

Behrad Koohbor

List of Publications by Year in descending order

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79
papers

1,275
citations

361413

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docs citations

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times ranked

931
citing authors

#	ARTICLE	IF	CITATIONS
1	The impact of alkali-ion intercalation on redox chemistry and mechanical deformations: Case study on intercalation of Li, Na, and K ions into FePO ₄ cathode. <i>Electrochemical Science Advances</i> , 2022, 2, e2100106.	2.8	7
2	Density-Graded Cellular Solids: Mechanics, Fabrication, and Applications. <i>Advanced Engineering Materials</i> , 2022, 24, 2100646.	3.5	43
3	Characterizing fiber-matrix debond and fiber interaction mechanisms by full-field measurements. <i>Composites Part C: Open Access</i> , 2022, 7, 100229.	3.2	7
4	Flexible planar metamaterials with tunable Poisson's ratios. <i>Materials and Design</i> , 2022, 215, 110446.	7.0	24
5	A Modeling Study of Bonding Mechanisms Between Similar and Dissimilar Materials in Cold Spraying on Polymeric Substrates. <i>Journal of Thermal Spray Technology</i> , 2022, 31, 508-524.	3.1	6
6	Rapid multiple-front polymerization of fiber-reinforced polymer composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022, 158, 106931.	7.6	20
7	Desiccation cracking in clay-bottom ash mixtures: insights from crack image analysis and digital image correlation. <i>Bulletin of Engineering Geology and the Environment</i> , 2022, 81, 1.	3.5	6
8	Coupling between Voltage Profiles and Mechanical Deformations in LAGP Solid Electrolyte During Li Plating and Stripping. <i>ACS Applied Energy Materials</i> , 2022, 5, 2655-2662.	5.1	5
9	Out-of-plane load-bearing and mechanical energy absorption properties of flexible density-graded TPU honeycombs. <i>Composites Part C: Open Access</i> , 2022, 8, 100284.	3.2	6
10	In-Plane mechanical and failure responses of honeycombs with syntactic foam cell walls. <i>Composite Structures</i> , 2022, 295, 115866.	5.8	7
11	Dynamic Behavior and Impact Tolerance of Elastomeric Foams Subjected to Multiple Impact Conditions. <i>Journal of Dynamic Behavior of Materials</i> , 2022, 8, 359-370.	1.7	7
12	Molecular-Weight-Dependent Interplay of Brittle-to-Ductile Transition in High-Strain-Rate Cold Spray Deposition of Glassy Polymers. <i>ACS Omega</i> , 2022, 7, 26465-26472.	3.5	6
13	Identification of RVE length scale in fiber composites via combined optical and SEM digital image correlation. <i>Composites Science and Technology</i> , 2022, 227, 109613.	7.8	7
14	Predictability of mechanical behavior of additively manufactured particulate composites using machine learning and data-driven approaches. <i>Computers in Industry</i> , 2022, 142, 103739.	9.9	13
15	Characterization of Energy Absorption and Strain Rate Sensitivity of a Novel Elastomeric Polyurea Foam. <i>Advanced Engineering Materials</i> , 2021, 23, .	3.5	24
16	In Situ Strain Measurement in Solid-State Li-Ion Battery Electrodes. <i>Journal of the Electrochemical Society</i> , 2021, 168, 010516.	2.9	16
17	In situ deformation characterization of density-graded foams in quasi-static and impact loading conditions. <i>International Journal of Impact Engineering</i> , 2021, 150, 103820.	5.0	22
18	Design Optimization of a Pneumatic Soft Robotic Actuator Using Model-Based Optimization and Deep Reinforcement Learning. <i>Frontiers in Robotics and AI</i> , 2021, 8, 639102.	3.2	9

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19	Analyzing the Effects of Particle Diameter in Cold Spraying of Thermoplastic Polymers. Journal of Thermal Spray Technology, 2021, 30, 1226-1238.	3.1	11
20	A multiscale experimental approach to characterize micro-to-macro transition length scale in polymer foams. Mechanics of Materials, 2021, 161, 104006.	3.2	9
21	ANALYZING MICRO-MACRO TRANSITIONAL LENGTH SCALE IN UNIDIRECTIONAL COMPOSITES. , 2021, , .		2
22	IN SITU CHARACTERIZATION OF FIBER-MATRIX INTERFACE DEBONDING VIA FULL-FIELD MEASUREMENTS. , 2021, , .		0
23	Thermal Gradients Govern Impact Dynamics in Thermoplastic Polymer Cold Spray. Journal of Thermal Spray Technology, 2021, 30, 2034-2049.	3.1	7
24	Optimization of energy absorption performance of polymer honeycombs by density gradation. Composites Part C: Open Access, 2020, 3, 100052.	3.2	23
25	Gradient optimization of multi-layered density-graded foam laminates for footwear material design. Journal of Biomechanics, 2020, 109, 109950.	2.1	36
26	IntelliPad: Intelligent Soft Robotic Pad for Pressure Injury Prevention. , 2020, , .		1
27	Gradient optimization of transversely graded Ti-TiB structures for enhanced fracture resistance. International Journal of Mechanical Sciences, 2020, 187, 105917.	6.7	6
28	Radial and axial inertia stresses in high strain rate deformation of polymer foams. International Journal of Mechanical Sciences, 2020, 181, 105679.	6.7	10
29	Characterizing fracture response of cracked transversely graded materials. Composite Structures, 2019, 229, 111439.	5.8	10
30	A Robust Patterning Technique for Electron Microscopy-Based Digital Image Correlation at Sub-Micron Resolutions. Experimental Mechanics, 2019, 59, 1063-1073.	2.0	31
31	Thermo-Mechanical Properties of Thermoset Polymers and Composites Fabricated by Frontal Polymerization. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 89-91.	0.5	0
32	In Situ Strain Measurement in Solid-State Li-Ion Batteries. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 1-3.	0.5	4
33	A multiscale experimental approach for correlating global and local deformation response in woven composites. Composite Structures, 2018, 194, 328-334.	5.8	18
34	Experimental characterization of compaction wave propagation in cellular polymers. International Journal of Solids and Structures, 2018, 139-140, 270-282.	2.7	26
35	Effects of cell-wall instability and local failure on the response of closed-cell polymeric foams subjected to dynamic loading. Mechanics of Materials, 2018, 116, 67-76.	3.2	30
36	In-situ quantification of intra and intergranular deformation in pure magnesium using full-field measurements at low and high strain rates. Mechanics of Materials, 2018, 126, 36-46.	3.2	4

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37	The Effect of Nano-Fillers on the In-Plane and Interlaminar Shear Properties of Carbon Fiber Reinforced Composite. Journal of Dynamic Behavior of Materials, 2018, 4, 296-307.	1.7	13
38	Impact Response of Density Graded Cellular Polymers. Conference Proceedings of the Society for Experimental Mechanics, 2018, , 17-23.	0.5	3
39	Compaction Wave Characteristics of Polymeric Foams Under Dynamic Loading. Conference Proceedings of the Society for Experimental Mechanics, 2018, , 175-180.	0.5	0
40	Finite-element modeling of thermal aspects in high speed cold strip rolling. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2017, 231, 1350-1362.	2.4	6
41	Analysis of dynamic bending test using ultra high speed DIC and the virtual fields method. International Journal of Impact Engineering, 2017, 110, 299-310.	5.0	30
42	Experimental characterization of meso-scale deformation mechanisms and the RVE size in plastically deformed carbon steel. Strain, 2017, 53, e12217.	2.4	15
43	Investigating the Tensile Response of Materials at High Temperature Using DIC. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 77-82.	0.5	1
44	Experimental determination of Representative Volume Element (RVE) size in woven composites. Optics and Lasers in Engineering, 2017, 90, 59-71.	3.8	46
45	Determining the tensile response of materials at high temperature using DIC and the Virtual Fields Method. Optics and Lasers in Engineering, 2017, 91, 53-61.	3.8	37
46	Experimental Investigation of Compaction Wave Propagation in Cellular Polymers. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 113-115.	0.5	3
47	Specimen Size Effect on Stress-Strain Response of Foams Under Direct-Impact. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 253-261.	0.5	0
48	Characterizing the constitutive response and energy absorption of rigid polymeric foams subjected to intermediate-velocity impact. Polymer Testing, 2016, 54, 48-58.	4.8	30
49	Effect of specimen size, compressibility and inertia on the response of rigid polymer foams subjected to high velocity direct impact loading. International Journal of Impact Engineering, 2016, 98, 62-74.	5.0	46
50	Design optimization of continuously and discretely graded foam materials for efficient energy absorption. Materials and Design, 2016, 102, 151-161.	7.0	81
51	Finite element modeling of thermal and mechanical stresses in work-rolls of warm strip rolling process. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2016, 230, 1076-1086.	2.4	8
52	Thermo-mechanical Properties of Metals at Elevated Temperatures. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 117-123.	0.5	1
53	Meso-scale study of non-linear tensile response and fiber trellising mechanisms in woven composites. Journal of Reinforced Plastics and Composites, 2016, 35, 986-995.	3.1	16
54	Investigation of the dynamic stress-strain response of compressible polymeric foam using a non-parametric analysis. International Journal of Impact Engineering, 2016, 91, 170-182.	5.0	83

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55	On the Mechanical Response of Polymer Fiber Composites Reinforced with Nanoparticles. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 125-130.	0.5	1
56	Dynamic Flow Response of Rigid Polymer Foam Subjected to Direct Impact. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 163-170.	0.5	1
57	Hardness~strength relationships in fine and ultra-fine grained metals processed through constrained groove pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 636, 331-339.	5.6	117
58	The deformation and failure response of closed-cell PMDI foams subjected to dynamic impact loading. Polymer Testing, 2015, 44, 112-124.	4.8	28
59	On the effect of microstructure on the torsional response of AA7050-T7651 at elevated strain rates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 639, 280-287.	5.6	9
60	Meso-scale strain localization and failure response of an orthotropic woven glass~fiber reinforced composite. Composites Part B: Engineering, 2015, 78, 308-318.	12.0	37
61	Through Thickness Elastic Profile Determination of Functionally Graded Materials. Experimental Mechanics, 2015, 55, 1427-1440.	2.0	12
62	Fracture Behavior of Prestressed Composites Subjected to Shock Loading: A DIC-Based Study. Experimental Mechanics, 2015, 55, 211-225.	2.0	30
63	Characterization of Fracture Behavior of Multi-Walled Carbon Nanotube Reinforced Cement Paste Using Digital Image Correlation. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 73-79.	0.5	3
64	On the Meso-Macro Scale Deformation of Low Carbon Steel. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 409-414.	0.5	3
65	Fracture of Pre-stressed Woven Glass Fiber Composite Exposed to Shock Loading. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 213-219.	0.5	1
66	Through Thickness Fracture Behavior of Transversely Graded Ti/TiB Material. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 51-56.	0.5	1
67	On the influence of rolling path change on static recrystallization behavior of commercial purity aluminum. International Journal of Material Forming, 2014, 7, 53-63.	2.0	6
68	Effect of elastic properties of material composition on the fracture response of transversely graded ceramic/metal material. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 619, 281-289.	5.6	7
69	A DIC-based study of in-plane mechanical response and fracture of orthotropic carbon fiber reinforced composite. Composites Part B: Engineering, 2014, 66, 388-399.	12.0	65
70	On the influence of deformation rate and cooling media on the static strain aging of a warm-rolled low carbon steel. International Journal of Material Forming, 2013, 6, 417-422.	2.0	1
71	Investigations of the Failure in Boilers Economizer Tubes Used in Power Plants. Journal of Materials Engineering and Performance, 2013, 22, 2691-2697.	2.5	16
72	Thermomechanical Behavior of Work Rolls During Warm Strip Rolling. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2012, 43, 1638-1648.	2.1	7

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73	Influence of deformation path change on static strain aging of cold rolled steel strip. International Journal of Advanced Manufacturing Technology, 2012, 61, 901-909.	3.0	3
74	The effect of dynamic strain aging on room temperature mechanical properties of high martensite dual phase (HMDP) steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 550, 325-332.	5.6	20
75	Study on effect of residual stress distributions on kinetics of static strain aging after cold rolling. Materials Science and Technology, 2011, 27, 1620-1626.	1.6	4
76	Thermomechanical behaviours of strip and work-rolls in cold rolling process. Journal of Strain Analysis for Engineering Design, 2011, 46, 794-804.	1.8	3
77	Kinetics of static strain aging after temper rolling of low carbon steel. Ironmaking and Steelmaking, 2011, 38, 314-320.	2.1	6
78	Effect of rolling speed on the occurrence of strain aging during and after warm rolling of a low-carbon steel. Journal of Materials Science, 2010, 45, 3405-3412.	3.7	7
79	Meso-Scale Strain Measurements in Fiber Reinforced Composites. , 0, , .		1