

# Shailendra P Joshi

## List of Publications by Year in descending order

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Version: 2024-02-01

63  
papers

2,063  
citations

236925  
25  
h-index

243625  
44  
g-index

66  
all docs

66  
docs citations

66  
times ranked

1728  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Special issue of mechanics of materials: Mechanics of magnesium alloys in dynamic environments. Mechanics of Materials, 2022, 168, 104264.  | 3.2 | 2         |
| 2  | On the micromechanics of void mediated failure in HCP crystals. Journal of the Mechanics and Physics of Solids, 2022, 165, 104923.  | 4.8 | 6         |
| 3  | On the micromechanics of voids in nanotwinned materials. Journal of the Mechanics and Physics of Solids, 2022, 165, 104887.   | 4.8 | 4         |
| 4  | On the Role of Crystallographic Anisotropy and Texture in Damage Tolerance of Magnesium and Its Alloys. Minerals, Metals and Materials Series, 2021, , 81-89.   | 0.4 | 0         |
| 5  | A crystal plasticity investigation of grain size-texture interaction in magnesium alloys. Acta Materialia, 2021, 208, 116743.   | 7.9 | 19        |
| 6  | Texture effects and rate-dependent behaviors of notched magnesium bars. Mechanics of Materials, 2021, 162, 104042.  | 3.2 | 10        |
| 7  | Insights from the MEDE program: An overview of microstructureâ€“property linkages in the dynamic behaviors of magnesium alloys. Mechanics of Materials, 2021, 163, 104084.  | 3.2 | 13        |
| 8  | A Numerical Study of Strain-Rate and Triaxiality Effects in Magnesium Alloys. Journal of Dynamic Behavior of Materials, 2020, 6, 459-471.   | 1.7 | 6         |
| 9  | Predicting textural variability effects in the anisotropic plasticity and stability of hexagonal metals: Application to magnesium and its alloys. International Journal of Plasticity, 2020, 132, 102762.                   | 8.8 | 29        |
| 10 | Mapping Anisotropy and Triaxiality Effects in Magnesium Alloys. Minerals, Metals and Materials Series, 2020, , 321-328.   | 0.4 | 0         |
| 11 | A phase field model of grain boundary migration and grain rotation under elastoâ€“plastic anisotropies. International Journal of Solids and Structures, 2019, 178-179, 1-18.  | 2.7 | 13        |
| 12 | Void growth and coalescence in hexagonal close packed crystals. Journal of the Mechanics and Physics of Solids, 2019, 125, 198-224.   | 4.8 | 46        |
| 13 | Void Growth and Coalescence in Porous Plastic Solids With Sigmoidal Hardening. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .   | 2.2 | 10        |
| 14 | The role of bimodal grain size distribution in nanocrystalline shape memory alloys. Smart Materials and Structures, 2018, 27, 105004.   | 3.5 | 15        |
| 15 | Three dimensional simulations of texture and triaxiality effects on the plasticity of magnesium alloys. Acta Materialia, 2017, 127, 54-72.  | 7.9 | 45        |
| 16 | Interacting effects of strengthening and twin boundary migration in nanotwinned materials. Journal of the Mechanics and Physics of Solids, 2017, 101, 180-196.  | 4.8 | 17        |
| 17 | On plastic flow in notched hexagonal close packed single crystals. Journal of the Mechanics and Physics of Solids, 2016, 94, 273-297.   | 4.8 | 40        |
| 18 | Effect of multiaxial loading on evolution of $\langle \sigma \rangle$ in magnesium single crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 659, 256-269. | 5.6 | 21        |

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|----|---|-----|-----------|
| 19 | Effects of reinforcement morphology on the mechanical behavior of magnesium metal matrix composites based on crystal plasticity modeling. <i>Mechanics of Materials</i> , 2016, 95, 1-14.   | 3.2 | 12        |
| 20 | Suppression of Shear Banding and Transition to Necking and Homogeneous Flow in Nanoglass Nanopillars. <i>Scientific Reports</i> , 2015, 5, 15611.   | 3.3 | 50        |
| 21 | Surface roughness imparts tensile ductility to nanoscale metallic glasses. <i>Extreme Mechanics Letters</i> , 2015, 5, 88-95.   | 4.1 | 24        |
| 22 | Stochastic size-dependent slip-twinning competition in hexagonal close packed single crystals. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2014, 22, 075003.   | 2.0 | 9         |
| 23 | Composition and grain size effects on the structural and mechanical properties of CuZr nanoglasses. <i>Journal of Applied Physics</i> , 2014, 116, .  | 2.5 | 68        |
| 24 | Predictive maps for stochastic nonaffine stiffening and damage in fibrous networks. <i>Physical Review E</i> , 2014, 89, 022607.  | 2.1 | 1         |
| 25 | Orientation-dependent indentation response of magnesium single crystals: Modeling and experiments. <i>Acta Materialia</i> , 2014, 81, 358-376.  | 7.9 | 48        |
| 26 | Heating rate dependent delamination of metal-polymer interfaces: experiments and modeling. <i>International Journal of Fracture</i> , 2014, 187, 227-238.   | 2.2 | 2         |
| 27 | Mechanism-based crystal plasticity modeling of twin boundary migration in nanotwinned face-centered-cubic metals. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 68, 107-133.                                      | 4.8 | 29        |
| 28 | Micromechanics of tensile twinning in magnesium gleaned from molecular dynamics simulations. <i>Acta Materialia</i> , 2014, 69, 326-342.  | 7.9 | 52        |
| 29 | A transition from localized shear banding to homogeneous superplastic flow in nanoglass. <i>Applied Physics Letters</i> , 2013, 103, .  | 3.3 | 110       |
| 30 | Experiments and Three-Dimensional Modeling of Delamination in an Encapsulated Microelectronic Package Under Thermal Loading. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2013, 3, 1859-1867. | 2.5 | 10        |
| 31 | Developing a light weight lithium ion battery – an effective material and electrode design for high performance conversion anodes. <i>RSC Advances</i> , 2013, 3, 6386.   | 3.6 | 20        |
| 32 | Micromechanics of crystallographic size-effects in metal matrix composites induced by thermo-mechanical loading. <i>International Journal of Plasticity</i> , 2013, 42, 65-82.  | 8.8 | 29        |
| 33 | Cohesive zone modeling of 3D delamination in encapsulated silicon devices. , 2012, , .  |     | 2         |
| 34 | Stochastic rate-dependent elasticity and failure of soft fibrous networks. <i>Soft Matter</i> , 2012, 8, 7004.  | 2.7 | 24        |
| 35 | A crystal plasticity analysis of length-scale dependent internal stresses with image effects. <i>Journal of the Mechanics and Physics of Solids</i> , 2012, 60, 2019-2043.  | 4.8 | 6         |
| 36 | Size-effects in textural strengthening of hierarchical magnesium nano-composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 556, 855-863.             | 5.6 | 11        |

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|----|---|-----|-----------|
| 37 | Rate-dependent hardening due to twinning in an ultrafine-grained magnesium alloy. <i>Acta Materialia</i> , 2012, 60, 1818-1826.   | 7.9 | 74        |
| 38 | Phenomenological crystal plasticity modeling and detailed micromechanical investigations of pure magnesium. <i>Journal of the Mechanics and Physics of Solids</i> , 2012, 60, 945-972.  | 4.8 | 240       |
| 39 | Development of Hierarchical Magnesium Composites Using Hybrid Microwave Sintering. <i>Journal of Microwave Power and Electromagnetic Energy</i> , 2011, 45, 112-120.  | 0.8 | 10        |
| 40 | Crystal plasticity of nanotwinned microstructures: A discrete twin approach for copper. <i>Acta Materialia</i> , 2011, 59, 5603-5617.   | 7.9 | 23        |
| 41 | Micromechanics of diffusion-induced damage evolution in reinforced polymers. <i>Composites Science and Technology</i> , 2011, 71, 333-342.  | 7.8 | 20        |
| 42 | Grain size–inclusion size interaction in metal matrix composites using mechanism-based gradient crystal plasticity. <i>International Journal of Solids and Structures</i> , 2011, 48, 2585-2594.                                  | 2.7 | 26        |
| 43 | Nonlocal continuum crystal plasticity with internal residual stresses. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 713-731.   | 4.8 | 14        |
| 44 | Hierarchical magnesium nano-composites for enhanced mechanical response. <i>Acta Materialia</i> , 2010, 58, 6104-6114.  | 7.9 | 114       |
| 45 | Strengthening mechanisms in cryomilled ultrafine-grained aluminum alloy at quasi-static and dynamic rates of loading. <i>Scripta Materialia</i> , 2009, 60, 619-622.  | 5.2 | 63        |
| 46 | An enhanced continuum model for size-dependent strengthening and failure of particle-reinforced composites. <i>Acta Materialia</i> , 2009, 57, 5848-5861.   | 7.9 | 137       |
| 47 | Dynamic testing at high strain rates of an ultrafine-grained magnesium alloy processed by ECAP. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 517, 24-29. | 5.6 | 96        |
| 48 | On the Occurrence of Portevin–Le Chatelier Instabilities in Ultrafine-Grained 5083 Aluminum Alloys. <i>Experimental Mechanics</i> , 2009, 49, 207-218.  | 2.0 | 33        |
| 49 | Grain size dependent shear instabilities in body-centered and face-centered cubic materials. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 493, 65-70.    | 5.6 | 22        |
| 50 | Rotational diffusion and grain size dependent shear instability in nanostructured materials. <i>Acta Materialia</i> , 2008, 56, 282-291.  | 7.9 | 35        |
| 51 | Rate-dependent behavior of hierarchical Al matrix composites. <i>Scripta Materialia</i> , 2008, 59, 1139-1142.  | 5.2 | 23        |
| 52 | Stability Map for Nanocrystalline and Amorphous Materials. <i>Physical Review Letters</i> , 2008, 101, 025501.  | 7.8 | 28        |
| 53 | Transducer shape optimization for instability control of smart piezolaminated columns. <i>Inverse Problems in Science and Engineering</i> , 2007, 15, 151-162.  | 1.2 | 0         |
| 54 | Superlightweight Nanoengineered Aluminum for Strength under Impact. <i>Advanced Engineering Materials</i> , 2007, 9, 355-359.   | 3.5 | 20        |

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|----|--|-----|-----------|
| 55 | An enriched continuum model for the design of a hierarchical composite. Scripta Materialia, 2007, 57, 877-880.   | 5.2 | 34        |
| 56 | Modeling the constitutive response of bimodal metals. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 2397-2404.                    | 2.2 | 60        |
| 57 | A gradientless technique for optimal distribution of piezoelectric material for structural control. International Journal for Numerical Methods in Engineering, 2003, 57, 1737-1753. | 2.8 | 8         |
| 58 | Exact solutions for characterization of electro-elastically graded materials. Computational Materials Science, 2003, 28, 548-555.  | 3.0 | 16        |
| 59 | Numerical characterization of functionally graded active materials under electrical and thermal fields. Smart Materials and Structures, 2003, 12, 571-579.                           | 3.5 | 21        |
| 60 | Piezoelectric Sensor and Actuator Spatial Design for Shape Control of Piezolaminated Plates. AIAA Journal, 2002, 40, 1204-1210.  | 2.6 | 38        |
| 61 | Active vibration control of piezolaminated stiffened plates. Composite Structures, 2002, 55, 435-443.  | 5.8 | 35        |
| 62 | Mechanical performance of endodontically treated teeth. Finite Elements in Analysis and Design, 2001, 37, 587-601.   | 3.2 | 56        |
| 63 | Design of actuator profiles for minimum power consumption. Smart Materials and Structures, 2001, 10, 305-313.  | 3.5 | 13        |