M W Fu

List of Publications by Citations

212 papers	5,704 citations	39 h-index	60 g-index
220 ext. papers	6,860 ext. citations	5.3 avg, IF	6.47 L-index

#	Paper	IF	Citations
212	Ductile fracture: Experiments and computations. *International Journal of Plasticity*, **2011**, 27, 147-180	7.6	340
211	Geometry and grain size effects on the fracture behavior of sheet metal in micro-scale plastic deformation. *Materials & Design*, **2011**, 32, 4738-4746		166
210	A review on the state-of-the-art microforming technologies. *International Journal of Advanced Manufacturing Technology*, **2013**, 67, 2411-2437	3.2	160
209	Modeling of grain size effect on micro deformation behavior in micro-forming of pure copper. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2010**, 527, 6638-6648	5.3	116
208	The size effect on micro deformation behaviour in micro-scale plastic deformation. *Materials & Design*, **2011**, 32, 198-206		108
207	The influence of size effect on the ductile fracture in micro-scaled plastic deformation. *International Journal of Plasticity*, **2013**, 41, 65-81	7.6	88
206	Undercut feature recognition in an injection mould design system. *CAD Computer Aided Design*, **1999**, 31, 777-790	2.9	87
205	Size effect affected formability of sheet metals in micro/meso scale plastic deformation: Experiment and modeling. *International Journal of Plasticity*, **2015**, 68, 34-54	7.6	84
204	Study of size effect in micro-extrusion process of pure copper. *Materials & Design*, **2011**, 32, 3772-3782		79
203	Experimental studies and numerical modeling of the specimen and grain size effects on the flow stress of sheet metal in microforming. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 7674-7683	5.3	78
202	Experimental and simulation studies of micro blanking and deep drawing compound process using copper sheet. *Journal of Materials Processing Technology*, **2013**, 213, 101-110	5.3	77
201	A review of geometrical and microstructural size effects in micro-scale deformation processing of metallic alloy components. *International Journal of Machine Tools and Manufacture*, **2016**, 109, 94-125	9.4	74
200	Microstructure evolution in the conventional single side and bobbin tool friction stir welding of thick rolled 7085-T7452 aluminum alloy. *Materials Characterization*, **2018**, 138, 48-55	3.9	73
199	Deformation behavior and microstructure evolution of titanium alloys with lamellar microstructure in hot working process: A review. *Journal of Materials Science and Technology*, **2020**, 39, 56-73	9.1	71
198	Size effect on deformation behavior and ductile fracture in microforming of pure copper sheets considering free surface roughening. *Materials and Design*, **2015**, 83, 400-412	8.1	70
197	Influence of size effect on the springback of sheet metal foils in micro-bending. *Computational Materials Science*, **2011**, 50, 2604-2614	3.2	66
196	An approach to identify design and manufacturing features from a data exchanged part model. *CAD Computer Aided Design*, **2003**, 35, 979-993	2.9	64

195	Hot deformation behavior of GH4169 superalloy associated with stick phase dissolution during isothermal compression process. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 540, 164-173	5.3	61
194	Optimization of near- forging process parameters of Ti-6.5Al-3.5Mo-1.5Zr-0.3Si by using processing maps. *Materials Characterization*, **2009**, 60, 492-498	3.9	58
193	Geometry and grain size effects on the forming limit of sheet metals in micro-scaled plastic deformation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 611, 345-353	5.3	57
192	A hybrid model for analysis of ductile fracture in micro-scaled plastic deformation of multiphase alloys. *International Journal of Plasticity*, **2014**, 61, 1-16	7.6	56
191	Size effect on material surface deformation behavior in micro-forming process. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 4799-4806	5.3	56
190	Study of microstructural grain and geometric size effects on plastic heterogeneities at grain-level by using crystal plasticity modeling with high-fidelity representative microstructures. *International Journal of Plasticity*, **2018**, 100, 69-89	7.6	55
189	Hot deformation behavior of the post-cogging FGH4096 superalloy with fine equiaxed microstructure. *Materials Characterization*, **2011**, 62, 887-893	3.9	52
188	Modeling of slip, twinning and transformation induced plastic deformation for TWIP steel based on crystal plasticity. *International Journal of Plasticity*, **2016**, 76, 186-212	7.6	51
187	Study of the dynamic recrystallization of Ti .5Al .5Mo .5Zr .3Si alloy in Forging process via Finite Element Method modeling and microstructure characterization. *Materials & Design*, **2011**, 32, 1283-1291		50
186	Experimental studies of the size effect affected microscale plastic deformation in micro upsetting process. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 534, 374-383	5.3	49
185	Experimental and simulation study of deformation behavior in micro-compound extrusion process. *Materials & Design*, **2011**, 32, 525-534		48
184	Study on the dynamic recrystallization behavior of Ti-alloy Ti 0V Fe V in processing via experiment and simulation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 619, 26-34	5.3	47
183	A constitutive model for modeling of the deformation behavior in microforming with a consideration of grain boundary strengthening. *Computational Materials Science*, **2012**, 55, 85-94	3.2	47
182	The application of surface visibility and moldability to parting line generation. *CAD Computer Aided Design*, **2002**, 34, 469-480	2.9	47
181	Anisotropic and asymmetrical yielding and its evolution in plastic deformation: Titanium tubular materials. *International Journal of Plasticity*, **2017**, 90, 177-211	7.6	46
180	Recrystallization of the hot isostatic pressed nickel-base superalloy FGH4096: I. Microstructure and mechanism. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 8065-8070	5.3	46
179	A methodology for evaluation of metal forming system design and performance via CAE simulation. *International Journal of Production Research*, **2006**, 44, 1075-1092	7.8	45
178	Simulation-enabled study of folding defect formation and avoidance in axisymmetrical flanged components. *Journal of Materials Processing Technology*, **2009**, 209, 5077-5086	5.3	43

177	Investigation on hot deformation behavior of P/M Ni-base superalloy FGH96 by using processing maps. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 6794-6799	5.3	43
176	Manufacturing of advanced smart tooling for metal forming. *CIRP Annals - Manufacturing Technology*, **2019**, 68, 605-628	4.9	41
175	Bulk nanostructured processing of aluminum alloy. *Journal of Materials Processing Technology*, **2007**, 192-193, 575-581	5.3	40
174	Experimental and theoretical study on the hot forming limit of 22MnB5 steel. *International Journal of Advanced Manufacturing Technology*, **2014**, 71, 297-306	3.2	39
173	Effect of the initial microstructure on the deformation behavior of Ti60 titanium alloy at high temperature processing. *Journal of Alloys and Compounds*, **2014**, 617, 525-533	5.7	39
172	Experimental and simulation based study on micro-scaled sheet metal deformation behavior in microembossing process. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 556, 60-67	5.3	39
171	Microstructure and Properties of Al-6061 Alloy by Equal Channel Angular Extrusion for 16 Passes. *Materials and Manufacturing Processes*, **2007**, 22, 819-824	4.1	38
170	Comparative study on local and global mechanical properties of bobbin tool and conventional friction stir welded 7085-T7452 aluminum thick plate. *Journal of Materials Science and Technology*, **2018**, 34, 173-184	9.1	38
169	Study on the dynamic recrystallization mechanisms of Inconel 740 superalloy during hot deformation. *Journal of Alloys and Compounds*, **2020**, 820, 153325	5.7	38
168	A multiscale investigation into the effect of grain size on void evolution and ductile fracture: Experiments and crystal plasticity modeling. *International Journal of Plasticity*, **2020**, 125, 133-149	7.6	38
167	Competition between work-hardening effect and dynamic-softening behavior for processing as-cast GH4720Li superalloys with original dendrite microstructure during moderate-speed hot compression. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 642, 187-193	5.3	37
166	The grain refinement of Al-6061 via ECAE processing: Deformation behavior, microstructure and property. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 526, 84-92	5.3	37
165	Determination of Optimal Parting Directions in Plastic Injection Mold Design. *CIRP Annals - Manufacturing Technology*, **1997**, 46, 429-432	4.9	37
164	Ductile fracture and deformation behavior in progressive microforming. *Materials and Design*, **2015**, 83, 14-25	8.1	36
163	Micro-scaled progressive forming of bulk micropart via directly using sheet metals. *Materials & Design*, **2013**, 49, 774-783		36
162	Dynamic recrystallization of the hot isostatically pressed P/M superalloy FGH4096 in hot working process. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 6968-6974	5.3	36
161	Mechanisms of DRX nucleation with grain boundary bulging and subgrain rotation during the hot working of nickel-based superalloys with columnar grains. *Journal of Alloys and Compounds*, **2019**, 786, 636-647	5.7	35
160	Hot deformation behavior of Ti□5.0Al□2.40Sn□2.02Zr□3.86Mo□3.91Cr alloy with an initial lamellar microstructure in the □□phase field. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 1812-1818	5.3	35

159	Effect of discharge voltage on the deformation of Ti Grade 1 rivet in electromagnetic riveting. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2014**, 591, 26-32	5.3	33
158	Properties, microstructure and texture evolution of cold rolled Cu strips under electropulsing treatment. *Journal of Alloys and Compounds*, **2012**, 544, 203-208	5.7	33
157	Effect of electroplastic rolling on the ductility and superelasticity of TiNi shape memory alloy. *Materials & Design*, **2013**, 44, 606-611		33
156	Meso-scaled progressive forming of bulk cylindrical and flanged parts using sheet metal. *Materials & Design*, **2013**, 43, 249-257		33
155	Automatic Determination of 3-D Parting Lines and Surfaces in Plastic Injection Mould Design. *CIRP Annals - Manufacturing Technology*, **1998**, 47, 95-98	4.9	33
154	Studies of the interactive effect of specimen and grain sizes on the plastic deformation behavior in microforming. *International Journal of Advanced Manufacturing Technology*, **2012**, 62, 989-1000	3.2	32
153	Dynamic recrystallization based ductile fracture modeling in hot working of metallic materials. *International Journal of Plasticity*, **2017**, 95, 105-122	7.6	30
152	Multivariable analysis of micro shearing process customized for progressive forming of micro-parts. *International Journal of Mechanical Sciences*, **2015**, 93, 191-203	5.5	30
151	Core and cavity generation method in injection mould design. *International Journal of Production Research*, **2001**, 39, 121-138	7.8	30
150	Influence of crystal structure on size dependent deformation behavior and strain heterogeneity in micro-scale deformation. *International Journal of Plasticity*, **2019**, 118, 147-172	7.6	30
149	Work-hardening effect and strain-rate sensitivity behavior during hot deformation of Ti□Al□Mo□V□Cr□Fe alloy. *Materials and Design*, **2015**, 82, 84-90	8.1	29
148	Hot deformation behavior and hot working characteristic of Nickel-base electron beam weldments. *Journal of Alloys and Compounds*, **2014**, 584, 494-502	5.7	29
147	Experimental studies of plastic deformation behaviors in microheading process. *Journal of Materials Processing Technology*, **2012**, 212, 1501-1512	5.3	29
146	A novel structural gradient metallic glass composite with enhanced mechanical properties. *Scripta Materialia*, **2009**, 61, 608-611	5.6	29
145	Generation of optimal parting direction based on undercut features in injection molded parts. *IIE Transactions*, **1999**, 31, 947-955		29
144	The improved superelasticity of NiTi alloy via electropulsing treatment for minutes. *Journal of Alloys and Compounds*, **2014**, 584, 225-231	5.7	28
143	Temperature dependent evolution of anisotropy and asymmetry of □Ti in thermomechanical working: Characterization and modeling. *International Journal of Plasticity*, **2020**, 127, 102650	7.6	28
142	Forming limit of sheet metals in meso-scale plastic forming by using different failure criteria. *International Journal of Mechanical Sciences*, **2017**, 120, 190-203	5.5	27

141	Effect of electroplastic rolling on deformability and oxidation of NiTiNb shape memory alloy. *Journal of Materials Processing Technology*, **2013**, 213, 30-35	5.3	27
140	Maximum m superplasticity deformation for Ti□Al□V titanium alloy. *Journal of Materials Processing Technology*, **2007**, 192-193, 555-560	5.3	27
139	Die fatigue life design and assessment via CAE simulation. *International Journal of Advanced Manufacturing Technology*, **2008**, 35, 843-851	3.2	27
138	DDRX and CDRX of an as-cast nickel-based superalloy during hot compression at □ sub-/super-solvus temperatures. *Journal of Alloys and Compounds*, **2019**, 803, 16-29	5.7	26
137	Microstructural characterization, formation mechanism and fracture behavior of the needle □ phase in Fe□Ni□Cr type superalloys with high Nb content. *Materials Characterization*, **2015**, 109, 36-42	3.9	26
136	Stress analysis of the precision forging die for a bevel gear and its optimal design using the boundary-element method. *Journal of Materials Processing Technology*, **1995**, 53, 511-520	5.3	26
135	The prediction of macro-defects during the isothermal forging process by the rigid-viscoplastic finite-element method. *Journal of Materials Processing Technology*, **1992**, 32, 599-608	5.3	26
134	The optimal determination of forging process parameters for Ti□.5Al□.5Mo□.5Zr□.3Si alloy with thick lamellar microstructure in two phase field based on P-map. *Journal of Materials Processing Technology*, **2010**, 210, 370-377	5.3	25
133	An integrated FEM and ANN methodology for metal-formed product design. *Engineering Applications of Artificial Intelligence*, **2008**, 21, 1170-1181	7.2	25
132	The application of surface demoldability and moldability to side-core design in die and mold CAD. *CAD Computer Aided Design*, **2008**, 40, 567-575	2.9	25
131	CAE enabled methodology for die fatigue life analysis and improvement. *International Journal of Production Research*, **2005**, 43, 131-146	7.8	25
130	Influences of size effect and stress condition on ductile fracture behavior in micro-scaled plastic deformation. *Materials and Design*, **2017**, 131, 69-80	8.1	24
129	Micro selective laser melting of NiTi shape memory alloy: Defects, microstructures and thermal/mechanical properties. *Optics and Laser Technology*, **2020**, 131, 106374	4.2	24
128	Recrystallization of the hot isostatic pressed nickel-base superalloy FGH4096. II: Characterization and application. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 539, 101-106	5.3	24
127	Analysis and avoidance of flow-induced defects in meso-forming process: simulation and experiment. *International Journal of Advanced Manufacturing Technology*, **2013**, 68, 1551-1564	3.2	24
126	A ductile fracture model considering stress state and Zener□Hollomon parameter for hot deformation of metallic materials. *International Journal of Mechanical Sciences*, **2018**, 144, 800-812	5.5	24
125	Element diffusion model of bimetallic hot deformation in metallurgical bonding process. *Materials and Design*, **2016**, 94, 433-443	8.1	23
124	Thermostability and thermoplastic formability of (Zr65Cu17.5Ni10Al7.5)100□REx (x = 0.25□.25, RE: Y, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu) bulk metallic glasses. *Materials & Design*, **2014**, 64, 301-306		23

123	Constitutive modeling of size effect on deformation behaviors of amorphous polymers in micro-scaled deformation. *International Journal of Plasticity*, **2017**, 89, 197-222	7.6	22
122	Discontinuous yielding in Ni-base superalloys during high-speed deformation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 620, 383-389	5.3	22
121	Fabrication of bulk ultrafine grained titanium alloy via equal channel angular pressing based thermomechanical treatment. *Materials & Design*, **2013**, 46, 889-894		22
120	Characteristic free volumes of bulk metallic glasses: Measurement and their correlation with glass-forming ability. *Journal of Applied Physics*, **2011**, 109, 053520	2.5	22
119	Interactive effect of grain size and crystal structure on deformation behavior in progressive micro-scaled deformation of metallic materials. *International Journal of Machine Tools and Manufacture*, **2020**, 148, 103473	9.4	22
118	Deformation behavior and microstructure evolution in thermal-aided mesoforming of titanium dental abutment. *Materials and Design*, **2016**, 89, 1283-1293	8.1	21
117	Flow behavior and hot workability of FGH4096 superalloys with different initial microstructures by using advanced processing maps. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 531, 91-97	5.3	21
116	Die fatigue life improvement through the rational design of metal-forming system. *Journal of Materials Processing Technology*, **2009**, 209, 1074-1084	5.3	21
115	Simulation-enabled casting product defect prediction in die casting process. *International Journal of Production Research*, **2009**, 47, 5203-5216	7.8	21
114	Design of internal pins in injection mold CAD via the automatic recognition of undercut features. *CAD Computer Aided Design*, **2010**, 42, 582-597	2.9	21
113	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	7.6	21
112	The fracture toughness of hot-pressed NbCr2 alloys doped by rare earth yttrium. *Scripta Materialia*, **2009**, 61, 205-207	5.6	20
111	Identification of the optimal (#) forging process parameters of Ti 5.5Al 3.5Mo 1.5Zr 0.3Si based on processing-maps. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 7279-7285	5.3	20
110	The simulation of the viscoplastic forming process by the finite-element method. *Journal of Materials Processing Technology*, **1995**, 55, 442-447	5.3	20
109	Investigation on the maximum strain rate sensitivity (m) superplastic deformation of Mg-Li based alloy. *Materials and Design*, **2016**, 112, 151-159	8.1	20
108	Effect of low-temperature aging treatment on thermally- and stress-induced phase transformations of nanocrystalline and coarse-grained NiTi wires. *Materials and Design*, **2017**, 131, 49-59	8.1	19
107	Modeling of constitutive relationships and microstructural variables of Ti 6.62Al 5.14Sn 1.82Zr alloy during high temperature deformation. *Materials Characterization*, **2008**, 59, 1386-1394	3.9	19
106	Study of deformation homogeneity in the multi-pass equal channel angular extrusion process. *Journal of Materials Processing Technology*, **2007**, 192-193, 121-127	5.3	19

105	Design solution evaluation for metal forming product development. *International Journal of Advanced Manufacturing Technology*, **2008**, 38, 249-257	3.2	19
104	Deformation Behavior Study of Multi-Pass ECAE Process for Fabrication of Ultrafine or Nanostructured Bulk Materials. *Materials and Manufacturing Processes*, **2006**, 21, 507-512	4.1	19
103	The rapid solidification of Ti3Al : a molecular dynamics study. *Journal of Physics Condensed Matter*, **2004**, 16, 4203-4210	1.8	19
102	Microstructure and damage based constitutive modelling of hot deformation of titanium alloys. *Journal of Alloys and Compounds*, **2020**, 831, 154851	5.7	18
101	A finite strain thermodynamically-based constitutive modeling and analysis of viscoelastic-viscoplastic deformation behavior of glassy polymers. *International Journal of Plasticity*, **2019**, 122, 135-163	7.6	18
100	Analysis of size effect on flow-induced defect in micro-scaled forming process. *International Journal of Advanced Manufacturing Technology*, **2014**, 73, 1475-1484	3.2	18
99	High temperature deformation behavior and optimization of hot compression process parameters in TC11 titanium alloy with coarse lamellar original microstructure. *Transactions of Nonferrous Metals Society of China*, **2013**, 23, 353-360	3.3	18
98	Microstructure evolution of copper strips with gradient temperature in electropulsing treatment. *Journal of Alloys and Compounds*, **2013**, 581, 160-165	5.7	18
97	Microstructure evolution of Ti-6Al-2Zr-1Mo-1V alloy and its mechanism in multi-pass flow forming. *Journal of Materials Processing Technology*, **2018**, 261, 86-97	5.3	18
96	Study on size effect affected progressive microforming of conical flanged parts directly using sheet metals. *Journal of Materials Processing Technology*, **2019**, 272, 72-86	5.3	17
95	Experimental investigation and modeling of ductile fracture behavior of TRIP780 steel in hot working conditions. *International Journal of Mechanical Sciences*, **2016**, 110, 108-115	5.5	17
94	Numerical evaluation on the effective thermal conductivity of the composites with discontinuous inclusions: Periodic boundary condition and its numerical algorithm. *International Journal of Heat and Mass Transfer*, **2019**, 134, 735-751	4.9	16
93	Prediction and analysis of ductile fracture in sheet metal forming Part I: A modified Ayada criterion. *International Journal of Damage Mechanics*, **2014**, 23, 1189-1210	3	16
92	Effect of electropulsing treatment on the microstructure and superelasticity of TiNi alloy. *Applied Physics A: Materials Science and Processing*, **2013**, 111, 1195-1201	2.6	16
91	Microstructure and microtexture evolution of dynamic recrystallization during hot deformation of a nickel-based superalloy. *Materials and Design*, **2020**, 188, 108429	8.1	16
90	Analysis of size dependent earing evolution in micro deep drawing of TWIP steel by using crystal plasticity modeling. *International Journal of Mechanical Sciences*, **2020**, 165, 105200	5.5	16
89	Characterization of the microscale forming limit for metal foils considering free surface roughening and failure mechanism transformation. *Journal of Materials Processing Technology*, **2019**, 272, 111-124	5.3	15
88	Effect of cooling path on the phase transformation of boron steel 22MnB5 in hot stamping process. *International Journal of Advanced Manufacturing Technology*, **2015**, 81, 1391-1402	3.2	15

87	Formability limits and process window based on fracture analysis of 5A02-O aluminium alloy in splitting spinning. *Journal of Materials Processing Technology*, **2018**, 257, 15-32	5.3	15
86	Hot deformation behavior of the 1.15C4.00Cr3.00V3.00W5.00Mo powder metallurgy high speed steel. *Materials & Design*, **2014**, 54, 854-863		15
85	Numerical study on the deformation behaviors of the flexible die forming by using viscoplastic pressure-carrying medium. *Computational Materials Science*, **2009**, 46, 1058-1068	3.2	15
84	Extrapolation based constitutive modeling of flow stress of titanium alloy sheet under hot-working condition. *Materials and Design*, **2018**, 154, 96-107	8.1	15
83	Tribological behaviors in titanium sheet and tube forming at elevated temperatures: evaluation and modeling. *International Journal of Advanced Manufacturing Technology*, **2018**, 97, 657-674	3.2	14
82	Structural-gradient-materials produced by gradient temperature heat treatment for dual-property turbine disc. *Journal of Alloys and Compounds*, **2013**, 557, 27-33	5.7	14
81	FE Simulation-Based Folding Defect Prediction and Avoidance in Forging of Axially Symmetrical Flanged Components. *Journal of Manufacturing Science and Engineering, Transactions of the ASME*, **2010**, 132,	3.3	14
80	Superplasticity deformation of Ti6Al2Zr1Mo1V induced by the cyclic change of strain-rate and MaxmSPD. *Journal of Alloys and Compounds*, **2010**, 491, 213-217	5.7	14
79	The effect of hot pressing time on the microstructure and properties of Laves phase NbCr2 alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2008**, 485, 80-85	5.3	14
78	Size effects in multi-scale materials processing and manufacturing. *International Journal of Machine Tools and Manufacture*, **2021**, 167, 103755	9.4	14
77	A modified yield function for modeling of the evolving yielding behavior and micro-mechanism in biaxial deformation of sheet metals. *International Journal of Plasticity*, **2020**, 129, 102707	7.6	13
76	Deformation characteristic and geometrical size effect in continuous manufacturing of cylindrical and variable-thickness flanged microparts. *Journal of Materials Processing Technology*, **2018**, 252, 546-558	5.3	13
75	Abnormal flow behavior and necklace microstructure of powder metallurgy superalloys with previous particle boundaries (PPBs). *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 652, 84-91	5.3	13
74	Influence of size effect and plastic strain gradient on the springback behaviour of metallic materials in microbending process. *International Journal of Mechanical Sciences*, **2018**, 146-147, 105-115	5.5	13
73	Analysis and comparison of the instability regimes in the processing maps generated using different instability criteria for Ti6.5Al3.5Mo1.5Zr0.3Si alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 576, 259-266	5.3	13
72	Characteristic free volume change of bulk metallic glasses. *Journal of Applied Physics*, **2012**, 111, 083523	2.5	13
71	FEA-aided design of multi-stage drawing process and tooling for production of a miniature sheet metal component. *International Journal of Advanced Manufacturing Technology*, **2010**, 46, 993-1000	3.2	13
70	Mechanical behavior of 7085-T7452 aluminum alloy thick plate joint produced by double-sided friction stir welding: Effect of welding parameters and strain rates. *Journal of Manufacturing Processes*, **2018**, 35, 261-270	5	13

69	Formation mechanism and control of flaring in forward tube spinning. *International Journal of Advanced Manufacturing Technology*, **2018**, 94, 59-72	3.2	12
68	Generation of optimal parting direction based on undercut features in injection molded parts. *IIE Transactions*, **1999**, 31, 947-955		12
67	A new technology of sheet-metal flexible-die forming using a viscoplastic pressure-carrying medium. *Journal of Materials Processing Technology*, **1995**, 52, 359-367	5.3	12
66	Experimental investigations and constitutive modeling of the dynamic recrystallization behavior of Inconel 740 superalloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 793, 139939	5.3	12
65	Element diffusion model with variable coefficient in bimetallic bonding process. *Journal of Materials Processing Technology*, **2018**, 253, 99-108	5.3	12
64	Microstructure and superplastic deformation for aerospace Ti-alloys associated with □phase curing behavior. *Aerospace Science and Technology*, **2015**, 45, 416-421	4.9	11
63	A Knowledge-Based Prototype System to Support Product Conceptual Design. *Computer-Aided Design and Applications*, **2011**, 8, 129-147	1.4	11
62	Prediction and analysis of ductile fracture in sheet metal forming□Part II: Application of the modified Ayada criterion. *International Journal of Damage Mechanics*, **2016**, 25, 120-140	3	10
61	Coupled modeling of anisotropy variation and damage evolution for high strength steel tubular materials. *International Journal of Mechanical Sciences*, **2016**, 105, 41-57	5.5	10
60	Co-effect of microstructure and surface constraints on plastic deformation in micro- and mesoscaled forming process. *International Journal of Advanced Manufacturing Technology*, **2018**, 98, 1861-1886	3.2	10
59	Adaptive reproducing kernel particle method using gradient indicator for elasto-plastic deformation. *Engineering Analysis With Boundary Elements*, **2013**, 37, 280-292	2.6	10
58	Study of deformation and ductile fracture behaviors in micro-scale deformation using a combined surface layer and grain boundary strengthening model. *International Journal of Mechanical Sciences*, **2017**, 131-132, 924-937	5.5	10
57	Drawability and frictional behavior of pure molybdenum sheet in deep-drawing process at elevated temperature. *International Journal of Advanced Manufacturing Technology*, **2015**, 78, 1005-1014	3.2	10
56	High-precision sheet-metal workpieces manufactured by flexible-die forming using a visco-plastic pressure-carrying medium. *Journal of Materials Processing Technology*, **1996**, 62, 70-75	5.3	10
55	Evaluation of thermoplastic formability of Zr-based bulk metallic glasses and its correlation with characteristic temperature parameters. *Journal of Alloys and Compounds*, **2014**, 602, 326-330	5.7	9
54	Process parameters and products quality analysis of flexible-die deep-drawing using a viscoplastic pressure-carrying medium. *Journal of Materials Processing Technology*, **2001**, 115, 384-390	5.3	9
53	Progressive microforming of pin-shaped plunger parts and the grain size effect on its forming quality. *Materials and Design*, **2020**, 187, 108386	8.1	9
52	Effect of grain size on the adhesive and ploughing friction behaviours of polycrystalline metals in forming process. *International Journal of Mechanical Sciences*, **2016**, 117, 197-209	5.5	8

51	Micro-mechanical model for the effective thermal conductivity of the multi-oriented inclusions reinforced composites with imperfect interfaces. *International Journal of Heat and Mass Transfer*, **2020**, 148, 119167	4.9	8
50	Modelling of ultra-thin steel sheet in two-stage tensile deformation considering strain path change and grain size effect and application in multi-stage microforming. *International Journal of Machine Tools and Manufacture*, **2021**, 164, 103713	9.4	8
49	Modelling of Springback in Tube Bending: A Generalized Analytical Approach. *International Journal of Mechanical Sciences*, **2021**, 204, 106516	5.5	8
48	Re-precipitation mechanisms of the γ′ phase with sphere, near-sphere, cubic, octets and finally-dendrite in as-cast Ni-based superalloys. *Journal of Alloys and Compounds*, **2021**, 876, 160104	5.7	8
47	Applicability of the uncoupled ductile fracture criteria in micro-scaled plastic deformation. *International Journal of Damage Mechanics*, **2016**, 25, 289-314	3	7
46	Interphase model for FE prediction of the effective thermal conductivity of the composites with imperfect interfaces. *International Journal of Heat and Mass Transfer*, **2019**, 145, 118796	4.9	7
45	Influence of melt temperature on the Invar effect in (Fe71.2B24Y4.8)96Nb4 bulk metallic glass. *Journal of Materials Science*, **2014**, 49, 6900-6906	4.3	7
44	Study on the maximum m superplasticity deformation of Ti6.5Al3.5Mo1.5Zr0.3Si alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2009**, 513-514, 32-41	5.3	7
43	Coupled Thermo-Mechanical Analysis of Severe Plastic Deformation for Producing Bulk Nanostructured Materials. *Advanced Engineering Materials*, **2004**, 6, 933-936	3.5	7
42	Experimental and numerical study of the size effect on compound Meso/Microforming behaviors and performances for making bulk parts by directly using sheet metals. *Journal of Manufacturing Processes*, **2021**, 66, 506-520	5	7
41	A new interpolative homogenization model for evaluation of the effective elasto-plastic responses of two-phase composites. *Composite Structures*, **2019**, 210, 810-821	5.3	7
40	Study of dislocation-twin boundary interaction mechanisms in plastic deformation of TWIP steel by discrete dislocation dynamics and dislocation density-based modeling. *International Journal of Plasticity*, **2021**, 145, 103076	7.6	7
39	Strain-rate sensitivity of powder metallurgy superalloys associated with steady-state DRX during hot compression process. *Metals and Materials International*, **2017**, 23, 350-358	2.4	6
38	Size effect on the shear damage under low stress triaxiality in micro-scaled plastic deformation of metallic materials. *Materials and Design*, **2020**, 196, 109107	8.1	6
37	Investigation on the inhomogeneous structure of metallic glasses based on the initial elastic deformation in nanoindentation. *Intermetallics*, **2012**, 30, 65-71	3.5	6
36	Size effect affected deformation characteristics in micro deep drawing of TWIP domed-bottom cups. *Procedia Engineering*, **2017**, 207, 2072-2077		5
35	Investigation on the structural characteristics of metallic glasses based on the first displacement excursion behavior in nanoindentation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 530, 196-201	5.3	5
34	FEM-Based Modeling of Dynamic Recrystallization of AISI 52100 Steel Using Cellular Automaton Method. *Key Engineering Materials*, **2010**, 447-448, 406-411	0.4	5

33	Port-based ontology modeling to support product conceptualization. *Robotics and Computer-Integrated Manufacturing*, **2011**, 27, 646-656	9.2	5
32	Processing of thin metal strip by casting-cum-rolling. *Journal of Materials Processing Technology*, **2007**, 192-193, 101-107	5.3	5
31	Deformation mode and wall thickness variation in conventional spinning of metal sheets. *International Journal of Machine Tools and Manufacture*, **2022**, 173, 103846	9.4	5
30	The combined lateral and axial extrusion process of a branched component with two asymmetrically radial features. *Materials and Design*, **2016**, 111, 492-503	8.1	5
29	A method for prediction of unstable deformation in hot forging process by simulation. *Transactions of Nonferrous Metals Society of China*, **2013**, 23, 3739-3747	3.3	4
28	An advanced method for efficiently generating composite RVEs with specified particle orientation. *Composites Science and Technology*, **2021**, 205, 108647	8.6	4
27	Investigation of extrusion limit of Incoloy028 alloy tube by combining numerical and analytical methods. *International Journal of Advanced Manufacturing Technology*, **2016**, 83, 177-185	3.2	4
26	Dependence of processing window and microstructural evolution on initial material state in direct electric resistance heat treatment of NiTi alloy. *Materials and Design*, **2018**, 139, 549-564	8.1	4
25	A Two-Stage Physical-Based Model for Predicting Flow Stress of As-cast TiAl Alloy Under Hot Deformation Conditions. *Journal of Materials Engineering and Performance*, **2018**, 27, 5384-5394	1.6	4
24	Thin-walled Ti41.5Zr2.5Hf5Cu42.5Ni7.5Si1 bulk metallic glass tubes: Promising energy absorbers and lightweight structures. *Journal of Alloys and Compounds*, **2013**, 546, 180-184	5.7	3
23	Investigation of the free volume change of Fe41Co7Cr15Mo14C15B6Y2 bulk metallic glass using the cyclic thermal dilatation test. *Journal of Non-Crystalline Solids*, **2012**, 358, 2682-2686	3.9	3
22	Effect of ball milling time on microstructure and properties of Laves phase NbCr2 alloys synthesized by hot pressing. *Transactions of Nonferrous Metals Society of China*, **2009**, 19, 545-551	3.3	3
21	The modified GTN-Thomason criterion for modelling of ductile fracture considering shear factor and size effect in micro-scaled plastic deformation. *International Journal of Mechanical Sciences*, **2021**, 204, 106540	5.5	3
20	The effect of stress state and strain partition mode on the damage behavior of a Mg-Ca alloy. *International Journal of Plasticity*, **2021**, 144, 103040	7.6	3
19	Investigation on the enhanced maximum strain rate sensitivity (m) superplasticity of Mg-9Li-1Al alloy by a two-step deformation method. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 764, 138219	5.3	2
18	Improvement of the thermoplastic formability of Zr65Cu17.5Ni10Al7.5 bulk metallic glass by minor addition of Erbium. *Physica B: Condensed Matter*, **2016**, 502, 68-72	2.8	2
17	An anisotropic constitutive model for forming of aluminum tubes under both biaxial tension and pure shear stress states. *International Journal of Plasticity*, **2022**, 103259	7.6	2
16	A Review of Progressive and Compound Forming of Bulk Microparts by Using Sheet Metals. *MATEC Web of Conferences*, **2018**, 190, 01001	0.3	2

15	Electroplasticity in electrically-assisted forming: Process phenomena, performances and modelling. *International Journal of Machine Tools and Manufacture*, **2022**, 175, 103871	9.4	2
14	Study on the Enhanced Superplasticity of Mg-Li Based Alloy by a Stepped Deformation Method. *Defect and Diffusion Forum*, **2018**, 385, 103-108	0.7	1
13	Review on progressive microforming of bulk metal parts directly using sheet metals (Keynote Paper). *MATEC Web of Conferences*, **2015**, 21, 09001	0.3	1
12	Design Information Revealed by CAE Simulation for Casting Product Development **2008**, 323-332		1
11	Experiment and modeling based studies of the mesoscaled deformation and forming limit of Cu/Ni clad foils using a newly developed damage model. *International Journal of Plasticity*, **2022**, 149, 103173	7.6	1
10	Constitutive modeling of multiscale polycrystals considering grain structures and orientations. *International Journal of Mechanical Sciences*, **2022**, 216, 106992	5.5	1
9	Irregular growth of the γ′ phase in a Ni-based superalloys under slow cooling rate. *Materials Letters* , **2022**, 307, 131067	3.3	1
8	Circumferential twist in flow forming of tubular parts: Characterization, understanding and control. *Journal of Manufacturing Processes*, **2021**, 65, 144-152	5	1
7	A multiscale constitutive model coupled with martensitic transformation kinetics for micro-scaled plastic deformation of metastable metal foils. *International Journal of Mechanical Sciences*, **2021**, 202-203, 106503	5.5	1
6	Numerical and experimental study of the size effect on deformation behavior and quality of microembossed multi-channel structures. *Journal of Manufacturing Processes*, **2022**, 78, 363-375	5	0
5	Anisotropic plasticity and fracture of alpha titanium sheets from cryogenic to warm temperatures. *International Journal of Plasticity*, **2022**, 103348	7.6	0
4	The cliff-valley approach in the P-maps of PM/W joints for manufacturing the dual-alloys turbine disc. *Procedia Engineering*, **2017**, 207, 1117-1122		
3	Tooling Design and Fatigue Life Evaluation via CAE Simulation for Metal Forming **2008**, 711-720		
2	Simulation-Enabled Approach for Defect Prediction and Avoidance in Forming Product Development **2008**, 3-12		
1	Study of Micro-Upsetting by Finite Element Simulation Based on Crystal Plasticity and Grain Boundary Strengthening Theories. *Key Engineering Materials*,897, 21-28	0.4	