Hugh A Bruck

List of Publications by Year
in descending order

190 papers	6,841 citations	136950 32 h-index	66911 78 g-index
198 all docs	198 docs citations	198 times ranked	6027 citing authors

#	Article	IF	Citations
1	Digital image correlation using Newton-Raphson method of partial differential correction. Experimental Mechanics, 1989, 29, 261-267.	2.0	1,241
2	Processing bulk natural wood into a high-performance structural material. Nature, 2018, 554, 224-228.	27.8	970
3	Quasi-static constitutive behavior of Zr41.25Ti13.75Ni10Cu12.5Be22.5 bulk amorphous alloys. Scripta Metallurgica Et Materialia, 1994, 30, 429-434.	1.0	388
4	The dynamic compressive behavior of beryllium bearing bulk metallic glasses. Journal of Materials Research, 1996, 11, 503-511.	2.6	310
5	Electrical and Rheological Percolation in Polystyrene/MWCNT Nanocomposites. Macromolecules, 2007, 40, 7400-7406.	4.8	277
6	Full-field representation of discretely sampled surface deformation for displacement and strain analysis. Experimental Mechanics, 1991, 31, 168-177.	2.0	270
7	Quantitative Error Assessment in Pattern Matching: Effects of Intensity Pattern Noise, Interpolation, Strain and Image Contrast on Motion Measurements. Strain, 2009, 45, 160-178.	2.4	259
8	Conductivity enhancement of carbon nanotube and nanofiber-based polymer nanocomposites by melt annealing. Polymer, 2008, 49, 4846-4851.	3.8	152
9	Gold nanoparticle-based enhanced chemiluminescence immunosensor for detection of Staphylococcal Enterotoxin B (SEB) in food. International Journal of Food Microbiology, 2009, 133, 265-271.	4.7	107
10	A one-dimensional model for designing functionally graded materials to manage stress waves. International Journal of Solids and Structures, 2000, 37, 6383-6395.	2.7	106
11	Robo Raven: A Flapping-Wing Air Vehicle with Highly Compliant and Independently Controlled Wings. Soft Robotics, 2014, 1, 275-288.	8.0	104
12	DIC Challenge: Developing Images and Guidelines for Evaluating Accuracy and Resolution of 2D Analyses. Experimental Mechanics, 2018, 58, 1067-1099.	2.0	101
13	A printed, recyclable, ultra-strong, and ultra-tough graphite structural material. Materials Today, 2019, 30, 17-25.	14.2	83
14	Carbon Nanotubes with Enhanced Chemiluminescence Immunoassay for CCD-Based Detection of Staphylococcal Enterotoxin B in Food. Analytical Chemistry, 2008, 80, 8532-8537.	6.5	82
15	The role of mechanics in biological and biologically inspired materials. Experimental Mechanics, 2002, 42, 361-371.	2.0	76
16	High frequency, low power, electrically actuated shape memory alloy MEMS bimorph thermal actuators. Journal of Micromechanics and Microengineering, 2019, 29, 075005.	2.6	71
17	A robotic cell for performing sheet lamination-based additive manufacturing. Additive Manufacturing, 2019, 27, 278-289.	3.0	68
18	Development and characterization of high performance solid propellants containing nano-sized energetic ingredients. Proceedings of the Combustion Institute, 2007, 31, 2089-2096.	3.9	65

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19	Measurement of Thrust and Lift Forces Associated With Drag of Compliant Flapping Wing for Micro Air Vehicles Using a New Test Stand Design. Experimental Mechanics, 2010, 50, 725-735.	2.0	62
20	Residual Strains in an Al₂O₃â€Ni Joint Bonded with a Composite Interlayer: Experimental Measurements and FEM Analyses. Journal of the American Ceramic Society, 1998, 81, 1541-1549.	3.8	54
21	Manufacturing of multi-material compliant mechanisms using multi-material molding. International Journal of Advanced Manufacturing Technology, 2006, 30, 1049-1075.	3.0	54
22	A new method for detecting fatigue crack initiation in aluminum alloy using acoustic emission waveform information entropy. Engineering Fracture Mechanics, 2020, 223, 106771.	4.3	48
23	Experimental investigations of three-dimensional effects near a crack tip using computer vision. International Journal of Fracture, 1992, 53, 201-228.	2.2	45
24	POINTWISE DIGITAL IMAGE CORRELATION USING GENETIC ALGORITHMS. Experimental Techniques, 2005, 29, 36-39.	1.5	43
25	Pressureless sintering of particle-reinforced metalâ€“ceramic composites for functionally graded materials: Part I. Porosity reduction models. Acta Materialia, 2006, 54, 1457-1465.	7.9	42
26	Low-cost technologies for medical diagnostics in low-resource settings. Expert Opinion on Medical Diagnostics, 2013, 7, 243-255.	1.6	41
27	Theoretical development for pointwise digital image correlation. Optical Engineering, 2005, 44, 067003.	1.0	40
28	Rapid and low power laser actuation of sputter-deposited NiTi shape memory alloy (SMA) MEMS thermal bimorph actuators. Sensors and Actuators A: Physical, 2019, 291, 48-57.	4.1	40
29	Lensless CCD-based fluorometer using a micromachined optical SÃ¶ller collimator. Lab on A Chip, 2011, 11, 941.	6.0	37
30	Title is missing!. Journal of Materials Science, 1999, 34, 2241-2251.	3.7	36
31	Curing effects of single-wall carbon nanotube reinforcement on mechanical properties of filled epoxy adhesives. Composites Part A: Applied Science and Manufacturing, 2010, 41, 729-736.	7.6	36
32	A new method for characterizing nonlinearity in scanning probe microscopes using digital image correlation. Nanotechnology, 2005, 16, 1849-1855.	2.6	34
33	Quantitative characterization of the formation of an interpenetrating phase composite in polystyrene from the percolation of multiwalled carbon nanotubes. Nanotechnology, 2007, 18, 505705.	2.6	34
34	Using geometric complexity to enhance the interfacial strength of heterogeneous structures fabricated in a multi-stage, multi-piece molding process. Experimental Mechanics, 2004, 44, 261-271.	2.0	32
35	Modeling the evolution of stress due to differential shrinkage in powder-processed functionally graded metalâ€“ceramic composites during pressureless sintering. International Journal of Solids and Structures, 2006, 43, 7852-7868.	2.7	32
36	Design and fabrication of miniature compliant hinges for multi-material compliant mechanisms. International Journal of Advanced Manufacturing Technology, 2011, 57, 437-452.	3.0	32

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37	Characterization of the Mechanics of Compliant Wing Designs for Flapping-Wing Miniature Air Vehicles. Experimental Mechanics, 2013, 53, 1561-1571.	2.0	32
38	Design, fabrication, and characterization of multifunctional wings to harvest solar energy in flapping wing air vehicles. Smart Materials and Structures, 2015, 24, 065042.	3.5	32
39	Training mechanical engineering students to utilize biological inspiration during product development. Bioinspiration and Biomimetics, 2007, 2, S198-S209.	2.9	31
40	Multi-scale Mechanical Characterization of Palmetto Wood using Digital Image Correlation to Develop a Template for Biologically-Inspired Polymer Composites. Experimental Mechanics, 2011, 51, 575-589.	2.0	31
41	Mechanics of composite sandwich structures with bioinspired core. Composites Science and Technology, 2014, 95, 67-74.	7.8	31
42	Evaluation of Ruleâ€ofâ€Mixtures Predictions of Thermal Expansion in Powderâ€Processed Niâ€“Al₂O₃ Composites. Journal of the American Ceramic Society, 1999, 82, 2927-2930.	3.8	30
43	New compliant strain gauges for self-sensing dynamic deformation of flapping wings on miniature air vehicles. Smart Materials and Structures, 2013, 22, 085031.	3.5	30
44	Multiscale mechanical and structural characterizations of Palmetto wood for bio-inspired hierarchically structured polymer composites. Materials Science and Engineering C, 2010, 30, 235-244.	7.3	27
45	A Methodology for Accurately Measuring Mechanical Properties on the Microâ€Scale. Strain, 2011, 47, 288-300.	2.4	27
46	Microscale characterization of granular deformation near a crack tip. Journal of Materials Science, 2011, 46, 6596-6602.	3.7	27
47	Image stacking approach to increase sensitivity of fluorescence detection using a low cost complementary metal-oxide-semiconductor (CMOS) webcam. Sensors and Actuators B: Chemical, 2012, 171-172, 141-147.	7.8	26
48	Nanomechanical characterization of dispersion and its effects in nano-enhanced polymers and polymer composites. Journal of Materials Science, 2010, 45, 6353-6364.	3.7	25
49	Electrical percolation-based biosensor for real-time direct detection of staphylococcal enterotoxin B (SEB). Biosensors and Bioelectronics, 2010, 25, 2573-2578.	10.1	25
50	Thousand-fold fluorescent signal amplification for mHealth diagnostics. Biosensors and Bioelectronics, 2014, 51, 1-7.	10.1	24
51	A fundamental investigation into large strain recovery of one-way shape memory alloy wires embedded in flexible polyurethanes. Smart Materials and Structures, 2002, 11, 130-139.	3.5	23
52	Graded polymer composites using twin-screw extrusion: A combinatorial approach to developing new energetic materials. Composites Part A: Applied Science and Manufacturing, 2006, 37, 957-969.	7.6	23
53	An ELISA Lab-on-a-Chip (ELISA-LOC). Methods in Molecular Biology, 2013, 949, 451-471.	0.9	22
54	Nanoindentation studies of graded shape memory alloy thin films processed using diffusion modification. Journal of Applied Physics, 2008, 103, 064315.	2.5	20

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55	Reversible nanoscale deformation in compositionally graded shape memory alloy films. Applied Physics Letters, 2009, 94, 193114.	3.3	20
56	Design and Fabrication of a Multi-Material Compliant Flapping Wing Drive Mechanism for Miniature Air Vehicles. , 2010, , .		20
57	Capillary array waveguide amplified fluorescence detector for mHealth. Sensors and Actuators B: Chemical, 2013, 186, 711-717.	7.8	20
58	Enhancing the optimization of material distributions in composite structures using gradient architectures. International Journal of Solids and Structures, 2003, 40, 2999-3020.	2.7	19
59	A new approach for optimizing the mechanical behavior of porous microstructures for porous materials by design. Modelling and Simulation in Materials Science and Engineering, 2007, 15, 653-674.	2.0	19
60	Grid Method for Microscale Discontinuous Deformation Measurement. Experimental Mechanics, 2011, 51, 565-574.	2.0	19
61	On the sensitivity of coherent gradient sensing: Part IIâ€"An experimental investigation of accuracy in fracture mechanics applications. Optics and Lasers in Engineering, 1993, 18, 25-51.	3.8	18
62	Thermal imaging using polymer nanocomposite temperature sensors. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2239-2245.	1.8	18
63	Stretchable touch-sensing skin over padding for co-robots. Smart Materials and Structures, 2016, 25, 055006.	3.5	18
64	Pressureless sintering of particle-reinforced metalâ€"ceramic composites for functionally graded materials: Part II. Sintering model. Acta Materialia, 2006, 54, 1467-1474.	7.9	17
65	Measurement of Poissonâ€™s ratio by means of a direct tension test on micron-sized specimens. Sensors and Actuators A: Physical, 2011, 169, 98-114.	4.1	17
66	Integrating Solar Cells Into Flapping Wing Air Vehicles for Enhanced Flight Endurance. Journal of Mechanisms and Robotics, 2016, 8, .	2.2	17
67	Repeatable bending actuation in polyurethanes using opposing embedded one-way shape memory alloy wires exhibiting large deformation recovery. Smart Materials and Structures, 2002, 11, 509-518.	3.5	16
68	Electrical percolation based biosensors. Methods, 2013, 63, 282-289.	3.8	16
69	Measurement of Mechanical Properties of Soft Tissues In Vitro Under Controlled Tissue Hydration. Experimental Mechanics, 2013, 53, 405-414.	2.0	16
70	Characterizing and modeling the enhancement of lift and payload capacity resulting from thrust augmentation in a propeller-assisted flapping wing air vehicle. International Journal of Micro Air Vehicles, 2018, 10, 50-69.	1.3	16
71	On the sensitivity of Coherent Gradient Sensing: Part Iâ€"A theoretical investigation of accuracy in fracture mechanics applications. Optics and Lasers in Engineering, 1992, 17, 83-101.	3.8	15
72	Stability of heterophase nanostructure and field induced response of epitaxial ferroelectric films. Applied Physics Letters, 2011, 99, .	3.3	14

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73	Modeling and design of micromachined optical SÃ¶ller collimators for lensless CCD-based fluorometry. Analyst, The, 2012, 137, 5011.	3.5	14
74	Flexural behavior of singly curved X-CorÂ® sandwich composite structures: Experiment and finite element modeling. Composite Structures, 2015, 129, 70-79.	5.8	14
75	Improving the Sensitivity and Functionality of Mobile Webcam-Based Fluorescence Detectors for Point-of-Care Diagnostics in Global Health. Diagnostics, 2016, 6, 19.	2.6	14
76	Robot Assisted Additive Manufacturing of Thin Multifunctional Structures. , 2018, , .		14
77	Development of a Computer Vision Methodology for the Analysis of Surface Deformations in Magnified Images. , 1991, , 109-132.		14
78	Lab-on-a-chip for label free biological semiconductor analysis of Staphylococcal Enterotoxin B. Lab on A Chip, 2010, 10, 2534.	6.0	13
79	Webcam-based flow cytometer using wide-field imaging for low cell number detection at high throughput. Analyst, The, 2014, 139, 4322-4329.	3.5	13
80	Cell streak imaging cytometry for rare cell detection. Biosensors and Bioelectronics, 2015, 64, 154-160.	10.1	13
81	Fabrication of Particle-Reinforced Polymers with Continuous Gradient Architectures Using Twin Screw Extrusion Process. Journal of Composite Materials, 2004, 38, 1873-1893.	2.4	12
82	Thermoplastic Polymer Shrinkage in Emerging Molding Processes. Experimental Mechanics, 2008, 48, 789-798.	2.0	12
83	Nanomechanical Characterisation of Graded NiTi Films Fabricated Through Diffusion Modification. Strain, 2009, 45, 232-237.	2.4	12
84	Biological Semiconductor Based on Electrical Percolation. Analytical Chemistry, 2010, 82, 3567-3572.	6.5	12
85	Design of a compliance assisted quadrupedal amphibious robot. , 2014, , .		12
86	Thermodynamic entropy to detect fatigue crack initiation using digital image correlation, and effect of overload spectrums. International Journal of Fatigue, 2019, 129, 105256.	5.7	12
87	Three-dimensional effects near the interface in a functionally graded Niâ€“Al2O3 plate specimen. International Journal of Solids and Structures, 2002, 39, 547-557.	2.7	11
88	Strong process-structure interaction in stoveable poly(urethane-urea) aligned carbon nanotube nanocomposites. Composites Science and Technology, 2018, 166, 115-124.	7.8	11
89	Compliant multi-layer tactile sensing for enhanced identification of human touch. Smart Materials and Structures, 2018, 27, 125009.	3.5	11
90	Characterization of dynamic damage mechanisms in Palmetto wood as biological inspiration for impact resistant polymer composites. Mechanics of Materials, 2013, 57, 97-108.	3.2	10

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91	Modeling of Dive Maneuvers for Executing Autonomous Dives With a Flapping Wing Air Vehicle. Journal of Mechanisms and Robotics, 2017, 9, .	2.2	10
92	Simulation of buckling of internal features during selective laser sintering of metals. Additive Manufacturing, 2018, 23, 235-245.	3.0	10
93	Predicting failure modes of 3D-printed multi-material polymer sandwich structures from process parameters. Journal of Sandwich Structures and Materials, 2022, 24, 1049-1075.	3.5	10
94	Evolution of elastic mechanical properties during pressureless sintering of powder-processed metals and ceramics. Journal of Materials Science, 2007, 42, 7708-7715.	3.7	9
95	A Systematic Approach for Designing Multifunctional Thermally Conducting Polymer Structures With Embedded Actuators. Journal of Mechanical Design, Transactions of the ASME, 2009, 131, .	2.9	9
96	Effect of TiO2Nanopowder on the Sintering Behavior of Nickel-Alumina Composites for Functionally Graded Materials. Journal of the American Ceramic Society, 2008, 91, 2870-2877.	3.8	8
97	Characterization and control of plastic deformation in mesoscale premolded components to realize inâ€mold assembled mesoscale revolute joints. Polymer Engineering and Science, 2009, 49, 293-304.	3.1	8
98	Autonomous Loitering Control for a Flapping Wing Miniature Aerial Vehicle With Independent Wing Control. , 2014, , .		8
99	Design of Propeller-Assisted Flapping Wing Air Vehicles for Enhanced Aerodynamic Performance. , 2015, , .		8
100	A New Methodology for Scaling the Mechanics of Pin-reinforcement in Composite Sandwich Structures under Compression using Digital Image Correlation. Experimental Mechanics, 2015, 55, 27-40.	2.0	8
101	Replamineform Inspired Bone Structures (RIBS) using multi-piece molds and advanced ceramic gelcasting technology. Materials Science and Engineering C, 2007, 27, 646-653.	7.3	7
102	Charged-Coupled Device (CCD) Detectors for Lab-on-a Chip (LOC) Optical Analysis. Methods in Molecular Biology, 2013, 949, 365-385.	0.9	7
103	Wing Performance Characterization for Flapping Wing Air Vehicles. , 2013, , .		7
104	Enhancing the Design of Solar-Powered Flapping Wing Air Vehicles Using Multifunctional Structural Components. , 2015, , .		7
105	Characterization of a compliant multi-layer system for tactile sensing with enhanced sensitivity and range. Smart Materials and Structures, 2018, 27, 065005.	3.5	7
106	The Effects of Motion on Dynamic MoirÃ© Interferometry. Optics and Lasers in Engineering, 1997, 27, 343-354.	3.8	6
107	Bending actuation in polyurethanes with a symmetrically graded distribution of one-way shape memory alloy wires. Experimental Mechanics, 2004, 44, 62-70.	2.0	6
108	Orthographic projection capillary array fluorescent sensor for mHealth. Methods, 2013, 63, 276-281.	3.8	6

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109	Performance Characterization of Multifunctional Wings With Integrated Solar Cells for Unmanned Air Vehicles. , 2014, , .		6
110	Modeling of dive maneuvers in flapping wing unmanned aerial vehicles. , 2015, , .		6
111	Reversible metalâ€“hydride phase transformation in epitaxial films. Journal of Physics Condensed Matter, 2015, 27, 092201.	1.8	6
112	Targeted Feature Recognition Using Mechanical Spatial Filtering with a Low-Cost Compliant Strain Sensor. Scientific Reports, 2017, 7, 5118.	3.3	6
113	Electrical contact resistance force sensing in SOI-DRIE MEMS. Sensors and Actuators A: Physical, 2018, 269, 474-482.	4.1	6
114	Effects of Plasticity on Patched and Unpatched Center Crack Tension Specimens. Experimental Mechanics, 2020, 60, 345-357.	2.0	6
115	Characterization and Modeling of Layer Jamming for Designing Engineering Materials with Programmable Elastic-Plastic Behavior. Experimental Mechanics, 2020, 60, 1187-1203.	2.0	6
116	Improving contact resistance in metalâ€“ceramic heat exchangers running liquid metal by additive manufacturing and ceramic tubes with electroplated films. International Journal of Advanced Manufacturing Technology, 2021, 113, 2101-2119.	3.0	6
117	Smartphone-Based Fluorescence Detector for mHealth. Methods in Molecular Biology, 2015, 1256, 231-245.	0.9	6
118	Characterization and Modeling of Low Modulus Composite Patched Aluminum Center Crack Tension Specimen Using DIC Surface Displacements. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 31-43.	0.5	6
119	Automated process planning for conformal wire arc additive manufacturing. International Journal of Advanced Manufacturing Technology, 2022, 119, 3545-3570.	3.0	6
120	Characterization of short duration stress pulses generated by impacting laminated carbon-fiber/epoxy composites with magnetic flyer plates. Experimental Mechanics, 2002, 42, 279-287.	2.0	5
121	Enhancement of Mechanical Engineering Curriculum to Introduce Manufacturing Techniques and Principles for Bio-Inspired Product Development. , 2004, , 159.		5
122	Ingredient and processing effects on the burning rates of composite rocket propellants utilizing a reduced-run mixtureâ€“process experiment design. Chemometrics and Intelligent Laboratory Systems, 2008, 90, 49-63.	3.5	5
123	Characterization of Quasi-static Mechanical Properties of Polymer Nanocomposites Using a New Combinatorial Approach. Journal of Composite Materials, 2009, 43, 2587-2598.	2.4	5
124	Development of a Fiber Orientation Measurement Methodology for Injection Molded Thermally-Enhanced Polymers. , 2012, , .		5
125	Formation of Self-Assembled Nanoplates via Hydrogenation of Epitaxial Pd Film. Nano Letters, 2014, 14, 1818-1822.	9.1	5
126	Improving Prediction of Flapping-Wing Motion By Incorporating Actuator Constraints With Models of Aerodynamic Loads Using In-Flight Data. Journal of Mechanisms and Robotics, 2017, 9, .	2.2	5

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127	New educational tools and curriculum enhancements for motivating engineering students to design and realize bio-inspired products. WIT Transactions on Ecology and the Environment, 2006, , .	0.0	5
128	Modeling and Validation of a Prototype Thermally-Enhanced Polymer Heat Exchanger. , 2011, , .		4
129	Effect of oxygen environment on formation of modulated Ag nanostructures along the interface of a Ag-Si heterostructure. Journal of Applied Physics, 2013, 113, 184302.	2.5	4
130	A Systematic Exploration of Wing Size on Flapping Wing Air Vehicle Performance. , 2015, , .		4
131	A computational streak mode cytometry biosensor for rare cell analysis. Analyst, The, 2017, 142, 641-648.	3.5	4
132	Implantable Biomedical Devices and Biologically Inspired Materials. Springer Handbooks, 2008, , 891-928.	0.6	4
133	Mobile Flow Cytometer for mHealth. Methods in Molecular Biology, 2015, 1256, 139-153.	0.9	4
134	Combinatorial development of polymer nanocomposites using transient processing conditions in twin screw extrusion. AICHE Journal, 2008, 54, 1895-1900.	3.6	3
135	Quantifying the Interfibrillar Spacing and Fibrillar Orientation of the Aortic Extracellular Matrix Using Histology Image Processing: Toward Multiscale Modeling. IEEE Transactions on Biomedical Engineering, 2013, 60, 1171-1180.	4.2	3
136	Performance Characterization of Multifunctional Wings With Integrated Flexible Batteries for Flapping Wing Unmanned Air Vehicles. , 2016, , .		3
137	Predicting failure of cracked aluminum plates with one-sided composite patch. International Journal of Fracture, 2021, 227, 205-218.	2.2	3
138	Two-Layer Lab-on-a-Chip (LOC) with Passive Capillary Valves for mHealth Medical Diagnostics. Methods in Molecular Biology, 2015, 1256, 247-258.	0.9	3
139	Using Geometric Complexity to Enhance the Interfacial Strength of Heterogeneous Structures Fabricated in a Multi-Stage, Multi-Piece Molding Process. Experimental Mechanics, 2004, 44, 261-271.	2.0	3
140	Guest Editorial: Biological & Biologicallly Inspired Materials. Experimental Mechanics, 2002, 42, 359-360.	2.0	3
141	Intensities of Hydrogen HÂ and Helium D3 in Solar Prominences. Paper III. Monthly Notices of the Royal Astronomical Society, 1945, 105, 282-286.	4.4	2
142	Guest editorial: Biological and biologically inspired materials. Experimental Mechanics, 2002, 42, 359-360.	2.0	2
143	Effects of Twin-Screw Extrusion Processing on the Burning Rate of Composite Propellants. Propellants, Explosives, Pyrotechnics, 2006, 31, 456-465.	1.6	2
144	Characterization of processing effects in HIPSâ€CNF composites using thermogravimetric analysis. Polymer Engineering and Science, 2008, 48, 1120-1125.	3.1	2

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145	Elastic Heterophase Domains in Ferroelectric Epitaxial Films. Materials Research Society Symposia Proceedings, 2011, 1369, 1.	0.1	2
146	Compliant Multifunctional Wing Structures for Flapping Wing MAVs. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 77-83.	0.5	2
147	Instrumenting a Flapping Wing Air Vehicle System for Free Flight Measurement. , 2016, , .		2
148	Electroplated Connections Between Carbon Fiber and Nickel. Journal of Electronic Packaging, Transactions of the ASME, 2017, 139, .	1.8	2
149	Flexible Energy Harvesting/Storage Structures for Flapping Wing Air Vehicles. Conference Proceedings of the Society for Experimental Mechanics, 2018, , 35-45.	0.5	2
150	A Novel Single Camera Robotic Approach for Three-Dimensional Digital Image Correlation with Targetless Extrinsic Calibration and Expanded View Angles. Experimental Techniques, 2018, 42, 563-574.	1.5	2
151	A design framework for realizing multifunctional wings for flapping wing air vehicles using solar cells. International Journal of Micro Air Vehicles, 2019, 11, 175682931983627.	1.3	2
152	Mechanics of Multifunctional Wings with Solar Cells for Robotic Birds. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 1-10.	0.5	2
153	ENERGETIC SYSTEMS AND NANOTECHNOLOGY - A LOOK AHEAD. International Journal of Energetic Materials and Chemical Propulsion, 2007, 6, 39-48.	0.3	2
154	Residual Stress Distribution in an Al2O3-Ni Joint Bonded with a Composite Layer. Materials Research Society Symposia Proceedings, 1996, 434, 177.	0.1	1
155	Development of statewide engineering Head Start program. , 0, , .		1
156	Characterization of a reverse molding sequence at the mesoscale for inâ€mold assembly of revolute joints. Polymer Engineering and Science, 2010, 50, 1843-1852.	3.1	1
157	Mechanical Engineering TA Training Program Transformation. , 2012, , .		1
158	Mechanics of Multifunctional Skin Structures. Conference Proceedings of the Society for Experimental Mechanics, 2013, , 107-114.	0.5	1
159	Design, Fabrication, and Characterization of a Soft Multi-Fingered Hand. , 2016, , .		1
160	Using a Large 2 Degree of Freedom Tail for Autonomous Aerobatics on a Flapping Wing Unmanned Aerial Vehicle. , 2016, , .		1
161	Streak Imaging Flow Cytometer for Rare Cell Analysis. Methods in Molecular Biology, 2017, 1571, 267-286.	0.9	1
162	A New Multiscale Bioinspired Compliant Sensor. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 163-169.	0.5	1

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163	A simulation-based approach to modeling component interactions during design of flapping wing aerial vehicles. International Journal of Micro Air Vehicles, 2019, 11, 175682931882232.	1.3	1
164	Layered Jamming Multifunctional Actuators. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 169-179.	0.5	1
165	Development of Magnetohydrodynamic Avionics Cooling Using Complex Structures Realized Through Additive Manufacturing. Journal of Thermophysics and Heat Transfer, 0, , 1-14.	1.6	1
166	Residual Strains and Stresses in an Al2O3-Ni Joint Bonded with a Composite Interlayer: FEM Predictions and Experimental Measurements. , 1997, , 387-396.		1
167	Fabrication and Design of Multifunctional Energetic Structures Using Gradient Architectures. , 2003, , .		1
168	The Role of Mechanics in Biological and Biologically Inspired Materials. Experimental Mechanics, 2002, 42, 361-371.	2.0	1
169	Mechanical Behavior of Hierarchically-structured Polymer Composites. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 347-354.	0.5	1
170	Mechanics of Compliant Multifunctional Robotic Structures. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 59-66.	0.5	1
171	Processing-Structure-Property Relationships in Hierarchically-Structured Polymer Composites for Multifunctional Structures. , 2008, , .		0
172	Modeling and Characterization to Minimize Effects of Melt Flow Fronts on Premolded Component Deformation During In-Mold Assembly of Mesoscale Revolute Joints. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2010, 132, .	2.2	0
173	Controlling Hysteresis of Metal-hydride Transformations in Epitaxial Thin Films. Materials Research Society Symposia Proceedings, 2013, 1581, 1.	0.1	0
174	Validation of Flight Power Modeling by Direct Measurement of a Flapping Wing Aerial Vehicle. , 2017, , .		0
175	Low-Cost Charged-Coupled Device (CCD) Based Detectors for Shiga Toxins Activity Analysis. Methods in Molecular Biology, 2017, 1571, 233-249.	0.9	0
176	Experimental Power Model Identification of a Flapping Wing Air Vehicle With Flight Test Data. , 2017, , .		0
177	Ultrahigh Carbon Nanotube Volume Fraction Effects on Micromechanical Quasi-Static & Dynamic Properties of Poly(Urethane-Urea) Filled Nanocomposites. Proceedings (mdpi), 2018, 2, 398.	0.2	0
178	Modeling the Flight Dynamics and Battery Utilization of a Hybrid Flapping-Gliding UAV. , 2021, , .		0
179	Modeling Flight and Battery Dynamics of a Flapping-Gliding Unmanned Aerial Vehicle. Journal of Guidance, Control, and Dynamics, 0, , 1-8.	2.8	0
180	Experimental investigation of high frequency pulse loading on fatigue crack growth in 5052-H32 series aluminum. International Journal of Fatigue, 2021, 153, 106476.	5.7	0

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181	Characterization of High Frequency Pulse Loading on Fatigue of Metals. Conference Proceedings of the Society for Experimental Mechanics, 2021, , 7-18.	0.5	0
182	In Situ Characterization and Modeling of Strains near Embedded Electronic Components During Processing and Break-in for Multifunctional Polymer Structures. Solid Mechanics and Its Applications, 2009, , 145-159.	0.2	0
183	A Modeling Approach for Simulating Heat Dissipation From Actuators and Electronic Components Embedded in Thermally Conducting Polymers. , 2009, , .		0
184	Characterization of Physical Properties for Multi-Scale Polymer Composites Under Various Processing Conditions. , 2012, , .		0
185	Mechanics of Curved Pin-Reinforced Composite Sandwich Structures. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 101-108.	0.5	0
186	Using Inertial Control to Improve Maneuverability of Propeller-Assisted Flapping Wing Aerial Vehicle. , 2019, , .		0
187	Simplified method for predicting ultimate failure of one-sided composite patched aluminum center crack tension specimens. AIP Conference Proceedings, 2020, , .	0.4	0
188	New Method for Fatigue Characterization via Cyclical Instrumented Indentation Testing. Experimental Techniques, 0, , .	1.5	0
189	Characterization of Short Duration Stress Pulses Generated by Impacting Laminated Carbon-fiber/Epoxy Composites with Magnetic Flyer Plates. Experimental Mechanics, 2002, 42, 279-287.	2.0	0
190	Bending Actuation in Polyurethanes with a Symmetrically Graded Distribution of One-Way Shape Memory Alloy Wires. Experimental Mechanics, 2004, 44, 62-70.	2.0	0