Joost R Duflou

List of Publications by Year
in descending order

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248 papers	6,782 citations	71102 41 h-index	82547 72 g-index
256 all docs	256 docs citations	256 times ranked	4533 citing authors

#	Article	IF	Citations
1	Towards energy and resource efficient manufacturing: A processes and systems approach. CIRP Annals - Manufacturing Technology, 2012, 61, 587-609.	3.6	865
2	Methodology for systematic analysis and improvement of manufacturing unit process life-cycle inventory (UPLCI)â€"CO2PE! initiative (cooperative effort on process emissions in manufacturing). Part 1: Methodology description. International Journal of Life Cycle Assessment, 2012, 17, 69-78.	4.7	193
3	Environmental Dimensions of Additive Manufacturing: Mapping Application Domains and Their Environmental Implications. Journal of Industrial Ecology, 2017, 21, S49.	5.5	184
4	Ease of disassembly of products to support circular economy strategies. Resources, Conservation and Recycling, 2018, 135, 323-334.	10.8	174
5	Experimental study on force measurements for single point incremental forming. Journal of Materials Processing Technology, 2007, 189, 65-72.	6.3	168
6	Environmental Impact of Additive Manufacturing Processes: Does AM Contribute to a More Sustainable Way of Part Manufacturing?. Procedia CIRP, 2017, 61, 582-587.	1.9	167
7	Single point incremental forming: state-of-the-art and prospects. International Journal of Material Forming, 2018, 11, 743-773.	2.0	160
8	Design, management and control of demanufacturing and remanufacturing systems. CIRP Annals - Manufacturing Technology, 2017, 66, 585-609.	3.6	156
9	Toward integrated product and process life cycle planningâ€"An environmental perspective. CIRP Annals - Manufacturing Technology, 2012, 61, 681-702.	3.6	155
10	Force prediction for single point incremental forming deduced from experimental and FEM observations. International Journal of Advanced Manufacturing Technology, 2010, 46, 969-982.	3.0	150
11	Do fiber-reinforced polymer composites provide environmentally benign alternatives? A life-cycle-assessment-based study. MRS Bulletin, 2012, 37, 374-382.	3.5	136
12	Methodology for systematic analysis and improvement of manufacturing unit process life cycle inventory (UPLCI) CO2PE! initiative (cooperative effort on process emissions in manufacturing). Part 2: case studies. International Journal of Life Cycle Assessment, 2012, 17, 242-251.	4.7	125
13	A refined typology of productâ€"service systems based on functional hierarchy modeling. Journal of Cleaner Production, 2013, 51, 261-276.	9.3	123
14	Environmental modelling of aluminium recycling: a Life Cycle Assessment tool for sustainable metal management. Journal of Cleaner Production, 2015, 105, 357-370.	9.3	101
15	Tool path compensation strategies for single point incremental sheet forming using multivariate adaptive regression splines. CAD Computer Aided Design, 2013, 45, 575-590.	2.7	98
16	Environmental impact modeling of selective laser sintering processes. Rapid Prototyping Journal, 2014, 20, 459-470.	3.2	93
17	Optimization of Energy Consumption and Surface Quality in Finish Turning. Procedia CIRP, 2012, 1, 512-517.	1.9	92
18	Environmental assessment of solid state recycling routes for aluminium alloys: Can solid state processes significantly reduce the environmental impact of aluminium recycling?. CIRP Annals - Manufacturing Technology, 2015, 64, 37-40.	3.6	90

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19	Strain evolution in the single point incremental forming process: digital image correlation measurement and finite element prediction. International Journal of Material Forming, 2011, 4, 55-71.	2.0	80
20	Closed loop recycling of plastics containing Flame Retardants. Resources, Conservation and Recycling, 2014, 84, 35-43.	10.8	76
21	A geometric modeling and five-axis machining algorithm for centrifugal impellers. Journal of Manufacturing Systems, 1997, 16, 422-436.	13.9	72
22	Identifying candidates for design-by-analogy. Computers in Industry, 2011, 62, 446-459.	9.9	64
23	Critical comparison of methods to determine the energy input for discrete manufacturing processes. CIRP Annals - Manufacturing Technology, 2012, 61, 63-66.	3.6	63
24	Forecasting the composition of emerging waste streams with sensitivity analysis: A case study for photovoltaic (PV) panels in Flanders. Resources, Conservation and Recycling, 2017, 120, 14-26.	10.8	62
25	Computer aided process planning for sheet metal bending: A state of the art. Computers in Industry, 2005, 56, 747-771.	9.9	61
26	Life cycle assessment of flax-fibre reinforced epoxidized linseed oil composite with a flame retardant for electronic applications. Journal of Cleaner Production, 2016, 133, 427-438.	9.3	61
27	Sustainable aluminium recycling of end-of-life products: A joining techniques perspective. Journal of Cleaner Production, 2018, 178, 119-132.	9.3	61
28	Improvement Potential for Energy Consumption in Discrete Part Production Machines. , 2007, , 311-316.		60
29	Unit process impact assessment for discrete part manufacturing: A state of the art. CIRP Journal of Manufacturing Science and Technology, 2011, 4, 129-135.	4.5	59
30	Refinements to the variety metric for idea evaluation. Design Studies, 2013, 34, 243-263.	3.1	55
31	Towards accuracy improvement in single point incremental forming of shallow parts formed under laser assisted conditions. International Journal of Material Forming, 2016, 9, 339-351.	2.0	51
32	Manufacture of Accurate Titanium Cranio-Facial Implants with High Forming Angle Using Single Point Incremental Forming. Key Engineering Materials, 0, 549, 223-230.	0.4	50
33	Spark Plasma Sintering As a Solid-State Recycling Technique: The Case of Aluminum Alloy Scrap Consolidation. Materials, 2014, 7, 5664-5687.	2.9	49
34	Tool path generation framework for accurate manufacture of complex 3D sheet metal parts using single point incremental forming. Computers in Industry, 2014, 65, 563-584.	9.9	49
35	Environmental Impact Analysis of Primary Aluminium Production at Country Level. Procedia CIRP, 2016, 40, 209-213.	1.9	49
36	Charting the Environmental Dimensions of Additive Manufacturing and 3D Printing. Journal of Industrial Ecology, 2017, 21, S9.	5.5	48

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37	Measuring the performance of more circular complex product supply chains. Resources, Conservation and Recycling, 2020, 154, 104608.	10.8	48
38	Forces in Single Point and Two Point Incremental Forming. Advanced Materials Research, 2005, 6-8, 449-456.	0.3	47
39	Feature Based Approach for Increasing the Accuracy of the SPIF Process. Key Engineering Materials, 2007, 344, 527-534.	0.4	46
40	Comparative impact assessment for flax fibre versus conventional glass fibre reinforced composites: Are bio-based reinforcement materials the way to go?. CIRP Annals - Manufacturing Technology, 2014, 63, 45-48.	3.6	46
41	Energy and Resource Efficiency of Laser Cutting Processes. Physics Procedia, 2014, 56, 854-864.	1.2	44
42	Comparative Study of End-of-Life Vehicle Recycling in Australia and Belgium. Procedia CIRP, 2017, 61, 269-274.	1.9	44
43	Effects of boundary conditions on the end-of-life treatment of LCD TVs. CIRP Annals - Manufacturing Technology, 2013, 62, 35-38.	3.6	42
44	An operation-mode based simulation approach to enhance the energy conservation of machine tools. Journal of Cleaner Production, 2015, 101, 348-359.	9.3	42
45	Study of the geometrical inaccuracy on a SPIF two-slope pyramid by finite element simulations. International Journal of Solids and Structures, 2012, 49, 3594-3604.	2.7	39
46	A comprehensive analysis of electric energy consumption of single point incremental forming processes. Journal of Cleaner Production, 2014, 67, 173-186.	9.3	38
47	Demanufacturing photovoltaic panels: Comparison of end-of-life treatment strategies for improved resource recovery. CIRP Annals - Manufacturing Technology, 2018, 67, 29-32.	3.6	38
48	Economic and environmental evaluation of design for active disassembly. Journal of Cleaner Production, 2017, 140, 1182-1193.	9.3	37
49	Life cycle assessment of wheat gluten powder and derived packaging film. Biofuels, Bioproducts and Biorefining, 2013, 7, 429-458.	3.7	36
50	Production of thin Shell Clavicle Implants through Single Point Incremental Forming. Procedia Engineering, 2017, 183, 174-179.	1.2	36
51	Quantifying the added value of an imperfectly performing condition monitoring systemâ€"Application to a wind turbine gearbox. Reliability Engineering and System Safety, 2013, 111, 45-57.	8.9	35
52	The influence of end-of-life regulation on vehicle material circularity: A comparison of Europe, Japan, Australia and the US. Resources, Conservation and Recycling, 2021, 168, 105294.	10.8	32
53	The eco-efficiency of reuse centres critically explored – the washing machine case. International Journal of Sustainable Manufacturing, 2009, 1, 265.	0.3	31
54	Forecasting waste compositions: A case study on plastic waste of electronic display housings. Waste Management, 2015, 46, 28-39.	7.4	31

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55	Solid state recycling of pure Mg and AZ31 Mg machining chips via spark plasma sintering. Materials and Design, 2016, 109, 520-529.	7.0	30
56	Force Measurements for Single Point Incremental Forming: An Experimental Study. Advanced Materials Research, 2005, 6-8, 441-448.	0.3	29
57	MK modelling of sheet formability in the incremental sheet forming process, taking into account through-thickness shear. International Journal of Material Forming, 2009, 2, 379-382.	2.0	29
58	Pairwise-adaptive dissimilarity measure for document clustering. Information Sciences, 2010, 180, 2341-2358.	6.9	29
59	Design for reduced resource consumption during the use phase of products. CIRP Annals - Manufacturing Technology, 2017, 66, 635-658.	3.6	29
60	Analysis of evaluation systems for product repairability: A case study for washing machines. Journal of Cleaner Production, 2021, 281, 125122.	9.3	29
61	Forecasting the recycling potential based on waste analysis: A case study for recycling Nd-Fe-B magnets from hard disk drives. Journal of Cleaner Production, 2018, 175, 96-108.	9.3	28
62	Anatomical Variation of the Tibia â€“ a Principal Component Analysis. Scientific Reports, 2019, 9, 7649.	3.3	28
63	Preliminary Environmental Assessment of Electrical Discharge Machining. , 2011, , 377-382.		27
64	SEABIRD: Scalable search for systematic biologically inspired design. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2016, 30, 78-95.	1.1	27
65	Why off-the-shelf clavicle plates rarely fit: anatomic analysis of the clavicle through statistical shape modeling. Journal of Shoulder and Elbow Surgery, 2019, 28, 631-638.	2.6	27
66	Single Point Incremental Forming of an Aged AL-Cu-Mg Alloy: Influence of Pre-heat Treatment and Warm Forming. Journal of Materials Engineering and Performance, 2016, 25, 2478-2488.	2.5	26
67	Accuracy Improvement in Single Point Incremental Forming through Systematic Study of Feature Interactions. Key Engineering Materials, 2011, 473, 881-888.	0.4	25
68	Tool path generation for single point incremental forming using intelligent sequencing and multi-step mesh morphing techniques. International Journal of Material Forming, 2015, 8, 517-532.	2.0	25
69	Forecasting global aluminium flows to demonstrate the need for improved sorting and recycling methods. Waste Management, 2022, 137, 231-240.	7.4	25
70	Finite Element Modeling of Incremental Forming of Aluminum Sheets. Advanced Materials Research, 2005, 6-8, 525-532.	0.3	23
71	Advances in macro-scale laser processing. CIRP Annals - Manufacturing Technology, 2018, 67, 719-742.	3.6	23
72	Real-time monitoring of fiber laser cutting of thick plates by means of photodiodes. Procedia CIRP, 2020, 94, 499-504.	1.9	23

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73	Simulation of a two-slope pyramid made by SPIF using an adaptive remeshing method with solid-shell finite element. International Journal of Material Forming, 2016, 9, 383-394.	2.0	22
74	Economic and Environmental Evaluation of Aluminium Recycling based on a Belgian Case Study. Procedia Manufacturing, 2019, 33, 639-646.	1.9	22
75	Coaxial camera-based monitoring of fiber laser cutting of thick plates. Optics and Laser Technology, 2021, 136, 106743.	4.6	22
76	Experimental and numerical study of an AlMgSc sheet formed by an incremental process. Journal of Materials Processing Technology, 2011, 211, 1684-1693.	6.3	21
77	Multivariate Adaptive Regression Splines as a Tool to Improve the Accuracy of Parts Produced by FSPIF. Key Engineering Materials, 2011, 473, 841-846.	0.4	21
78	Anticipating heat accumulation in laser oxygen cutting of thick metal plates. Journal of Laser Applications, 2020, 32, .	1.7	21
79	On the complementarity of TRIZ and axiomatic design: from decoupling objective to contradiction identification. Procedia Engineering, 2011, 9, 633-639.	1.2	20
80	Environmental Performance of Sheet Metal Working Processes. Key Engineering Materials, 2011, 473, 21-26.	0.4	20
81	Small-scale Finite Element Modelling of the Plastic Deformation Zone in the Incremental Forming Process. International Journal of Material Forming, 2008, 1, 1159-1162.	2.0	19
82	Energy related environmental impact reduction opportunities in machine design: case study of a laser cutting machine. International Journal of Sustainable Manufacturing, 2010, 2, 80.	0.3	19
83	Springback Prediction of High-strength Steels in Large Radius Air Bending Using Finite Element Modeling Approach. Procedia Engineering, 2014, 81, 1005-1010.	1.2	19
84	Improvement potential of todayâ€™s WEEE recycling performance: The case of LCD TVs in Belgium. Frontiers of Environmental Science and Engineering, 2017, 11, 1.	6.0	19
85	Taking Evolution into Account in a Parametric LCA Model for PV Panels. Procedia CIRP, 2018, 69, 389-394.	1.9	19
86	Techno-economic potential of recycling Tantalum containing capacitors by automated selective dismantling. Procedia CIRP, 2020, 90, 421-425.	1.9	19
87	Advances in force modelling for SPIF. International Journal of Material Forming, 2009, 2, 25-28.	2.0	18
88	Effectiveness of the PAnDA ideation tool. Procedia Engineering, 2011, 9, 63-76.	1.2	18
89	Applying TRIZ for systematic manufacturing process innovation: the single point incremental forming case. Procedia Engineering, 2011, 9, 528-537.	1.2	18
90	Elastomer-based fastener development to facilitate rapid disassembly for consumer products. Journal of Cleaner Production, 2015, 94, 177-186.	9.3	18

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91	Experimental investigation of large radius air bending. International Journal of Advanced Manufacturing Technology, 2017, 92, 3553-3569.	3.0	18
92	Force Analysis for Single Point Incremental Forming. Key Engineering Materials, 2007, 344, 543-550.	0.4	17
93	High-Speed Single Point Incremental Forming of an Automotive Aluminium Alloy. Key Engineering Materials, 2014, 622-623, 433-439.	0.4	17
94	Repairability evaluation for energy related products. Procedia CIRP, 2019, 80, 536-541.	1.9	17
95	Forecasting the EU recycling potential for batteries from electric vehicles. Procedia CIRP, 2020, 90, 432-436.	1.9	17
96	Where and how to find bio-inspiration?. CIRP Journal of Manufacturing Science and Technology, 2020, 31, 61-67.	4.5	17
97	A scalable approach for ideation in biologically inspired design. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2015, 29, 19-31.	1.1	16
98	Validation of a New Finite Element for Incremental Forming Simulation Using a Dynamic Explicit Approach. Key Engineering Materials, 2007, 344, 495-502.	0.4	15
99	Advanced feature detection algorithms for incrementally formed sheet metal parts. Transactions of Nonferrous Metals Society of China, 2012, 22, s315-s322.	4.2	15
100	Environmental Impact Reduction in Discrete Manufacturing: Examples for Non-Conventional Processes. Procedia CIRP, 2013, 6, 27-34.	1.9	15
101	Economic and Environmental Aware Maintenance Optimization. Procedia CIRP, 2014, 15, 343-348.	1.9	15
102	Opportunities in laser cutting with direct diode laser configurations. CIRP Annals - Manufacturing Technology, 2017, 66, 245-248.	3.6	15
103	Influence of Material Properties on Accuracy Response Surfaces in Single Point Incremental Forming. Key Engineering Materials, 2012, 504-506, 919-924.	0.4	13
104	Plasma detection and control requirements for CO 2 laser cutting. CIRP Annals - Manufacturing Technology, 2013, 62, 215-218.	3.6	13
105	Current Status, Future Expectations and Mitigation Potential Scenarios for China's Primary Aluminium Industry. Procedia CIRP, 2016, 48, 295-300.	1.9	13
106	Exergy Efficiency Definitions for Manufacturing Processes. , 2011, , 329-334.		13
107	Force Measurements for Single Point Incremental Forming: An Experimental Study. Advanced Materials Research, 0, , 441-448.	0.3	13
108	Comparison of FEM Simulations for the Incremental Forming Process. Advanced Materials Research, 2005, 6-8, 533-542.	0.3	12

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109	Numerical Simulation of a Pyramid Steel Sheet Formed by Single Point Incremental Forming Using Solid-Shell Finite Elements. Key Engineering Materials, 0, 549, 180-188.	0.4	12
110	Improving Resource Efficiency through Recycling Modelling: A Case Study for LCD TVs. Procedia CIRP, 2015, 26, 601-606.	1.9	12
111	The Use of Spark Plasma Sintering to Fabricate a Two-phase Material from Blended Aluminium Alloy Scrap and Gas Atomized Powder. Procedia CIRP, 2015, 26, 455-460.	1.9	12
112	Effect of Laser Transformation Hardening on the Accuracy of SPIF Formed Parts. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .	2.2	12
113	Optimal laser beam configurations for laser cutting of metal sheets. Procedia CIRP, 2018, 74, 714-718.	1.9	12
114	Evaluating the material resource efficiency of secondary aluminium production: A Monte Carlo-based decision-support tool. Journal of Cleaner Production, 2019, 215, 488-496.	9.3	12
115	Theoretical and experimental aspects of laser cutting with elliptically polarized laser beams. Journal of Materials Processing Technology, 2019, 264, 448-453.	6.3	12
116	Hyperspectral imaging and trim-cut visualization of laser cutting. CIRP Annals - Manufacturing Technology, 2021, 70, 207-210.	3.6	12
117	Custom Manufacture of a Solar Cooker â€“ A Case Study. Advanced Materials Research, 2005, 6-8, 487-492.	0.3	11
118	Determination of Strain in Incremental Sheet Forming Process. Key Engineering Materials, 2007, 344, 503-510.	0.4	11
119	Multiple-vector user profiles in support of knowledge sharing. Information Sciences, 2008, 178, 3333-3346.	6.9	11
120	Environmental Analysis of the Air Bending Process. AIP Conference Proceedings, 2011, , .	0.4	11
121	Automated feature extraction from social media for systematic lead user identification. Technology Analysis and Strategic Management, 2017, 29, 642-654.	3.5	11
122	Springback prediction and elasticity modulus variation. Procedia Manufacturing, 2019, 29, 185-192.	1.9	11
123	An Integrated Approach to Accurate Part Manufacture in Single Point Incremental Forming Using Feature Based Graph Topology. Key Engineering Materials, 2012, 504-506, 869-876.	0.4	10
124	Bending Properties of Locally Laser Heat Treated AA2024-T3 Aluminium Alloy. Physics Procedia, 2012, 39, 257-264.	1.2	10
125	Energy-based optimization of the material stock allowance for turning-grinding process sequence. International Journal of Advanced Manufacturing Technology, 2014, 75, 503-513.	3.0	10
126	Fast Lead User Identification Framework. Procedia Engineering, 2015, 131, 1140-1145.	1.2	10

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127	A life cycle energy analysis integrated process planning approach to foster the sustainability of discrete part manufacturing. Energy, 2018, 153, 604-617.	8.8	10
128	Analytical Prediction of Large Radius Bending by Circular Approximation. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2018, 140, .	2.2	10
129	Obtainable Accuracies and Compensation Strategies for Robot Supported SPIF. Key Engineering Materials, 0, 410-411, 679-687.	0.4	9
130	Topic identification based on document coherence and spectral analysis. Information Sciences, 2011, 181, 3783-3797.	6.9	9
131	The Multi-Breakage Phenomenon in Air Bending Process. Key Engineering Materials, 2014, 611-612, 1047-1053.	0.4	9
132	Solid State Recycling of Aluminium Sheet Scrap by Means of Spark Plasma Sintering. Key Engineering Materials, 0, 639, 493-498.	0.4	9
133	Tool Design for Electronic Product Dismantling. Procedia CIRP, 2016, 48, 466-471.	1.9	9
134	Investigation of Deformation Phenomena in SPIF Using an In-Process DIC Technique. Key Engineering Materials, 0, 410-411, 401-409.	0.4	8
135	Active Disassembly for the End-of-Life Treatment of Flat Screen Televisions: Challenges and Opportunities. , 2012, , 535-540.		8
136	Automatically Populating the Biomimicry Taxonomy for Scalable Systematic Biologically-Inspired Design. , 2012, , .		8
137	A Comparison of Classifiers for Intelligent Machine Usage Prediction. , 2014, , .		8
138	Synergizing Industrialized and Developing Countries to Improve Resource Recovery for eâ€“waste: Case Study Belgiumâ€“Kenya. Procedia CIRP, 2014, 15, 283-288.	1.9	8
139	On the Identification of a Loading Scheme in Large Radius Air Bending. Key Engineering Materials, 0, 639, 155-162.	0.4	8
140	An explorative study on, the influence of an elliptical tool on incremental forming. Procedia Manufacturing, 2019, 29, 74-79.	1.9	8
141	Energy Demand Reduction Of Aluminum Alloys Recycling Through Friction Stir Extrusion Processes Implementation. Procedia Manufacturing, 2019, 33, 632-638.	1.9	8
142	Quantifying the environmental impact of clustering strategies in waste management: A case study for plastic recycling from large household appliances. Waste Management, 2021, 126, 497-507.	7.4	8
143	Monitoring Opportunities in Fiber Laser Flame Cutting. Lasers in Manufacturing and Materials Processing, 2021, 8, 491-510.	2.2	8
144	Quantifying and formalizing product aspects through patent mining. Procedia Engineering, 2011, 9, 323-336.	1.2	7

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145	Enhanced Formability of Age-Hardenable Aluminium Alloys by Incremental Forming of Solution-Treated Blanks. Key Engineering Materials, 2013, 549, 164-171.	0.4	7
146	Tool Path Generation for Single Point Incremental Forming Using Intelligent Sequencing and Multi-Step Mesh Morphing Techniques. Key Engineering Materials, 0, 554-557, 1408-1418.	0.4	7
147	Single point incremental forming of shape memory polymer foam. MATEC Web of Conferences, 2015, 21, 04007.	0.2	7
148	Considerations on Assist Gas Jet Optimization in Laser Cutting with Direct Diode Laser. Procedia Engineering, 2017, 183, 37-44.	1.2	7
149	Complications of skull reconstruction after decompressive craniectomy. Acta Chirurgica Belgica, 2017, 117, 149-156.	0.4	7
150	Two regression approaches for prediction of large radius air bending. International Journal of Material Forming, 2019, 12, 379-390.	2.0	7
151	Comparison of FEM Simulations for the Incremental Forming Process. Advanced Materials Research, 0, , 533-542.	0.3	7
152	Economic and Environmental Evaluation of Fasteners for Active Disassembly: A Case Study for Payment Terminals. Procedia CIRP, 2015, 29, 704-709.	1.9	6
153	Formability Enhancement in Incremental Forming for an Automotive Aluminium Alloy Using Laser Assisted Incremental Forming. Key Engineering Materials, 0, 639, 195-202.	0.4	6
154	Into polarization control in laser cutting with direct diode lasers. Journal of Laser Applications, 2016, 28, 022207.	1.7	6
155	Into the development of a model to assess beam shaping and polarization control effects on laser cutting. Journal Physics D: Applied Physics, 2018, 51, 065601.	2.8	6
156	Trim-cut technique for analysis of melt flow dynamics in industrial laser cutting machine. Procedia CIRP, 2020, 95, 858-863.	1.9	6
157	A Framework for Automatic Tool Selection in Integrated CAPP for Sheet Metal Bending. Advanced Materials Research, 0, , 287-294.	0.3	6
158	Finite Element Modeling of Incremental Forming of Aluminum Sheets. Advanced Materials Research, 0, , 525-532.	0.3	6
159	On multi-sensor monitoring of fiber laser fusion cutting. IOP Conference Series: Materials Science and Engineering, 2021, 1135, 012014.	0.6	6
160	In-Process Hardening in Laser Supported Incremental Sheet Metal Forming. Key Engineering Materials, 2012, 504-506, 827-832.	0.4	5
161	Electric Energy Consumption Analysis of SPIF Processes. Key Engineering Materials, 0, 549, 547-554.	0.4	5
162	Towards Automatic and Accurate Lead User Identification. Procedia Engineering, 2015, 131, 509-513.	1.2	5

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163	Impact reduction potential by usage anticipation under comfort trade-off conditions. CIRP Annals - Manufacturing Technology, 2016, 65, 33-36.	3.6	5
164	Quality assessment of mixed plastic flakes from Waste Electrical and Electronic Equipment (WEEE) by spectroscopic techniques. Resources, Conservation and Recycling, 2020, 158, 104801.	10.8	5
165	Roughness prediction of laser cut edges by image processing and artificial neural networks. Procedia Manufacturing, 2021, 54, 257-262.	1.9	5
166	Pressure-triggered active fasteners: Design results using topology optimization. Electronics and the Environment, IEEE International Symposium on, 2007, , .	0.0	4
167	Acoustic and Optical Monitoring of High-Power CO₂ Laser Cutting. Key Engineering Materials, 0, 344, 161-168.	0.4	4
168	Tool Directionality in Contour-Based Incremental Sheet Forming: an Experimental Study on Product Properties and Formability. Key Engineering Materials, 2011, 473, 897-904.	0.4	4
169	On the Geometric Accuracy in Shallow Sloped Parts in Single Point Incremental Forming. Key Engineering Materials, 0, 554-557, 1443-1450.	0.4	4
170	Proof of Concept of an Elastomer based Fastener Enabling Rapid Disassembly. Procedia CIRP, 2014, 15, 234-238.	1.9	4
171	Environmental Comparison of Metal Coating Processes. Procedia CIRP, 2015, 29, 420-425.	1.9	4
172	Incremental forming of aluminium alloys in cryogenic environment. AIP Conference Proceedings, 2016, , .	0.4	4
173	Influence of Global Forced-air Warming on the Bulge Formation in Shallow Sloped SPIF Parts. Procedia Engineering, 2017, 183, 149-154.	1.2	4
174	Accurate prediction of large radius air bending using regression. Procedia Engineering, 2017, 207, 1623-1628.	1.2	4
175	Solid state recycling of aluminium alloys via a porthole die hot extrusion process: Scaling up to production. AIP Conference Proceedings, 2017, , .	0.4	4
176	Data-driven prediction of air bending. Procedia Manufacturing, 2019, 29, 177-184.	1.9	4
177	Quality Assessment of Plastic Recyclates from Waste Electrical and Electronic Equipment (WEEE): A Case Study for Desktop Computers, Laptops, and Tablets. , 2019, , 139-154.		4
178	Nonparametric user activity modelling and prediction. User Modeling and User-Adapted Interaction, 2020, 30, 803-831.	3.8	4
179	Bending Parameters in Heat Assisted Air Bending of High Strength Steels. Procedia Manufacturing, 2020, 47, 1314-1318.	1.9	4
180	Environmental Assessment of Printed Circuit Boards from Biobased Materials. , 2011, , 605-610.		4

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181	Influence of laser assisted single point incremental forming on the accuracy of shallow sloped parts. , 2013, , .		4
182	Finding Days-of-week Representation for Intelligent Machine Usage Profiling. Journal of Industrial and Intelligent Information, 2013, 1, 148-154.	0.1	4
183	A Framework for Automatic Tool Selection in Integrated CAPP for Sheet Metal Bending. Advanced Materials Research, 2005, 6-8, 287-294.	0.3	3
184	Methods for Monitoring of Laser Cutting by Means of Acoustic and Photodiode Sensors. Advanced Materials Research, 2005, 6-8, 809-816.	0.3	3
185	Modeling Sheet Metal Integrated Production Planning for Laser Cutting and Air Bending. Key Engineering Materials, 2007, 344, 913-920.	0.4	3
186	A Variety Metric Accounting for Unbalanced Idea Space Distributions. Procedia Engineering, 2015, 131, 175-183.	1.2	3
187	Influence of a Single Bend in the Bumping Process of Large Radius Air Bending. Key Engineering Materials, 2015, 651-653, 1090-1095.	0.4	3
188	An ECMS-based powertrain control of a parallel hybrid electric forklift. , 2017, , .		3
189	Multi-step incremental forming using local feature based toolpaths. Procedia Manufacturing, 2019, 29, 28-35.	1.9	3
190	Reprint of: Where and how to find bio-inspiration?. CIRP Journal of Manufacturing Science and Technology, 2021, 34, 171-177.	4.5	3
191	Environmental Impact Modeling of Discrete Part Manufacturing Processes. , 2012, , 557-562.		3
192	Methods for Monitoring of Laser Cutting by Means of Acoustic and Photodiode Sensors. Advanced Materials Research, 0, , 809-816.	0.3	3
193	Thin patientâ€specific clavicle fracture fixation plates can mechanically outperform commercial plates: An in silico approach. Journal of Orthopaedic Research, 2022, 40, 1695-1706.	2.3	3
194	Laserforming of 3D Features. Advanced Materials Research, 2005, 6-8, 425-432.	0.3	2
195	A PSS Model for Diamond Gemstone Processing: Economic Feasibility Analysis. Procedia CIRP, 2013, 7, 395-400.	1.9	2
196	Negative Bulge Formation in High Speed Incremental Forming. Key Engineering Materials, 2015, 639, 173-178.	0.4	2
197	Intelligent occupancy-driven thermostat by dynamic user profiling. , 2016, , .		2
198	Pressure-sensitive fasteners for active disassembly. International Journal of Advanced Manufacturing Technology, 2016, 87, 1519-1529.	3.0	2

#	Article	IF	Citations
199	Generating flat patterns for folded structures: Search space reduction. Packaging Technology and Science, 2018, 31, 97-110.	2.8	2
200	Influence of radiant heating on air bending. International Journal of Advanced Manufacturing Technology, 2018, 97, 1421-1429.	3.0	2
201	Complex deformation routes for direct recycling aluminium alloy scrap via industrial hot extrusion. AIP Conference Proceedings, 2018, , .	0.4	2
202	Thickness validation of modeling tools for laser cutting applications. Procedia Manufacturing, 2019, 29, 383-389.	1.9	2
203	Diversified recycling strategies for high-end plastics: Technical feasibility and impact assessment. CIRP Annals - Manufacturing Technology, 2019, 68, 29-32.	3.6	2
204	Combined manual and automatic landmark detection for enhanced surface registration of anatomical structures: an extensive parameter study for femur and clavicle. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2020, 8, 94-102.	1.9	2
205	Sustainability impact assessment of an intelligent control system for residential heating. Procedia CIRP, 2020, 90, 232-237.	1.9	2
206	Product clustering as a strategy for enhanced plastics recycling from WEEE. CIRP Annals - Manufacturing Technology, 2020, 69, 29-32.	3.6	2
207	Geometry Compensation Methods for Increasing the Accuracy of the SPIF Process. Key Engineering Materials, 0, 883, 217-224.	0.4	2
208	Towards Automatic Part Identification in Sheet Metal Workshops. Key Engineering Materials, 0, 883, 167-174.	0.4	2
209	The energy saving potential of retrofitting a smart heating system: A residence hall pilot study. Sustainable Computing: Informatics and Systems, 2021, 31, 100585.	2.2	2
210	Modeling Sheet Metal Integrated Production Planning for Laser Cutting and Air Bending. Key Engineering Materials, 0, , 913-920.	0.4	2
211	Remote diagnosis for large household appliances: A case study into repair facilitating strategies. Procedia CIRP, 2022, 105, 872-877.	1.9	2
212	On melt flow visualization in high-power fiber laser cutting. , 2022, , .		2
213	The Integration of CAPP and Production Planning for Bent Sheet Metal Parts. Advanced Materials Research, 2005, 6-8, 263-270.	0.3	1
214	Monitoring of CO₂ Laser Cutting of Thick Steel Plates by Means of a NIR Camera Based System. Key Engineering Materials, 0, 410-411, 207-216.	0.4	1
215	Second Generation of Pressure Sensitive Fasteners for Active Disassembly. Procedia CIRP, 2014, 15, 228-233.	1.9	1
216	Combining Occupancy User Profiles in a Multi-user Environment: An Academic Office Case Study. , 2016, , .		1

#	Article	IF	Citations
217	Face split interpretations in sheet metal design. AIP Conference Proceedings, 2016, , .	0.4	1
218	Physics of large radius air bending. Procedia Manufacturing, 2019, 29, 161-168.	1.9	1
219	METRICS FOR BIO-INSPIRATION BASED ON TAXONOMIES. Proceedings of the Design Society, 2021, 1, 2087-2096.	0.8	1
220	An Application of Iso-Gum in the Method for Estimating the Dimensional Errors of Bent Parts. , 2007, , 299-308.		1
221	Acoustic and Optical Monitoring of High-Power CO₂ Laser Cutting. Key Engineering Materials, 0, , 161-168.	0.4	1
222	Laser Forming Oriented CAD/CAM for Developable Surfaces. Key Engineering Materials, 0, , 905-912.	0.4	1
223	Cleaner Production. , 2014, , 205-208.		1
224	Cleaner Production. , 2019, , 272-275.		1
225	Disassembly. , 2019, , 506-511.		1
226	Implementation of circularity indicators in a household product manufacturing company. Procedia CIRP, 2022, 105, 660-665.	1.9	1
227	Systematic Quantification of Waste Compositions: A Case Study for Waste of Electric and Electronic Equipment Plastics in the European Union. Sustainability, 2022, 14, 7054.	3.2	1
228	A virtual sensing approach for quality and productivity optimization in laser flame cutting. International Journal of Advanced Manufacturing Technology, 0, , .	3.0	1
229	Concepts for Pro-Active Life Cycle Design Support Tools. , 2000, , .		0
230	A method for force reduction in heavy duty bending. International Journal of Materials and Product Technology, 2008, 32, 460.	0.2	0
231	Towards more visible scientific findings in TRIZ communities through ETRIA. Procedia Engineering, 2011, 9, 1-2.	1.2	0
232	Deviations between FE Simulation and Experiments in the SPIF Process. Key Engineering Materials, 2011, 473, 937-946.	0.4	0
233	A Predictive Model for Tolerance Verification of Bent Sheet Metal Parts. Key Engineering Materials, 2011, 473, 516-523.	0.4	0
234	Adjustable Tooling System for Air Bending. Key Engineering Materials, 0, 549, 270-276.	0.4	0

#	Article	IF	Citations
235	Improving Cluster-based Methods for Usage Anticipation by the Application of Data Transformations. Procedia Manufacturing, 2018, 24, 166-172.	1.9	0
236	Reducing workpieces to their base geometry for multi-step incremental forming using manifold harmonics. AIP Conference Proceedings, 2018, , .	0.4	0
237	Waste stream characterisation for industrial symbiosis matchmaking: A case study for ferro metals. AIP Conference Proceedings, 2019, , .	0.4	0
238	A modified Swift law for high strength steels. AIP Conference Proceedings, 2019, , .	0.4	0
239	Multistep Incremental Forming beyond 100Â°. Key Engineering Materials, 0, 883, 195-200.	0.4	0
240	Second Thoughts on Preferred End-of-Life Treatment Strategies for Consumer Products. , 2013, , 19-29.		0
241	Bending (Sheets). , 2014, , 86-92.		0
242	Cleaner Production. , 2016, , 1-4.		0
243	Disassembly. , 2018, , 1-6.		0
244	Bending (Sheets). , 2018, , 1-7.		0
245	Bending (Sheets). , 2019, , 125-131.		0
246	Finite element modeling of large radius bending operation. International Journal of Manufacturing Research, 2020, 15, 1.	0.2	0
247	A Quantified Approach to Tacit Knowledge Management in R&D-Environments through the Use of Document-Based User Profiles. , 2007, , 409-416.		0
248	Tool segment repositioning minimization for bending operations. CIRP Annals - Manufacturing Technology, 2022, , .	3.6	0