

Abu Al-Rub, Rashid K

List of Publications by Year in descending order

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165
papers

9,938
citations

24978

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167
all docs

167
docs citations

167
times ranked

5216
citing authors

#	ARTICLE	IF	CITATIONS
1	Meso-scale computational modeling of the plastic-damage response of cementitious composites. <i>Cement and Concrete Research</i> , 2011, 41, 339-358.	4.6	384
2	Multifunctional Mechanical Metamaterials Based on Triply Periodic Minimal Surface Lattices. <i>Advanced Engineering Materials</i> , 2019, 21, 1900524.	1.6	353
3	Topology-mechanical property relationship of 3D printed strut, skeletal, and sheet based periodic metallic cellular materials. <i>Additive Manufacturing</i> , 2018, 19, 167-183.	1.7	345
4	Analytical and experimental determination of the material intrinsic length scale of strain gradient plasticity theory from micro- and nano-indentation experiments. <i>International Journal of Plasticity</i> , 2004, 20, 1139-1182.	4.1	305
5	On the aspect ratio effect of multi-walled carbon nanotube reinforcements on the mechanical properties of cementitious nanocomposites. <i>Construction and Building Materials</i> , 2012, 35, 647-655.	3.2	294
6	Mechanical properties of 3D printed polymeric cellular materials with triply periodic minimal surface architectures. <i>Materials and Design</i> , 2017, 122, 255-267.	3.3	268
7	Carbon Nanotubes and Carbon Nanofibers for Enhancing the Mechanical Properties of Nanocomposite Cementitious Materials. <i>Journal of Materials in Civil Engineering</i> , 2011, 23, 1028-1035.	1.3	266
8	A plasticity and anisotropic damage model for plain concrete. <i>International Journal of Plasticity</i> , 2007, 23, 1874-1900.	4.1	260
9	Mechanical properties of 3D printed polymeric Gyroid cellular structures: Experimental and finite element study. <i>Materials and Design</i> , 2019, 165, 107597.	3.3	246
10	On the coupling of anisotropic damage and plasticity models for ductile materials. <i>International Journal of Solids and Structures</i> , 2003, 40, 2611-2643.	1.3	236
11	Gradient plasticity theory with a variable length scale parameter. <i>International Journal of Solids and Structures</i> , 2005, 42, 3998-4029.	1.3	235
12	Functionally graded and multi-morphology sheet TPMS lattices: Design, manufacturing, and mechanical properties. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 102, 103520.	1.5	213
13	Effective conductivities and elastic moduli of novel foams with triply periodic minimal surfaces. <i>Mechanics of Materials</i> , 2016, 95, 102-115.	1.7	197
14	Thermodynamic framework for coupling of non-local viscoplasticity and non-local anisotropic viscodamage for dynamic localization problems using gradient theory. <i>International Journal of Plasticity</i> , 2004, 20, 981-1038.	4.1	194
15	A thermo-viscoelastic-viscoplastic-viscodamage constitutive model for asphaltic materials. <i>International Journal of Solids and Structures</i> , 2011, 48, 191-207.	1.3	173
16	A physically based gradient plasticity theory. <i>International Journal of Plasticity</i> , 2006, 22, 654-684.	4.1	170
17	A continuum damage mechanics framework for modeling micro-damage healing. <i>International Journal of Solids and Structures</i> , 2012, 49, 492-513.	1.3	160
18	A micro-damage healing model that improves prediction of fatigue life in asphalt mixes. <i>International Journal of Engineering Science</i> , 2010, 48, 966-990.	2.7	154

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19	Microarchitected Stretching-Dominated Mechanical Metamaterials with Minimal Surface Topologies. <i>Advanced Engineering Materials</i> , 2018, 20, 1800029.	1.6	138
20	3D printed triply periodic minimal surfaces as spacers for enhanced heat and mass transfer in membrane distillation. <i>Desalination</i> , 2018, 443, 256-271.	4.0	135
21	Stiffness and yield strength of architected foams based on the Schwarz Primitive triply periodic minimal surface. <i>International Journal of Plasticity</i> , 2017, 95, 1-20.	4.1	131
22	3D printed feed spacers based on triply periodic minimal surfaces for flux enhancement and biofouling mitigation in RO and UF. <i>Desalination</i> , 2018, 425, 12-21.	4.0	122
23	Computational applications of a coupled plasticity-damage constitutive model for simulating plain concrete fracture. <i>Engineering Fracture Mechanics</i> , 2010, 77, 1577-1603.	2.0	121
24	Mechanical Properties of Nanocomposite Cement Incorporating Surface-Treated and Untreated Carbon Nanotubes and Carbon Nanofibers. <i>Journal of Nanomechanics & Micromechanics</i> , 2012, 2, 1-6.	1.4	121
25	Distribution of Carbon Nanofibers and Nanotubes in Cementitious Composites. <i>Transportation Research Record</i> , 2010, 2142, 89-95.	1.0	118
26	Mechanical properties of periodic interpenetrating phase composites with novel architected microstructures. <i>Composite Structures</i> , 2017, 176, 9-19.	3.1	109
27	Mechanical Properties of a New Type of Architected Interpenetrating Phase Composite Materials. <i>Advanced Materials Technologies</i> , 2017, 2, 1600235.	3.0	108
28	Quasi-static and dynamic compressive behaviour of sheet TPMS cellular structures. <i>Composite Structures</i> , 2021, 266, 113801.	3.1	104
29	A thermodynamic framework for constitutive modeling of time- and rate-dependent materials. Part I: Theory. <i>International Journal of Plasticity</i> , 2012, 34, 61-92.	4.1	102
30	Three-dimensional microstructural modeling of asphalt concrete using a unified viscoelastic-viscoplastic-viscodamage model. <i>Construction and Building Materials</i> , 2012, 28, 531-548.	3.2	95
31	Mechanical properties of 3D printed interpenetrating phase composites with novel architected 3D solid-sheet reinforcements. <i>Composites Part A: Applied Science and Manufacturing</i> , 2016, 84, 266-280.	3.8	95
32	Finite element prediction of effective elastic properties of interpenetrating phase composites with architected 3D sheet reinforcements. <i>International Journal of Solids and Structures</i> , 2016, 83, 169-182.	1.3	94
33	The effect of architecture on the mechanical properties of cellular structures based on the IWP minimal surface. <i>Journal of Materials Research</i> , 2018, 33, 343-359.	1.2	94
34	A thermodynamic based higher-order gradient theory for size dependent plasticity. <i>International Journal of Solids and Structures</i> , 2007, 44, 2888-2923.	1.3	88
35	Three-Dimensional Simulations of Asphalt Pavement Permanent Deformation Using a Nonlinear Viscoelastic and Viscoplastic Model. <i>Journal of Materials in Civil Engineering</i> , 2011, 23, 56-68.	1.3	88
36	A Finite Strain Plastic-damage Model for High Velocity Impact using Combined Viscosity and Gradient Localization Limiters: Part I - Theoretical Formulation. <i>International Journal of Damage Mechanics</i> , 2006, 15, 293-334.	2.4	87

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37	Prediction of micro and nanoindentation size effect from conical or pyramidal indentation. <i>Mechanics of Materials</i> , 2007, 39, 787-802.	1.7	85
38	Gradient-enhanced Coupled Plasticity-anisotropic Damage Model for Concrete Fracture: Computational Aspects and Applications. <i>International Journal of Damage Mechanics</i> , 2009, 18, 115-154.	2.4	84
39	Thermodynamic based model for the evolution equation of the backstress in cyclic plasticity. <i>International Journal of Plasticity</i> , 2003, 19, 2121-2147.	4.1	81
40	A direct finite element implementation of the gradient-dependent theory. <i>International Journal for Numerical Methods in Engineering</i> , 2005, 63, 603-629.	1.5	80
41	MSLattice: A free software for generating uniform and graded lattices based on triply periodic minimal surfaces. <i>Material Design and Processing Communications</i> , 2021, 3, e205.	0.5	80
42	A Finite Strain Plastic-damage Model for High Velocity Impacts using Combined Viscosity and Gradient Localization Limiters: Part II - Numerical Aspects and Simulations. <i>International Journal of Damage Mechanics</i> , 2006, 15, 335-373.	2.4	79
43	Micromechanical finite element predictions of a reduced coefficient of thermal expansion for 3D periodic architected interpenetrating phase composites. <i>Composite Structures</i> , 2015, 133, 85-97.	3.1	79
44	Additive manufacturing of architected catalytic ceramic substrates based on triply periodic minimal surfaces. <i>Journal of the American Ceramic Society</i> , 2019, 102, 6176-6193.	1.9	78
45	A modified viscoplastic model to predict the permanent deformation of asphaltic materials under cyclic-compression loading at high temperatures. <i>International Journal of Plasticity</i> , 2012, 35, 100-134.	4.1	77
46	A quantitative method for analyzing the dispersion and agglomeration of nano-particles in composite materials. <i>Composites Part B: Engineering</i> , 2011, 42, 1395-1403.	5.9	75
47	Constitutive modeling of fatigue damage response of asphalt concrete materials with consideration of micro-damage healing. <i>International Journal of Solids and Structures</i> , 2013, 50, 2901-2913.	1.3	75
48	Comparing finite element and constitutive modelling techniques for predicting rutting of asphalt pavements. <i>International Journal of Pavement Engineering</i> , 2012, 13, 322-338.	2.2	74
49	3D printed spacers for organic fouling mitigation in membrane distillation. <i>Journal of Membrane Science</i> , 2019, 581, 331-343.	4.1	73
50	Mechanistic-based constitutive modeling of oxidative aging in aging-susceptible materials and its effect on the damage potential of asphalt concrete. <i>Construction and Building Materials</i> , 2013, 41, 439-454.	3.2	72
51	Nature-inspired Lightweight Cellular Co-Continuous Composites with Architected Periodic Gyroidal Structures. <i>Advanced Engineering Materials</i> , 2018, 20, 1700549.	1.6	72
52	Thermodynamic-based model for coupling temperature-dependent viscoelastic, viscoplastic, and viscodamage constitutive behavior of asphalt mixtures. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2012, 36, 817-854.	1.7	70
53	Finite element predictions of effective multifunctional properties of interpenetrating phase composites with novel triply periodic solid shell architected reinforcements. <i>International Journal of Mechanical Sciences</i> , 2015, 92, 80-89.	3.6	70
54	A thermodynamic framework for constitutive modeling of time- and rate-dependent materials. Part II: Numerical aspects and application to asphalt concrete. <i>International Journal of Plasticity</i> , 2012, 35, 67-99.	4.1	69

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55	Forced Convection Computational Fluid Dynamics Analysis of Architected and Three-Dimensional Printable Heat Sinks Based on Triply Periodic Minimal Surfaces. <i>Journal of Thermal Science and Engineering Applications</i> , 2021, 13, .	0.8	69
56	Mass transfer analysis of ultrafiltration using spacers based on triply periodic minimal surfaces: Effects of spacer design, directionality and voidage. <i>Journal of Membrane Science</i> , 2018, 561, 89-98.	4.1	64
57	3D printed spacers based on TPMS architectures for scaling control in membrane distillation. <i>Journal of Membrane Science</i> , 2019, 581, 38-49.	4.1	62
58	Mechanical behavior of polymeric selective laser sintered ligament and sheet based lattices of triply periodic minimal surface architectures. <i>Materials and Design</i> , 2020, 196, 109100.	3.3	61
59	Interfacial gradient plasticity governs scale-dependent yield strength and strain hardening rates in micro/nano structured metals. <i>International Journal of Plasticity</i> , 2008, 24, 1277-1306.	4.1	58
60	Dispersion quantification of inclusions in composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2011, 42, 75-83.	3.8	56
61	On Mechanical Properties of Cellular Steel Solids With Shell-Like Periodic Architectures Fabricated by Selective Laser Sintering. <i>Journal of Engineering Materials and Technology</i> , Transactions of the ASME, 2019, 141, .	0.8	56
62	Mechanical Response of 3D Printed Bending-Dominated Ligament-Based Triply Periodic Cellular Polymeric Solids. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 2316-2326.	1.2	55
63	Fabrication of Freestanding Sheets of Multiwalled Carbon Nanotubes (Buckypapers) for Vanadium Redox Flow Batteries and Effects of Fabrication Variables on Electrochemical Performance. <i>Electrochimica Acta</i> , 2017, 230, 222-235.	2.6	53
64	Flexural properties of functionally graded additively manufactured AlSi10Mg TPMS latticed-beams. <i>International Journal of Mechanical Sciences</i> , 2022, 223, 107293.	3.6	52
65	Effect of mixing duration on flexural strength of multi walled carbon nanotubes cementitious composites. <i>Construction and Building Materials</i> , 2016, 126, 586-598.	3.2	49
66	Microstructural characterization and thermomechanical behavior of additively manufactured AlSi10Mg sheet cellular materials. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 791, 139714.	2.6	47
67	Determination of the Material Intrinsic Length Scale of Gradient Plasticity Theory. <i>International Journal for Multiscale Computational Engineering</i> , 2004, 2, 377-400.	0.8	47
68	Time dependent response of architected Neovius foams. <i>International Journal of Mechanical Sciences</i> , 2017, 126, 106-119.	3.6	45
69	Design and prototyping soft-rigid tendon-driven modular grippers using interpenetrating phase composites materials. <i>International Journal of Robotics Research</i> , 2020, 39, 1635-1646.	5.8	45
70	Electrical conductivity of 3D periodic architected interpenetrating phase composites with carbon nanostructured-epoxy reinforcements. <i>Composites Science and Technology</i> , 2015, 118, 127-134.	3.8	44
71	Challenges and Benefits of Utilizing Carbon Nanofilaments in Cementitious Materials. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-8.	1.5	42
72	Novel static mixers based on triply periodic minimal surface (TPMS) architectures. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104289.	3.3	42

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73	Numerical implementation and validation of a nonlinear viscoelastic and viscoplastic model for asphalt mixes. <i>International Journal of Pavement Engineering</i> , 2011, 12, 433-447.	2.2	41
74	Effect of confinement pressure on the nonlinear-viscoelastic response of asphalt concrete at high temperatures. <i>Construction and Building Materials</i> , 2013, 47, 779-788.	3.2	41
75	Modeling of elastoplastic behavior of stainless-steel/bronze interpenetrating phase composites with damage evolution. <i>International Journal of Plasticity</i> , 2014, 61, 94-111.	4.1	38
76	Application of a large deformation nonlinear-viscoelastic viscoplastic viscodamage constitutive model to polymers and their composites. <i>International Journal of Damage Mechanics</i> , 2015, 24, 198-244.	2.4	38
77	Micromechanical finite element analysis of the effects of martensite morphology on the overall mechanical behavior of dual phase steel. <i>International Journal of Solids and Structures</i> , 2017, 104-105, 8-24.	1.3	34
78	Microstructural modeling of asphalt concrete using a coupled moisture-mechanical constitutive relationship. <i>International Journal of Solids and Structures</i> , 2014, 51, 4260-4279.	1.3	33
79	Heat transfer effectiveness characteristics maps for additively manufactured TPMS compact heat exchangers. <i>Energy Storage and Saving</i> , 2022, 1, 153-161.	3.0	32
80	Mesomechanical modeling of the thermo-viscoelastic, thermo-viscoplastic, and thermo-viscodamage response of asphalt concrete. <i>International Journal of Advances in Engineering Sciences and Applied Mathematics</i> , 2011, 3, 14-33.	0.7	31
81	Effective Anisotropic Elastic and Plastic Yield Properties of Periodic Foams Derived from Triply Periodic Schoen's I-WP Minimal Surface. <i>Journal of Engineering Mechanics - ASCE</i> , 2020, 146, .	1.6	31
82	Fluid flow and heat transfer of porous TPMS architected heat sinks in free convection environment. <i>Case Studies in Thermal Engineering</i> , 2022, 33, 101944.	2.8	30
83	Microstructural modeling of dual phase steel using a higher-order gradient plasticity-damage model. <i>International Journal of Solids and Structures</i> , 2015, 58, 178-189.	1.3	29
84	Micromechanical theoretical and computational modeling of energy dissipation due to nonlinear vibration of hard ceramic coatings with microstructural recursive faults. <i>International Journal of Solids and Structures</i> , 2010, 47, 2131-2142.	1.3	28
85	Three-Dimensional Microstructural Modeling of Asphalt Concrete by Use of X-Ray Computed Tomography. <i>Transportation Research Record</i> , 2013, 2373, 63-70.	1.0	28
86	Compression and buckling of microarchitected Neovius-lattice. <i>Extreme Mechanics Letters</i> , 2020, 37, 100688.	2.0	27
87	Effect of Nanotube Geometry on the Strength and Dispersion of CNT-Cement Composites. <i>Journal of Nanomaterials</i> , 2017, 2017, 1-15.	1.5	26
88	Nonlocal Gradient-Dependent Thermodynamics for Modeling Scale-Dependent Plasticity. <i>International Journal for Multiscale Computational Engineering</i> , 2007, 5, 295-323.	0.8	26
89	Continuum Coupled Moisture-Mechanical Damage Model for Asphalt Concrete. <i>Transportation Research Record</i> , 2013, 2372, 72-82.	1.0	25
90	Computational modeling of the effect of equiaxed heterogeneous microstructures on strength and ductility of dual phase steels. <i>Computational Materials Science</i> , 2015, 103, 20-37.	1.4	25

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91	Finite element implementation and application of a cohesive zone damage-healing model for self-healing materials. <i>Engineering Fracture Mechanics</i> , 2016, 163, 1-22.	2.0	25
92	Antiscaling 3D printed feed spacers via facile nanoparticle coating for membrane distillation. <i>Water Research</i> , 2021, 189, 116649.	5.3	25
93	Processing and property investigation of high-density carbon nanostructured papers with superior conductive and mechanical properties. <i>Diamond and Related Materials</i> , 2016, 68, 109-117.	1.8	24
94	Effective stiffness, strength, buckling and anisotropy of foams based on nine unique triple periodic minimal surfaces. <i>International Journal of Solids and Structures</i> , 2022, 238, 111418.	1.3	24
95	Determination of the Material Intrinsic Length Scale of Gradient Plasticity Theory. <i>Solid Mechanics and Its Applications</i> , 2004, , 167-174.	0.1	23
96	Cyclic Hardening-Relaxation Viscoplasticity Model for Asphalt Concrete Materials. <i>Journal of Engineering Mechanics - ASCE</i> , 2013, 139, 832-847.	1.6	21
97	Thermodynamic-based cohesive zone healing model for self-healing materials. <i>Mechanics Research Communications</i> , 2015, 70, 102-113.	1.0	21
98	On Stiffness, Strength, Anisotropy, and Buckling of 3D Strut-Based Lattices with Cubic Crystal Structures. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	21
99	Constitutive Modeling and Simulation of Perforation of Targets by Projectiles. <i>AIAA Journal</i> , 2008, 46, 304-316.	1.5	19
100	Three-dimensional microstructural modelling of coupled moisture-mechanical response of asphalt concrete. <i>International Journal of Pavement Engineering</i> , 2015, 16, 445-466.	2.2	19
101	Mechanical properties of additively-manufactured sheet-based gyroidal stochastic cellular materials. <i>Additive Manufacturing</i> , 2021, 48, 102418.	1.7	18
102	The effects of flue-wall design modifications on combustion and flow characteristics of an aluminum anode baking furnace-CFD modeling. <i>Applied Energy</i> , 2018, 230, 207-219.	5.1	17
103	Comparative assessment of the effects of 3D printed feed spacers on process performance in MD systems. <i>Desalination</i> , 2021, 503, 114940.	4.0	17
104	Modeling Time and Frequency Domain Viscoelastic Behavior of Architected Foams. <i>Journal of Engineering Mechanics - ASCE</i> , 2018, 144, 04018029.	1.6	16
105	A thermodynamically consistent framework to derive local/nonlocal generalized nonassociative plasticity/viscoplasticity theories. <i>International Journal of Plasticity</i> , 2018, 110, 19-37.	4.1	16
106	Viscoelastic properties of architected foams based on the Schoen IWP triply periodic minimal surface. <i>Mechanics of Advanced Materials and Structures</i> , 2020, 27, 775-788.	1.5	16
107	Prediction of Micro and Nano Indentation Size Effects from Spherical Indenters. <i>Mechanics of Advanced Materials and Structures</i> , 2012, 19, 119-128.	1.5	15
108	A thermodynamic framework for constitutive modeling of coupled moisture-mechanical induced damage in partially saturated viscous porous media. <i>Mechanics of Materials</i> , 2016, 96, 53-75.	1.7	15

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109	Nano-Mechanical Characterization of Mastic, Aggregate, and Interfacial Zone in Asphalt Composites. <i>Journal of Testing and Evaluation</i> , 2013, 41, 924-932.	0.4	15
110	On the small and finite deformation thermo-elasto-viscoplasticity theory for strain localization problems. <i>European Journal of Computational Mechanics</i> , 2006, 15, 945-987.	0.6	14
111	Thermo-Electro-Mechanical Properties of Interpenetrating Phase Composites with Periodic Architected Reinforcements. <i>Advanced Structured Materials</i> , 2015, , 1-18.	0.3	14
112	Strength optimisation of mortar with CNTs and nanoclays. <i>Proceedings of the Institution of Civil Engineers: Structures and Buildings</i> , 2016, 169, 340-356.	0.4	14
113	Impacts of feed spacer design on UF membrane cleaning efficiency. <i>Journal of Membrane Science</i> , 2020, 616, 118571.	4.1	14
114	An optimization case study to design additively manufacturable porous heat sinks based on triply periodic minimal surface (TPMS) lattices. <i>Case Studies in Thermal Engineering</i> , 2022, 36, 102161.	2.8	14
115	Mesomechanical Modeling of Polymer/Clay Nanocomposites Using a Viscoelastic-Viscoplastic-Viscodamage Constitutive Model. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2011, 133, .	0.8	13
116	Three-Dimensional Microstructural Modeling Framework for Dense-Graded Asphalt Concrete Using a Coupled Viscoelastic, Viscoplastic, and Viscodamage Model. <i>Journal of Materials in Civil Engineering</i> , 2014, 26, 607-621.	1.3	13
117	Constitutive Modeling of the Coupled Moisture-Mechanical Response of Particulate Composite Materials with Application to Asphalt Concrete. <i>Journal of Engineering Mechanics - ASCE</i> , 2015, 141, .	1.6	13
118	Predicting mesh-independent ballistic limits for heterogeneous targets by a nonlocal damage computational framework. <i>Composites Part B: Engineering</i> , 2009, 40, 495-510.	5.9	12
119	Computational Modelling of Fracture Propagation in Rocks Using a Coupled Elastic-Plasticity-Damage Model. <i>Mathematical Problems in Engineering</i> , 2016, 2016, 1-15.	0.6	11
120	Effect of the Realistic Tire Contact Pressure on the Rutting Performance of Asphaltic Concrete Pavements. <i>KSCE Journal of Civil Engineering</i> , 2018, 22, 2138-2146.	0.9	11
121	Modeling the Particle Size and Interfacial Hardening Effects in Metal Matrix Composites with Dispersed Particles at Decreasing Microstructural Length Scales. <i>International Journal for Multiscale Computational Engineering</i> , 2009, 7, 329-350.	0.8	10
122	Modeling the interfacial effect on the yield strength and flow stress of thin metal films on substrates. <i>Mechanics Research Communications</i> , 2008, 35, 65-72.	1.0	9
123	On the numerical implementation of the higher-order strain gradient-dependent plasticity theory and its non-classical boundary conditions. <i>Finite Elements in Analysis and Design</i> , 2015, 93, 50-69.	1.7	8
124	Two Dimensional CFD Simulations of a Flue-wall in the Anode Baking Furnace for Aluminum Production. <i>Energy Procedia</i> , 2017, 105, 5134-5139.	1.8	8
125	Engineering 3D Architected Gyroid MXene Scaffolds for Ultrasensitive Micromechanical Sensing. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	8
126	Calibration and Validation of a Comprehensive Constitutive Model for Asphalt Mixtures. <i>Transportation Research Record</i> , 2014, 2447, 13-22.	1.0	7

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127	The Impact of Critical Operational Parameters on the Performance of the Aluminum Anode Baking Furnace. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2021, 143, .	1.4	7
128	Dislocation-based model for predicting size-scale effects on the micro and nano indentation hardness of metallic materials. <i>International Journal of Materials and Structural Integrity</i> , 2010, 4, 251.	0.1	6
129	Coupled Interfacial Energy and Temperature Effects on Size-Dependent Yield Strength and Strain Hardening of Small Metallic Volumes. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2011, 133, .	0.8	6
130	Modeling Interparticle Size Effect on Deformation Behavior of Metal Matrix Composites by a Gradient Enhanced Plasticity Model. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2011, 133, .	0.8	6
131	Investigating the flue-wall deformation effects on performance characteristics of an open-top aluminum anode baking furnace. <i>Applied Energy</i> , 2018, 231, 1033-1049.	5.1	5
132	Mechanical Behavior of Shape-Memory Alloy Triply Periodic Minimal Surface Foam Based on Schwarz Primitive. <i>Journal of Engineering Mechanics - ASCE</i> , 2022, 148, .	1.6	5
133	Thermodynamic framework for coupling of elasto-viscoplasticity and nonlocal anisotropic damage for microelectronics solder alloys. <i>International Journal of Materials and Structural Integrity</i> , 2008, 2, 106.	0.1	4
134	On the thermodynamics of higher-order gradient plasticity for size-effects at the micron and submicron length scales. <i>International Journal of Materials and Product Technology</i> , 2009, 34, 172.	0.1	4
135	The Effect of Fiber Geometry and Interfacial Properties on the Elastic Properties of Cementitious Nanocomposite Material. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-14.	1.5	4
136	Micromechanical Finite Element Analysis of the Effects of Martensite Particle Size and Ferrite Grain Boundaries on the Overall Mechanical Behavior of Dual Phase Steel. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2017, 139, .	0.8	4
137	Multi-objective Optimization of Aluminum Anode Baking Process Employing a Response Surface Methodology. <i>Energy Procedia</i> , 2019, 158, 5541-5550.	1.8	4
138	Quantification of Plasticity and Damage in Berea Sandstone through Monotonic and Cyclic Triaxial Loading under High-Confinement Pressures. <i>Journal of Materials in Civil Engineering</i> , 2022, 34, .	1.3	4
139	Constitutive Modeling of Fatigue Damage Response of Asphalt Concrete Materials. <i>Transportation Research Record</i> , 2013, 2373, 11-21.	1.0	3
140	Numerical Investigation of Turbulent Diffusion Flame in the Aluminum Anode Baking Furnace Employing Presumed PDF. <i>Energy Procedia</i> , 2017, 142, 4157-4162.	1.8	3
141	Highly electrically conductive carbon nanostructured mats fabricated out of aligned CNTs-based flakes. <i>Diamond and Related Materials</i> , 2020, 106, 107849.	1.8	3
142	Experimental Prediction of the Elastic Properties of Nanocomposite Cementitious Materials Based on Nanoindentation Measurements. <i>Science of Advanced Materials</i> , 2017, 9, 830-846.	0.1	3
143	A Micro-Damage Model for High Velocity Impact Using Combined Viscosity and Gradient Localization Limiters. , 2005, , 123.		2
144	Constitutive Modeling of Cyclic Viscoplastic Response of Asphalt Concrete. <i>Transportation Research Record</i> , 2013, 2373, 22-33.	1.0	2

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145	The Effect of Interfacial Transition Zone Properties on the Elastic Properties of Cementitious Nanocomposite Materials. Journal of Nanomaterials, 2015, 2015, 1-13.	1.5	2
146	Cohesive Zone Damage-Healing Model for Self-Healing Materials. Applied Mechanics and Materials, 0, 784, 111-118.	0.2	2
147	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
148	Scalable synthesis, characterization and testing of 3D architected gyroid graphene lattices from additively manufactured templates. Journal of Micromechanics and Molecular Physics, 2021, 06, 13-24.	0.7	2
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