

Shailendra P Joshi

List of Publications by Year in descending order

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citations

236612

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66
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docs citations

66
times ranked

1728
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	2.3	240
2	An enhanced continuum model for size-dependent strengthening and failure of particle-reinforced composites. <i>Acta Materialia</i> , 2009, 57, 5848-5861.	3.8	137
3	Hierarchical magnesium nano-composites for enhanced mechanical response. <i>Acta Materialia</i> , 2010, 58, 6104-6114.	3.8	114
4	A transition from localized shear banding to homogeneous superplastic flow in nanoglass. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	110
5	Dynamic testing at high strain rates of an ultrafine-grained magnesium alloy processed by ECAP. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 517, 24-29.	2.6	96
6	Rate-dependent hardening due to twinning in an ultrafine-grained magnesium alloy. <i>Acta Materialia</i> , 2012, 60, 1818-1826.	3.8	74
7	Composition and grain size effects on the structural and mechanical properties of CuZr nanoglasses. <i>Journal of Applied Physics</i> , 2014, 116, .	1.1	68
8	Strengthening mechanisms in cryomilled ultrafine-grained aluminum alloy at quasi-static and dynamic rates of loading. <i>Scripta Materialia</i> , 2009, 60, 619-622.	2.6	63
9	Modeling the constitutive response of bimodal metals. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2006, 37, 2397-2404.	1.1	60
10	Mechanical performance of endodontically treated teeth. <i>Finite Elements in Analysis and Design</i> , 2001, 37, 587-601.	1.7	56
11	Micromechanics of tensile twinning in magnesium gleaned from molecular dynamics simulations. <i>Acta Materialia</i> , 2014, 69, 326-342.	3.8	52
12	Suppression of Shear Banding and Transition to Necking and Homogeneous Flow in Nanoglass Nanopillars. <i>Scientific Reports</i> , 2015, 5, 15611.	1.6	50
13	Orientation-dependent indentation response of magnesium single crystals: Modeling and experiments. <i>Acta Materialia</i> , 2014, 81, 358-376.	3.8	48
14	Void growth and coalescence in hexagonal close packed crystals. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 125, 198-224.	2.3	46
15	Three dimensional simulations of texture and triaxiality effects on the plasticity of magnesium alloys. <i>Acta Materialia</i> , 2017, 127, 54-72.	3.8	45
16	On plastic flow in notched hexagonal close packed single crystals. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 94, 273-297.	2.3	40
17	Piezoelectric Sensor and Actuator Spatial Design for Shape Control of Piezolaminated Plates. <i>AIAA Journal</i> , 2002, 40, 1204-1210.	1.5	38
18	Active vibration control of piezolaminated stiffened plates. <i>Composite Structures</i> , 2002, 55, 435-443.	3.1	35

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19	Rotational diffusion and grain size dependent shear instability in nanostructured materials. Acta Materialia, 2008, 56, 282-291.	3.8	35
20	An enriched continuum model for the design of a hierarchical composite. Scripta Materialia, 2007, 57, 877-880.	2.6	34
21	On the Occurrence of Portevinâ€œLe Châ€œtelier Instabilities in Ultrafine-Grained 5083 Aluminum Alloys. Experimental Mechanics, 2009, 49, 207-218.	1.1	33
22	Micromechanics of crystallographic size-effects in metal matrix composites induced by thermo-mechanical loading. International Journal of Plasticity, 2013, 42, 65-82.	4.1	29
23	Mechanism-based crystal plasticity modeling of twin boundary migration in nanotwinned face-centered-cubic metals. Journal of the Mechanics and Physics of Solids, 2014, 68, 107-133.	2.3	29
24	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.	4.1	29
25	Stability Map for Nanocrystalline and Amorphous Materials. Physical Review Letters, 2008, 101, 025501.	2.9	28
26	Grain sizeâ€œinclusion size interaction in metal matrix composites using mechanism-based gradient crystal plasticity. International Journal of Solids and Structures, 2011, 48, 2585-2594.	1.3	26
27	Stochastic rate-dependent elasticity and failure of soft fibrous networks. Soft Matter, 2012, 8, 7004.	1.2	24
28	Surface roughness imparts tensile ductility to nanoscale metallic glasses. Extreme Mechanics Letters, 2015, 5, 88-95.	2.0	24
29	Rate-dependent behavior of hierarchical Al matrix composites. Scripta Materialia, 2008, 59, 1139-1142.	2.6	23
30	Crystal plasticity of nanotwinned microstructures: A discrete twin approach for copper. Acta Materialia, 2011, 59, 5603-5617.	3.8	23
31	Grain size dependent shear instabilities in body-centered and face-centered cubic materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 493, 65-70.	2.6	22
32	Numerical characterization of functionally graded active materials under electrical and thermal fields. Smart Materials and Structures, 2003, 12, 571-579.	1.8	21
33	Effect of multiaxial loading on evolution of ϵ -martensite twinning in magnesium single crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 659, 256-269.	2.6	21
34	Superlightweight Nanoengineered Aluminum for Strength under Impact. Advanced Engineering Materials, 2007, 9, 355-359.	1.6	20
35	Micromechanics of diffusion-induced damage evolution in reinforced polymers. Composites Science and Technology, 2011, 71, 333-342.	3.8	20
36	Developing a light weight lithium ion battery â€œ an effective material and electrode design for high performance conversion anodes. RSC Advances, 2013, 3, 6386.	1.7	20

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37	A crystal plasticity investigation of grain size-texture interaction in magnesium alloys. <i>Acta Materialia</i> , 2021, 208, 116743.	3.8	19
38	Interacting effects of strengthening and twin boundary migration in nanotwinned materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 101, 180-196.	2.3	17
39	Exact solutions for characterization of electro-elastically graded materials. <i>Computational Materials Science</i> , 2003, 28, 548-555.	1.4	16
40	The role of bimodal grain size distribution in nanocrystalline shape memory alloys. <i>Smart Materials and Structures</i> , 2018, 27, 105004.	1.8	15
41	Nonlocal continuum crystal plasticity with internal residual stresses. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 713-731.	2.3	14
42	Design of actuator profiles for minimum power consumption. <i>Smart Materials and Structures</i> , 2001, 10, 305-313.	1.8	13
43	A phase field model of grain boundary migration and grain rotation under elasto-plastic anisotropies. <i>International Journal of Solids and Structures</i> , 2019, 178-179, 1-18.	1.3	13
44	Insights from the MEDE program: An overview of microstructure-property linkages in the dynamic behaviors of magnesium alloys. <i>Mechanics of Materials</i> , 2021, 163, 104084.	1.7	13
45	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.	1.7	12
46	Size-effects in textural strengthening of hierarchical magnesium nano-composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 556, 855-863.	2.6	11
47	Development of Hierarchical Magnesium Composites Using Hybrid Microwave Sintering. <i>Journal of Microwave Power and Electromagnetic Energy</i> , 2011, 45, 112-120.	0.4	10
48	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.	1.4	10
49	Texture effects and rate-dependent behaviors of notched magnesium bars. <i>Mechanics of Materials</i> , 2021, 162, 104042.	1.7	10
50	Void Growth and Coalescence in Porous Plastic Solids With Sigmoidal Hardening. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2019, 86, .	1.1	10
51	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.	0.8	9
52	A gradientless technique for optimal distribution of piezoelectric material for structural control. <i>International Journal for Numerical Methods in Engineering</i> , 2003, 57, 1737-1753.	1.5	8
53	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.	2.3	6
54	A Numerical Study of Strain-Rate and Triaxiality Effects in Magnesium Alloys. <i>Journal of Dynamic Behavior of Materials</i> , 2020, 6, 459-471.	1.1	6

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55	On the micromechanics of void mediated failure in HCP crystals. Journal of the Mechanics and Physics of Solids, 2022, 165, 104923.	2.3	6
56	On the micromechanics of voids in nanotwinned materials. Journal of the Mechanics and Physics of Solids, 2022, 165, 104887.	2.3	4
57	Cohesive zone modeling of 3D delamination in encapsulated silicon devices. , 2012, , .		2
58	Heating rate dependent delamination of metal-polymer interfaces: experiments and modeling. International Journal of Fracture, 2014, 187, 227-238.	1.1	2
59	Special issue of mechanics of materials: Mechanics of magnesium alloys in dynamic environments. Mechanics of Materials, 2022, 168, 104264.	1.7	2
60	Predictive maps for stochastic nonaffine stiffening and damage in fibrous networks. Physical Review E, 2014, 89, 022607.	0.8	1
61	Transducer shape optimization for instability control of smart piezolaminated columns. Inverse Problems in Science and Engineering, 2007, 15, 151-162.	1.2	0
62	On the Role of Crystallographic Anisotropy and Texture in Damage Tolerance of Magnesium and Its Alloys. Minerals, Metals and Materials Series, 2021, , 81-89.	0.3	0
63	Mapping Anisotropy and Triaxiality Effects in Magnesium Alloys. Minerals, Metals and Materials Series, 2020, , 321-328.	0.3	0