Abu Al-Rub, Rashid K

List of Publications by Citations

155 papers	6,734 citations	50 h-index	78 g-index
167 ext. papers	8,143 ext. citations	4.1 avg, IF	6.64 L-index

#	Paper	IF	Citations
155	Meso-scale computational modeling of the plastic-damage response of cementitious composites. *Cement and Concrete Research*, **2011**, 41, 339-358	10.3	264
154	Analytical and experimental determination of the material intrinsic length scale of strain gradient plasticity theory from micro- and nano-indentation experiments. *International Journal of Plasticity*, **2004**, 20, 1139-1182	7.6	246
153	On the aspect ratio effect of multi-walled carbon nanotube reinforcements on the mechanical properties of cementitious nanocomposites. *Construction and Building Materials*, **2012**, 35, 647-655	6.7	233
152	Topology-mechanical property relationship of 3D printed strut, skeletal, and sheet based periodic metallic cellular materials. *Additive Manufacturing*, **2018**, 19, 167-183	6.1	230
151	A plasticity and anisotropic damage model for plain concrete. *International Journal of Plasticity*, **2007**, 23, 1874-1900	7.6	210
150	Carbon Nanotubes and Carbon Nanofibers for Enhancing the Mechanical Properties of Nanocomposite Cementitious Materials. *Journal of Materials in Civil Engineering*, **2011**, 23, 1028-1035	3	204
149	Gradient plasticity theory with a variable length scale parameter. *International Journal of Solids and Structures*, **2005**, 42, 3998-4029	3.1	199
148	On the coupling of anisotropic damage and plasticity models for ductile materials. *International Journal of Solids and Structures*, **2003**, 40, 2611-2643	3.1	195
147	Thermodynamic framework for coupling of non-local viscoplasticity and non-local anisotropic viscodamage for dynamic localization problems using gradient theory. *International Journal of Plasticity*, **2004**, 20, 981-1038	7.6	160
146	Mechanical properties of 3D printed polymeric cellular materials with triply periodic minimal surface architectures. *Materials and Design*, **2017**, 122, 255-267	8.1	152
145	A thermo-viscoelastic□iscoplastic□iscodamage constitutive model for asphaltic materials. *International Journal of Solids and Structures*, **2011**, 48, 191-207	3.1	151
144	A continuum damage mechanics framework for modeling micro-damage healing. *International Journal of Solids and Structures*, **2012**, 49, 492-513	3.1	140
143	A micro-damage healing model that improves prediction of fatigue life in asphalt mixes. *International Journal of Engineering Science*, **2010**, 48, 966-990	5.7	137
142	A physically based gradient plasticity theory. *International Journal of Plasticity*, **2006**, 22, 654-684	7.6	131
141	Mechanical properties of 3D printed polymeric Gyroid cellular structures: Experimental and finite element study. *Materials and Design*, **2019**, 165, 107597	8.1	123
140	Multifunctional Mechanical Metamaterials Based on Triply Periodic Minimal Surface Lattices. *Advanced Engineering Materials*, **2019**, 21, 1900524	3.5	121
139	Effective conductivities and elastic moduli of novel foams with triply periodic minimal surfaces. *Mechanics of Materials*, **2016**, 95, 102-115	3.3	115

138	Distribution of Carbon Nanofibers and Nanotubes in Cementitious Composites. *Transportation Research Record*, **2010**, 2142, 89-95	1.7	100
137	Mechanical Properties of Nanocomposite Cement Incorporating Surface-Treated and Untreated Carbon Nanotubes and Carbon Nanofibers. *Journal of Nanomechanics & Micromechanics*, **2012**, 2, 1-6		98
136	Computational applications of a coupled plasticity-damage constitutive model for simulating plain concrete fracture. *Engineering Fracture Mechanics*, **2010**, 77, 1577-1603	4.2	90
135	Three-dimensional microstructural modeling of asphalt concrete using a unified viscoelastic□iscoplastic□iscodamage model. *Construction and Building Materials*, **2012**, 28, 531-548	6.7	87
134	A thermodynamic framework for constitutive modeling of time- and rate-dependent materials. Part I: Theory. *International Journal of Plasticity*, **2012**, 34, 61-92	7.6	83
133	3D printed feed spacers based on triply periodic minimal surfaces for flux enhancement and biofouling mitigation in RO and UF. *Desalination*, **2018**, 425, 12-21	10.3	79
132	Prediction of micro and nanoindentation size effect from conical or pyramidal indentation. *Mechanics of Materials*, **2007**, 39, 787-802	3.3	76
131	3D printed triply periodic minimal surfaces as spacers for enhanced heat and mass transfer in membrane distillation. *Desalination*, **2018**, 443, 256-271	10.3	74
130	Microarchitected Stretching-Dominated Mechanical Metamaterials with Minimal Surface Topologies. *Advanced Engineering Materials*, **2018**, 20, 1800029	3.5	74
129	Gradient-enhanced Coupled Plasticity-anisotropic Damage Model for Concrete Fracture: Computational Aspects and Applications. *International Journal of Damage Mechanics*, **2009**, 18, 115-154	3	73
128	Three-Dimensional Simulations of Asphalt Pavement Permanent Deformation Using a Nonlinear Viscoelastic and Viscoplastic Model. *Journal of Materials in Civil Engineering*, **2011**, 23, 56-68	3	72
127	A Finite Strain Plastic-damage Model for High Velocity Impact using Combined Viscosity and Gradient Localization Limiters: Part I - Theoretical Formulation. *International Journal of Damage Mechanics*, **2006**, 15, 293-334	3	72
126	A thermodynamic based higher-order gradient theory for size dependent plasticity. *International Journal of Solids and Structures*, **2007**, 44, 2888-2923	3.1	71
125	A Finite Strain Plastic-damage Model for High Velocity Impacts using Combined Viscosity and Gradient Localization Limiters: Part II - Numerical Aspects and Simulations. *International Journal of Damage Mechanics*, **2006**, 15, 335-373	3	71
124	Functionally graded and multi-morphology sheet TPMS lattices: Design, manufacturing, and mechanical properties. *Journal of the Mechanical Behavior of Biomedical Materials*, **2020**, 102, 103520	4.1	71
123	Mechanical Properties of a New Type of Architected Interpenetrating Phase Composite Materials. *Advanced Materials Technologies*, **2017**, 2, 1600235	6.8	70
122	Mechanical properties of periodic interpenetrating phase composites with novel architected microstructures. *Composite Structures*, **2017**, 176, 9-19	5.3	68
121	Stiffness and yield strength of architectured foams based on the Schwarz Primitive triply periodic minimal surface. *International Journal of Plasticity*, **2017**, 95, 1-20	7.6	68

120	Constitutive modeling of fatigue damage response of asphalt concrete materials with consideration of micro-damage healing. *International Journal of Solids and Structures*, **2013**, 50, 2901-2913	3.1	67
119	A direct finite element implementation of the gradient-dependent theory. *International Journal for Numerical Methods in Engineering*, **2005**, 63, 603-629	2.4	66
118	Mechanical properties of 3D printed interpenetrating phase composites with novel architectured 3D solid-sheet reinforcements. *Composites Part A: Applied Science and Manufacturing*, **2016**, 84, 266-280	8.4	65
117	A modified viscoplastic model to predict the permanent deformation of asphaltic materials under cyclic-compression loading at high temperatures. *International Journal of Plasticity*, **2012**, 35, 100-134	7.6	64
116	Thermodynamic based model for the evolution equation of the backstress in cyclic plasticity. *International Journal of Plasticity*, **2003**, 19, 2121-2147	7.6	63
115	A thermodynamic framework for constitutive modeling of time- and rate-dependent materials. Part II: Numerical aspects and application to asphalt concrete. *International Journal of Plasticity*, **2012**, 35, 67-99	7.6	62
114	Mechanistic-based constitutive modeling of oxidative aging in aging-susceptible materials and its effect on the damage potential of asphalt concrete. *Construction and Building Materials*, **2013**, 41, 439-454	6.7	61
113	Micromechanical finite element predictions of a reduced coefficient of thermal expansion for 3D periodic architectured interpenetrating phase composites. *Composite Structures*, **2015**, 133, 85-97	5.3	59
112	Finite element prediction of effective elastic properties of interpenetrating phase composites with architectured 3D sheet reinforcements. *International Journal of Solids and Structures*, **2016**, 83, 169-182	3.1	58
111	A quantitative method for analyzing the dispersion and agglomeration of nano-particles in composite materials. *Composites Part B: Engineering*, **2011**, 42, 1395-1403	10	58
110	Thermodynamic-based model for coupling temperature-dependent viscoelastic, viscoplastic, and viscodamage constitutive behavior of asphalt mixtures. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2012**, 36, 817-854	4	56
109	Comparing finite element and constitutive modelling techniques for predicting rutting of asphalt pavements. *International Journal of Pavement Engineering*, **2012**, 13, 322-338	2.6	55
108	Finite element predictions of effective multifunctional properties of interpenetrating phase composites with novel triply periodic solid shell architectured reinforcements. *International Journal of Mechanical Sciences*, **2015**, 92, 80-89	5.5	54
107	Dispersion quantification of inclusions in composites. *Composites Part A: Applied Science and Manufacturing*, **2011**, 42, 75-83	8.4	51
106	Interfacial gradient plasticity governs scale-dependent yield strength and strain hardening rates in micro/nano structured metals. *International Journal of Plasticity*, **2008**, 24, 1277-1306	7.6	51
105	The effect of architecture on the mechanical properties of cellular structures based on the IWP minimal surface. *Journal of Materials Research*, **2018**, 33, 343-359	2.5	49
104	Fabrication of Freestanding Sheets of Multiwalled Carbon Nanotubes (Buckypapers) for Vanadium Redox Flow Batteries and Effects of Fabrication Variables on Electrochemical Performance. *Electrochimica Acta*, **2017**, 230, 222-235	6.7	46
103	Determination of the Material Intrinsic Length Scale of Gradient Plasticity Theory. *International Journal for Multiscale Computational Engineering*, **2004**, 2, 377-400	2.4	42

102	3D printed spacers for organic fouling mitigation in membrane distillation. *Journal of Membrane Science*, **2019**, 581, 331-343	9.6	41
101	Additive manufacturing of architected catalytic ceramic substrates based on triply periodic minimal surfaces. *Journal of the American Ceramic Society*, **2019**, 102, 6176-6193	3.8	40
100	Nature-Inspired Lightweight Cellular Co-Continuous Composites with Architected Periodic Gyroidal Structures. *Advanced Engineering Materials*, **2018**, 20, 1700549	3.5	40
99	Effect of mixing duration on flexural strength of multi walled carbon nanotubes cementitious composites. *Construction and Building Materials*, **2016**, 126, 586-598	6.7	39
98	Numerical implementation and validation of a nonlinear viscoelastic and viscoplastic model for asphalt mixes. *International Journal of Pavement Engineering*, **2011**, 12, 433-447	2.6	38
97	3D printed spacers based on TPMS architectures for scaling control in membrane distillation. *Journal of Membrane Science*, **2019**, 581, 38-49	9.6	36
96	Mass transfer analysis of ultrafiltration using spacers based on triply periodic minimal surfaces: Effects of spacer design, directionality and voidage. *Journal of Membrane Science*, **2018**, 561, 89-98	9.6	36
95	Electrical conductivity of 3D periodic architectured interpenetrating phase composites with carbon nanostructured-epoxy reinforcements. *Composites Science and Technology*, **2015**, 118, 127-134	8.6	35
94	Effect of confinement pressure on the nonlinear-viscoelastic response of asphalt concrete at high temperatures. *Construction and Building Materials*, **2013**, 47, 779-788	6.7	35
93	On Mechanical Properties of Cellular Steel Solids With Shell-Like Periodic Architectures Fabricated by Selective Laser Sintering. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2019**, 141,	1.8	35
92	Challenges and Benefits of Utilizing Carbon Nanofilaments in Cementitious Materials. *Journal of Nanomaterials*, **2012**, 2012, 1-8	3.2	33
91	Time dependent response of architectured Neovius foams. *International Journal of Mechanical Sciences*, **2017**, 126, 106-119	5.5	29
90	Micromechanical finite element analysis of the effects of martensite morphology on the overall mechanical behavior of dual phase steel. *International Journal of Solids and Structures*, **2017**, 104-105, 8-24	3.1	29
89	Application of a large deformation nonlinear-viscoelastic viscoplastic viscodamage constitutive model to polymers and their composites. *International Journal of Damage Mechanics*, **2015**, 24, 198-244	3	28
88	Microstructural modeling of asphalt concrete using a coupled moisture-mechanical constitutive relationship. *International Journal of Solids and Structures*, **2014**, 51, 4260-4279	3.1	28
87	Modeling of elastoplastic behavior of stainless-steel/bronze interpenetrating phase composites with damage evolution. *International Journal of Plasticity*, **2014**, 61, 94-111	7.6	28
86	Mechanical Response of 3D Printed Bending-Dominated Ligament-Based Triply Periodic Cellular Polymeric Solids. *Journal of Materials Engineering and Performance*, **2019**, 28, 2316-2326	1.6	26
85	Mesomechanical modeling of the thermo-viscoelastic, thermo-viscoplastic, and thermo-viscodamage response of asphalt concrete. *International Journal of Advances in Engineering Sciences and Applied Mathematics*, **2011**, 3, 14-33	0.6	26

84	Microstructural modeling of dual phase steel using a higher-order gradient plasticity□damage model. *International Journal of Solids and Structures*, **2015**, 58, 178-189	3.1	25
83	Quasi-static and dynamic compressive behaviour of sheet TPMS cellular structures. *Composite Structures*, **2021**, 266, 113801	5.3	25
82	Micromechanical theoretical and computational modeling of energy dissipation due to nonlinear vibration of hard ceramic coatings with microstructural recursive faults. *International Journal of Solids and Structures*, **2010**, 47, 2131-2142	3.1	23
81	Nonlocal Gradient-Dependent Thermodynamics for Modeling Scale-Dependent Plasticity. *International Journal for Multiscale Computational Engineering*, **2007**, 5, 295-323	2.4	23
80	Continuum Coupled Moisture□Mechanical Damage Model for Asphalt Concrete. *Transportation Research Record*, **2013**, 2372, 72-82	1.7	22
79	Three-Dimensional Microstructural Modeling of Asphalt Concrete by Use of X-Ray Computed Tomography. *Transportation Research Record*, **2013**, 2373, 63-70	1.7	22
78	Finite element implementation and application of a cohesive zone damage-healing model for self-healing materials. *Engineering Fracture Mechanics*, **2016**, 163, 1-22	4.2	22
77	MSLattice: A free software for generating uniform and graded lattices based on triply periodic minimal surfaces. *Material Design and Processing Communications*, **2020**, e205	0.9	21
76	Computational modeling of the effect of equiaxed heterogeneous microstructures on strength and ductility of dual phase steels. *Computational Materials Science*, **2015**, 103, 20-37	3.2	20
75	Microstructural characterization and thermomechanical behavior of additively manufactured AlSi10Mg sheet cellular materials. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 791, 139714	5.3	19
74	Processing and property investigation of high-density carbon nanostructured papers with superior conductive and mechanical properties. *Diamond and Related Materials*, **2016**, 68, 109-117	3.5	19
73	Cyclic Hardening-Relaxation Viscoplasticity Model for Asphalt Concrete Materials. *Journal of Engineering Mechanics - ASCE*, **2013**, 139, 832-847	2.4	18
72	Thermodynamic-based cohesive zone healing model for self-healing materials. *Mechanics Research Communications*, **2015**, 70, 102-113	2.2	18
71	Constitutive Modeling and Simulation of Perforation of Targets by Projectiles. *AIAA Journal*, **2008**, 46, 304-316	2.1	17
70	Forced Convection Computational Fluid Dynamics Analysis of Architected and Three-Dimensional Printable Heat Sinks Based on Triply Periodic Minimal Surfaces. *Journal of Thermal Science and Engineering Applications*, **2021**, 13,	1.9	17
69	Three-dimensional microstructural modelling of coupled moisture□mechanical response of asphalt concrete. *International Journal of Pavement Engineering*, **2015**, 16, 445-466	2.6	15
68	Design and prototyping soft□rigid tendon-driven modular grippers using interpenetrating phase composites materials. *International Journal of Robotics Research*, **2020**, 39, 1635-1646	5.7	15
67	Compression and buckling of microarchitectured Neovius-lattice. *Extreme Mechanics Letters*, **2020**, 37, 100688	3.9	15

66	Effect of Nanotube Geometry on the Strength and Dispersion of CNT-Cement Composites. *Journal of Nanomaterials*, **2017**, 2017, 1-15	3.2	13
65	On the small and finite deformation thermo-elasto-viscoplasticity theory for strain localization problems. *European Journal of Computational Mechanics*, **2006**, 15, 945-987	0.5	13
64	Nano-Mechanical Characterization of Mastic, Aggregate, and Interfacial Zone in Asphalt Composites. *Journal of Testing and Evaluation*, **2013**, 41, 20120178	1	13
63	Novel static mixers based on triply periodic minimal surface (TPMS) architectures. *Journal of Environmental Chemical Engineering*, **2020**, 8, 104289	6.8	13
62	Strength optimisation of mortar with CNTs and nanoclays. *Proceedings of the Institution of Civil Engineers: Structures and Buildings*, **2016**, 169, 340-356	0.9	12
61	The effects of flue-wall design modifications on combustion and flow characteristics of an aluminum anode baking furnace-CFD modeling. *Applied Energy*, **2018**, 230, 207-219	10.7	12
60	Three-Dimensional Microstructural Modeling Framework for Dense-Graded Asphalt Concrete Using a Coupled Viscoelastic, Viscoplastic, and Viscodamage Model. *Journal of Materials in Civil Engineering*, **2014**, 26, 607-621	3	12
59	Prediction of Micro and Nano Indentation Size Effects from Spherical Indenters. *Mechanics of Advanced Materials and Structures*, **2012**, 19, 119-128	1.8	12
58	Effective Anisotropic Elastic and Plastic Yield Properties of Periodic Foams Derived from Triply Periodic Schoen's I-WP Minimal Surface. *Journal of Engineering Mechanics - ASCE*, **2020**, 146, 04020030	2.4	11
57	Modeling Time and Frequency Domain Viscoelastic Behavior of Architectured Foams. *Journal of Engineering Mechanics - ASCE*, **2018**, 144, 04018029	2.4	11
56	Mesomechanical Modeling of Polymer/Clay Nanocomposites Using a Viscoelastic-Viscoplastic-Viscodamage Constitutive Model. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2011**, 133,	1.8	11
55	Mechanical behavior of polymeric selective laser sintered ligament and sheet based lattices of triply periodic minimal surface architectures. *Materials and Design*, **2020**, 196, 109100	8.1	11
54	Predicting mesh-independent ballistic limits for heterogeneous targets by a nonlocal damage computational framework. *Composites Part B: Engineering*, **2009**, 40, 495-510	10	10
53	Modeling the Particle Size and Interfacial Hardening Effects in Metal Matrix Composites with Dispersed Particles at Decreasing Microstructural Length Scales. *International Journal for Multiscale Computational Engineering*, **2009**, 7, 329-350	2.4	10
52	Constitutive Modeling of the Coupled Moisture-Mechanical Response of Particulate Composite Materials with Application to Asphalt Concrete. *Journal of Engineering Mechanics - ASCE*, **2015**, 141, 04014120	2.4	9
51	A thermodynamic framework for constitutive modeling of coupled moisture-mechanical induced damage in partially saturated viscous porous media. *Mechanics of Materials*, **2016**, 96, 53-75	3.3	9
50	A thermodynamically consistent framework to derive local/nonlocal generalized nonassociative plasticity/viscoplasticity theories. *International Journal of Plasticity*, **2018**, 110, 19-37	7.6	9
49	Computational Modelling of Fracture Propagation in Rocks Using a Coupled Elastic-Plasticity-Damage Model. *Mathematical Problems in Engineering*, **2016**, 2016, 1-15	1.1	9

48	Thermo-Electro-Mechanical Properties of Interpenetrating Phase Composites with Periodic Architectured Reinforcements. *Advanced Structured Materials*, **2015**, 1-18	0.6	8
47	On the numerical implementation of the higher-order strain gradient-dependent plasticity theory and its non-classical boundary conditions. *Finite Elements in Analysis and Design*, **2015**, 93, 50-69	2.2	8
46	Modeling the interfacial effect on the yield strength and flow stress of thin metal films on substrates. *Mechanics Research Communications*, **2008**, 35, 65-72	2.2	8
45	Determination of the Material Intrinsic Length Scale of Gradient Plasticity Theory. *Solid Mechanics and Its Applications*, **2004**, 167-174	0.4	8
44	Calibration and Validation of a Comprehensive Constitutive Model for Asphalt Mixtures. *Transportation Research Record*, **2014**, 2447, 13-22	1.7	7
43	Two Dimensional CFD Simulations of a Flue-wall in the Anode Baking Furnace for Aluminum Production. *Energy Procedia*, **2017**, 105, 5134-5139	2.3	7
42	Viscoelastic properties of architected foams based on the Schoen IWP triply periodic minimal surface. *Mechanics of Advanced Materials and Structures*, **2020**, 27, 775-788	1.8	7
41	Coupled Interfacial Energy and Temperature Effects on Size-Dependent Yield Strength and Strain Hardening of Small Metallic Volumes. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2011**, 133,	1.8	6
40	Modeling Interparticle Size Effect on Deformation Behavior of Metal Matrix Composites by a Gradient Enhanced Plasticity Model. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2011**, 133,	1.8	6
39	Antiscaling 3D printed feed spacers via facile nanoparticle coating for membrane distillation. *Water Research*, **2021**, 189, 116649	12.5	6
38	Effect of the Realistic Tire Contact Pressure on the Rutting Performance of Asphaltic Concrete Pavements. *KSCE Journal of Civil Engineering*, **2018**, 22, 2138-2146	1.9	6
37	Dislocation-based model for predicting size-scale effects on the micro and nano indentation hardness of metallic materials. *International Journal of Materials and Structural Integrity*, **2010**, 4, 251	0.3	5
36	Mechanical properties of additively-manufactured sheet-based gyroidal stochastic cellular materials. *Additive Manufacturing*, **2021**, 48, 102418	6.1	5
35	Impacts of feed spacer design on UF membrane cleaning efficiency. *Journal of Membrane Science*, **2020**, 616, 118571	9.6	5
34	Comparative assessment of the effects of 3D printed feed spacers on process performance in MD systems. *Desalination*, **2021**, 503, 114940	10.3	5
33	The Effect of Fiber Geometry and Interfacial Properties on the Elastic Properties of Cementitious Nanocomposite Material. *Journal of Nanomaterials*, **2015**, 2015, 1-14	3.2	4
32	Investigating the flue-wall deformation effects on performance characteristics of an open-top aluminum anode baking furnace. *Applied Energy*, **2018**, 231, 1033-1049	10.7	4
31	Numerical Investigation of Turbulent Diffusion Flame in the Aluminum Anode Baking Furnace Employing Presumed PDF. *Energy Procedia*, **2017**, 142, 4157-4162	2.3	3

30	Experimental Prediction of the Elastic Properties of Nanocomposite Cementitious Materials Based on Nanoindentation Measurements. *Science of Advanced Materials*, **2017**, 9, 830-846	2.3	3
29	Multi-objective Optimization of Aluminum Anode Baking Process Employing a Response Surface Methodology. *Energy Procedia*, **2019**, 158, 5541-5550	2.3	2
28	Microstructural Characterization and Thermomechanical Behavior of Additively Manufactured AlSi10Mg Material and Architected Cellular Structures. *Minerals, Metals and Materials Series*, **2020**, 165-173	0.3	2
27	Constitutive Modeling of Cyclic Viscoplastic Response of Asphalt Concrete. *Transportation Research Record*, **2013**, 2373, 22-33	1.7	2
26	Constitutive Modeling of Fatigue Damage Response of Asphalt Concrete Materials. *Transportation Research Record*, **2013**, 2373, 11-21	1.7	2
25	Thermodynamic framework for coupling of elasto-viscoplasticity and nonlocal anisotropic damage for microelectronics solder alloys. *International Journal of Materials and Structural Integrity*, **2008**, 2, 106	0.3	2
24	A Micro-Damage Model for High Velocity Impact Using Combined Viscosity and Gradient Localization Limiters **2005**, 123		2
23	The Impact of Critical Operational Parameters on the Performance of the Aluminum Anode Baking Furnace. *Journal of Energy Resources Technology, Transactions of the ASME*, **2021**, 143,	2.6	2
22	Highly electrically conductive carbon nanostructured mats fabricated out of aligned CNTs-based flakes. *Diamond and Related Materials*, **2020**, 106, 107849	3.5	2
21	Micromechanical Finite Element Analysis of the Effects of Martensite Particle Size and Ferrite Grain Boundaries on the Overall Mechanical Behavior of Dual Phase Steel. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2017**, 139,	1.8	1
20	Cohesive Zone Damage-Healing Model for Self-Healing Materials. *Applied Mechanics and Materials*, **2015**, 784, 111-118	0.3	1
19	The Effect of Interfacial Transition Zone Properties on the Elastic Properties of Cementitious Nanocomposite Materials. *Journal of Nanomaterials*, **2015**, 2015, 1-13	3.2	1
18	NONLOCAL GRADIENT-DEPENDENT CONSTITUTIVE MODEL FOR SIMULATING LOCALIZED DAMAGE AND FRACTURE OF VISCOPLASTIC SOLIDS UNDER HIGH-ENERGY IMPACTS. *International Journal for Multiscale Computational Engineering*, **2012**, 10, 503-526	2.4	1
17	Thermo-mechanical Viscoelastic, Viscoplastic, and Viscodamage Model for Polymers and Polymer Composites **2011**,		1
16	On the thermodynamics of higher-order gradient plasticity for size-effects at the micron and submicron length scales. *International Journal of Materials and Product Technology*, **2009**, 34, 172	1	1
15	The effect of atomic force microscope probe size on indentation tests simulated using realistic surface forces. *International Journal of Materials and Structural Integrity*, **2010**, 4, 160	0.3	1
14	Modelling size effects in micro/nano-systems by including interfacial effects in a gradient plasticity framework. *International Journal of Materials and Structural Integrity*, **2010**, 4, 278	0.3	1
13	Scalable synthesis, characterization and testing of 3D architected gyroid graphene lattices from additively manufactured templates. *Journal of Micromechanics and Molecular Physics*,1-12	1.4	1

12	Effective stiffness, strength, buckling and anisotropy of foams based on nine unique triple periodic minimal surfaces. *International Journal of Solids and Structures*, **2022**, 238, 111418	3.1	1
11	Fluid flow and heat transfer of porous TPMS architected heat sinks in free convection environment. *Case Studies in Thermal Engineering*, **2022**, 33, 101944	5.6	1
10	Flexural Properties of Functionally Graded Additively Manufactured AlSi10Mg TPMS Latticed-beams. *International Journal of Mechanical Sciences*, **2022**, 107293	5.5	1
9	A Dislocation Based Gradient Plasticity Theory With Applications to Size Effects **2005**, 69		0
8	On Stiffness, Strength, Anisotropy, and Buckling of 30 Strut-Based Lattices with Cubic Crystal Structures. *Advanced Engineering Materials*,2101379	3.5	0
7	An optimization case study to design additively manufacturable porous heat sinks based on triply periodic minimal surface (TPMS) lattices. *Case Studies in Thermal Engineering*, **2022**, 102161	5.6	0
6	Microstructural Modeling of Dual Phase Steel Using a Higher-Order Gradient Plasticity-Damage Model. *Applied Mechanics and Materials*, **2015**, 784, 119-128	0.3	
5	Nonlocal Microdamage Constitutive Model for High Energy Impacts. *Conference Proceedings of the Society for Experimental Mechanics*, **2011**, 59-66	0.3	
4	Micro-Damage Constitutive Modeling and Numerical Simulation of Perforation of Targets by Projectiles **2007**, 549		
3	Modeling the Size and Interface Effects in Thin Metal Film-Substrate Systems Using the Strain Gradient Plasticity **2007**, 1023		
2	A Modified Gradient Plasticity Theory for Micro-Bending and Micro-Torsion Size Effects **2004**, 233		
1	Comparison of the Strain Localization Approaches: Viscoplasticity Theory and Gradient Dependent Theory **2005**, 79		