

Hariharan Krishnaswamy

List of Publications by Year in descending order

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Version: 2024-02-01

61
papers

1,031
citations

394286

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477173

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63
all docs

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docs citations

63
times ranked

638
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | 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. | 1.1 | 4 |
| 2 | Rigorous analysis and pragmatic guidelines in estimating strain rate sensitivity using stress relaxation test. Mechanics of Materials, 2022, 168, 104279. | 1.7 | 7 |
| 3 | 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. | 2.3 | 9 |
| 4 | Analytical approach to damage prediction in incremental sheet metal forming. IOP Conference Series: Materials Science and Engineering, 2022, 1238, 012024. | 0.3 | 0 |
| 5 | Characterization of Residual Stresses in Conventional Forming and Hydroforming of Tailor Welded Blanks. Journal of Materials Engineering and Performance, 2022, 31, 10171-10186. | 1.2 | 2 |
| 6 | Evaluation of hole expansion formability of high strength AA7075 alloy under varying temper conditions. IOP Conference Series: Materials Science and Engineering, 2022, 1238, 012038. | 0.3 | 7 |
| 7 | Dislocation density based modelling of electrically assisted deformation process by finite element approach. International Journal of Mechanical Sciences, 2022, 227, 107433. | 3.6 | 17 |
| 8 | Modelling Transient Mechanical Behavior of Aluminum Alloy During Electric-Assisted Forming. Minerals, Metals and Materials Series, 2022, , 105-113. | 0.3 | 1 |
| 9 | On the interplay of friction and stress relaxation to improve stretch-flangeability of dual phase (DP600) steel. CIRP Journal of Manufacturing Science and Technology, 2021, 32, 154-169. | 2.3 | 20 |
| 10 | Energy-assisted forming: theory and applications. , 2021, , 491-528. | | 1 |
| 11 | Effect of Cryogenic Grinding on Fatigue Life of Additively Manufactured Maraging Steel. Materials, 2021, 14, 1245. | 1.3 | 16 |
| 12 | Microstructure dependent electroplastic effect in AA 6063 alloy and its nanocomposites. Journal of Materials Research and Technology, 2021, 12, 2185-2204. | 2.6 | 25 |
| 13 | Grain boundary sliding and non-constancy strain during stress relaxation of pure Mg. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 817, 141349. | 2.6 | 12 |
| 14 | Viscoplastic lattice strain during repeated relaxation of age-hardened Al alloy. Mechanics of Materials, 2021, 158, 103899. | 1.7 | 7 |
| 15 | Friction welding: An effective joining process for hybrid additive manufacturing. CIRP Journal of Manufacturing Science and Technology, 2021, 35, 460-473. | 2.3 | 3 |
| 16 | Aging temperature role on precipitation hardening in a non-equiatomic AlCoCrFeNiTi high-entropy alloy. Materials Science and Technology, 2021, 37, 1270-1279. | 0.8 | 6 |
| 17 | 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. | 0.3 | 0 |
| 18 | Mechanical Behavior and Deformation Kinetics of Aluminum Alloys Processed through Cryorolling and Subsequent Annealing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 648-666. | 1.1 | 16 |

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|----|---|-----|-----------|
| 19 | Stress relaxation test: Issues in modelling and interpretation. <i>Manufacturing Letters</i> , 2020, 26, 64-68. | 1.1 | 13 |
| 20 | High temperature deformation behavior of Mg-5wt.%Y binary alloy: Constitutive analysis and processing maps. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 777, 139051. | 2.6 | 43 |
| 21 | Prediction of glass transition temperature and Young's modulus of an inaccessible polymer substrate in changing environment. <i>Polymer</i> , 2020, 191, 122274. | 1.8 | 5 |
| 22 | Hybrid optimization of die design in constrained groove pressing. <i>Materials and Manufacturing Processes</i> , 2020, 35, 687-699. | 2.7 | 14 |
| 23 | 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. | 2.8 | 19 |
| 24 | Analysis of UOE forming process accounting for Bauschinger effect and welding. <i>Materials and Manufacturing Processes</i> , 2020, 35, 910-921. | 2.7 | 8 |
| 25 | Comments on "Effect of obstacle strength and spacing on the slope of Haasen plot". <i>Materials Science and Technology</i> , 2019, 35, 1530-1532. | 0.8 | 4 |
| 26 | Development of combined groove pressing and rolling to produce ultra-fine grained Al alloys and comparison with cryorolling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 760, 7-18. | 2.6 | 27 |
| 27 | 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, . | 0.8 | 11 |
| 28 | Advanced constitutive model for repeated stress relaxation accounting for transient mobile dislocation density and internal stress. <i>Mechanics of Materials</i> , 2019, 133, 138-153. | 1.7 | 27 |
| 29 | Relationship between Dislocation Density and Antibacterial Activity of Cryo-Rolled and Cold-Rolled Copper. <i>Materials</i> , 2019, 12, 200. | 1.3 | 16 |
| 30 | Aging behavior of ultra-fine grained AA 6061 alloy subjected to constrained groove pressing followed by cold rolling. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 651, 012069. | 0.3 | 4 |
| 31 | Modified Kocks-Mecking-Estrin Model to Account Nonlinear Strain Hardening. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 513-517. | 1.1 | 29 |
| 32 | Accounting Bauschinger effect in the numerical simulation of constrained groove pressing process. <i>Journal of Manufacturing Processes</i> , 2019, 38, 49-62. | 2.8 | 24 |
| 33 | Investigation of stress relaxation mechanisms for ductility improvement in SS316L. <i>Philosophical Magazine</i> , 2018, 98, 165-181. | 0.7 | 28 |
| 34 | Leveraging transient mechanical effects during stress relaxation for ductility improvement in aluminium AA 8011 alloy. <i>Journal of Materials Processing Technology</i> , 2018, 255, 1-7. | 3.1 | 23 |
| 35 | Machining parameters optimization for satisfying the multiple objectives in machining of MMCs. <i>Materials and Manufacturing Processes</i> , 2017, 32, 1082-1093. | 2.7 | 21 |
| 36 | Transmission electron microscopy investigation on dislocation bands in pure Mg. <i>Scripta Materialia</i> , 2017, 130, 133-137. | 2.6 | 33 |

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|----|--|-----|-----------|
| 37 | Electroplastic behaviour in an aluminium alloy and dislocation density based modelling. <i>Materials and Design</i> , 2017, 124, 131-142. | 3.3 | 77 |
| 38 | 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. | 2.6 | 16 |
| 39 | Dislocation density based constitutive model for ultrasonic assisted deformation. <i>Mechanics Research Communications</i> , 2017, 85, 76-80. | 1.0 | 34 |
| 40 | 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 |
| 41 | Time dependent ductility improvement of stainless steel SS 316 using stress relaxation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 673, 250-256. | 2.6 | 38 |
| 42 | 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. | 1.0 | 13 |
| 43 | Determination of Anisotropic Yield Coefficients by a Data-Driven Multiobjective Evolutionary and Genetic Algorithm. <i>Materials and Manufacturing Processes</i> , 2015, 30, 403-413. | 2.7 | 19 |
| 44 | Extension of strain life equation for low cycle fatigue of sheet metals using anisotropic yield criteria and distortional hardening model. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2014, 37, 977-991. | 1.7 | 5 |
| 45 | 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. | 1.0 | 20 |
| 46 | A pragmatic approach to accommodate in-plane anisotropy in forming limit diagrams. <i>Mechanics Research Communications</i> , 2014, 62, 5-17. | 1.0 | 10 |
| 47 | Stress relaxation and its effect on tensile deformation of steels. <i>Materials & Design</i> , 2013, 52, 284-288. | 5.1 | 61 |
| 48 | A variable strain hardening model for anisotropic sheet metals. <i>Journal of Strain Analysis for Engineering Design</i> , 2012, 47, 289-296. | 1.0 | 0 |
| 49 | Foil Optimization in Tailor Welded Blank of an Automotive Floor Component. <i>Materials and Manufacturing Processes</i> , 2012, 27, 936-942. | 2.7 | 22 |
| 50 | Modification of fatigue strain-life equation for sheet metals considering anisotropy due to crystallographic texture. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2012, 35, 458-465. | 1.7 | 3 |
| 51 | Effect of Seam Welding on Forming Limits of IF-Steel Sheet. , 2011, , . | | 0 |
| 52 | A study of multi-segment fatigue crack growth data analysis procedure for probabilistic crack growth prediction. <i>International Journal of Fatigue</i> , 2011, 33, 1557-1563. | 2.8 | 6 |
| 53 | Weighted error criterion to evaluate strain life prediction methods. <i>International Journal of Fatigue</i> , 2011, 33, 727-734. | 2.8 | 23 |
| 54 | Evaluation of yield criteria for forming simulations based on residual stress measurement. <i>International Journal of Material Forming</i> , 2010, 3, 291-297. | 0.9 | 11 |

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|----|---|-----|-----------|
| 55 | A multi-segment probabilistic fatigue crack growth model to account for reliability in design of components. , 2010, , . | | 1 |
| 56 | Influence of Yield Criteria in the Prediction of Strain Distribution and Residual Stress Distribution in Sheet Metal Formability Analysis for a Commercial Steel. Materials and Manufacturing Processes, 2010, 25, 828-836. | 2.7 | 13 |
| 57 | Application of Cost-Effective Stainless Steel for Automotive Components. Materials and Manufacturing Processes, 2009, 24, 1442-1452. | 2.7 | 27 |
| 58 | Material optimization: A case study using sheet metal-forming analysis. Journal of Materials Processing Technology, 2009, 209, 324-331. | 3.1 | 17 |
| 59 | Optimization of Blanks for Sheet Metal Forming. , 0, , . | | 2 |
| 60 | Optical Strain Measurement- Experimental Tool for Validating Sheet Metal Forming Analysis. , 0, , . | | 1 |
| 61 | Comparison of Optical Strain Analysis and Circular Grid Analysis in Sheet Metal Forming. , 0, , . | | 2 |