressourceneffizienz im metallverarbeitenden Gewerbe. , 2018, , 235-251.		0

#	ARTICLE	IF	CITATIONS
109	Mixed Reality in Learning Factories. Procedia Manufacturing, 2018, 23, 153-158.	1.9	60
110	Bio-based Plastics - A Building Block for the Circular Economy?. Procedia CIRP, 2018, 69, 573-578.	1.0	38
111	Comparative Analysis for Solar Energy Based Learning Factory: Case Study for TU Braunschweig and BITS Pilani. Procedia CIRP, 2018, 69, 407-411.	1.0	10
112	Target-driven Life Cycle Engineering: Staying within the Planetary Boundaries. Procedia CIRP, 2018, 69, 3-10.	1.0	32
113	Integrated Computational Life Cycle Engineering – Application to the case of electric vehicles. CIRP Annals - Manufacturing Technology, 2018, 67, 25-28.	1.7	33
114	Transferring experience labs for production engineering students to universities in newly industrialized countries. IOP Conference Series: Materials Science and Engineering, 2018, 297, 012053.	0.3	6
115	LCA of Electromobility. , 2018, , 669-693.		18
116	Life Cycle Engineering of Carbon Fibres for Lightweight Structures. Procedia CIRP, 2018, 69, 43-48.	1.0	19
117	Environmental Impacts of Cooling Tower Operations – The Influence of Regional Conditions on Energy and Water Demands. Procedia CIRP, 2018, 69, 277-282.	1.0	12
118	Urban Factories and Their Potential Contribution to the Sustainable Development of Cities. Procedia CIRP, 2018, 69, 72-77.	1.0	30
119	Life Cycle Oriented Industrial Value Creation in Cities. Procedia CIRP, 2018, 69, 94-99.	1.0	14
120	Exploring the Potentials of Mixed Reality for Life Cycle Engineering. Procedia CIRP, 2018, 69, 638-643.	1.0	10
121	Life Cycle Engineering Based on Visual Analytics. Procedia CIRP, 2018, 69, 37-42.	1.0	16
122	Simulating Process-Product Interdependencies in Battery Production Systems. Procedia CIRP, 2018, 72, 346-351.	1.0	48
123	Energy Load Profile Analysis on Machine Level. Procedia CIRP, 2018, 69, 271-276.	1.0	40
124	Supporting SMEs towards adopting mixed reality : A training concept to bring the reality-virtuality continuum into application. , 2018, , .		2
125	Life cycle engineering of lightweight structures. CIRP Annals - Manufacturing Technology, 2018, 67, 651-672.	1.7	82
126	Exploring the Effect of Increased Energy Density on the Environmental Impacts of Traction Batteries: A Comparison of Energy Optimized Lithium-Ion and Lithium-Sulfur Batteries for Mobility Applications. Energies, 2018, 11, 150.	1.6	53

#	ARTICLE	IF	CITATIONS
127	Environmental Aspects of the Recycling of Lithium-Ion Traction Batteries. Sustainable Production, Life Cycle Engineering and Management, 2018, , 267-288.	0.2	13
128	Urbane Produktion: Ä–kotone als Analogie fÄ¼r eine nachhaltige WertschÄpfung in StÄdten. , 2018, , 195-207.		6
129	Energy Efficient Cutting Fluid Supply: The Impact of Nozzle Design. Procedia CIRP, 2017, 61, 564-569.	1.0	11
130	The waterÄ“energy nexus in manufacturing systems: Framework and systematic improvement approach. CIRP Annals - Manufacturing Technology, 2017, 66, 49-52.	1.7	23
131	A Generic Sankey Tool for Evaluating Energy Value Stream in Manufacturing Systems. Procedia CIRP, 2017, 61, 475-480.	1.0	19
132	Concurrent Design & Life Cycle Engineering in Automotive Lightweight Component Development. Procedia CIRP, 2017, 66, 16-21.	1.0	35
133	Unlocking water efficiency improvements in manufacturing Ä“ From approach to tool support. CIRP Journal of Manufacturing Science and Technology, 2017, 19, 7-18.	2.3	8
134	Shop-floor Life Cycle Assessment. Procedia CIRP, 2017, 61, 393-398.	1.0	31
135	Toolbox for Increasing Resource Efficiency in the European Metal Mechanic Sector. Procedia CIRP, 2017, 61, 40-45.	1.0	12
136	Utilizing Gaming Technology for Simulation of Urban Production. Procedia CIRP, 2017, 61, 469-474.	1.0	9
137	Life Cycle Assessment of 3D Printed Products in a Distributed Manufacturing System. Journal of Industrial Ecology, 2017, 21, S80.	2.8	112
138	Improved Visualization in LCA Through the Application of Cluster Heat Maps. Procedia CIRP, 2017, 61, 732-737.	1.0	22
139	Collaboration Platform for Enabling Industrial Symbiosis: Application of the By-product Exchange Network Model. Procedia CIRP, 2017, 61, 263-268.	1.0	55
140	An Integrated Framework for Life Cycle Engineering. Procedia CIRP, 2017, 61, 2-9.	1.0	88
141	Framework of a Modular Tool Box for the Design of Process Chains in Automotive Component Manufacturing. Procedia CIRP, 2017, 63, 739-744.	1.0	11
142	Bridging the Qualification Gap between Academia and Industry in India. Procedia Manufacturing, 2017, 9, 275-282.	1.9	25
143	Experiencing Closed Loop Manufacturing in a Learning Environment. Procedia Manufacturing, 2017, 9, 57-64.	1.9	12
144	Design for reduced resource consumption during the use phase of products. CIRP Annals - Manufacturing Technology, 2017, 66, 635-658.	1.7	29

#	ARTICLE	IF	CITATIONS
145	Factors influencing the energy intensity of automotive manufacturing plants. Journal of Cleaner Production, 2017, 142, 2305-2314.	4.6	29
146	Energy flexibility of manufacturing systems for variable renewable energy supply integration: Real-time control method and simulation. Journal of Cleaner Production, 2017, 141, 648-661.	4.6	78
147	Deployment Architecture for Energy and Resource Efficient Cyber Physical Systems. IFIP Advances in Information and Communication Technology, 2017, , 159-167.	0.5	1
148	Sustainability Cockpit: An integrated tool for continuous assessment and improvement of sustainability in manufacturing. CIRP Annals - Manufacturing Technology, 2016, 65, 5-8.	1.7	27
149	Implementing Cyber-physical Production Systems in Learning Factories. Procedia CIRP, 2016, 54, 7-12.	1.0	92
150	Multi-level Modeling and Simulation of Manufacturing Systems for Lightweight Automotive Components. Procedia CIRP, 2016, 41, 1049-1054.	1.0	32
151	Electronics recycling as an energy efficiency measure – a Life Cycle Assessment (LCA) study on refrigerator recycling in Brazil. Journal of Cleaner Production, 2016, 129, 30-42.	4.6	38
152	Achieving Environmental Performance Goals - Evaluation of Impact Factors Using a Knowledge Discovery in Databases Approach. Procedia CIRP, 2016, 48, 230-235.	1.0	6
153	Multi-level simulation in manufacturing companies: The water-energy nexus case. Journal of Cleaner Production, 2016, 139, 1118-1127.	4.6	58
154	Determining the Main Factors Influencing the Energy Consumption of Electric Vehicles in the Usage Phase. Procedia CIRP, 2016, 48, 352-357.	1.0	55
155	Development and testing of a novel glycerol/chitosan based biocide-free hydraulic fluid. Journal of Cleaner Production, 2016, 112, 3589-3596.	4.6	14
156	Comparative thermal analysis of cutting fluids in pendular surface grinding. International Journal of Advanced Manufacturing Technology, 2016, 87, 1751-1763.	1.5	4
157	An integrated approach for improving energy efficiency of manufacturing process chains. International Journal of Sustainable Engineering, 2016, 9, 11-24.	1.9	27
158	Economic and environmental value stream map (E ² VSM) simulation for multi-product manufacturing systems. International Journal of Sustainable Engineering, 2016, 9, 354-362.	1.9	43
159	3d Thermal Climate Monitoring in Factory Buildings. Procedia CIRP, 2015, 29, 98-103.	1.0	8
160	Environmental Impact Analysis of a Water Supply System: Study of an Indian University Campus. Procedia CIRP, 2015, 29, 468-473.	1.0	16
161	A Tool-supported Approach towards Water Efficiency in Manufacturing. Procedia CIRP, 2015, 28, 34-39.	1.0	9
162	Life cycle assessment of cubic boron nitride grinding wheels. Journal of Cleaner Production, 2015, 107, 707-721.	4.6	21

#	ARTICLE	IF	CITATIONS
163	The Positive Impact Factory – Transition from Eco-efficiency to Eco-effectiveness Strategies in Manufacturing. <i>Procedia CIRP</i> , 2015, 29, 19-27.	1.0	46
164	Assessing Combined Water-Energy-Efficiency Measures in the Automotive Industry. <i>Procedia CIRP</i> , 2015, 29, 50-55.	1.0	14
165	A simulation-based decision support for eco-efficiency improvements in production systems. <i>Journal of Cleaner Production</i> , 2015, 105, 389-405.	4.6	74
166	Influence of the cutting fluid on process energy demand and surface roughness in grinding – a technological, environmental and economic examination. <i>International Journal of Advanced Manufacturing Technology</i> , 2015, 77, 2005-2017.	1.5	20
167	Energy Efficient Process Chain: The Impact of Cutting Fluid Strategies. <i>Procedia CIRP</i> , 2015, 29, 360-365.	1.0	26
168	Metalworking fluids – Mechanisms and performance. <i>CIRP Annals - Manufacturing Technology</i> , 2015, 64, 605-628.	1.7	308
169	Life Cycle Assessment of Electric Vehicles – A Framework to Consider Influencing Factors. <i>Procedia CIRP</i> , 2015, 29, 233-238.	1.0	65
170	A methodology for customized prediction of energy consumption in manufacturing industries. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2015, 2, 163-172.	2.7	51
171	Simulation of matrix-structured manufacturing systems. <i>Journal of Manufacturing Systems</i> , 2015, 37, 104-112.	7.6	64
172	Increasing Energy Flexibility of Manufacturing Systems through Flexible Compressed Air Generation. <i>Procedia CIRP</i> , 2015, 37, 18-23.	1.0	19
173	Sustainability in manufacturing and factories of the future. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2014, 1, 283-292.	2.7	240
174	A holistic and rapid sustainability assessment tool for manufacturing SMEs. <i>CIRP Annals - Manufacturing Technology</i> , 2014, 63, 437-440.	1.7	58
175	Stepwise approach to reduce the costs and environmental impacts of grinding processes. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 71, 919-931.	1.5	13
176	Determining optimal process parameters to increase the eco-efficiency of grinding processes. <i>Journal of Cleaner Production</i> , 2014, 66, 644-654.	4.6	95
177	Life Cycle Engineering and Sustainable Manufacturing. <i>Journal of Industrial Ecology</i> , 2014, 18, 471-477.	2.8	35
178	Matrix Structures for High Volumes and Flexibility in Production Systems. <i>Procedia CIRP</i> , 2014, 17, 160-165.	1.0	62
179	Extending Energy Value Stream Models by the TBS Dimension – Applied on a Multi Product Process Chain in the Railway Industry. <i>Procedia CIRP</i> , 2014, 15, 80-85.	1.0	42
180	Das Humanpotenzial einer taktunabhängigen Montage. <i>ZWF Zeitschrift fuer Wirtschaftlichen Fabrikbetrieb</i> , 2014, 109, 687-690.	0.2	7

#	ARTICLE	IF	CITATIONS
181	A Global Assessment of Manufacturing: Economic Development, Energy Use, Carbon Emissions, and the Potential for Energy Efficiency and Materials Recycling. Annual Review of Environment and Resources, 2013, 38, 81-106.	5.6	115
182	Eco-efficiency of disposable and reusable surgical instrumentsâ€”a scissors case. International Journal of Life Cycle Assessment, 2013, 18, 1137-1148.	2.2	83
183	Investigation of a new polymer-water based cutting fluid to substitute mineral oil based fluids in grinding processes. CIRP Journal of Manufacturing Science and Technology, 2013, 6, 254-262.	2.3	26
184	An implemented framework to estimate manufacturing-related energy consumption in product design. International Journal of Computer Integrated Manufacturing, 2013, 26, 866-880.	2.9	33
185	Ecological and economic evaluation of a novel glycerol based biocide-free metalworking fluid. Journal of Cleaner Production, 2013, 43, 12-19.	4.6	27
186	SME appropriate concept for continuously improving the energy and resource efficiency in manufacturing companies. CIRP Journal of Manufacturing Science and Technology, 2013, 6, 204-211.	2.3	62
187	Drivers and Barriers of Environmentally Conscious Manufacturing: A Comparative Study of Indian and German Organizations. , 2012, , 97-102.		14
188	Towards energy and resource efficient manufacturing: A processes and systems approach. CIRP Annals - Manufacturing Technology, 2012, 61, 587-609.	1.7	865
189	Toward integrated product and process life cycle planningâ€”An environmental perspective. CIRP Annals - Manufacturing Technology, 2012, 61, 681-702.	1.7	155
190	Investigation of A New Ecologically Benign Metalworking Fluid in Abrasive Machining Processes to Substitute Mineral Oil Based Fluids. Procedia CIRP, 2012, 1, 393-398.	1.0	12
191	Technological evaluation of a novel glycerol based biocide-free metalworking fluid. Journal of Cleaner Production, 2012, 35, 176-182.	4.6	21
192	Eco-efficiency of manufacturing processes: A grinding case. CIRP Annals - Manufacturing Technology, 2012, 61, 59-62.	1.7	133
193	Using Jatropha Oil Based Metalworking Fluids in Machining Processes: A Functional and Ecological Life Cycle Evaluation. , 2012, , 311-316.		12
194	Assessment of Alternative Propulsion Systems for Vehicles. , 2011, , 51-56.		1
195	Dynamic life cycle costing based on lifetime prediction. International Journal of Sustainable Engineering, 2011, 4, 224-235.	1.9	28
196	Energy oriented simulation of manufacturing systems â€” Concept and application. CIRP Annals - Manufacturing Technology, 2011, 60, 45-48.	1.7	251
197	An Investigation into Fixed Energy Consumption of Machine Tools. , 2011, , 268-273.		106
198	Implementation of the WEEE-directiveâ€”economic effects and improvement potentials for reuse and recycling in Germany. International Journal of Advanced Manufacturing Technology, 2010, 47, 461-474.	1.5	67

#	ARTICLE	IF	CITATIONS
199	Integration of automotive service and technology strategies. CIRP Journal of Manufacturing Science and Technology, 2010, 3, 98-106.	2.3	25
200	Ganzheitliches Life Cycle Management. , 2010, , .		111
201	Process chain simulation to foster energy efficiency in manufacturing. CIRP Journal of Manufacturing Science and Technology, 2009, 1, 221-229.	2.3	214
202	Wertschöpfungssteigerung durch Mehrfachnutzung. ZWF Zeitschrift Für Wirtschaftlichen Fabrikbetrieb, 2008, 103, 602-606.	0.2	4
203	Ecologically Benign Lubricants – Evaluation From a Life Cycle Perspective. Clean - Soil, Air, Water, 2007, 35, 427-432.	0.7	17
204	Methodic Eco-design Considering Consumer Needs and Requirements - Case study with Computer Mouse. , 0, , .		2
205	Integration of Energy Oriented Manufacturing Simulation into the Life Cycle Evaluation of Lightweight Body Parts. International Journal of Precision Engineering and Manufacturing - Green Technology, 0, , 1.	2.7	9