

Daeyong Kim

List of Publications by Year in descending order

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92
papers

2,940
citations

185998

28
h-index

174990

52
g-index

95
all docs

95
docs citations

95
times ranked

1676
citing authors

#	ARTICLE	IF	CITATIONS
1	A plastic constitutive equation incorporating strain, strain-rate, and temperature. <i>International Journal of Plasticity</i> , 2010, 26, 1746-1771.	4.1	335
2	Spring-back evaluation of automotive sheets based on isotropic-kinematic hardening laws and non-quadratic anisotropic yield functions, part III: applications. <i>International Journal of Plasticity</i> , 2005, 21, 915-953.	4.1	165
3	Spring-back evaluation of automotive sheets based on isotropic-kinematic hardening laws and non-quadratic anisotropic yield functions. <i>International Journal of Plasticity</i> , 2005, 21, 861-882.	4.1	136
4	A practical two-surface plasticity model and its application to spring-back prediction. <i>International Journal of Plasticity</i> , 2007, 23, 1189-1212.	4.1	136
5	Experimental and numerical study on formability of friction stir welded TWB sheets based on hemispherical dome stretch tests. <i>International Journal of Plasticity</i> , 2009, 25, 1626-1654.	4.1	120
6	Strain rate dependent tensile behavior of advanced high strength steels: Experiment and constitutive modeling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 559, 222-231.	2.6	109
7	Electric current-assisted deformation behavior of Al-Mg-Si alloy under uniaxial tension. <i>International Journal of Plasticity</i> , 2017, 94, 148-170.	4.1	106
8	Spring-back evaluation of automotive sheets based on isotropic-kinematic hardening laws and non-quadratic anisotropic yield functions. <i>International Journal of Plasticity</i> , 2005, 21, 883-914.	4.1	91
9	Experiment and modeling to investigate the effect of stress state, strain and temperature on martensitic phase transformation in TRIP-assisted steel. <i>Acta Materialia</i> , 2015, 97, 435-444.	3.8	85
10	Trade-off between tensile property and formability by partial recrystallization of CrMnFeCoNi high-entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 703, 324-330.	2.6	85
11	Crystal plasticity approach for predicting the Bauschinger effect in dual-phase steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 539, 259-270.	2.6	81
12	A temperature-dependent elasto-plastic constitutive model for magnesium alloy AZ31 sheets. <i>International Journal of Plasticity</i> , 2013, 50, 66-93.	4.1	77
13	Electroplastic behaviour in an aluminium alloy and dislocation density based modelling. <i>Materials and Design</i> , 2017, 124, 131-142.	3.3	77
14	Hole-expansion formability of dual-phase steels using representative volume element approach with boundary-smoothing technique. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 7353-7363.	2.6	73
15	Formability evaluation of friction stir welded 6111-T4 sheet with respect to joining material direction. <i>International Journal of Mechanical Sciences</i> , 2010, 52, 612-625.	3.6	61
16	Non-quadratic anisotropic potentials based on linear transformation of plastic strain rate. <i>International Journal of Plasticity</i> , 2007, 23, 1380-1399.	4.1	51
17	Constitutive law for AZ31B Mg alloy sheets and finite element simulation for three-point bending. <i>International Journal of Mechanical Sciences</i> , 2008, 50, 1510-1518.	3.6	51
18	Macro-performance evaluation of friction stir welded automotive tailor-welded blank sheets: Part I – Material properties. <i>International Journal of Solids and Structures</i> , 2010, 47, 1048-1062.	1.3	50

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19	Stress integration schemes for novel homogeneous anisotropic hardening model. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012, 247-248, 73-92.	3.4	49
20	Decoupling Thermal and Electrical Effect in an Electrically Assisted Uniaxial Tensile Test Using Finite Element Analysis. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 3043-3051.	1.1	48
21	Distortional hardening concept for modeling anisotropic/asymmetric plastic behavior of AZ31B magnesium alloy sheets. <i>International Journal of Plasticity</i> , 2017, 94, 74-97.	4.1	42
22	Spring-back evaluation of automotive sheets based on isotropic-kinematic hardening laws and non-quadratic anisotropic yield functionsPart I: theory and formulation. <i>International Journal of Plasticity</i> , 2005, 21, 861-882.	4.1	40
23	Macro-performance evaluation of friction stir welded automotive tailor-welded blank sheets: Part II “ Formability. <i>International Journal of Solids and Structures</i> , 2010, 47, 1063-1081.	1.3	38
24	Investigation of plastic strain rate under strain path changes in dual-phase steel using microstructure-based modeling. <i>International Journal of Plasticity</i> , 2017, 93, 89-111.	4.1	37
25	Spring-back evaluation of automotive sheets based on isotropic-kinematic hardening laws and non-quadratic anisotropic yield functionsPart II: characterization of material properties. <i>International Journal of Plasticity</i> , 2005, 21, 883-914.	4.1	35
26	Characterization of mechanical property of magnesium AZ31 alloy sheets for warm temperature forming. <i>International Journal of Mechanical Sciences</i> , 2015, 93, 204-217.	3.6	35
27	Effect of an aluminum driver sheet on the electromagnetic forming of DP780 steel sheet. <i>Journal of Materials Processing Technology</i> , 2016, 235, 158-170.	3.1	33
28	Evolutionary anisotropy and flow stress in advanced high strength steels under loading path changes. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 672, 65-77.	2.6	29
29	Measurements of anisotropic yielding, bauschinger and transient behavior of automotive dual-phase steel sheets. <i>Metals and Materials International</i> , 2003, 9, 561-570.	1.8	28
30	Metal plasticity and ductile fracture modeling for cast aluminum alloy parts. <i>Journal of Materials Processing Technology</i> , 2018, 255, 584-595.	3.1	28
31	Mechanical Properties and Formability of Heat-Treated 7000-Series High-Strength Aluminum Alloy: Experiments and Finite Element Modeling. <i>Metals and Materials International</i> , 2020, 26, 682-694.	1.8	26
32	An enhanced distortional-hardening-based constitutive model for hexagonal close-packed metals: Application to AZ31B magnesium alloy sheets at elevated temperatures. <i>International Journal of Plasticity</i> , 2020, 126, 102618.	4.1	26
33	Anisotropic Hardening Behaviour and Springback of Advanced High-Strength Steels. <i>Metals</i> , 2017, 7, 480.	1.0	24
34	Evaluation of the Athermal Effect of Electric Pulsing on the Recovery Behavior of Magnesium Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 6368-6373.	1.1	22
35	Effect of hardening laws and yield function types on spring-back simulations of dual-phase steel automotive sheets. <i>Metals and Materials International</i> , 2006, 12, 293-305.	1.8	21
36	Experimental and Numerical Study on the Deformation Mechanism in AZ31B Mg Alloy Sheets Under Pulsed Electric-Assisted Tensile and Compressive Tests. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 2783-2794.	1.1	21

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37	Twinning-detwinning behavior of E-form Mg alloy sheets during in-plane reverse loading. International Journal of Plasticity, 2020, 127, 102637.	4.1	21
38	Experimental and numerical analysis of a rectangular helical coil actuator for electromagnetic bulging. International Journal of Advanced Manufacturing Technology, 2015, 78, 825-839.	1.5	20
39	Improving the room-temperature formability of a magnesium alloy sheet by texture control. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 724, 156-163.	2.6	19
40	Identification of mechanical responses of steel sheets under non-proportional loadings using dislocation-density based crystal plasticity model. International Journal of Mechanical Sciences, 2019, 155, 461-474.	3.6	19
41	Modeling differential permanent softening under strain-path changes in sheet metals using a modified distortional hardening model. International Journal of Plasticity, 2020, 133, 102789.	4.1	19
42	Semi-Analytic Hybrid Method to Predict Springback in the 2D Draw Bend Test. Journal of Applied Mechanics, Transactions ASME, 2007, 74, 1264-1275.	1.1	18
43	Springback evaluation of friction stir welded TWB automotive sheets. Metals and Materials International, 2011, 17, 83-98.	1.8	18
44	Analysis of formability of Ca-added magnesium alloy sheets at low temperatures. Materials Characterization, 2016, 113, 152-159.	1.9	18
45	Fracture criterion for AZ31 Mg alloy plate at elevated temperature. Metals and Materials International, 2015, 21, 54-71.	1.8	17
46	Modeling of forming limit for multilayer sheets based on strain-rate potentials. International Journal of Plasticity, 2015, 75, 63-99.	4.1	17
47	Pulsed Electric Current V-Bending Springback of AZ31B Magnesium Alloy Sheets. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 2720-2731.	1.1	17
48	Numerical investigation into plastic deformation and failure in aluminum alloy sheet rubber-diaphragm forming. International Journal of Mechanical Sciences, 2018, 142-143, 112-120.	3.6	16
49	Effect of Constitutive Equations on Springback Prediction Accuracy in the TRIP1180 Cold Stamping. Metals, 2018, 8, 18.	1.0	16
50	Correlative Study on Plastic Response and Formability of Ti-6Al-4V Sheets under Hot Forming Conditions. Journal of Manufacturing Processes, 2020, 58, 775-786.	2.8	15
51	Residual-stress-induced grain growth of twinned grains and its effect on formability of magnesium alloy sheet at room temperature. Materials Characterization, 2015, 109, 88-94.	1.9	14
52	Micromechanics-based strain hardening model in consideration of dislocation-precipitate interactions. Metals and Materials International, 2011, 17, 291-300.	1.8	13
53	Numerical procedures for predicting localization in sheet metals using crystal plasticity. Computational Materials Science, 2013, 72, 107-115.	1.4	12
54	Delamination behavior analysis of steel/polymer/steel high-strength laminated sheets in a V-die bending test. International Journal of Mechanical Sciences, 2020, 173, 105430.	3.6	12

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55	Predicting hot deformation behaviors under multiaxial loading using the Curson-Tvergaard-Needleman damage model for Ti-6Al-4V alloy sheets. <i>European Journal of Mechanics, A/Solids</i> , 2021, 87, 104227.	2.1	12
56	Experimental investigation into effect of annealing treatment on springback of magnesium alloy sheets. <i>Materials Research Innovations</i> , 2011, 15, s183-s186.	1.0	11
57	Meso-scale Analysis of Strain Path Change Effect on the Hardening Behavior of Dual-Phase Steel. <i>Steel Research International</i> , 2014, 85, 1047-1057.	1.0	11
58	Electromagnetic expansion joining between tubular and flat sheet component. <i>Journal of Materials Processing Technology</i> , 2019, 273, 116246.	3.1	11
59	Characterization of the Mechanical Properties of a High-Strength Laminated Vibration Damping Steel Sheet and Their Application to Formability Prediction. <i>Metals and Materials International</i> , 2019, 25, 1326-1340.	1.8	10
60	Constitutive Modeling of Asymmetric Hardening Behavior of Transformation-Induced Plasticity Steels. <i>International Journal of Automotive Technology</i> , 2019, 20, 19-30.	0.7	10
61	Micromechanics-based modeling of plastic and ductile fracture of aluminum alloy 2024-O. <i>Engineering Fracture Mechanics</i> , 2022, 261, 108213.	2.0	10
62	Influence of constraint condition on rolling behavior of magnesium alloy at low temperatures. <i>Metals and Materials International</i> , 2015, 21, 719-725.	1.8	8
63	Multiscale Analysis of Open-Cell Aluminum Foam for Impact Energy Absorption. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 3977-3984.	1.2	8
64	Failure with Strain Localization of Aluminum Alloy 7075 Sheets at Elevated Temperature and its Application to Two-Step Hybrid Forming. <i>Metals and Materials International</i> , 2022, 28, 871-886.	1.8	8
65	Reverse effect of tensile force on sidewall curl for materials with tensile/compressive strength difference. <i>Metals and Materials International</i> , 2009, 15, 353-363.	1.8	7
66	Finite element and analytical study of plane strain draw-bend failure of advanced high strength steels. <i>International Journal of Material Forming</i> , 2010, 3, 187-190.	0.9	6
67	Experimental study on forming behavior of high-strength steel sheets under electromagnetic pressure. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2015, 229, 670-681.	1.5	6
68	Optimization of boost condition and axial feeding on tube bending and hydro-forming process considering formability and spring-back. <i>Metals and Materials International</i> , 2009, 15, 863-876.	1.8	5
69	Effect of Pulsed Currents on the Springback Reduction of Ultra-High Strength Steels. <i>Procedia Engineering</i> , 2017, 207, 359-364.	1.2	5
70	Pneumatic Experimental Design for Strain Rate Sensitive Forming Limit Evaluation of 7075 Aluminum Alloy Sheets under Biaxial Stretching Modes at Elevated Temperature. <i>Metals</i> , 2020, 10, 1639.	1.0	5
71	Characteristic evaluation of electromagnetic forming system and its application to deformation prediction in bulge forming. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 107, 775-789.	1.5	5
72	Fabrication of long tubular parts made of tungsten-heavy alloys by inductive bonding of multiple tubes. <i>International Journal of Refractory Metals and Hard Materials</i> , 2019, 85, 105058.	1.7	4

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73	Crash Analysis of Aluminum/CFRP Hybrid Adhesive Joint Parts Using Adhesive Modeling Technique Based on the Fracture Mechanics. <i>Polymers</i> , 2021, 13, 3364.	2.0	4
74	Warm Forming Behavior of Magnesium Alloy Sheet in Manufacturing of Window Regulator Rail. <i>International Journal of Automotive Technology</i> , 2019, 20, 67-78.	0.7	3
75	Forced Circulation of Nitrogen Gas for Accelerated and Eco-Friendly Cooling of Metallic Parts. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3679.	1.3	3
76	Ab initio investigations of the interfacial bond of Fe(001)/Al(001). <i>Materials Today Communications</i> , 2021, 26, 102107.	0.9	3
77	Mechanical Property Degradation of Laser Welded Boron Steel Sheet in Hot Press Forming. <i>Advanced Science Letters</i> , 2012, 13, 447-450.	0.2	3
78	Enhancement in the Modeling of Temperature and Strain Rate-Dependent Plastic Hardening Behavior of a Sheet Metal. <i>Steel Research International</i> , 2015, 86, 902-914.	1.0	2
79	Numerical Evaluation of Hydro-Formed DP-Steel Tubes on Crash-Performance with Welding Heat Effects. <i>Materials Transactions</i> , 2012, 53, 812-819.	0.4	1
80	Evaluation of Electromagnetic Forming Behavior of Automotive Aluminum Alloy Sheet. , 2013, , .		1
81	Numerical Analysis on Electromagnetic Forming of Automotive Sheets with Flat Spiral Coil. , 2014, , .		1
82	Parametric study on numerical simulation of the electromagnetic forming of DP780 steel workpiece with aluminium driver sheet. <i>Journal of Physics: Conference Series</i> , 2016, 734, 032085.	0.3	1
83	Form-fit joining behaviour between an aluminium tube and sheet using electromagnetic forming. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 418, 012115.	0.3	1
84	Manufacture of Tungsten Heavy Alloy Tube by Diffusion Bonding of Semicircular Tubes. <i>Journal of Materials Engineering and Performance</i> , 2020, 29, 699-711.	1.2	1
85	Characterisation of Compressive Behaviour of Low-Carbon and Third Generation Advanced High Strength Steel Sheets with Freely Movable Anti-buckling Bars. <i>Metals</i> , 2022, 12, 161.	1.0	1
86	Anisotropic Properties of Stainless Steel-Clad Aluminum Sheet. , 2010, , .		0
87	Predicting Shear Failure of Dual-Phase Steels. , 2010, , .		0
88	Analytical Characterization of Mechanical Properties of Bimetallic Clad Sheets. , 2011, , .		0
89	Numerical Analysis for Process Parameter Effect in Electromagnetic Impact Welding of Aluminum Alloy Sheet. <i>Applied Mechanics and Materials</i> , 0, 548-549, 297-300.	0.2	0
90	Measurement-based evaluation of interfacial polymer layer inserted in sound deadening laminated sheet. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 967, 012042.	0.3	0

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91	Verification of identified system circuit parameters in electromagnetic pulse system with helix coil actuators. <i>Procedia Manufacturing</i> , 2020, 50, 384-388.	1.9	0
92	A Numerical Investigation of the Hole Expansion Test. <i>Advanced Science Letters</i> , 2012, 14, 218-221.	0.2	0