Heng Li

List of Publications by Year
in descending order

117	3,078	172386	189801
papers	citations	29 h-index	50 g-index

117	117	117	1218
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ductile fracture: Experiments and computations. International Journal of Plasticity, 2011, 27, 147-180.	4.1	426
2	Advances and Trends on Tube Bending Forming Technologies. Chinese Journal of Aeronautics, 2012, 25, 1-12.	2.8	209
3	Dynamic softening behavior of TC18 titanium alloy during hot deformation. Materials & Design, 2015, 71, 68-77.	5.1	101
4	Role of mandrel in NC precision bending process of thin-walled tube. International Journal of Machine Tools and Manufacture, 2007, 47, 1164-1175.	6.2	97
5	Springback characterization and behaviors of high-strength Tiâ€“3Alâ€“2.5V tube in cold rotary draw bending. Journal of Materials Processing Technology, 2012, 212, 1973-1987.	3.1	81
6	Anisotropic and asymmetrical yielding and its distorted evolution: Modeling and applications. International Journal of Plasticity, 2016, 82, 127-158.	4.1	79
7	Deformation behaviors of thin-walled tube in rotary draw bending under push assistant loading conditions. Journal of Materials Processing Technology, 2010, 210, 143-158.	3.1	76
8	Friction role in bending behaviors of thin-walled tube in rotary-draw-bending under small bending radii. Journal of Materials Processing Technology, 2010, 210, 2273-2284.	3.1	72
9	A normalized stress invariant-based yield criterion: Modeling and validation. International Journal of Plasticity, 2017, 99, 248-273.	4.1	70
10	Anisotropic and asymmetrical yielding and its evolution in plastic deformation: Titanium tubular materials. International Journal of Plasticity, 2017, 90, 177-211.	4.1	67
11	Numerical study on deformation behaviors of thin-walled tube NC bending with large diameter and small bending radius. Computational Materials Science, 2009, 45, 921-934.	1.4	63
12	An insight into neutral layer shifting in tube bending. International Journal of Machine Tools and Manufacture, 2018, 126, 51-70.	6.2	60
13	Research on the springback of thin-walled tube NC bending based on the numerical simulation of the whole process. Computational Materials Science, 2008, 42, 537-549.	1.4	51
14	Springback prediction of thick-walled high-strength titanium tube bending. Chinese Journal of Aeronautics, 2013, 26, 1336-1345.	2.8	51
15	3D numerical study on wrinkling characteristics in NC bending of aluminum alloy thin-walled tubes with large diameters under multi-die constraints. Computational Materials Science, 2009, 45, 1052-1067.	1.4	50
16	Multiple instability-constrained tube bending limits. Journal of Materials Processing Technology, 2014, 214, 445-455.	3.1	48
17	Forming characteristics of tube free-bending with small bending radii based on a new spherical connection. International Journal of Machine Tools and Manufacture, 2018, 133, 72-84.	6.2	46
18	Stress relaxation ageing behaviour and constitutive modelling of a 2219 aluminium alloy under the effect of an electric pulse. Journal of Alloys and Compounds, 2016, 679, 316-323.	2.8	44

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19	Temperature dependent evolution of anisotropy and asymmetry of Î±-Ti in thermomechanical working: Characterization and modeling. International Journal of Plasticity, 2020, 127, 102650.	4.1	43
20	Dependences of microstructures and properties on initial tempers of creep aged 7050 aluminum alloy. Journal of Materials Processing Technology, 2017, 239, 125-132.	3.1	42
21	The interactive effects of wrinkling and other defects in thin-walled tube NC bending process. Journal of Materials Processing Technology, 2007, 187-188, 502-507.	3.1	40
22	Plastic wrinkling prediction in thin-walled part forming process: A review. Chinese Journal of Aeronautics, 2016, 29, 1-14.	2.8	40
23	Natural aging behaviors and mechanisms of 7050 and 5A90 Al alloys: A comparative study. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 718, 157-164.	2.6	38
24	Effect of frictions on cross section quality of thin-walled tube NC bending. Transactions of Nonferrous Metals Society of China, 2006, 16, 878-886.	1.7	36
25	A Study on Multi-defect Constrained Bendability of Thin-walled Tube NC Bending Under Different Clearance. Chinese Journal of Aeronautics, 2011, 24, 102-112.	2.8	35
26	Interactive effect of stress state and grain size on fracture behaviours of copper in micro-scaled plastic deformation. International Journal of Plasticity, 2019, 114, 126-143.	4.1	35
27	A new method to accurately obtain wrinkling limit diagram in NC bending process of thin-walled tube with large diameter under different loading paths. Journal of Materials Processing Technology, 2006, 177, 192-196.	3.1	34
28	Quasi-static tensile behavior and constitutive modeling of large diameter thin-walled commercial pure titanium tube. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 569, 96-105.	2.6	31
29	Forming characteristics of thin-walled tube bending process with small bending radius. Transactions of Nonferrous Metals Society of China, 2006, 16, s613-s623.	1.7	30
30	Breaking bending limit of difficult-to-form titanium tubes by differential heating-based reconstruction of neutral layer shifting. International Journal of Machine Tools and Manufacture, 2021, 166, 103742.	6.2	30
31	Thermo-mechanical coupled 3D-FE modeling of heat rotary draw bending for large-diameter thin-walled CP-Ti tube. International Journal of Advanced Manufacturing Technology, 2014, 72, 1187-1203.	1.5	29
32	Advance and trend of friction study in plastic forming. Transactions of Nonferrous Metals Society of China, 2014, 24, 1263-1272.	1.7	28
33	An imperfection-based perturbation method for plastic wrinkling prediction in tube bending under multi-die constraints. International Journal of Mechanical Sciences, 2015, 98, 178-194.	3.6	28
34	Bending behaviors of large diameter thin-walled CP-Ti tube in rotary draw bending. Progress in Natural Science: Materials International, 2011, 21, 401-412.	1.8	27
35	Modelling of Springback in Tube Bending: A Generalized Analytical Approach. International Journal of Mechanical Sciences, 2021, 204, 106516.	3.6	27
36	A study on plastic wrinkling in thin-walled tube bending via an energy-based wrinkling prediction model. Modelling and Simulation in Materials Science and Engineering, 2009, 17, 035007.	0.8	26

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37	A modified Johnsonâ€“Cook model for NC warm bending of large diameter thin-walled Tiâ€“6Alâ€“4V tube in wide ranges of strain rates and temperatures. Transactions of Nonferrous Metals Society of China, 2018, 28, 298-308.	1.7	25
38	Springback of thin-walled tube NC precision bending and its numerical simulation. Transactions of Nonferrous Metals Society of China, 2006, 16, s631-s638.	1.7	24
39	Dependence of creep age formability on initial temper of an Al-Zn-Mg-Cu alloy. Chinese Journal of Aeronautics, 2016, 29, 1445-1454.	2.8	23
40	â€˜Size effectâ€™ related bending formability of thin-walled aluminum alloy tube. Chinese Journal of Aeronautics, 2013, 26, 230-241.	2.8	22
41	Texture evolution and controlling of high-strength titanium alloy tube in cold pilgering for properties tailoring. Journal of Materials Processing Technology, 2020, 279, 116520.	3.1	22
42	Natural aging behaviors of Al-Cu-Li alloy: PLC effect, properties and microstructure evolution. Materials Characterization, 2022, 184, 111694.	1.9	22
43	Forming limits under multi-index constraints in NC bending of aluminum alloy thin-walled tubes with large diameters. Science China Technological Sciences, 2010, 53, 326-342.	2.0	21
44	Significance-based optimization of processing parameters for thin-walled aluminum alloy tube NC bending with small bending radius. Transactions of Nonferrous Metals Society of China, 2012, 22, 147-156.	1.7	20
45	Tribological evaluation of surface modified H13 tool steel in warm forming of Tiâ€“6Alâ€“4V titanium alloy sheet. Chinese Journal of Aeronautics, 2014, 27, 1002-1009.	2.8	20
46	Macroâ€˜meso scale modeling and simulation of surface roughening: Aluminum alloy tube bending. International Journal of Mechanical Sciences, 2018, 144, 696-707.	3.6	20
47	A hybrid method for accurate prediction of multiple instability modes in in-plane roll-bending of strip. Journal of Materials Processing Technology, 2014, 214, 1173-1189.	3.1	19
48	Thermal-mechanical loading sequences related creep aging behaviors of 7050 aluminum alloy. Journal of Alloys and Compounds, 2018, 731, 90-99.	2.8	19
49	An insight into size effect on fracture behavior of Inconel 718 cross-scaled foils. International Journal of Plasticity, 2022, 153, 103274.	4.1	19
50	Numerical study on the deformation behaviors of the flexible die forming by using viscoplastic pressure-carrying medium. Computational Materials Science, 2009, 46, 1058-1068.	1.4	18
51	Springback law of thin-walled 6061-T4 Al-alloy tube upon bending. Transactions of Nonferrous Metals Society of China, 2012, 22, s357-s363.	1.7	18
52	Constitutive modeling of compression behavior of TC4 tube based on modified Arrhenius and artificial neural network models. Rare Metals, 2016, 35, 162-171.	3.6	18
53	Non-isothermal creep aging behaviors of an Al-Zn-Mg-Cu alloy. Materials Characterization, 2018, 144, 431-439.	1.9	18
54	Tribological behaviors in titanium sheet and tube forming at elevated temperatures: evaluation and modeling. International Journal of Advanced Manufacturing Technology, 2018, 97, 657-674.	1.5	17

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55	Through-thickness heterogeneity and in-plane anisotropy in creep aging of 7050 Al alloy. Materials and Design, 2020, 196, 109190.	3.3	17
56	Anisotropic plasticity and fracture of alpha titanium sheets from cryogenic to warm temperatures. International Journal of Plasticity, 2022, 156, 103348.	4.1	17
57	Geometry-dependent springback behaviors of thin-walled tube upon cold bending. Science China Technological Sciences, 2012, 55, 3469-3482.	2.0	16
58	Tribological behaviors between commercial pure titanium sheet and tools in warm forming. Transactions of Nonferrous Metals Society of China, 2015, 25, 2924-2931.	1.7	16
59	Warm bending mechanism of extrados and intrados of large diameter thin-walled CP-Ti tubes. Transactions of Nonferrous Metals Society of China, 2014, 24, 3257-3264.	1.7	15
60	Constitutive modeling related uncertainties: Effects on deformation prediction accuracy of sheet metallic materials. International Journal of Mechanical Sciences, 2019, 157-158, 574-598.	3.6	15
61	Dynamic interplay between dislocations and precipitates in creep aging of an Al-Zn-Mg-Cu alloy. Advances in Manufacturing, 2019, 7, 15-29.	3.2	15
62	Sequential multi-objective optimization of thin-walled aluminum alloy tube bending under various uncertainties. Transactions of Nonferrous Metals Society of China, 2017, 27, 608-615.	1.7	14
63	Role of thermal-mechanical loading sequence on creep aging behaviors of 5A90 Al-Li alloy. Journal of Materials Processing Technology, 2018, 255, 354-363.	3.1	14
64	Multi-aspect size effect transition from micro to macroscale: Modelling and experiment. International Journal of Plasticity, 2022, 156, 103364.	4.1	14
65	BP artificial neural network modeling for accurate radius prediction and application in incremental in-plane bending. International Journal of Advanced Manufacturing Technology, 2015, 80, 971-984.	1.5	13
66	Quasi-static tensile behavior of large-diameter thin-walled Tiâ€“6Alâ€“4V tubes at elevated temperature. Chinese Journal of Aeronautics, 2016, 29, 542-553.	2.8	13
67	Coupled modeling of anisotropy variation and damage evolution for high strength steel tubular materials. International Journal of Mechanical Sciences, 2016, 105, 41-57.	3.6	13
68	A low-density pulse-current-assisted age forming process for high-strength aluminum alloy components. International Journal of Advanced Manufacturing Technology, 2018, 97, 3371-3384.	1.5	12
69	Towards an integrated robust and loop tooling design for tube bending. International Journal of Advanced Manufacturing Technology, 2013, 65, 1303-1318.	1.5	11
70	Knowledge-based substep deterministic optimization of large diameter thin-walled Al-alloy tube bending. International Journal of Advanced Manufacturing Technology, 2013, 68, 1989-2004.	1.5	11
71	Springback nonlinearity of high-strength titanium alloy tube upon mandrel bending. International Journal of Precision Engineering and Manufacturing, 2013, 14, 429-438.	1.1	10
72	Towards intelligent design optimization: Progress and challenge of design optimization theories and technologies for plastic forming. Chinese Journal of Aeronautics, 2021, 34, 104-123.	2.8	10

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73	An accurate 3D-FE based radius prediction model for in-plane roll-bending of strip considering spread effects. Computational Materials Science, 2010, 50, 666-677.	1.4	9
74	Springback prediction of titanium tube bending considering Bauschinger effect and Young's modulus variation. Journal of Physics: Conference Series, 2016, 734, 032113.	0.3	9
75	Effect of tooling design on the cold pilgering behavior of zircaloy tube. International Journal of Advanced Manufacturing Technology, 2017, 92, 2169-2183.	1.5	9
76	Loading conditions constrained wrinkling behaviors of thin-walled sheet/tube parts during metal forming. Journal of Materials Processing Technology, 2021, 296, 117199.	3.1	9
77	Advances and challenges on springback control for creep age forming of aluminum alloy. Chinese Journal of Aeronautics, 2022, 35, 8-34.	2.8	9
78	Towards sensitive prediction of wrinkling instability in sheet metal forming by introducing evolution of triple nonlinearity: Tube forming. International Journal of Mechanical Sciences, 2019, 161-162, 105054.	3.6	8
79	Tooling designâ€“related spatial deformation behaviors and crystallographic texture evolution of high-strength Ti-3Al-2.5V tube in cold pilgering. International Journal of Advanced Manufacturing Technology, 2019, 104, 2851-2862.	1.5	8
80	Residual stress evolution and tailoring of cold pilgered Ti-3Al-2.5V tube. International Journal of Mechanical Sciences, 2022, 225, 107366.	3.6	8
81	Prediction and control of bending quality of double-layered gap tube. International Journal of Mechanical Sciences, 2022, 228, 107474.	3.6	8
82	A new model for precision control of the radius in in-plane roll-bending of strip considering rolls and stand deflections. Journal of Materials Processing Technology, 2011, 211, 2072-2084.	3.1	7
83	Modelling of Wrinkling in NC Bending of Thin-walled Tubes with Large Diameters under Multi-die Constraints Using Hybrid Method. Procedia Engineering, 2014, 81, 2171-2176.	1.2	7
84	Deformation-based joining for high-strength Ti-3Al-2.5V tubular fittings based on internal roller swaging. International Journal of Mechanical Sciences, 2020, 171, 105367.	3.6	7
85	Time-dependent springback of high strength titanium tubular materials: Experiment and modeling. Journal of Materials Processing Technology, 2022, 299, 117354.	3.1	7
86	Filler parameters affected wrinkling behavior of aluminum alloy double-layered gap tube in rotary draw bending process. International Journal of Advanced Manufacturing Technology, 2022, 119, 5261-5276.	1.5	7
87	Wrinkling Limit Based on FEM Virtual Experiment during NC Bending Process of Thin-Walled Tube. Materials Science Forum, 2004, 471-472, 498-502.	0.3	6
88	Design and optimisation of mandrel parameters for thin walled aluminium alloy tube NC bending. Materials Research Innovations, 2011, 15, s365-s369.	1.0	6
89	Exploring the Influence of Pre/Post-Aging on Springback in Al-Mg-Si Alloy Tube Bending. Procedia Manufacturing, 2020, 47, 774-780.	1.9	6
90	Forming of thin-walled AA6061-T4 tubular joint by elastomeric bulging: experiment and computation. International Journal of Advanced Manufacturing Technology, 2020, 107, 25-38.	1.5	5

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91	Machine Learning (ML)-Based Prediction and Compensation of Springback for Tube Bending. Minerals, Metals and Materials Series, 2021, , 167-178.	0.3	5
92	Influence of mandrel parameters on cross-sectional deformation of H96 double-ridged rectangular tube with ridge groove fillers in H-typed rotary draw bending. Procedia Manufacturing, 2018, 15, 812-819.	1.9	4
93	Damage in Creep Aging Process of an Al-Zn-Mg-Cu Alloy: Experiments and Modeling. Metals, 2018, 8, 285.	1.0	4
94	Damage Evolution and Ductile Fracture. , 2019, , 85-136.		4
95	A STUDY ON STEPWISE OPTIMIZATION OF FORMING PARAMETERS FOR THIN-WALLED TUBE NC BENDING. Journal of Advanced Manufacturing Systems, 2008, 07, 15-20.	0.4	3
96	Experimental Study on Bendability of Thin-Walled 6061-T4 Tube under Different Bending Velocities. Applied Mechanics and Materials, 0, 184-185, 196-200.	0.2	3
97	Hot Tube-Forming. , 2014, , 321-350.		3
98	FE modeling of a complete warm-bending process for optimal design of heating stages for the forming of large-diameter thin-walled Tiâ€“6Alâ€“4V tubes. Manufacturing Review, 2017, 4, 8.	0.9	3
99	Springback Analysis for Warm Bending of Titanium Tube Based on Coupled Thermal-Mechanical Simulation. Materials, 2021, 14, 5044.	1.3	3
100	Uncertainty analysis and robust design optimization for the heat-assisted bending of high-strength titanium tube. Science China Technological Sciences, 2021, 64, 2174.	2.0	3
101	A Study On Critical Thinning In Thin-walled Tube Bending Of Al-Alloy 5052O Via Coupled Ductile Fracture Criteria. , 2010, , .		2
102	Formability and Performance of Al-Zn-Mg-Cu Alloys with Different Initial Tempers in Creep Aging Process. , 0, , .		2
103	Inhomogeneous Deformation-Induced Surface Roughening Defects. , 2019, , 225-256.		2
104	Relationship among joined tubular material properties, joining behavior and performance by elastomeric swaging. Thin-Walled Structures, 2021, 162, 107561.	2.7	1
105	Sideways Movement of Strip in In-Plane Roll-Bending Process with Conical Rollers. Advanced Materials Research, 0, 154-155, 1419-1422.	0.3	0
106	A Multi-Objective Optimization Method for Thin-Walled Tube NC Bending. Advanced Materials Research, 0, 213, 383-387.	0.3	0
107	Strain Hardening Modeling of High-Strength Stainless Steel Tube. Advanced Materials Research, 0, 311-313, 2014-2019.	0.3	0
108	Significance Analysis of Processing Parameters on Wall Thinning in Tube Bending. Advanced Materials Research, 0, 622-623, 437-441.	0.3	0

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109	Whole process modeling of joining of flareless AA 6061-T4 tube by extrusion-bulging forming using a polyurethane elastomer medium. Journal of Physics: Conference Series, 2016, 734, 032115.	0.3	0
110	Development and application of CATIA-based interference simulation system for tube bending. IOP Conference Series: Materials Science and Engineering, 2018, 392, 062048.	0.3	0
111	Characterizing of Anisotropy and Asymmetry of Tubular Materials. Materials Science Forum, 2018, 920, 211-216.	0.3	0
112	Deformation Inhomogeneity. , 2019, , 29-83.		0
113	Deformation-Induced Springback Defects. , 2019, , 185-223.		0
114	Deformation-Induced Compressive Instability. , 2019, , 137-184.		0
115	Microstructure Abnormality-Related Defects. , 2019, , 277-319.		0
116	Microstructure evolution of Ni47Ti44Nb9 shape memory alloy in high-temperature deformation. International Journal of Lightweight Materials and Manufacture, 2020, 3, 376-386.	1.3	0
117	Macro-/Meso-Scaled Forming of Tubular Structures/Components. , 2022, , 371-400.		0