

# Daeyong Kim

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

90  
papers

2,275  
citations

25  
h-index

45  
g-index

95  
ext. papers

2,559  
ext. citations

3.9  
avg, IF

4.98  
L-index

#	Paper	IF	Citations
90	A plastic constitutive equation incorporating strain, strain-rate, and temperature. <i>International Journal of Plasticity</i> , <b>2010</b> , 26, 1746-1771	7.6	278
89	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> , <b>2005</b> , 21, 915-953	7.6	135
88	Spring-back evaluation of automotive sheets based on isotropic-kinematic hardening laws and non-quadratic anisotropic yield functions. <i>International Journal of Plasticity</i> , <b>2005</b> , 21, 861-882	7.6	128
87	A practical two-surface plasticity model and its application to spring-back prediction. <i>International Journal of Plasticity</i> , <b>2007</b> , 23, 1189-1212	7.6	121
86	Experimental and numerical study on formability of friction stir welded TWB sheets based on hemispherical dome stretch tests. <i>International Journal of Plasticity</i> , <b>2009</b> , 25, 1626-1654	7.6	109
85	Spring-back evaluation of automotive sheets based on isotropic-kinematic hardening laws and non-quadratic anisotropic yield functions. <i>International Journal of Plasticity</i> , <b>2005</b> , 21, 883-914	7.6	86
84	Strain rate dependent tensile behavior of advanced high strength steels: Experiment and constitutive modeling. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 559, 222-231	5.3	82
83	Crystal plasticity approach for predicting the Bauschinger effect in dual-phase steels. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2012</b> , 539, 259-270	5.3	68
82	A temperature-dependent elasto-plastic constitutive model for magnesium alloy AZ31 sheets. <i>International Journal of Plasticity</i> , <b>2013</b> , 50, 66-93	7.6	68
81	Electric current-assisted deformation behavior of Al-Mg-Si alloy under uniaxial tension. <i>International Journal of Plasticity</i> , <b>2017</b> , 94, 148-170	7.6	63
80	Hole-expansion formability of dual-phase steels using representative volume element approach with boundary-smoothing technique. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2010</b> , 527, 7353-7363	5.3	63
79	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> , <b>2015</b> , 97, 435-444	8.4	60
78	Trade-off between tensile property and formability by partial recrystallization of CrMnFeCoNi high-entropy alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2017</b> , 703, 324-330	5.3	59
77	Formability evaluation of friction stir welded 6111-T4 sheet with respect to joining material direction. <i>International Journal of Mechanical Sciences</i> , <b>2010</b> , 52, 612-625	5.5	50
76	Macro-performance evaluation of friction stir welded automotive tailor-welded blank sheets: Part I [Material properties. <i>International Journal of Solids and Structures</i> , <b>2010</b> , 47, 1048-1062	3.1	46
75	Electroplastic behaviour in an aluminium alloy and dislocation density based modelling. <i>Materials and Design</i> , <b>2017</b> , 124, 131-142	8.1	43
74	Non-quadratic anisotropic potentials based on linear transformation of plastic strain rate. <i>International Journal of Plasticity</i> , <b>2007</b> , 23, 1380-1399	7.6	43

73	Constitutive law for AZ31B Mg alloy sheets and finite element simulation for three-point bending. <i>International Journal of Mechanical Sciences</i> , <b>2008</b> , 50, 1510-1518	5.5	43
72	Stress integration schemes for novel homogeneous anisotropic hardening model. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2012</b> , 247-248, 73-92	5.7	39
71	Macro-performance evaluation of friction stir welded automotive tailor-welded blank sheets: Part II Formability. <i>International Journal of Solids and Structures</i> , <b>2010</b> , 47, 1063-1081	3.1	35
70	Distortional hardening concept for modeling anisotropic/asymmetric plastic behavior of AZ31B magnesium alloy sheets. <i>International Journal of Plasticity</i> , <b>2017</b> , 94, 74-97	7.6	32
69	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> , <b>2015</b> , 46, 3043-3051	2.3	31
68	Investigation of plastic strain rate under strain path changes in dual-phase steel using microstructure-based modeling. <i>International Journal of Plasticity</i> , <b>2017</b> , 93, 89-111	7.6	27
67	Characterization of mechanical property of magnesium AZ31 alloy sheets for warm temperature forming. <i>International Journal of Mechanical Sciences</i> , <b>2015</b> , 93, 204-217	5.5	27
66	Effect of an aluminum driver sheet on the electromagnetic forming of DP780 steel sheet. <i>Journal of Materials Processing Technology</i> , <b>2016</b> , 235, 158-170	5.3	25
65	Measurements of anisotropic yielding, bauschinger and transient behavior of automotive dual-phase steel sheets. <i>Metals and Materials International</i> , <b>2003</b> , 9, 561-570	2.4	24
64	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> , <b>2005</b> , 21, 861-882	7.6	21
63	Evolutionary anisotropy and flow stress in advanced high strength steels under loading path changes. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2016</b> , 672, 65-77	5.3	20
62	Anisotropic Hardening Behaviour and Springback of Advanced High-Strength Steels. <i>Metals</i> , <b>2017</b> , 7, 480	2.3	19
61	Effect of hardening laws and yield function types on spring-back simulations of dual-phase steel automotive sheets. <i>Metals and Materials International</i> , <b>2006</b> , 12, 293-305	2.4	18
60	Semi-Analytic Hybrid Method to Predict Springback in the 2D Draw Bend Test. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2007</b> , 74, 1264-1275	2.7	17
59	Mechanical Properties and Formability of Heat-Treated 7000-Series High-Strength Aluminum Alloy: Experiments and Finite Element Modeling. <i>Metals and Materials International</i> , <b>2020</b> , 26, 682-694	2.4	17
58	Metal plasticity and ductile fracture modeling for cast aluminum alloy parts. <i>Journal of Materials Processing Technology</i> , <b>2018</b> , 255, 584-595	5.3	16
57	Experimental and numerical analysis of a rectangular helical coil actuator for electromagnetic bulging. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2015</b> , 78, 825-839	3.2	16
56	Spring-back evaluation of automotive sheets based on isotropic-kinematic hardening laws and non-quadratic anisotropic yield functions: Part II: characterization of material properties. <i>International Journal of Plasticity</i> , <b>2005</b> , 21, 883-914	7.6	16

55	Fracture criterion for AZ31 Mg alloy plate at elevated temperature. <i>Metals and Materials International</i> , <b>2015</b> , 21, 54-71	2.4	15
54	Modeling of forming limit for multilayer sheets based on strain-rate potentials. <i>International Journal of Plasticity</i> , <b>2015</b> , 75, 63-99	7.6	14
53	Improving the room-temperature formability of a magnesium alloy sheet by texture control. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2018</b> , 724, 156-163	5.3	14
52	Springback evaluation of friction stir welded TWB automotive sheets. <i>Metals and Materials International</i> , <b>2011</b> , 17, 83-98	2.4	14
51	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> , <b>2016</b> , 47, 6368-6373	2.3	14
50	Analysis of formability of Ca-added magnesium alloy sheets at low temperatures. <i>Materials Characterization</i> , <b>2016</b> , 113, 152-159	3.9	13
49	Micromechanics-based strain hardening model in consideration of dislocation-precipitate interactions. <i>Metals and Materials International</i> , <b>2011</b> , 17, 291-300	2.4	13
48	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> , <b>2020</b> , 126, 102618	7.6	13
47	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> , <b>2016</b> , 47, 2783-2794	2.3	13
46	Pulsed Electric Current V-Bending Springback of AZ31B Magnesium Alloy Sheets. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2019</b> , 50, 2720-2731	2.3	12
45	Residual-stress-induced grain growth of twinned grains and its effect on formability of magnesium alloy sheet at room temperature. <i>Materials Characterization</i> , <b>2015</b> , 109, 88-94	3.9	12
44	Identification of mechanical responses of steel sheets under non-proportional loadings using dislocation-density based crystal plasticity model. <i>International Journal of Mechanical Sciences</i> , <b>2019</b> , 155, 461-474	5.5	11
43	Numerical investigation into plastic deformation and failure in aluminum alloy sheet rubber-diaphragm forming. <i>International Journal of Mechanical Sciences</i> , <b>2018</b> , 142-143, 112-120	5.5	11
42	Numerical procedures for predicting localization in sheet metals using crystal plasticity. <i>Computational Materials Science</i> , <b>2013</b> , 72, 107-115	3.2	11
41	Modeling differential permanent softening under strain-path changes in sheet metals using a modified distortional hardening model. <i>International Journal of Plasticity</i> , <b>2020</b> , 133, 102789	7.6	10
40	Effect of Constitutive Equations on Springback Prediction Accuracy in the TRIP1180 Cold Stamping. <i>Metals</i> , <b>2018</b> , 8, 18	2.3	10
39	Experimental investigation into effect of annealing treatment on springback of magnesium alloy sheets. <i>Materials Research Innovations</i> , <b>2011</b> , 15, s183-s186	1.9	10
38	Meso-Scopic Analysis of Strain Path Change Effect on the Hardening Behavior of Dual-Phase Steel. <i>Steel Research International</i> , <b>2014</b> , 85, 1047-1057	1.6	9

37	Twinning-detwinning behavior of E-form Mg alloy sheets during in-plane reverse loading. <i>International Journal of Plasticity</i> , <b>2020</b> , 127, 102637	7.6	8
36	Electromagnetic expansion joining between tubular and flat sheet component. <i>Journal of Materials Processing Technology</i> , <b>2019</b> , 273, 116246	5.3	7
35	Multiscale Analysis of Open-Cell Aluminum Foam for Impact Energy Absorption. <i>Journal of Materials Engineering and Performance</i> , <b>2016</b> , 25, 3977-3984	1.6	7
34	Reverse effect of tensile force on sidewall curl for materials with tensile/compressive strength difference. <i>Metals and Materials International</i> , <b>2009</b> , 15, 353-363	2.4	7
33	Correlative Study on Plastic Response and Formability of Ti-6Al-4V Sheets under Hot Forming Conditions. <i>Journal of Manufacturing Processes</i> , <b>2020</b> , 58, 775-786	5	7
32	Constitutive Modeling of Asymmetric Hardening Behavior of Transformation-Induced Plasticity Steels. <i>International Journal of Automotive Technology</i> , <b>2019</b> , 20, 19-30	1.6	7
31	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> , <b>2019</b> , 25, 1326-1340	2.4	6
30	Influence of constraint condition on rolling behavior of magnesium alloy at low temperatures. <i>Metals and Materials International</i> , <b>2015</b> , 21, 719-725	2.4	6
29	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> , <b>2015</b> , 229, 670-681	2.4	6
28	Finite element and analytical study of plane strain draw-bend failure of advanced high strength steels. <i>International Journal of Material Forming</i> , <b>2010</b> , 3, 187-190	2	6
27	Delamination behavior analysis of steel/polymer/steel high-strength laminated sheets in a V-die bending test. <i>International Journal of Mechanical Sciences</i> , <b>2020</b> , 173, 105430	5.5	5
26	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> , <b>2009</b> , 15, 863-876	2.4	5
25	Characteristic evaluation of electromagnetic forming system and its application to deformation prediction in bulge forming. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2020</b> , 107, 775-789	3.2	4
24	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> , <b>2019</b> , 85, 105058	4.1	4
23	Predicting hot deformation behaviors under multiaxial loading using the Gurson-Tvergaard-Needleman damage model for Ti-6Al-4V alloy sheets. <i>European Journal of Mechanics, A/Solids</i> , <b>2021</b> , 87, 104227	3.7	4
22	Mechanical Property Degradation of Laser Welded Boron Steel Sheet in Hot Press Forming. <i>Advanced Science Letters</i> , <b>2012</b> , 13, 447-450	0.1	3
21	Forced Circulation of Nitrogen Gas for Accelerated and Eco-Friendly Cooling of Metallic Parts. <i>Applied Sciences (Switzerland)</i> , <b>2019</b> , 9, 3679	2.6	3
20	Effect of Pulsed Currents on the Springback Reduction of Ultra-High Strength Steels. <i>Procedia Engineering</i> , <b>2017</b> , 207, 359-364		2

19	Enhancement in the Modeling of Temperature and Strain Rate-Dependent Plastic Hardening Behavior of a Sheet Metal. <i>Steel Research International</i> , <b>2015</b> , 86, 902-914	1.6	2
18	Manufacture of Tungsten Heavy Alloy Tube by Diffusion Bonding of Semicircular Tubes. <i>Journal of Materials Engineering and Performance</i> , <b>2020</b> , 29, 699-711	1.6	1
17	Parametric study on numerical simulation of the electromagnetic forming of DP780 steel workpiece with aluminium driver sheet. <i>Journal of Physics: Conference Series</i> , <b>2016</b> , 734, 032085	0.3	1
16	Warm Forming Behavior of Magnesium Alloy Sheet in Manufacturing of Window Regulator Rail. <i>International Journal of Automotive Technology</i> , <b>2019</b> , 20, 67-78	1.6	1
15	Numerical Analysis on Electromagnetic Forming of Automotive Sheets with Flat Spiral Coil <b>2014</b> ,		1
14	Evaluation of Electromagnetic Forming Behavior of Automotive Aluminum Alloy Sheet <b>2013</b> ,		1
13	Numerical Evaluation of Hydro-Formed DP-Steel Tubes on Crash-Performance with Welding Heat Effects. <i>Materials Transactions</i> , <b>2012</b> , 53, 812-819	1.3	1
12	Micromechanics-based modeling of plastic and ductile fracture of aluminum alloy 2024-O. <i>Engineering Fracture Mechanics</i> , <b>2022</b> , 261, 108213	4.2	1
11	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> , <b>2020</b> , 10, 1639 <sup>2,3</sup>		1
10	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> , <sup>1</sup>	2.4	1
9	Ab initio investigations of the interfacial bond of Fe(001)/Al(001). <i>Materials Today Communications</i> , <b>2021</b> , 26, 102107	2.5	1
8	Form-fit joining behaviour between an aluminium tube and sheet using electromagnetic forming. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2018</b> , 418, 012115	0.4	1
7	Mechanics of Cellular Materials and its Applications <sup>4</sup> 11-434		1
6	Measurement-based evaluation of interfacial polymer layer inserted in sound deadening laminated sheet. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2020</b> , 967, 012042	0.4	
5	Verification of identified system circuit parameters in electromagnetic pulse system with helix coil actuators. <i>Procedia Manufacturing</i> , <b>2020</b> , 50, 384-388	1.5	
4	Numerical Analysis for Process Parameter Effect in Electromagnetic Impact Welding of Aluminum Alloy Sheet. <i>Applied Mechanics and Materials</i> , <b>2014</b> , 548-549, 297-300	0.3	
3	Characterisation of Compressive Behaviour of Low-Carbon and Third Generation Advanced High Strength Steel Sheets with Freely Movable Anti-buckling Bars. <i>Metals</i> , <b>2022</b> , 12, 161	2.3	
2	Cyclic Tension-Compression Test of Mg Alloy Sheet at the Elevated Temperature. <i>Lecture Notes in Electrical Engineering</i> , <b>2013</b> , 927-931	0.2	

- 1 Characterization of Cohesive Zone Model Properties of Laminated Metal Sheet with a Thin Adhesive Layer. *Minerals, Metals and Materials Series*, **2022**, 827-832 0.3