

Hugh A Bruck

List of Publications by Year in descending order

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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	Predicting failure modes of 3D-printed multi-material polymer sandwich structures from process parameters. <i>Journal of Sandwich Structures and Materials</i> , 2022, 24, 1049-1075.	3.5	10
2	Automated process planning for conformal wire arc additive manufacturing. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 119, 3545-3570.	3.0	6
3	Modeling the Flight Dynamics and Battery Utilization of a Hybrid Flapping-Gliding UAV. , 2021, , .		0
4	Predicting failure of cracked aluminum plates with one-sided composite patch. <i>International Journal of Fracture</i> , 2021, 227, 205-218.	2.2	3
5	Improving contact resistance in metal-ceramic heat exchangers running liquid metal by additive manufacturing and ceramic tubes with electroplated films. <i>International Journal of Advanced Manufacturing Technology</i> , 2021, 113, 2101-2119.	3.0	6
6	Experimental investigation of high frequency pulse loading on fatigue crack growth in 5052-H32 series aluminum. <i>International Journal of Fatigue</i> , 2021, 153, 106476.	5.7	0
7	Characterization of High Frequency Pulse Loading on Fatigue of Metals. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2021, , 7-18.	0.5	0
8	A new method for detecting fatigue crack initiation in aluminum alloy using acoustic emission waveform information entropy. <i>Engineering Fracture Mechanics</i> , 2020, 223, 106771.	4.3	48
9	Effects of Plasticity on Patched and Unpatched Center Crack Tension Specimens. <i>Experimental Mechanics</i> , 2020, 60, 345-357.	2.0	6
10	Characterization and Modeling of Layer Jamming for Designing Engineering Materials with Programmable Elastic-Plastic Behavior. <i>Experimental Mechanics</i> , 2020, 60, 1187-1203.	2.0	6
11	Simplified method for predicting ultimate failure of one-sided composite patched aluminum center crack tension specimens. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	0
12	A simulation-based approach to modeling component interactions during design of flapping wing aerial vehicles. <i>International Journal of Micro Air Vehicles</i> , 2019, 11, 175682931882232.	1.3	1
13	Thermodynamic entropy to detect fatigue crack initiation using digital image correlation, and effect of overload spectrums. <i>International Journal of Fatigue</i> , 2019, 129, 105256.	5.7	12
14	A design framework for realizing multifunctional wings for flapping wing air vehicles using solar cells. <i>International Journal of Micro Air Vehicles</i> , 2019, 11, 175682931983627.	1.3	2
15	A printed, recyclable, ultra-strong, and ultra-tough graphite structural material. <i>Materials Today</i> , 2019, 30, 17-25.	14.2	83
16	High frequency, low power, electrically actuated shape memory alloy MEMS bimorph thermal actuators. <i>Journal of Micromechanics and Microengineering</i> , 2019, 29, 075005.	2.6	71
17	Rapid and low power laser actuation of sputter-deposited NiTi shape memory alloy (SMA) MEMS thermal bimorph actuators. <i>Sensors and Actuators A: Physical</i> , 2019, 291, 48-57.	4.1	40
18	A robotic cell for performing sheet lamination-based additive manufacturing. <i>Additive Manufacturing</i> , 2019, 27, 278-289.	3.0	68

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19	Layered Jamming Multifunctional Actuators. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 169-179.	0.5	1
20	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
21	Using Inertial Control to Improve Maneuverability of Propeller-Assisted Flapping Wing Aerial Vehicle. , 2019, , .		0
22	Strong process-structure interaction in stoveable poly(urethane-urea) aligned carbon nanotube nanocomposites. Composites Science and Technology, 2018, 166, 115-124.	7.8	11
23	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
24	Processing bulk natural wood into a high-performance structural material. Nature, 2018, 554, 224-228.	27.8	970
25	DIC Challenge: Developing Images and Guidelines for Evaluating Accuracy and Resolution of 2D Analyses. Experimental Mechanics, 2018, 58, 1067-1099.	2.0	101
26	Electrical contact resistance force sensing in SOI-DRIE MEMS. Sensors and Actuators A: Physical, 2018, 269, 474-482.	4.1	6
27	Flexible Energy Harvesting/Storage Structures for Flapping Wing Air Vehicles. Conference Proceedings of the Society for Experimental Mechanics, 2018, , 35-45.	0.5	2
28	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
29	Robot Assisted Additive Manufacturing of Thin Multifunctional Structures. , 2018, , .		14
30	Compliant multi-layer tactile sensing for enhanced identification of human touch. Smart Materials and Structures, 2018, 27, 125009.	3.5	11
31	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
32	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
33	Simulation of buckling of internal features during selective laser sintering of metals. Additive Manufacturing, 2018, 23, 235-245.	3.0	10
34	Validation of Flight Power Modeling by Direct Measurement of a Flapping Wing Aerial Vehicle. , 2017, , .		0
35	A computational streak mode cytometry biosensor for rare cell analysis. Analyst, The, 2017, 142, 641-648.	3.5	4
36	Electroplated Connections Between Carbon Fiber and Nickel. Journal of Electronic Packaging, Transactions of the ASME, 2017, 139, .	1.8	2

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37	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
38	Low-Cost Charged-Coupled Device (CCD) Based Detectors for Shiga Toxins Activity Analysis. Methods in Molecular Biology, 2017, 1571, 233-249.	0.9	0
39	Streak Imaging Flow Cytometer for Rare Cell Analysis. Methods in Molecular Biology, 2017, 1571, 267-286.	0.9	1
40	Modeling of Dive Maneuvers for Executing Autonomous Dives With a Flapping Wing Air Vehicle. Journal of Mechanisms and Robotics, 2017, 9, .	2.2	10
41	Targeted Feature Recognition Using Mechanical Spatial Filtering with a Low-Cost Compliant Strain Sensor. Scientific Reports, 2017, 7, 5118.	3.3	6
42	A New Multiscale Bioinspired Compliant Sensor. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 163-169.	0.5	1
43	Experimental Power Model Identification of a Flapping Wing Air Vehicle With Flight Test Data. , 2017, , .		0
44	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
45	Stretchable touch-sensing skin over padding for co-robots. Smart Materials and Structures, 2016, 25, 055006.	3.5	18
46	Design, Fabrication, and Characterization of a Soft Multi-Fingered Hand. , 2016, , .		1
47	Performance Characterization of Multifunctional Wings With Integrated Flexible Batteries for Flapping Wing Unmanned Air Vehicles. , 2016, , .		3
48	Using a Large 2 Degree of Freedom Tail for Autonomous Aerobatics on a Flapping Wing Unmanned Aerial Vehicle. , 2016, , .		1
49	Instrumenting a Flapping Wing Air Vehicle System for Free Flight Measurement. , 2016, , .		2
50	Integrating Solar Cells Into Flapping Wing Air Vehicles for Enhanced Flight Endurance. Journal of Mechanisms and Robotics, 2016, 8, .	2.2	17
51	Mechanics of Multifunctional Wings with Solar Cells for Robotic Birds. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 1-10.	0.5	2
52	Modeling of dive maneuvers in flapping wing unmanned aerial vehicles. , 2015, , .		6
53	A Systematic Exploration of Wing Size on Flapping Wing Air Vehicle Performance. , 2015, , .		4
54	Thermal imaging using polymer nanocomposite temperature sensors. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2239-2245.	1.8	18

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55	Design, fabrication, and characterization of multifunctional wings to harvest solar energy in flapping wing air vehicles. <i>Smart Materials and Structures</i> , 2015, 24, 065042.	3.5	32
56	Enhancing the Design of Solar-Powered Flapping Wing Air Vehicles Using Multifunctional Structural Components. , 2015, , .		7
57	Design of Propeller-Assisted Flapping Wing Air Vehicles for Enhanced Aerodynamic Performance. , 2015, , .		8
58	Reversible metal-hydride phase transformation in epitaxial films. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 092201.	1.8	6
59	Flexural behavior of singly curved X-Cor® sandwich composite structures: Experiment and finite element modeling. <i>Composite Structures</i> , 2015, 129, 70-79.	5.8	14
60	A New Methodology for Scaling the Mechanics of Pin-reinforcement in Composite Sandwich Structures under Compression using Digital Image Correlation. <i>Experimental Mechanics</i> , 2015, 55, 27-40.	2.0	8
61	Cell streak imaging cytometry for rare cell detection. <i>Biosensors and Bioelectronics</i> , 2015, 64, 154-160.	10.1	13
62	Mobile Flow Cytometer for mHealth. <i>Methods in Molecular Biology</i> , 2015, 1256, 139-153.	0.9	4
63	Smartphone-Based Fluorescence Detector for mHealth. <i>Methods in Molecular Biology</i> , 2015, 1256, 231-245.	0.9	6
64	Two-Layer Lab-on-a-Chip (LOC) with Passive Capillary Valves for mHealth Medical Diagnostics. <i>Methods in Molecular Biology</i> , 2015, 1256, 247-258.	0.9	3
65	Mechanics of Curved Pin-Reinforced Composite Sandwich Structures. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2015, , 101-108.	0.5	0
66	Mechanics of Compliant Multifunctional Robotic Structures. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2015, , 59-66.	0.5	1
67	Robo Raven: A Flapping-Wing Air Vehicle with Highly Compliant and Independently Controlled Wings. <i>Soft Robotics</i> , 2014, 1, 275-288.	8.0	104
68	Performance Characterization of Multifunctional Wings With Integrated Solar Cells for Unmanned Air Vehicles. , 2014, , .		6
69	Autonomous Loitering Control for a Flapping Wing Miniature Aerial Vehicle With Independent Wing Control. , 2014, , .		8
70	Design of a compliance assisted quadrupedal amphibious robot. , 2014, , .		12
71	Thousand-fold fluorescent signal amplification for mHealth diagnostics. <i>Biosensors and Bioelectronics</i> , 2014, 51, 1-7.	10.1	24
72	Compliant Multifunctional Wing Structures for Flapping Wing MAVs. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2014, , 77-83.	0.5	2

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73	Formation of Self-Assembled Nanoplates via Hydrogenation of Epitaxial Pd Film. Nano Letters, 2014, 14, 1818-1822.	9.1	5
74	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
75	Mechanics of composite sandwich structures with bioinspired core. Composites Science and Technology, 2014, 95, 67-74.	7.8	31
76	Charged-Coupled Device (CCD) Detectors for Lab-on-a Chip (LOC) Optical Analysis. Methods in Molecular Biology, 2013, 949, 365-385.	0.9	7
77	Characterization of the Mechanics of Compliant Wing Designs for Flapping-Wing Miniature Air Vehicles. Experimental Mechanics, 2013, 53, 1561-1571.	2.0	32
78	Orthographic projection capillary array fluorescent sensor for mHealth. Methods, 2013, 63, 276-281.	3.8	6
79	Wing Performance Characterization for Flapping Wing Air Vehicles. , 2013, , .		7
80	Capillary array waveguide amplified fluorescence detector for mHealth. Sensors and Actuators B: Chemical, 2013, 186, 711-717.	7.8	20
81	Electrical percolation based biosensors. Methods, 2013, 63, 282-289.	3.8	16
82	Low-cost technologies for medical diagnostics in low-resource settings. Expert Opinion on Medical Diagnostics, 2013, 7, 243-255.	1.6	41
83	Measurement of Mechanical Properties of Soft Tissues In Vitro Under Controlled Tissue Hydration. Experimental Mechanics, 2013, 53, 405-414.	2.0	16
84	An ELISA Lab-on-a-Chip (ELISA-LOC). Methods in Molecular Biology, 2013, 949, 451-471.	0.9	22
85	Mechanics of Multifunctional Skin Structures. Conference Proceedings of the Society for Experimental Mechanics, 2013, , 107-114.	0.5	1
86	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
87	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
88	Controlling Hysteresis of Metal-hydride Transformations in Epitaxial Thin Films. Materials Research Society Symposia Proceedings, 2013, 1581, 1.	0.1	0
89	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
90	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

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91	Mechanical Engineering TA Training Program Transformation. , 2012, , .		1
92	Development of a Fiber Orientation Measurement Methodology for Injection Molded Thermally-Enhanced Polymers. , 2012, , .		5
93	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
94	Modeling and design of micromachined optical SÃ¶ller collimators for lensless CCD-based fluorometry. Analyst, The, 2012, 137, 5011.	3.5	14
95	Characterization of Physical Properties for Multi-Scale Polymer Composites Under Various Processing Conditions. , 2012, , .		0
96	Lensless CCD-based fluorometer using a micromachined optical SÃ¶ller collimator. Lab on A Chip, 2011, 11, 941.	6.0	37
97	A Methodology for Accurately Measuring Mechanical Properties on the Microâ€šscale. Strain, 2011, 47, 288-300.	2.4	27
98	Microscale characterization of granular deformation near a crack tip. Journal of Materials Science, 2011, 46, 6596-6602.	3.7	27
99	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
100	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
101	Grid Method for Microscale Discontinuous Deformation Measurement. Experimental Mechanics, 2011, 51, 565-574.	2.0	19
102	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
103	Stability of heterophase nanostructure and field induced response of epitaxial ferroelectric films. Applied Physics Letters, 2011, 99, .	3.3	14
104	Elastic Heterophase Domains in Ferroelectric Epitaxial Films. Materials Research Society Symposia Proceedings, 2011, 1369, 1.	0.1	2
105	Modeling and Validation of a Prototype Thermally-Enhanced Polymer Heat Exchanger. , 2011, , .		4
106	Mechanical Behavior of Hierarchically-structured Polymer Composites. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 347-354.	0.5	1
107	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
108	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

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109	Multiscale mechanical and structural characterizations of Palmetto wood for bio-inspired hierarchically structured polymer composites. <i>Materials Science and Engineering C</i> , 2010, 30, 235-244.	7.3	27
110	Electrical percolation-based biosensor for real-time direct detection of staphylococcal enterotoxin B (SEB). <i>Biosensors and Bioelectronics</i> , 2010, 25, 2573-2578.	10.1	25
111	Characterization of a reverse molding sequence at the mesoscale for in-mold assembly of revolute joints. <i>Polymer Engineering and Science</i> , 2010, 50, 1843-1852.	3.1	1
112	Design and Fabrication of a Multi-Material Compliant Flapping Wing Drive Mechanism for Miniature Air Vehicles. , 2010, , .		20
113	Biological Semiconductor Based on Electrical Percolation. <i>Analytical Chemistry</i> , 2010, 82, 3567-3572.	6.5	12
114	Curing effects of single-wall carbon nanotube reinforcement on mechanical properties of filled epoxy adhesives. <i>Composites Part A: Applied Science and Manufacturing</i> , 2010, 41, 729-736.	7.6	36
115	Modeling and Characterization to Minimize Effects of Melt Flow Fronts on Premolded Component Deformation During In-Mold Assembly of Mesoscale Revolute Joints. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2010, 132, .	2.2	0
116	Lab-on-a-chip for label free biological semiconductor analysis of Staphylococcal Enterotoxin B. <i>Lab on A Chip</i> , 2010, 10, 2534.	6.0	13
117	Reversible nanoscale deformation in compositionally graded shape memory alloy films. <i>Applied Physics Letters</i> , 2009, 94, 193114.	3.3	20
118	Characterization of Quasi-static Mechanical Properties of Polymer Nanocomposites Using a New Combinatorial Approach. <i>Journal of Composite Materials</i> , 2009, 43, 2587-2598.	2.4	5
119	Gold nanoparticle-based enhanced chemiluminescence immunosensor for detection of Staphylococcal Enterotoxin B (SEB) in food. <i>International Journal of Food Microbiology</i> , 2009, 133, 265-271.	4.7	107
120	Characterization and control of plastic deformation in mesoscale premolded components to realize in-mold assembled mesoscale revolute joints. <i>Polymer Engineering and Science</i> , 2009, 49, 293-304.	3.1	8
121	Quantitative Error Assessment in Pattern Matching: Effects of Intensity Pattern Noise, Interpolation, Strain and Image Contrast on Motion Measurements. <i>Strain</i> , 2009, 45, 160-178.	2.4	259
122	Nanomechanical Characterisation of Graded NiTi Films Fabricated Through Diffusion Modification. <i>Strain</i> , 2009, 45, 232-237.	2.4	12
123	A Systematic Approach for Designing Multifunctional Thermally Conducting Polymer Structures With Embedded Actuators. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2009, 131, .	2.9	9
124	In Situ Characterization and Modeling of Strains near Embedded Electronic Components During Processing and Break-in for Multifunctional Polymer Structures. <i>Solid Mechanics and Its Applications</i> , 2009, , 145-159.	0.2	0
125	A Modeling Approach for Simulating Heat Dissipation From Actuators and Electronic Components Embedded in Thermally Conducting Polymers. , 2009, , .		0
126	Conductivity enhancement of carbon nanotube and nanofiber-based polymer nanocomposites by melt annealing. <i>Polymer</i> , 2008, 49, 4846-4851.	3.8	152

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127	Thermoplastic Polymer Shrinkage in Emerging Molding Processes. <i>Experimental Mechanics</i> , 2008, 48, 789-798.	2.0	12
128	Characterization of processing effects in HIPS/CNF composites using thermogravimetric analysis. <i>Polymer Engineering and Science</i> , 2008, 48, 1120-1125.	3.1	2
129	Combinatorial development of polymer nanocomposites using transient processing conditions in twin screw extrusion. <i>AIChE Journal</i> , 2008, 54, 1895-1900.	3.6	3
130	Ingredient and processing effects on the burning rates of composite rocket propellants utilizing a reduced-run mixture process experiment design. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2008, 90, 49-63.	3.5	5
131	Effect of TiO ₂ Nanopowder on the Sintering Behavior of Nickel-Alumina Composites for Functionally Graded Materials. <i>Journal of the American Ceramic Society</i> , 2008, 91, 2870-2877.	3.8	8
132	Carbon Nanotubes with Enhanced Chemiluminescence Immunoassay for CCD-Based Detection of Staphylococcal Enterotoxin B in Food. <i>Analytical Chemistry</i> , 2008, 80, 8532-8537.	6.5	82
133	Nanoindentation studies of graded shape memory alloy thin films processed using diffusion modification. <i>Journal of Applied Physics</i> , 2008, 103, 064315.	2.5	20
134	Processing-Structure-Property Relationships in Hierarchically-Structured Polymer Composites for Multifunctional Structures. , 2008, , .		0
135	Implantable Biomedical Devices and Biologically Inspired Materials. <i>Springer Handbooks</i> , 2008, , 891-928.	0.6	4
136	Training mechanical engineering students to utilize biological inspiration during product development. <i>Bioinspiration and Biomimetics</i> , 2007, 2, S198-S209.	2.9	31
137	A new approach for optimizing the mechanical behavior of porous microstructures for porous materials by design. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2007, 15, 653-674.	2.0	19
138	Quantitative characterization of the formation of an interpenetrating phase composite in polystyrene from the percolation of multiwalled carbon nanotubes. <i>Nanotechnology</i> , 2007, 18, 505705.	2.6	34
139	Electrical and Rheological Percolation in Polystyrene/MWCNT Nanocomposites. <i>Macromolecules</i> , 2007, 40, 7400-7406.	4.8	277
140	Replamineform Inspired Bone Structures (RIBS) using multi-piece molds and advanced ceramic gelcasting technology. <i>Materials Science and Engineering C</i> , 2007, 27, 646-653.	7.3	7
141	Evolution of elastic mechanical properties during pressureless sintering of powder-processed metals and ceramics. <i>Journal of Materials Science</i> , 2007, 42, 7708-7715.	3.7	9
142	Development and characterization of high performance solid propellants containing nano-sized energetic ingredients. <i>Proceedings of the Combustion Institute</i> , 2007, 31, 2089-2096.	3.9	65
143	ENERGETIC SYSTEMS AND NANOTECHNOLOGY - A LOOK AHEAD. <i>International Journal of Energetic Materials and Chemical Propulsion</i> , 2007, 6, 39-48.	0.3	2
144	Graded polymer composites using twin-screw extrusion: A combinatorial approach to developing new energetic materials. <i>Composites Part A: Applied Science and Manufacturing</i> , 2006, 37, 957-969.	7.6	23

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145	Effects of Twin-Screw Extrusion Processing on the Burning Rate of Composite Propellants. Propellants, Explosives, Pyrotechnics, 2006, 31, 456-465.	1.6	2
146	Modeling the evolution of stress due to differential shrinkage in powder-processed functionally graded metal-ceramic composites during pressureless sintering. International Journal of Solids and Structures, 2006, 43, 7852-7868.	2.7	32
147	Pressureless sintering of particle-reinforced metal-ceramic composites for functionally graded materials: Part I. Porosity reduction models. Acta Materialia, 2006, 54, 1457-1465.	7.9	42
148	Pressureless sintering of particle-reinforced metal-ceramic composites for functionally graded materials: Part II. Sintering model. Acta Materialia, 2006, 54, 1467-1474.	7.9	17
149	Manufacturing of multi-material compliant mechanisms using multi-material molding. International Journal of Advanced Manufacturing Technology, 2006, 30, 1049-1075.	3.0	54
150	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
151	POINTWISE DIGITAL IMAGE CORRELATION USING GENETIC ALGORITHMS. Experimental Techniques, 2005, 29, 36-39.	1.5	43
152	Theoretical development for pointwise digital image correlation. Optical Engineering, 2005, 44, 067003.	1.0	40
153	A new method for characterizing nonlinearity in scanning probe microscopes using digital image correlation. Nanotechnology, 2005, 16, 1849-1855.	2.6	34
154	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
155	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
156	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
157	Enhancement of Mechanical Engineering Curriculum to Introduce Manufacturing Techniques and Principles for Bio-Inspired Product Development. , 2004, , 159.		5
158	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
159	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
160	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
161	Fabrication and Design of Multifunctional Energetic Structures Using Gradient Architectures. , 2003, , .		1
162	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

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163	A fundamental investigation into large strain recovery of one-way shape memory alloy wires embedded in flexible polyurethanes. <i>Smart Materials and Structures</i> , 2002, 11, 130-139.	3.5	23
164	Characterization of short duration stress pulses generated by impacting laminated carbon-fiber/epoxy composites with magnetic flyer plates. <i>Experimental Mechanics</i> , 2002, 42, 279-287.	2.0	5
165	Guest editorial: Biological and biologically inspired materials. <i>Experimental Mechanics</i> , 2002, 42, 359-360.	2.0	2
166	The role of mechanics in biological and biologically inspired materials. <i>Experimental Mechanics</i> , 2002, 42, 361-371.	2.0	76
167	Three-dimensional effects near the interface in a functionally graded Ni ⁴⁺ Al ₂ O ₃ plate specimen. <i>International Journal of Solids and Structures</i> , 2002, 39, 547-557.	2.7	11
168	The Role of Mechanics in Biological and Biologically Inspired Materials. <i>Experimental Mechanics</i> , 2002, 42, 361-371.	2.0	1
169	Guest Editorial: Biological & Biologically Inspired Materials. <i>Experimental Mechanics</i> , 2002, 42, 359-360.	2.0	3
170	Characterization of Short Duration Stress Pulses Generated by Impacting Laminated Carbon-fiber/Epoxy Composites with Magnetic Flyer Plates. <i>Experimental Mechanics</i> , 2002, 42, 279-287.	2.0	0
171	A one-dimensional model for designing functionally graded materials to manage stress waves. <i>International Journal of Solids and Structures</i> , 2000, 37, 6383-6395.	2.7	106
172	Title is missing!. <i>Journal of Materials Science</i> , 1999, 34, 2241-2251.	3.7	36
173	Evaluation of Rule-of-Mixtures Predictions of Thermal Expansion in Powder-Processed Ni ⁴⁺ Al ₂ O ₃ Composites. <i>Journal of the American Ceramic Society</i> , 1999, 82, 2927-2930.	3.8	30
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