

Hariharan Krishnaswamy

List of Publications by Year in descending order

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papers

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citations

394421

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63
all docs

63
docs citations

63
times ranked

638
citing authors

#	ARTICLE	IF	CITATIONS
1	Electric current assisted deformation behavior of Al-Mg-Si alloy under uniaxial tension. International Journal of Plasticity, 2017, 94, 148-170.	8.8	106
2	Electroplastic behaviour in an aluminium alloy and dislocation density based modelling. Materials and Design, 2017, 124, 131-142.	7.0	77
3	Stress relaxation and its effect on tensile deformation of steels. Materials & Design, 2013, 52, 284-288.	5.1	61
4	High temperature deformation behavior of Mg-5wt.%Y binary alloy: Constitutive analysis and processing maps. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 777, 139051.	5.6	43
5	Time dependent ductility improvement of stainless steel SS 316 using stress relaxation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 673, 250-256.	5.6	38
6	Dislocation density based constitutive model for ultrasonic assisted deformation. Mechanics Research Communications, 2017, 85, 76-80.	1.8	34
7	Transmission electron microscopy investigation on dislocation bands in pure Mg. Scripta Materialia, 2017, 130, 133-137.	5.2	33
8	Modified Kocks Mecking Estrin Model to Account Nonlinear Strain Hardening. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 513-517.	2.2	29
9	Investigation of stress relaxation mechanisms for ductility improvement in SS316L. Philosophical Magazine, 2018, 98, 165-181.	1.6	28
10	Application of Cost-Effective Stainless Steel for Automotive Components. Materials and Manufacturing Processes, 2009, 24, 1442-1452.	4.7	27
11	Development of combined groove pressing and rolling to produce ultra-fine grained Al alloys and comparison with cryorolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 760, 7-18.	5.6	27
12	Advanced constitutive model for repeated stress relaxation accounting for transient mobile dislocation density and internal stress. Mechanics of Materials, 2019, 133, 138-153.	3.2	27
13	Microstructure dependent electroplastic effect in AA 6063 alloy and its nanocomposites. Journal of Materials Research and Technology, 2021, 12, 2185-2204.	5.8	25
14	Accounting Bauschinger effect in the numerical simulation of constrained groove pressing process. Journal of Manufacturing Processes, 2019, 38, 49-62.	5.9	24
15	Weighted error criterion to evaluate strain fatigue life prediction methods. International Journal of Fatigue, 2011, 33, 727-734.	5.7	23
16	Leveraging transient mechanical effects during stress relaxation for ductility improvement in aluminium AA 8011 alloy. Journal of Materials Processing Technology, 2018, 255, 1-7.	6.3	23
17	Foil Optimization in Tailor Welded Blank of an Automotive Floor Component. Materials and Manufacturing Processes, 2012, 27, 936-942.	4.7	22
18	Machining parameters optimization for satisfying the multiple objectives in machining of MMCs. Materials and Manufacturing Processes, 2017, 32, 1082-1093.	4.7	21

#	ARTICLE	IF	CITATIONS
19	Multi-Objective Genetic Algorithm to Optimize Variable Drawbead Geometry for Tailor Welded Blanks Made of Dissimilar Steels. <i>Steel Research International</i> , 2014, 85, 1597-1607.	1.8	20
20	On the interplay of friction and stress relaxation to improve stretch-flangeability of dual phase (DP600) steel. <i>CIRP Journal of Manufacturing Science and Technology</i> , 2021, 32, 154-169.	4.5	20
21	Determination of Anisotropic Yield Coefficients by a Data-Driven Multiobjective Evolutionary and Genetic Algorithm. <i>Materials and Manufacturing Processes</i> , 2015, 30, 403-413.	4.7	19
22	Investigations on ductility improvement and reloading yielding during stress relaxation of dual phase Ti-6Al-4V titanium alloy. <i>Journal of Alloys and Compounds</i> , 2020, 828, 154450.	5.5	19
23	Material optimization: A case study using sheet metal-forming analysis. <i>Journal of Materials Processing Technology</i> , 2009, 209, 324-331.	6.3	17
24	Dislocation density based modelling of electrically assisted deformation process by finite element approach. <i>International Journal of Mechanical Sciences</i> , 2022, 227, 107433.	6.7	17
25	Fatigue behavior of aged and solution treated AZ61 Mg alloy at small length scale using nanoindentation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 684, 652-659.	5.6	16
26	Relationship between Dislocation Density and Antibacterial Activity of Cryo-Rolled and Cold-Rolled Copper. <i>Materials</i> , 2019, 12, 200.	2.9	16
27	Mechanical Behavior and Deformation Kinetics of Aluminum Alloys Processed through Cryorolling and Subsequent Annealing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 648-666.	2.2	16
28	Effect of Cryogenic Grinding on Fatigue Life of Additively Manufactured Maraging Steel. <i>Materials</i> , 2021, 14, 1245.	2.9	16
29	Hybrid optimization of die design in constrained groove pressing. <i>Materials and Manufacturing Processes</i> , 2020, 35, 687-699.	4.7	14
30	Influence of Yield Criteria in the Prediction of Strain Distribution and Residual Stress Distribution in Sheet Metal Formability Analysis for a Commercial Steel. <i>Materials and Manufacturing Processes</i> , 2010, 25, 828-836.	4.7	13
31	Springback Reduction in Tailor Welded Blank with High Strength Differential by Using Multi-Objective Evolutionary and Genetic Algorithms. <i>Steel Research International</i> , 2015, 86, 1391-1402.	1.8	13
32	Stress relaxation test: Issues in modelling and interpretation. <i>Manufacturing Letters</i> , 2020, 26, 64-68.	2.2	13
33	Grain boundary sliding and non-constancy strain during stress relaxation of pure Mg. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 817, 141349.	5.6	12
34	Evaluation of yield criteria for forming simulations based on residual stress measurement. <i>International Journal of Material Forming</i> , 2010, 3, 291-297.	2.0	11
35	Influence of Inhomogeneous Deformation on Tensile Behavior of Sheets Processed Through Constrained Groove Pressing. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2019, 141, .	1.4	11
36	A pragmatic approach to accommodate in-plane anisotropy in forming limit diagrams. <i>Mechanics Research Communications</i> , 2014, 62, 5-17.	1.8	10

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37	Evaluation of uncoupled ductile damage models for fracture prediction in incremental sheet metal forming. CIRP Journal of Manufacturing Science and Technology, 2022, 37, 499-517.	4.5	9
38	Analysis of UOE forming process accounting for Bauschinger effect and welding. Materials and Manufacturing Processes, 2020, 35, 910-921.	4.7	8
39	Viscoplastic lattice strain during repeated relaxation of age-hardened Al alloy. Mechanics of Materials, 2021, 158, 103899.	3.2	7
40	Rigorous analysis and pragmatic guidelines in estimating strain rate sensitivity using stress relaxation test. Mechanics of Materials, 2022, 168, 104279.	3.2	7
41	Evaluation of hole expansion formability of high strength AA7075 alloy under varying temper conditions. IOP Conference Series: Materials Science and Engineering, 2022, 1238, 012038.	0.6	7
42	A study of multi-segment fatigue crack growth data analysis procedure for probabilistic crack growth prediction. International Journal of Fatigue, 2011, 33, 1557-1563.	5.7	6
43	Aging temperature role on precipitation hardening in a non-equiatomic AlCoCrFeNiTi high-entropy alloy. Materials Science and Technology, 2021, 37, 1270-1279.	1.6	6
44	Extension of strain-life equation for low-cycle fatigue of sheet metals using anisotropic yield criteria and distortional hardening model. Fatigue and Fracture of Engineering Materials and Structures, 2014, 37, 977-991.	3.4	5
45	Prediction of glass transition temperature and Young's modulus of an inaccessible polymer substrate in changing environment. Polymer, 2020, 191, 122274.	3.8	5
46	Comments on "Effect of obstacle strength and spacing on the slope of Haasen plot". Materials Science and Technology, 2019, 35, 1530-1532.	1.6	4
47	Aging behavior of ultra-fine grained AA 6061 alloy subjected to constrained groove pressing followed by cold rolling. IOP Conference Series: Materials Science and Engineering, 2019, 651, 012069.	0.6	4
48	Transient Stress Relaxation Test to Identify Material Constants in Dislocation Density Model. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 1969-1990.	2.2	4
49	Modification of fatigue strain-life equation for sheet metals considering anisotropy due to crystallographic texture. Fatigue and Fracture of Engineering Materials and Structures, 2012, 35, 458-465.	3.4	3
50	Friction welding: An effective joining process for hybrid additive manufacturing. CIRP Journal of Manufacturing Science and Technology, 2021, 35, 460-473.	4.5	3
51	Optimization of Blanks for Sheet Metal Forming. , 0, , .		2
52	Comparison of Optical Strain Analysis and Circular Grid Analysis in Sheet Metal Forming. , 0, , .		2
53	Characterization of Residual Stresses in Conventional Forming and Hydroforming of Tailor Welded Blanks. Journal of Materials Engineering and Performance, 2022, 31, 10171-10186.	2.5	2
54	Optical Strain Measurement- Experimental Tool for Validating Sheet Metal Forming Analysis. , 0, , .		1

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55	A multi-segment probabilistic fatigue crack growth model to account for reliability in design of components. , 2010, , .		1
56	Energy-assisted forming: theory and applications. , 2021, , 491-528.		1
57	Modelling Transient Mechanical Behavior of Aluminum Alloy During Electric-Assisted Forming. Minerals, Metals and Materials Series, 2022, , 105-113.	0.4	1
58	Effect of Seam Welding on Forming Limits of IF-Steel Sheet. , 2011, , .		0
59	A variable strain hardening model for anisotropic sheet metals. Journal of Strain Analysis for Engineering Design, 2012, 47, 289-296.	1.8	0
60	Stress Relaxation Study of Ultrafine-Grained AA 6061 Alloy Processed Through Combined Constrained Groove Pressing and Cold Rolling. Lecture Notes in Mechanical Engineering, 2021, , 111-121.	0.4	0
61	Analytical approach to damage prediction in incremental sheet metal forming. IOP Conference Series: Materials Science and Engineering, 2022, 1238, 012024.	0.6	0