

Jian Cao

List of Publications by Year in descending order

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306
papers

9,281
citations

38660

50
h-index

60497

81
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311
all docs

311
docs citations

311
times ranked

5052
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterization of mechanical behavior of woven fabrics: Experimental methods and benchmark results. <i>Composites Part A: Applied Science and Manufacturing</i> , 2008, 39, 1037-1053.	3.8	490
2	A continuum mechanics-based non-orthogonal constitutive model for woven composite fabrics. <i>Composites Part A: Applied Science and Manufacturing</i> , 2005, 36, 859-874.	3.8	271
3	Linking process, structure, property, and performance for metal-based additive manufacturing: computational approaches with experimental support. <i>Computational Mechanics</i> , 2016, 57, 583-610.	2.2	190
4	Mechanics of fracture in single point incremental forming. <i>Journal of Materials Processing Technology</i> , 2012, 212, 1573-1590.	3.1	173
5	Data-driven multi-scale multi-physics models to derive process-structure-property relationships for additive manufacturing. <i>Computational Mechanics</i> , 2018, 61, 521-541.	2.2	162
6	Single point incremental forming: state-of-the-art and prospects. <i>International Journal of Material Forming</i> , 2018, 11, 743-773.	0.9	160
7	Characterization of Flow Stress for Commercially Pure Titanium Subjected to Electrically Assisted Deformation. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2013, 135, .	0.8	147
8	A dual homogenization and finite element approach for material characterization of textile composites. <i>Composites Part B: Engineering</i> , 2002, 33, 45-56.	5.9	141
9	Reproducing kernel element method. Part I: Theoretical formulation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 933-951.	3.4	140
10	A non-orthogonal constitutive model for characterizing woven composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2003, 34, 183-193.	3.8	138
11	On the potential of recurrent neural networks for modeling path dependent plasticity. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 143, 103972.	2.3	126
12	Experimental and numerical investigation of combined isotropic-kinematic hardening behavior of sheet metals. <i>International Journal of Plasticity</i> , 2009, 25, 942-972.	4.1	121
13	A framework to link localized cooling and properties of directed energy deposition (DED)-processed Ti-6Al-4V. <i>Acta Materialia</i> , 2017, 132, 106-117.	3.8	119
14	Study of the Size Effect on Friction Conditions in Microextrusion-Part I: Microextrusion Experiments and Analysis. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2007, 129, 669-676.	1.3	117
15	Wire Electro-Discharge Machining of Titanium Alloy. <i>Procedia CIRP</i> , 2013, 5, 13-18.	1.0	117
16	On the prediction of side-wall wrinkling in sheet metal forming processes. <i>International Journal of Mechanical Sciences</i> , 2000, 42, 2369-2394.	3.6	116
17	Prediction of localized thinning in sheet metal using a general anisotropic yield criterion. <i>International Journal of Plasticity</i> , 2000, 16, 1105-1129.	4.1	116
18	Influence of grain size and grain boundaries on the thermal and mechanical behavior of 70/30 brass under electrically-assisted deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 574, 218-225.	2.6	113

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19	A novel forming technology for tailor-welded blanks. <i>Journal of Materials Processing Technology</i> , 2000, 99, 145-153.	3.1	112
20	Data-driven prediction of the high-dimensional thermal history in directed energy deposition processes via recurrent neural networks. <i>Manufacturing Letters</i> , 2018, 18, 35-39.	1.1	110
21	A review of electrically-assisted manufacturing. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2015, 2, 365-376.	2.7	108
22	Prediction of forming limit curves using an anisotropic yield function with prestrain induced backstress. <i>International Journal of Plasticity</i> , 2002, 18, 1013-1038.	4.1	107
23	Study on effect of dimples on friction of parallel surfaces under different sliding conditions. <i>Applied Surface Science</i> , 2010, 256, 2863-2875.	3.1	106
24	Mechanism investigation for the influence of tool rotation and laser surface texturing (LST) on formability in single point incremental forming. <i>International Journal of Machine Tools and Manufacture</i> , 2013, 73, 37-46.	6.2	106
25	Anisotropic properties of directed energy deposition (DED)-processed Ti6Al4V. <i>Journal of Manufacturing Processes</i> , 2016, 24, 397-405.	2.8	104
26	Surface Texturing of Drill Bits for Adhesion Reduction and Tool Life Enhancement. <i>Tribology Letters</i> , 2013, 52, 113-122.	1.2	98
27	In-situ high-speed X-ray imaging of piezo-driven directed energy deposition additive manufacturing. <i>Scientific Reports</i> , 2019, 9, 962.	1.6	96
28	Model Validation via Uncertainty Propagation and Data Transformations. <i>AIAA Journal</i> , 2004, 42, 1406-1415.	1.5	95
29	Formability and Surface Finish Studies in Single Point Incremental Forming. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2011, 133, .	1.3	90
30	Uncertainty quantification in multiscale simulation of woven fiber composites. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 338, 506-532.	3.4	90
31	Microforming: Experimental Investigation of the Extrusion Process for Micropins and its Numerical Simulation Using RKEM. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2004, 126, 642-652.	1.3	88
32	Modeling of thermal and mechanical behavior of a magnesium alloy AZ31 during electrically-assisted micro-tension. <i>International Journal of Plasticity</i> , 2016, 85, 230-257.	4.1	86
33	An accelerated springback compensation method. <i>International Journal of Mechanical Sciences</i> , 2007, 49, 267-279.	3.6	80
34	Improvement of Geometric Accuracy in Incremental Forming by Using a Squeezing Toolpath Strategy With Two Forming Tools. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2011, 133, .	1.3	80
35	Generation of hierarchical micro-structures for anisotropic wetting by elliptical vibration cutting. <i>CIRP Annals - Manufacturing Technology</i> , 2014, 63, 553-556.	1.7	79
36	Manufacturing of advanced smart tooling for metal forming. <i>CIRP Annals - Manufacturing Technology</i> , 2019, 68, 605-628.	1.7	78

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37	Automatic 3D Spiral Toolpath Generation for Single Point Incremental Forming. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2010, 132, .	1.3	72
38	Accumulative-DSIF strategy for enhancing process capabilities in incremental forming. CIRP Annals - Manufacturing Technology, 2012, 61, 251-254.	1.7	71
39	Effect of EDT surface texturing on tribological behavior of aluminum sheet. Journal of Materials Processing Technology, 2011, 211, 1643-1649.	3.1	68
40	Deformation mechanics in single-point and accumulative double-sided incremental forming. International Journal of Advanced Manufacturing Technology, 2013, 69, 1185-1201.	1.5	64
41	Modeling process-structure-property relationships for additive manufacturing. Frontiers of Mechanical Engineering, 2018, 13, 482-492.	2.5	64
42	Experimentally validated predictions of thermal history and microhardness in laser-deposited Inconel 718 on carbon steel. Additive Manufacturing, 2019, 27, 540-551.	1.7	64
43	Experimental Assessment of Laser Textured Cutting Tools in Dry Cutting of Aluminum Alloys. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .	1.3	61
44	Investigation of Deformation Size Effects During Microextrusion. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2007, 129, 690-697.	1.3	59
45	A Preliminary Study of the Effect of Surface Texture on Algae Cell Attachment for a Mechanical-Biological Energy Manufacturing System. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2009, 131, .	1.3	58
46	Laser-induced plasma micro-machining (LIPMM) for enhanced productivity and flexibility in laser-based micro-machining processes. CIRP Annals - Manufacturing Technology, 2013, 62, 211-214.	1.7	54
47	Size effects on flow stress behavior during electrically-assisted micro-tension in a magnesium alloy AZ31. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 659, 215-224.	2.6	54
48	Thermodynamically consistent microstructure prediction of additively manufactured materials. Computational Mechanics, 2016, 57, 359-370.	2.2	54
49	On the hot deformation behavior of Ti-6Al-4V made by additive manufacturing. Journal of Materials Processing Technology, 2021, 288, 116840.	3.1	54
50	Reproducing kernel element method Part III: Generalized enrichment and applications. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 989-1011.	3.4	52
51	Consistent and Minimal Springback Using a Stepped Binder Force Trajectory and Neural Network Control. Journal of Engineering Materials and Technology, Transactions of the ASME, 2000, 122, 113-118.	0.8	51
52	Bias-extension of woven composite fabrics. International Journal of Material Forming, 2008, 1, 895-898.	0.9	51
53	Physical mechanisms in hybrid additive manufacturing: A process design framework. Journal of Materials Processing Technology, 2021, 291, 117048.	3.1	51
54	Integrated micro/macro-mechanical model of woven fabric composites under large deformation. Composite Structures, 2005, 70, 69-80.	3.1	50

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55	An efficient method for thickness prediction in multi-pass incremental sheet forming. International Journal of Advanced Manufacturing Technology, 2015, 77, 469-483.	1.5	50
56	Constitutive analysis of electrically-assisted tensile deformation of CP-Ti based on non-uniform thermal expansion, plastic softening and dynamic strain aging. International Journal of Plasticity, 2017, 94, 44-56.	4.1	50
57	Modeling of cutting forces in micro end-milling. Journal of Manufacturing Processes, 2018, 31, 844-858.	2.8	50
58	An Analytical Prediction of Flange Wrinkling in Sheet Metal Forming. Journal of Manufacturing Processes, 2000, 2, 100-107.	2.8	49
59	Three-Dimensional Repeated Elasto-Plastic Point Contacts, Rolling, and Sliding. Journal of Applied Mechanics, Transactions ASME, 2008, 75, .	1.1	48
60	An approach in modeling the temperature effect in thermo-stamping of woven composites. Composite Structures, 2003, 61, 413-420.	3.1	47
61	An analytical model for plate wrinkling under tri-axial loading and its application. International Journal of Mechanical Sciences, 2000, 42, 617-633.	3.6	46
62	Thermal effect on clad dimension for laser deposited Inconel 718. Journal of Manufacturing Processes, 2017, 28, 550-557.	2.8	46
63	Biomanufacturing. CIRP Annals - Manufacturing Technology, 2013, 62, 585-606.	1.7	45
64	Repairing Automotive Dies With Directed Energy Deposition: Industrial Application and Life Cycle Analysis. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2019, 141, .	1.3	45
65	An Analytical Model for Tailor Welded Blank Forming. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2003, 125, 344-351.	1.3	44
66	Texturing of metallic surfaces for superhydrophobicity by water jet guided laser micro-machining. Applied Surface Science, 2020, 500, 144286.	3.1	44
67	Topology optimization of die weight reduction for high-strength sheet metal stamping. International Journal of Mechanical Sciences, 2012, 59, 73-82.	3.6	43
68	Effects of specimen and grain size on electrically-induced softening behavior in uniaxial micro-tension of AZ31 magnesium alloy: Experiment and modeling. Materials and Design, 2017, 127, 134-143.	3.3	43
69	Mechanistic data-driven prediction of as-built mechanical properties in metal additive manufacturing. Npj Computational Materials, 2021, 7, .	3.5	43
70	Experimental Implementation of Neural Network Springback Control for Sheet Metal Forming. Journal of Engineering Materials and Technology, Transactions of the ASME, 2003, 125, 141-147.	0.8	41
71	An Investigation On Deformation-Based Surface Texturing. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2011, 133, .	1.3	41
72	Fabrication of hierarchical freeform surfaces by 2D compliant vibration-assisted cutting. International Journal of Mechanical Sciences, 2019, 152, 454-464.	3.6	41

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73	Analysis and Observations of Current Density Sensitivity and Thermally Activated Mechanical Behavior in Electrically-Assisted Deformation. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2013, 135, .	1.3	40
74	Data-Driven Microstructure and Microhardness Design in Additive Manufacturing Using a Self-Organizing Map. <i>Engineering</i> , 2019, 5, 730-735.	3.2	40
75	Opportunities and Challenges in Metal Forming for Lightweighting: Review and Future Work. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2020, 142, .	1.3	40
76	Study of the Size Effects and Friction Conditions in Microextrusion—Part II: Size Effect in Dynamic Friction for Brass-Steel Pairs. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2007, 129, 677-689.	1.3	39
77	Approaches for Model Validation: Methodology and Illustration on a Sheet Metal Flanging Process. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2006, 128, 588-597.	1.3	38
78	Tooling-integrated sensing systems for stamping process monitoring. <i>International Journal of Machine Tools and Manufacture</i> , 2009, 49, 634-644.	6.2	38
79	A Comparative Study on Process Potentials for Frictional Stir- and Electric Hot-assisted Incremental Sheet Forming. <i>Procedia Engineering</i> , 2014, 81, 2324-2329.	1.2	38
80	Wrinkling Limit in Tube Bending. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2001, 123, 430-435.	0.8	37
81	Effective Models for Prediction of Springback In Flanging. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2001, 123, 456-461.	0.8	36
82	A new fast method for solving contact plasticity and its application in analyzing elasto-plastic partial slip. <i>Mechanics of Materials</i> , 2013, 60, 18-35.	1.7	36
83	A numerical Bayesian-calibrated characterization method for multiscale prepreg preforming simulations with tension-shear coupling. <i>Composites Science and Technology</i> , 2019, 170, 15-24.	3.8	36
84	Next generation stamping dies – controllability and flexibility. <i>Robotics and Computer-Integrated Manufacturing</i> , 2001, 17, 49-56.	6.1	35
85	Estimation of Optimal Blank Holder Force Trajectories in Segmented Binders Using an ARMA Model. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2003, 125, 763-770.	1.3	35
86	Development of a VGRAIN system for CPFE analysis in micro-forming applications. <i>International Journal of Advanced Manufacturing Technology</i> , 2010, 47, 981-991.	1.5	35
87	Analysis of microbending of CuZn37 brass foils based on strain gradient hardening models. <i>Journal of Materials Processing Technology</i> , 2012, 212, 653-661.	3.1	35
88	Unidirectional magnetic field assisted Laser Induced Plasma Micro-Machining. <i>Manufacturing Letters</i> , 2015, 3, 1-4.	1.1	35
89	Effect of specimen size and grain size on deformation in microextrusion. <i>Journal of Manufacturing Processes</i> , 2011, 13, 153-159.	2.8	34
90	A generalized thermodynamic approach for modeling nonlinear hardening behaviors. <i>International Journal of Plasticity</i> , 2012, 38, 102-122.	4.1	34

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91	Draw Bead Penetration as a Control Element of Material Flow. , 1993, , .		33
92	Shell element formulation of multi-step inverse analysis for axisymmetric deep drawing process. International Journal for Numerical Methods in Engineering, 2001, 50, 681-706.	1.5	33
93	Wrinkling behavior of laminated steel sheets. Journal of Materials Processing Technology, 2004, 151, 133-140.	3.1	33
94	In-situ springback compensation in incremental sheet forming. CIRP Annals - Manufacturing Technology, 2019, 68, 317-320.	1.7	33
95	Analytical prediction of stepped feature generation in multi-pass single point incremental forming. Journal of Manufacturing Processes, 2012, 14, 487-494.	2.8	32
96	Multi-scale modeling of mechanical behavior of cured woven textile composites accounting for the influence of yarn angle variation. Composites Part A: Applied Science and Manufacturing, 2019, 124, 105460.	3.8	32
97	Mechanistic artificial intelligence (mechanistic-AI) for modeling, design, and control of advanced manufacturing processes: Current state and perspectives. Journal of Materials Processing Technology, 2022, 302, 117485.	3.1	32
98	Enhancement of adhesion strength by micro-rolling-based surface texturing. International Journal of Advanced Manufacturing Technology, 2015, 78, 1427-1435.	1.5	31
99	High throughput microfabrication using laser induced plasma in saline aqueous medium. Journal of Materials Processing Technology, 2015, 217, 77-87.	3.1	31
100	A hybrid mixed double-sided incremental forming method for forming Ti6Al4V alloy. CIRP Annals - Manufacturing Technology, 2016, 65, 309-312.	1.7	31
101	A calibration method for overconstrained spatial translational parallel manipulators. Robotics and Computer-Integrated Manufacturing, 2019, 57, 241-254.	6.1	31
102	Simulation of bulk metal forming processes using the reproducing kernel particle method. Computers and Structures, 2005, 83, 574-587.	2.4	30
103	Effective forming strategy for double-sided incremental forming considering in-plane curvature and tool direction. CIRP Annals - Manufacturing Technology, 2016, 65, 265-268.	1.7	30
104	A Real-Time Iterative Machine Learning Approach for Temperature Profile Prediction in Additive Manufacturing Processes. , 2019, , .		29
105	A new approach for analyzing the temperature rise and heat partition at the interface of coated tool tip-sheet incremental forming systems. International Journal of Heat and Mass Transfer, 2019, 129, 1172-1183.	2.5	28
106	Wrinkling Analysis in Shrink Flanging. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2001, 123, 426-432.	1.3	27
107	Adaptive enrichment meshfree simulation and experiment on buckling and post-buckling analysis in sheet metal forming. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 2569-2590.	3.4	27
108	Numerical study on thermo-stamping of woven fabric composites based on double-dome stretch forming. International Journal of Material Forming, 2010, 3, 1217-1227.	0.9	27

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109	Characterization of electrically-assisted micro-rolling for surface texturing using embedded sensor. CIRP Annals - Manufacturing Technology, 2014, 63, 269-272.	1.7	27
110	Tri-pyramid Robot: Design and kinematic analysis of a 3-DOF translational parallel manipulator. Robotics and Computer-Integrated Manufacturing, 2014, 30, 648-657.	6.1	27
111	Numerical simulations on double-dome forming of woven composites using the coupled non-orthogonal constitutive model. International Journal of Material Forming, 2009, 2, 145-148.	0.9	25
112	A Mixed Double-Sided Incremental Forming Toolpath Strategy for Improved Geometric Accuracy. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2015, 137, .	1.3	25
113	Springback Reduction by Annealing for Incremental Sheet Forming. Procedia Manufacturing, 2016, 5, 696-706.	1.9	25
114	Joining sheet metals by electrically-assisted roll bonding. CIRP Annals - Manufacturing Technology, 2015, 64, 273-276.	1.7	24
115	A general anisotropic yield criterion for pressure-dependent materials. International Journal of Plasticity, 2015, 75, 2-21.	4.1	24
116	An Efficient and General Finite Element Model for Double-Sided Incremental Forming. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .	1.3	24
117	Thermomechanical Analysis of an Electrically Assisted Wire Drawing Process. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .	1.3	24
118	Acceleration strategies for explicit finite element analysis of metal powder-based additive manufacturing processes using graphical processing units. Computational Mechanics, 2019, 64, 879-894.	2.2	24
119	Non-orthogonal constitutive model for woven composites incorporating tensile effect on shear behavior. International Journal of Material Forming, 2008, 1, 891-894.	0.9	23
120	A non-orthogonal material model of woven composites in the preforming process. CIRP Annals - Manufacturing Technology, 2017, 66, 257-260.	1.7	23
121	Deformation mechanics and failure mode in stretch and shrink flanging by double-sided incremental forming. International Journal of Mechanical Sciences, 2018, 144, 216-222.	3.6	23
122	Prediction of rigid body motion in multi-pass single point incremental forming. Journal of Materials Processing Technology, 2019, 269, 117-127.	3.1	23
123	An effective analytical model for springback prediction in straight flanging processes. International Journal of Materials and Product Technology, 2004, 21, 137.	0.1	22
124	Towards smart manufacturing process selection in Cyber-Physical Systems. Manufacturing Letters, 2018, 17, 1-5.	1.1	21
125	Design of general kinematotropic mechanisms. Robotics and Computer-Integrated Manufacturing, 2016, 38, 67-81.	6.1	20
126	Characterization of Sheet Buckling Subjected to Controlled Boundary Constraints. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2002, 124, 493-501.	1.3	19

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127	Crystal plasticity-based forming limit prediction for FCC materials under non-proportional strain-path. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 6607-6613.	2.6	18
128	Laser-induced plasma in aqueous media: numerical simulation and experimental validation of spatial and temporal profiles. <i>Applied Optics</i> , 2014, 53, 8283.	2.1	18
129	Preliminary investigations on Double Sided Incremental Forming of thermoplastics. <i>Manufacturing Letters</i> , 2016, 8, 21-26.	1.1	18
130	Cooling rate effect on tensile strength of laser deposited Inconel 718. <i>Procedia Manufacturing</i> , 2018, 26, 912-919.	1.9	18
131	Parameter Identification and Nonparametric Calibration of the Tri-Pyramid Robot. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020, 25, 2309-2317.	3.7	18
132	Forming of Aluminum Tailor Welded Blanks. , 2001, , .		17
133	An investigation of springback scatter in forming ultra-thin metal-sheet channel parts using crystal plasticity FE analysis. <i>International Journal of Advanced Manufacturing Technology</i> , 2010, 47, 845-852.	1.5	17
134	Stress manipulated coating for fabricating lightweight X-ray telescope mirrors. <i>Optics Express</i> , 2015, 23, 28605.	1.7	17
135	General contact force control algorithm in double-sided incremental forming. <i>CIRP Annals - Manufacturing Technology</i> , 2018, 67, 381-384.	1.7	17
136	Prediction of forming temperature in electrically-assisted double-sided incremental forming using a neural network. <i>Journal of Materials Processing Technology</i> , 2022, 302, 117486.	3.1	17
137	Data-driven analysis of process, structure, and properties of additively manufactured Inconel 718 thin walls. <i>Npj Computational Materials</i> , 2022, 8, .	3.5	17
138	Experimental Study of Failure Modes and Scaling Effects in Micro-Incremental Forming. <i>Journal of Micro and Nano-Manufacturing</i> , 2013, 1, .	0.8	16
139	A preliminary study on the fatigue behavior of sheet metal parts formed with accumulative-double-sided incremental forming. <i>Manufacturing Letters</i> , 2014, 2, 8-11.	1.1	16
140	On the Fracture Characterization in Double-Sided Incremental Forming of Ti6Al4V Sheets at Elevated Temperatures. <i>Procedia Manufacturing</i> , 2017, 10, 407-416.	1.9	16
141	Automated Flexible Forming Strategy for Geometries With Multiple Features in Double-Sided Incremental Forming. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2018, 140, .	1.3	16
142	Study on design and cutting parameters of rotating needles for core biopsy. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 86, 43-54.	1.5	16
143	Analysis of an axisymmetric deep-drawn part forming using reduced forming steps. <i>Journal of Materials Processing Technology</i> , 2001, 117, 193-200.	3.1	15
144	Real-time monitoring of pressure distribution in microrolling through embedded capacitive sensing. <i>CIRP Annals - Manufacturing Technology</i> , 2012, 61, 367-370.	1.7	15

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145	Experimental study of water jet incremental micro-forming with supporting dies. Journal of Materials Processing Technology, 2019, 268, 117-131.	3.1	15
146	Geometry-agnostic data-driven thermal modeling of additive manufacturing processes using graph neural networks. Additive Manufacturing, 2021, 48, 102449.	1.7	15
147	Incremental Metal Forming Processes in Manufacturing. , 2015, , 411-452.		14
148	Effects of Tool Positions in Accumulated Double-Sided Incremental Forming on Part Geometry. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2015, 137, .	1.3	14
149	Design and application of a flexure-based oscillation mechanism for surface texturing. Journal of Manufacturing Processes, 2018, 32, 298-306.	2.8	14
150	Optimal Forming of Aluminum 2008-T4 Conical Cups Using Force Trajectory Control. , 1993, , .		13
151	Experimental Study on a New Method of Double Side Incremental Forming. , 2008, , .		13
152	Feasibility of Fiber-Deposition Control by Secondary Electric Fields in Near-Field Electrospinning. Journal of Micro and Nano-Manufacturing, 2015, 3, .	0.8	13
153	Optimization of relative tool position in accumulative double sided incremental forming using finite element analysis and model bias correction. International Journal of Material Forming, 2016, 9, 371-382.	0.9	13
154	Porosity Formation and Melt-pool Geometry Analysis Using High-speed, <i>in situ</i> Imaging of Directed Energy Deposition. Microscopy and Microanalysis, 2019, 25, 2556-2557.	0.2	13
155	Micro texture fabrication by a non-resonant vibration generator. Journal of Manufacturing Processes, 2019, 45, 732-745.	2.8	13
156	Current-Induced Ductility Enhancement of a Magnesium Alloy AZ31 in Uniaxial Micro-Tension Below 373 K. Materials, 2019, 12, 111.	1.3	13
157	Vibrating-lens-assisted laser drilling. Journal of Manufacturing Processes, 2020, 55, 389-398.	2.8	13
158	New Apparatus and Method for Forming Tailor Welded Blanks. , 1999, , .		12
159	A methodology to reduce and quantify wrinkling in tailor welded blank forming. International Journal of Materials and Product Technology, 2004, 21, 154.	0.1	12
160	Probabilistic Design in a Sheet Metal Stamping Process under Failure Analysis. AIP Conference Proceedings, 2005, , .	0.3	12
161	Experimental study and analytical model of deformation of magnetostrictive films as applied to mirrors for x-ray space telescopes. Applied Optics, 2014, 53, 6256.	0.9	12
162	Tri-pyramid Robot: stiffness modeling of a 3-DOF translational parallel manipulator. Robotica, 2016, 34, 383-402.	1.3	12

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163	Experimental Characterization and Numerical Modeling of the Interaction Between Carbon Fiber Composite Prepregs During a Preforming Process. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2018, 140, .	1.3	12
164	Mechanical properties of hybrid additively manufactured Inconel 718 parts created via thermal control after secondary treatment processes. <i>Journal of Materials Processing Technology</i> , 2021, 291, 117047.	3.1	12
165	Data-driven prediction of next-layer melt pool temperatures in laser powder bed fusion based on co-axial high-resolution Planck thermometry measurements. <i>Journal of Manufacturing Processes</i> , 2022, 79, 81-90.	2.8	12
166	A Hybrid Approach for Quantifying the Winding Process and Material Effects on Sheet Coil Deformation. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2004, 126, 303-313.	0.8	11
167	High-Speed Fabrication of Microchannels Using Line-Based Laser Induced Plasma Micromachining. <i>Journal of Micro and Nano-Manufacturing</i> , 2015, 3, .	0.8	11
168	Characterization of 14YWT oxide dispersion strengthened structural materials under electrically-assisted tension. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 745, 484-494.	2.6	11
169	Concurrent n-scale modeling for non-orthogonal woven composite. <i>Computational Mechanics</i> , 2022, 70, 853-866.	2.2	11
170	Composites Forming. , 2007, , 61-79.		10
171	Laser surface texturing of medical needles for friction control. <i>International Journal of Mechatronics and Manufacturing Systems</i> , 2013, 6, 215.	0.1	10
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