Vikram Deshpande

List of Articles by Year
in descending order

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195 peer-reviewed articles	9,361 peer-reviewed citations	51021 47 peer-reviewed h-index	368221 4.38 score
220 documents	10123 doc citations	61181 48 h-index	11475 citing authors

#	Article	IF	Citations
1	Graph neural networks for strut-based architected solids. Journal of the Mechanics and Physics of Solids, 2025, 195, 105966.	4.7	9
2	Capillary rise in a packing of glass spheres. Journal of the Mechanics and Physics of Solids, 2025, 196, 105963.	4.7	4
3	High axial compressive strength in 3D-printed continuous carbon fiber reinforced thermoplastics by controlling printing forces. Composites Part B: Engineering, 2025, 291, 112052.	10.5	21
4	Blistering of hafnia/hafnon composites exposed to molten silicate deposits. Acta Materialia, 2025, 287, 120782.	7.6	5
5	Eliminating structural defects in large area mechanical metamaterials via hot lithography in large-area projection micro-stereolithography. Additive Manufacturing, 2025, 101, 104717.	2.0	2
6	Evaluation of the ability of full-field displacement measurements to extract yield surface parameters. European Journal of Mechanics, A/Solids, 2025, 112, 105652.	3.1	2
7	Embedded 3D printing of isotropically enhanced lattice structure with programmable elasticity via three-dimensional fiber alignment. Additive Manufacturing, 2025, 105, 104783.	2.0	4
8	Void growth in the lithium anode of a solid state battery. European Journal of Mechanics, A/Solids, 2025, 113, 105710.	3.1	9
9	Exploration of digital volume correlation in nominally homogeneous metals. Mechanics of Materials, 2025, 207, 105394.	2.8	3
10	Editorial for the Special Issue “Additive Manufacturing-Enabled Architected Materials”. Advanced Engineering Materials, 2025, 27, .	2.2	1
11	Fracture mechanics characterises fibre entanglement. Communications Materials, 2025, 6, .	5.3	1
12	Size effects in a power law creeping layer under compression or shear, and implications for deformation mechanisms of lithium films. Journal of the Mechanics and Physics of Solids, 2024, 183, 105505.	4.7	14
13	Failure mechanisms at the Li anode/solid electrolyte interface during Li stripping. Mechanics of Materials, 2024, 193, 104990.	2.8	7
14	3D observations provide striking findings in rubber elasticity. Proceedings of the National Academy of Sciences of the United States of America, 2024, 121, .	5.2	17
15	The chemo-mechanics of initiation of crack advance in Niobium Tungsten Oxide single crystals due to delithiation. Journal of the Mechanics and Physics of Solids, 2024, 190, 105724.	4.7	6
16	Imbibition of water into a cellulose foam: The kinetics. Journal of the Mechanics and Physics of Solids, 2024, 191, 105763.	4.7	1
17	Multiscale Experiments and Predictive Modeling for Failure Mitigation in Additive Manufacturing of Lattices (Adv. Mater. Technol. 24/2024). Advanced Materials Technologies, 2024, 9, .	4.1	0
18	Contact guidance via heterogeneity of substrate elasticity. Acta Biomaterialia, 2023, 163, 158-169.	6.7	10

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19	Effect of water content on the constitutive response of a cellulose foam. European Journal of Mechanics, A/Solids, 2023, 100, 104992.	3.1	4
20	Void growth in metal anodes in solid-state batteries: Recent progress and gaps in understanding. European Journal of Mechanics, A/Solids, 2023, 100, 104998.	3.1	21
21	Ingress of Li into Solid Electrolytes: Cracking and Sparsely Filled Cracks. Small Structures, 2023, 4, .	6.3	17
22	Analysis of hydrogen diffusion in the three stage electro-permeation test. Continuum Mechanics and Thermodynamics, 2023, 36, 1169-1180.	1.4	2
23	Underexcitation prevents crystallization of granular assemblies subjected to high-frequency vibration. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	5.2	4
24	Strain rate sensitivity of the hydrogen embrittlement of ferritic steels. Acta Materialia, 2023, 257, 119173.	7.6	41
25	Vacancy diffusion and its consequences for void growth at the interface of a stripping metal electrode and solid electrolyte. Electrochimica Acta, 2023, 467, 143081.	4.1	18
26	Rapid inverse design of metamaterials based on prescribed mechanical behavior through machine learning. Nature Communications, 2023, 14, .	10.8	361
27	The strength of a constrained lithium layer. Acta Materialia, 2023, 260, 119313.	7.6	17
28	Cracking and associated volumetric expansion of NMC811 secondary particles. Journal of Power Sources, 2023, 588, 233745.	6.1	52
29	A compliant and low-expansion 2-phase micro-architectured material, with potential application to solid-state Li-ion batteries. Journal of the Mechanics and Physics of Solids, 2022, 158, 104683.	4.7	8
30	The toughness of mechanical metamaterials. Nature Materials, 2022, 21, 297-304.	23.7	228
31	Effect of Lithiation upon the Shear Strength of NMC811 Single Crystals. Journal of the Electrochemical Society, 2022, 169, 040511.	2.2	28
32	The coupled strength and toughness of interconnected and interpenetrating multi-material gyroids. MRS Bulletin, 2022, 47, 461-473.	3.5	18
33	Contact guidance as a consequence of coupled morphological evolution and motility of adherent cells. Biomechanics and Modeling in Mechanobiology, 2022, 21, 1043-1065.	1.7	8
34	Interfacial delamination of a sandwich layer by aqueous corrosion. Corrosion Science, 2022, 203, 110356.	7.2	9
35	Multifunctionality of Nanoengineered Self-Sensing Lattices Enabled by Additive Manufacturing. Advanced Engineering Materials, 2022, 24, .	2.2	20
36	Gravity enables self-assembly. Natural Sciences, 2022, 2, .	2.4	1

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37	Pinching of gel-filled honeycomb. International Journal of Solids and Structures, 2022, 257, 111728.	3.0	9
38	The influence of entropic crowding in cell monolayers. Biophysical Journal, 2022, 121, 4394-4404.	1.5	10
39	The in-plane, elastic-plastic response of a filled hexagonal honeycomb at finite strain. Journal of the Mechanics and Physics of Solids, 2022, 168, 105047.	4.7	21
40	Cell reorientation on a cyclically strained substrate. PNAS Nexus, 2022, 1, .	2.4	14
41	The transport of water in a cellulose foam. Extreme Mechanics Letters, 2022, 57, 101897.	3.1	6
42	Operando visualization of kinetically induced lithium heterogeneities in single-particle layered Ni-rich cathodes. Joule, 2022, 6, 2535-2546.	22.6	129
43	The initiation of void growth during stripping of Li electrodes in solid electrolyte cells. Journal of Power Sources, 2021, 488, 229437.	6.1	31
44	Nanofibril-mediated fracture resistance of bone. Bioinspiration and Biomimetics, 2021, 16, 035001.	1.9	22
45	Chemo-mechanical model of a cell as a stochastic active gel. Journal of the Mechanics and Physics of Solids, 2021, 151, 104381.	4.7	13
46	An assessment of a mechanism for void growth in Li anodes. Extreme Mechanics Letters, 2021, 46, 101307.	3.1	24
47	The in-plane elastic-plastic response of an incompressible, filled hexagonal honeycomb. Journal of the Mechanics and Physics of Solids, 2021, 155, 104536.	4.7	23
48	Energy absorption and self-sensing performance of 3D printed CF/PEEK cellular composites. Materials and Design, 2021, 208, 109863.	5.4	124
49	Manipulation of the granular fluid-structure interaction via sliding coating layers. International Journal of Impact Engineering, 2021, 157, 104005.	4.6	1
50	The Influence of Strut Waviness on the Tensile Response of Lattice Materials. Journal of Applied Mechanics, Transactions ASME, 2021, 88, .	1.9	24
51	Failure Modes of a Laminated Composite With Complaint Interlayers. Journal of Applied Mechanics, Transactions ASME, 2021, 88, .	1.9	1
52	Three-dimensional architected materials and structures: Design, fabrication, and mechanical behavior. MRS Bulletin, 2020, 44, 750-757.	3.5	135
53	Hydrogen induced fast-fracture. Journal of the Mechanics and Physics of Solids, 2020, 134, 103740.	4.7	59
54	The swelling of cellulose foams due to liquid transport. Journal of the Mechanics and Physics of Solids, 2020, 136, 103707.	4.7	12

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55	Spherical indentation response of a Ni double gyroid nanolattice. Scripta Materialia, 2020, 188, 64-68.	4.3	5
56	Cellular Contact Guidance Emerges from Gap Avoidance. Cell Reports Physical Science, 2020, 1, 100055.	2.9	62
57	A versatile numerical approach for calculating the fracture toughness and R-curves of cellular materials. Journal of the Mechanics and Physics of Solids, 2020, 138, 103925.	4.7	55
58	Growth rate of lithium filaments in ceramic electrolytes. Acta Materialia, 2020, 196, 444-455.	7.6	47
59	Response of cells on a dense array of micro-posts. Meccanica, 2020, 56, 1635-1651.	1.2	6
60	2020 roadmap on solid-state batteries. JPhys Energy, 2020, 2, 032008.	2.9	121
61	Deep penetration of ultra-high molecular weight polyethylene composites by a sharp-tipped punch. Journal of the Mechanics and Physics of Solids, 2019, 123, 80-102.	4.7	19
62	Failure mechanism maps for ultra-high molecular weight polyethylene fibre composite beams impacted by blunt projectiles. International Journal of Solids and Structures, 2019, 178-179, 180-198.	3.0	33
63	Tunable Energy Absorption Characteristics of Architected Honeycombs Enabled via Additive Manufacturing. ACS Applied Materials & Interfaces, 2019, 11, 42549-42560.	5.5	118
64	High strength metallic wood from nanostructured nickel inverse opal materials. Scientific Reports, 2019, 9, .	2.7	44
65	Impulse transfer during granular matter impact with inclined sliding surfaces. International Journal of Impact Engineering, 2019, 130, 79-96.	4.6	3
66	Entropic Forces Drive Cellular Contact Guidance. Biophysical Journal, 2019, 116, 1994-2008.	1.5	58
67	High strain rate compressive response of ultra-high molecular weight polyethylene fibre composites. International Journal of Plasticity, 2019, 122, 115-134.	10.9	22
68	A microscopically motivated model for the remodeling of cardiomyocytes. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1233-1245.	1.7	6
69	Transient active force generation and stress fibre remodelling in cells under cyclic loading. Biomechanics and Modeling in Mechanobiology, 2019, 18, 921-937.	1.7	27
70	The role of plastic strain gradients in the crack growth resistance of metals. Journal of the Mechanics and Physics of Solids, 2019, 126, 136-150.	4.7	79
71	Free-energy-based framework for early forecasting of stem cell differentiation. Journal of the Royal Society Interface, 2019, 16, 20190571.	2.1	10
72	Shear response of 3D non-woven carbon fibre reinforced composites. Journal of the Mechanics and Physics of Solids, 2019, 125, 276-297.	4.7	19

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73	Water rise in a cellulose foam: By capillary or diffusional flow?. Journal of the Mechanics and Physics of Solids, 2019, 124, 206-219.	4.7	25
74	Response of square honeycomb core sandwich panels to granular matter impact. International Journal of Impact Engineering, 2018, 117, 13-31.	4.6	30
75	Role of boundary conditions in determining cell alignment in response to stretch. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 986-991.	5.2	130
76	Indentation response of a 3D non-woven carbon-fibre composite. Journal of Materials Research, 2018, 33, 317-329.	1.9	5
77	Discrete dislocation plasticity analysis of the high-temperature cyclic response of composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 712, 714-719.	5.4	12
78	High intensity impact of granular matter with edge-clamped ductile plates. International Journal of Impact Engineering, 2018, 111, 106-129.	4.6	4
79	Compressive response of a 3D non-woven carbon-fibre composite. International Journal of Solids and Structures, 2018, 136-137, 137-149.	3.0	18
80	Penetration of confined ceramics targets. Extreme Mechanics Letters, 2018, 18, 45-57.	3.1	11
81	Thermodynamic Modeling of the Statistics of Cell Spreading on Ligand-Coated Elastic Substrates. Biophysical Journal, 2018, 115, 2451-2460.	1.5	20
82	Bayesian inference of the spatial distributions of material properties. Journal of the Mechanics and Physics of Solids, 2018, 118, 74-97.	4.7	39
83	Notch sensitivity of orthotropic solids: interaction of tensile and shear damage zones. International Journal of Fracture, 2018, 212, 123-142.	1.9	9
84	Perforation of aluminium alloy-CFRP bilayer plates under quasi-static and impact loading. International Journal of Impact Engineering, 2018, 121, 106-118.	4.6	14
85	The homeostatic ensemble for cells. Biomechanics and Modeling in Mechanobiology, 2018, 17, 1631-1662.	1.7	31
86	Impact of granular slugs on rigid targets: Effect of grain shape and fracture. European Journal of Mechanics, A/Solids, 2018, 71, 64-76.	3.1	4
87	Effect of confinement on the static and dynamic indentation response of model ceramic and cermet materials. International Journal of Impact Engineering, 2017, 110, 123-137.	4.6	36
88	Effect of surface properties on momentum transfer to targets impacted by high-velocity sand slugs. International Journal of Impact Engineering, 2017, 103, 90-106.	4.6	15
89	Analysis of electro-permeation of hydrogen in metallic alloys. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160409.	1.6	15
90	Discrete dislocation plasticity analysis of the effect of interfacial diffusion on the creep response of Ni single-crystal superalloys. Acta Materialia, 2017, 135, 188-200.	7.6	40

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91	Cellular mechanosensing of the biophysical microenvironment: A review of mathematical models of biophysical regulation of cell responses. Physics of Life Reviews, 2017, 22-23, 88-119.	1.2	90
92	Momentum transfer during the impact of granular matter with inclined sliding surfaces. Journal of the Mechanics and Physics of Solids, 2017, 106, 283-312.	4.7	5
93	On the Indentation Resistance of a PC Layer on PVC Foam Substrate. Advanced Engineering Materials, 2017, 19, .	2.2	3
94	Free energy analysis of cell spreading. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 74, 283-295.	2.7	39
95	High intensity impulsive loading by explosively accelerated granular matter. International Journal of Impact Engineering, 2017, 108, 229-251.	4.6	16
96	A discrete dislocation analysis of hydrogen-assisted mode-I fracture. Mechanics of Materials, 2017, 105, 67-79.	2.8	14
97	Crack kinking at the tip of a mode I crack in an orthotropic solid. International Journal of Fracture, 2017, 207, 181-191.	1.9	15
98	Finite versus small strain discrete dislocation analysis of cantilever bending of single crystals. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 763-777.	2.4	3
99	Flaw sensitivity in rate-sensitive high strength alloys: An assessment and future research directions. Extreme Mechanics Letters, 2017, 10, 70-77.	3.1	1
100	The indentation response of Nickel nano double gyroid lattices. Extreme Mechanics Letters, 2017, 10, 15-23.	3.1	40
101	Interfacial diffusion in high-temperature deformation of composites: A discrete dislocation plasticity investigation. Journal of the Mechanics and Physics of Solids, 2017, 98, 330-349.	4.7	16
102	Multi-axial response of idealized cermets. Acta Materialia, 2016, 116, 281-289.	7.6	7
103	Mechanisms of the penetration of ultra-high molecular weight polyethylene composite beams. International Journal of Impact Engineering, 2016, 93, 153-165.	4.6	57
104	Discrete dislocation plasticity analysis of loading rate-dependent static friction. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20150877.	1.4	7
105	Prediction of Cell Alignment on Cyclically Strained Grooved Substrates. Biophysical Journal, 2016, 111, 2274-2285.	1.5	17
106	An Integrated Stochastic Model of Matrix-Stiffness-Dependent Filopodial Dynamics. Biophysical Journal, 2016, 111, 2051-2061.	1.5	38
107	The tensile ductility of cellular Solids: The role of imperfections. International Journal of Solids and Structures, 2016, 102-103, 200-213.	3.0	52
108	Prediction of failure in notched carbon-fibre-reinforced-polymer laminates under multi-axial loading. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150273.	1.6	11

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109	Strong cellular lattices with nitro-carburized stainless steel hollow trusses. International Journal of Materials Research, 2016, 107, 57-77.	0.6	7
110	Climb-Enabled Discrete Dislocation Plasticity Analysis of the Deformation of a Particle Reinforced Composite. Journal of Applied Mechanics, Transactions ASME, 2015, 82, .	1.9	16
111	2013 Koiter Medal Paper: Crack-Tip Fields and Toughness of Two-Dimensional Elastoplastic Lattices. Journal of Applied Mechanics, Transactions ASME, 2015, 82, .	1.9	62
112	Impulse transfer during sand impact with a cellular structure. International Journal of Impact Engineering, 2015, 82, 36-58.	4.6	17
113	Effect of design on the performance of steel–alumina bilayers and trilayers subject to ballistic impact. Mechanics of Materials, 2015, 91, 241-251.	2.8	28
114	The Compressive Response of Idealized Cermetlike Materials. Journal of Applied Mechanics, Transactions ASME, 2015, 82, .	1.9	8
115	Mechanical response of Ti–6Al–4V octet-truss lattice structures. International Journal of Solids and Structures, 2015, 60-61, 107-124.	3.0	382
116	Simulation of the cytoskeletal response of cells on grooved or patterned substrates. Journal of the Royal Society Interface, 2015, 12, 20141320.	2.1	20
117	Cooperative contractility: The role of stress fibres in the regulation of cell-cell junctions. Journal of Biomechanics, 2015, 48, 520-528.	1.6	14
118	Impulse transfer during sand impact with a solid block. International Journal of Impact Engineering, 2015, 76, 98-117.	4.6	21
119	A thermodynamically motivated model for stress-fiber reorganization. Biomechanics and Modeling in Mechanobiology, 2015, 15, 761-789.	1.7	50
120	Hybrid core carbon fiber composite sandwich panels: Fabrication and mechanical response. Composite Structures, 2014, 108, 696-710.	5.5	88
121	Non linear constitutive models for lattice materials. Journal of the Mechanics and Physics of Solids, 2014, 64, 44-60.	4.7	126
122	Dynamic compression of square tube cellular structures. Journal of Mechanics of Materials and Structures, 2014, 9, 149-182.	0.6	4
123	Multi-hit armour characterisation of metal-composite bi-layers. Journal of Mechanics of Materials and Structures, 2013, 7, 721-734.	0.6	17
124	An analysis of competing toughening mechanisms in layered and particulate solids. International Journal of Fracture, 2013, 183, 241-258.	1.9	22
125	The dynamic response of edge clamped plates loaded by spherically expanding sand shells. International Journal of Impact Engineering, 2013, 62, 182-195.	4.6	31
126	Mechanical response of carbon fiber composite sandwich panels with pyramidal truss cores. Composites Part A: Applied Science and Manufacturing, 2013, 47, 31-40.	6.0	115

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127	Plane-strain discrete dislocation plasticity with climb-assisted glide motion of dislocations. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 045008.	1.5	61
128	Simulation of the Mechanical Response of Cells on Micropost Substrates. Journal of Biomechanical Engineering, 2013, 135, .	1.0	14
129	Unsteady penetration of a target by a liquid jet. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20028-20033.	5.2	20
130	Design and formulation of functional pluripotent stem cell-derived cardiac microtissues. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, .	5.2	289
131	Tubular aluminum cellular structures: fabrication and mechanical response. Journal of Mechanics of Materials and Structures, 2013, 8, 65-94.	0.6	10
132	Cellular contractility and substrate elasticity: a numerical investigation of the actin cytoskeleton and cell adhesion. Biomechanics and Modeling in Mechanobiology, 2013, 13, 417-435.	1.7	65
133	Dynamic Interaction between Manipulator and Omni-Directional Platform. International Journal of Applied Research in Mechanical Engineering, 2013, , 58-72.	0.0	0
134	Sandwich Beams With Corrugated and Y-frame Cores: Does the Back Face Contribute to the Bending Response?. Journal of Applied Mechanics, Transactions ASME, 2012, 79, .	1.9	17
135	The effect of remodelling and contractility of the actin cytoskeleton on the shear resistance of single cells: a computational and experimental investigation. Journal of the Royal Society Interface, 2012, 9, 3469-3479.	2.1	48
136	Damage development in an armor alumina impacted with ductile metal spheres. Journal of Mechanics of Materials and Structures, 2012, 7, 575-591.	0.6	20
137	The influence of matrix integrity on stress-fiber remodeling in 3D. Biomaterials, 2012, 33, 7508-7518.	9.5	96
138	Numerical investigation of the active role of the actin cytoskeleton in the compression resistance of cells. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 14, 143-157.	2.7	71
139	Contact area and size effects in discrete dislocation modeling of wedge indentation. Journal of Materials Research, 2011, 22, 655-663.	1.9	28
140	Damage Development in an Armor Ceramic Under Quasi-Static Indentation. Journal of the American Ceramic Society, 2011, 94, .	3.1	22
141	Explorations of Hybrid Sandwich Panel Concepts for Projectile Impact Mitigation. Journal of the American Ceramic Society, 2011, 94, .	3.1	68
142	A Constitutive Description of the Inelastic Response of Ceramics. Journal of the American Ceramic Society, 2011, 94, .	3.1	59
143	Collapse mechanism maps for a hollow pyramidal lattice. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 985-1011.	1.4	47
144	An Analysis of the Cooperative Mechano-Sensitive Feedback Between Intracellular Signaling, Focal Adhesion Development, and Stress Fiber Contractility. Journal of Applied Mechanics, Transactions ASME, 2011, 78, .	1.9	25

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145	Quasi-Static Three-Point Bending of Carbon Fiber Sandwich Beams With Square Honeycomb Cores. Journal of Applied Mechanics, Transactions ASME, 2011, 78, .	1.9	100
146	Dynamic compressive response of composite corrugated cores. Journal of Mechanics of Materials and Structures, 2010, 5, 477-493.	0.6	31
147	Micro-architectured materials: past, present and future. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 2495-2516.	1.4	775
148	The Dynamic Strength of a Representative Double Layer Prismatic Core: A Combined Experimental, Numerical, and Analytical Assessment. Journal of Applied Mechanics, Transactions ASME, 2010, 77, .	1.9	10
149	Triaxial Deformation Behavior of Bituminous Mixes. Journal of Materials in Civil Engineering, 2010, 22, 124-135.	1.9	20
150	The Through-Thickness Compressive Strength of a Composite Sandwich Panel With a Hierarchical Square Honeycomb Sandwich Core. Journal of Applied Mechanics, Transactions ASME, 2009, 76, .	1.9	76
151	Microfabricated tissue gauges to measure and manipulate forces from 3D microtissues. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10097-10102.	5.2	441
152	The Influence of Material Properties and Confinement on the Dynamic Penetration of Alumina by Hard Spheres. Journal of Applied Mechanics, Transactions ASME, 2009, 76, .	1.9	14
153	Simulation of the contractile response of cells on an array of micro-posts. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 3477-3497.	1.6	83
154	The effect of shape on the adhesion of fibrillar surfaces. Acta Biomaterialia, 2008, 4, 1669-1676.	6.7	143
155	Impact response of sandwich plates with a pyramidal lattice core. International Journal of Impact Engineering, 2008, 35, 920-936.	4.6	113
156	Plasticity size effects in voided crystals. Journal of the Mechanics and Physics of Solids, 2008, 56, 114-131.	4.7	45
157	A bio-mechanical model for coupling cell contractility with focal adhesion formation. Journal of the Mechanics and Physics of Solids, 2008, 56, 1484-1510.	4.7	155
158	Inelastic deformation and energy dissipation in ceramics: A mechanism-based constitutive model. Journal of the Mechanics and Physics of Solids, 2008, 56, 3077-3100.	4.7	169
159	Mechanisms and Mechanics Governing the Indentation of Polycrystalline Alumina. Journal of the American Ceramic Society, 2008, 91, 2987-2996.	3.1	9
160	The simulation of stress fibre and focal adhesion development in cells on patterned substrates. Journal of the Royal Society Interface, 2008, 5, 507-524.	2.1	111
161	Analysis and Interpretation of Stress Fiber Organization in Cells Subject to Cyclic Stretch. Journal of Biomechanical Engineering, 2008, 130, .	1.0	76
162	Quasistatic deformation and failure modes of composite square honeycombs. Journal of Mechanics of Materials and Structures, 2008, 3, 1315-1340.	0.6	137

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163	Dynamic Compressive Response of Stainless-Steel Square Honeycombs. Journal of Applied Mechanics, Transactions ASME, 2007, 74, 658-667.	1.9	75
164	Hierarchical Corrugated Core Sandwich Panel Concepts. Journal of Applied Mechanics, Transactions ASME, 2007, 74, 259-268.	1.9	168
165	The Underwater Blast Resistance of Metallic Sandwich Beams With Prismatic Lattice Cores. Journal of Applied Mechanics, Transactions ASME, 2007, 74, 352-364.	1.9	86
166	The compressive response of carbon fiber composite pyramidal truss sandwich cores. International Journal of Materials Research, 2007, 98, 1264-1272.	0.6	218
167	Truss waviness effects in cellular lattice structures. Journal of Mechanics of Materials and Structures, 2007, 2, 1657-1675.	0.6	32
168	Size effects in single asperity frictional contacts. Modelling and Simulation in Materials Science and Engineering, 2007, 15, S97-S108.	1.5	17
169	A model for the contractility of the cytoskeleton including the effects of stress-fibre formation and dissociation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 787-815.	1.4	99
170	Dynamic failure of clamped circular plates subjected to an underwater shock. Journal of Mechanics of Materials and Structures, 2007, 2, 2007-2023.	0.6	23
171	Continuum-based computational models for cell and nuclear mechanics. Journal of Mechanics of Materials and Structures, 2007, 2, 1169-1191.	0.6	16
172	Structural response of pyramidal core sandwich columns. International Journal of Solids and Structures, 2007, 44, 3533-3556.	3.0	122
173	Fatigue performance of sandwich beams with a pyramidal core. International Journal of Fatigue, 2007, 29, 1402-1412.	5.2	49
174	The shear response of metallic square honeycombs. Journal of Mechanics of Materials and Structures, 2006, 1, 1281-1299.	0.6	43
175	Performance of metallic honeycomb-core sandwich beams under shock loading. International Journal of Solids and Structures, 2006, 43, 1746-1763.	3.0	187
176	Size effects in uniaxial deformation of single and polycrystals: a discrete dislocation plasticity analysis. Modelling and Simulation in Materials Science and Engineering, 2006, 14, 409-422.	1.5	102
177	A bio-chemo-mechanical model for cell contractility. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 14015-14020.	5.2	280
178	One-dimensional response of sandwich plates to underwater shock loading. Journal of the Mechanics and Physics of Solids, 2005, 53, 2347-2383.	4.7	221
179	Discrete dislocation plasticity analysis of crack-tip fields in polycrystalline materials. Philosophical Magazine, 2005, 85, 3047-3071.	0.8	19
180	Phenomenological Model for Monotonic and Cyclic Behavior of Pure Bitumen. Journal of Materials in Civil Engineering, 2005, 17, 188-197.	1.9	23

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181	The Resistance of Clamped Sandwich Beams to Shock Loading. Journal of Applied Mechanics, Transactions ASME, 2004, 71, 386-401.	1.9	568
182	Dynamic Response of a Clamped Circular Sandwich Plate Subject to Shock Loading. Journal of Applied Mechanics, Transactions ASME, 2004, 71, 637-645.	1.9	174
183	Monotonic and cyclic behaviour of polymer-modified bitumens. Road Materials and Pavement Design, 2004, 5, 25-44.	2.3	4
184	Compressive behavior of age hardenable tetrahedral lattice truss structures made from aluminium. Acta Materialia, 2004, 52, 4229-4237.	7.6	355
185	Micromechanical Modeling of Steady-State Deformation in Asphalt. Journal of Materials in Civil Engineering, 2004, 16, 100-106.	1.9	10
186	Case 2-2003. New England Journal of Medicine, 2003, 348, 243-249.	26.4	10
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