L. Catherine Brinson

List of Publications by Year in Descending Order

165 papers	14,799 citations	59 h-index	120 g-index
174 ext. papers	16,049 ext. citations	6.1 avg, IF	6.57 L-index

#	Paper	IF	Citations
165	Direct evidence of interfacial crystallization preventing weld formation during fused filament fabrication of poly(ether ether ketone). *Additive Manufacturing*, **2022**, 51, 102604	6.1	
164	Data-Driven Multiscale Science for Tire Compounding: Methods and Future Directions. *Springer Series in Materials Science*, **2021**, 281-312	0.9	1
163	ChemProps: A RESTful API enabled database for composite polymer name standardization. *Journal of Cheminformatics*, **2021**, 13, 22	8.6	2
162	Distribution of rubber particles in the weld zone of fused filament fabricated acrylonitrile butadiene styrene and the impact on weld strength. *Additive Manufacturing*, **2021**, 41, 101964	6.1	0
161	Tapered Polymer Whiskers to Enable Three-Dimensional Tactile Feature Extraction. *Soft Robotics*, **2021**, 8, 44-58	9.2	1
160	Best practices and recommendations for accurate nanomechanical characterization of heterogeneous polymer systems with atomic force microscopy. *Progress in Polymer Science*, **2021**, 119, 101420	29.6	4
159	Metalized polyamide heterostructure as a moisture-responsive actuator for multimodal adaptive personal heat management.. *Science Advances*, **2021**, 7, eabj7906	14.3	8
158	Vanishing Cantilever Calibration Error with Magic Ratio Atomic Force Microscopy. *Advanced Theory and Simulations*, **2020**, 3, 2000090	3.5	1
157	Mining structure–property relationships in polymer nanocomposites using data driven finite element analysis and multi-task convolutional neural networks. *Molecular Systems Design and Engineering*, **2020**, 5, 962-975	4.6	12
156	NanoMine: A Knowledge Graph for Nanocomposite Materials Science. *Lecture Notes in Computer Science*, **2020**, 144-159	0.9	2
155	Heterogeneity and inelasticity of deformation in a notched martensitic NiTi shape memory alloy specimen. *Acta Materialia*, **2020**, 194, 49-59	8.4	0
154	Polymer Nanocomposite Data: Curation, Frameworks, Access, and Potential for Discovery and Design. *ACS Macro Letters*, **2020**, 9, 1086-1094	6.6	7
153	Data centric nanocomposites design via mixed-variable Bayesian optimization. *Molecular Systems Design and Engineering*, **2020**, 5, 1376-1390	4.6	4
152	Investigating the effect of surface modification on the dispersion process of polymer nanocomposites. *Nanocomposites*, **2020**, 6, 111-124	3.4	4
151	Temperature effects on the nanoindentation characterization of stiffness gradients in confined polymers. *Soft Matter*, **2019**, 15, 359-370	3.6	7
150	Rethinking interphase representations for modeling viscoelastic properties for polymer nanocomposites. *Materialia*, **2019**, 6, 100277	3.2	6
149	Deconvolution of Stress Interaction Effects from Atomic Force Spectroscopy Data across Polymer–Particle Interfaces. *Macromolecules*, **2019**, 52, 8940-8955	5.5	6

148	Computational analysis of particle reinforced viscoelastic polymer nanocomposites □statistical study of representative volume element. *Journal of the Mechanics and Physics of Solids*, **2018**, 114, 55-74	5	18
147	Influence of Structure and Microstructure on Deformation Localization and Crack Growth in NiTi Shape Memory Alloys. *Shape Memory and Superelasticity*, **2018**, 4, 285-293	2.8	8
146	Computational microstructure characterization and reconstruction: Review of the state-of-the-art techniques. *Progress in Materials Science*, **2018**, 95, 1-41	42.2	132
145	Identifying interphase properties in polymer nanocomposites using adaptive optimization. *Composites Science and Technology*, **2018**, 162, 146-155	8.6	30
144	Open-source micro-tensile testers via additive manufacturing for the mechanical characterization of thin films and papers. *PLoS ONE*, **2018**, 13, e0197999	3.7	2
143	In situ, 3D characterization of the deformation mechanics of a superelastic NiTi shape memory alloy single crystal under multiscale constraint. *Acta Materialia*, **2018**, 144, 748-757	8.4	23
142	NanoMine schema: An extensible data representation for polymer nanocomposites. *APL Materials*, **2018**, 6, 111108	5.7	17
141	A Deep Adversarial Learning Methodology for Designing Microstructural Material Systems **2018**,		17
140	Determination of Mechanical Properties of Polymer Interphase Using Combined Atomic Force Microscope (AFM) Experiments and Finite Element Simulations. *Macromolecules*, **2018**, 51, 8229-8240	5.5	19
139	A Transfer Learning Approach for Microstructure Reconstruction and Structure-property Predictions. *Scientific Reports*, **2018**, 8, 13461	4.9	54
138	Mechanical properties of hard□oft block copolymers calculated from coarse-grained molecular dynamics models. *Journal of Polymer Science, Part B: Polymer Physics*, **2018**, 56, 1552-1566	2.6	5
137	AFM-based Dynamic Scanning Indentation (DSI) Method for Fast, High-resolution Spatial Mapping of Local Viscoelastic Properties in Soft Materials. *Macromolecules*, **2018**, 51, 8964-8978	5.5	9
136	Microstructural Materials Design Via Deep Adversarial Learning Methodology. *Journal of Mechanical Design, Transactions of the ASME*, **2018**, 140,	3	80
135	Influences of granular constraints and surface effects on the heterogeneity of elastic, superelastic, and plastic responses of polycrystalline shape memory alloys. *Journal of the Mechanics and Physics of Solids*, **2017**, 102, 46-66	5	29
134	Dielectric spectroscopy analysis using viscoelasticity-inspired relaxation theory with finite element modeling. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2017**, 24, 3776-3785	2.3	6
133	Effect of machined feature size relative to the microstructural size on the superelastic performance in polycrystalline NiTi shape memory alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 706, 227-235	5.3	13
132	Predicting the breakdown strength and lifetime of nanocomposites using a multi-scale modeling approach. *Journal of Applied Physics*, **2017**, 122, 065101	2.5	12
131	Stiffness Gradients in Glassy Polymer Model Nanocomposites: Comparisons of Quantitative Characterization by Fluorescence Spectroscopy and Atomic Force Microscopy. *Macromolecules*, **2017**, 50, 5447-5458	5.5	22

130	Characterization and modeling of three-dimensional self-healing shape memory alloy-reinforced metal-matrix composites. *Mechanics of Materials*, **2016**, 103, 1-10	3.3	16
129	Toward the development of a quantitative tool for predicting dispersion of nanocomposites under non-equilibrium processing conditions. *Journal of Materials Science*, **2016**, 51, 4238-4249	4.3	35
128	Understanding competing mechanisms for glass transition changes in filled elastomers. *Composites Science and Technology*, **2016**, 127, 88-94	8.6	18
127	Perspective: NanoMine: A material genome approach for polymer nanocomposites analysis and design. *APL Materials*, **2016**, 4, 053204	5.7	31
126	Characterization of local elastic modulus in confined polymer films via AFM indentation. *Macromolecular Rapid Communications*, **2015**, 36, 391-7	4.8	81
125	Fast evaluation of local elastic constants and its application to nanosized structures. *Physical Review B*, **2015**, 91,	3.3	4
124	Measuring interphase stiffening effects in styrene-based polymeric thin films. *Polymer*, **2015**, 75, 161-167	3.9	19
123	Models for nanoindentation of compliant films on stiff substrates. *Journal of Materials Research*, **2015**, 30, 1747-1760	2.5	8
122	Microstructure reconstruction and structural equation modeling for computational design of nanodielectrics. *Integrating Materials and Manufacturing Innovation*, **2015**, 4, 209-234	2.9	18
121	In Situ Neutron Diffraction Studies of Large Monotonic Deformations of Superelastic Nitinol. *Shape Memory and Superelasticity*, **2015**, 1, 252-267	2.8	23
120	Microstructure and mechanical properties of as-cast quasibinary NiTiNb eutectic alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 627, 360-368	5.3	17
119	Multi-modal magnetic resonance elastography for noninvasive assessment of ovarian tissue rigidity in vivo. *Acta Biomaterialia*, **2015**, 13, 295-300	10.8	32
118	Polymer Engineering Science and Viscoelasticity **2015**,		70
117	A combination optimisation method for the estimation of material parameters for viscoelastic solids. *International Journal of Computing Science and Mathematics*, **2014**, 5, 325	0.8	2
116	Plastic and transformation interactions of pores in shape memory alloy plates. *Smart Materials and Structures*, **2014**, 23, 104008	3.4	9
115	NiTi with 3D-interconnected microchannels produced by liquid phase sintering and electrochemical dissolution of steel tubes. *Journal of Materials Processing Technology*, **2014**, 214, 1895-1899	5.3	13
114	Effect of high-energy X-ray irradiation on creep mechanisms in bone and dentin. *Journal of the Mechanical Behavior of Biomedical Materials*, **2013**, 21, 17-31	4.1	10
113	Micromechanical quantification of elastic, twinning, and slip strain partitioning exhibited by polycrystalline, monoclinic nickel–titanium during large uniaxial deformations measured via in-situ neutron diffraction. *Journal of the Mechanics and Physics of Solids*, **2013**, 61, 2302-2330	5	83

112	Hierarchical Structure and Properties of Graphene Oxide Papers. *Journal of Applied Mechanics, Transactions ASME*, **2013**, 80,	2.7	10
111	Stalking the Materials Genome: A Data-Driven Approach to the Virtual Design of Nanostructured Polymers. *Advanced Functional Materials*, **2013**, 23, 5746-5752	15.6	53
110	Explicit finite element implementation of an improved three dimensional constitutive model for shape memory alloys. *Computer Methods in Applied Mechanics and Engineering*, **2013**, 257, 17-35	5.7	47
109	Measurement of elastic constants of monoclinic nickel-titanium and validation of first principles calculations. *Applied Physics Letters*, **2013**, 102, 211908	3.4	20
108	Local and global strains and strain ratios in shape memory alloys using digital imagecorrelation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2013**, 568, 134-142	5.3	28
107	Young□s modulus evolution and texture-based elastic□lastic strain partitioning during large uniaxial deformations of monoclinic nickel□itanium. *Acta Materialia*, **2013**, 61, 1944-1956	8.4	49
106	Effect of Interfacial Energetics on Dispersion and Glass Transition Temperature in Polymer Nanocomposites. *Macromolecules*, **2013**, 46, 2833-2841	5.5	104
105	Thermomechanical properties and deformation of coarse-grained models of hard-soft block copolymers. *Physical Review E*, **2013**, 88, 022602	2.4	10
104	Comparison of Three-Dimensional Shape Memory Alloy Constitutive Models: Finite Element Analysis of Actuation and Superelastic Responses of a Shape Memory Alloy Tube **2013**,		9
103	A numerical study of the coupling of elastic and transformation fields in pore arrays in shape memory alloy plates to advance porous structure design and optimization. *Smart Materials and Structures*, **2013**, 22, 094009	3.4	8
102	Evolution of Phase Strains During Tensile Loading of Bovine Cortical Bone. *Advanced Engineering Materials*, **2013**, 15, 238-249	3.5	3
101	Nanoscale structure and local mechanical properties of fiber-reinforced composites containing MWCNT-grafted hybrid glass fibers. *Composites Science and Technology*, **2012**, 72, 1705-1710	8.6	45
100	Tuning the mechanical properties of graphene oxide paper and its associated polymer nanocomposites by controlling cooperative intersheet hydrogen bonding. *ACS Nano*, **2012**, 6, 2008-19	16.7	361
99	Mechanical properties of thin glassy polymer films filled with spherical polymer-grafted nanoparticles. *Nano Letters*, **2012**, 12, 3909-14	11.5	108
98	Utilizing real and statistically reconstructed microstructures for the viscoelastic modeling of polymer nanocomposites. *Composites Science and Technology*, **2012**, 72, 1725-1732	8.6	32
97	Exfoliation and reassembly of cobalt oxide nanosheets into a reversible lithium-ion battery cathode. *Small*, **2012**, 8, 1110-6	11	31
96	Evolution of load transfer between hydroxyapatite and collagen during creep deformation of bone. *Acta Biomaterialia*, **2012**, 8, 253-61	10.8	30
95	Additive-free hydrogelation of graphene oxide by ultrasonication. *Carbon*, **2012**, 50, 3399-3406	10.4	115

94	Evolution of order during vacuum-assisted self-assembly of graphene oxide paper and associated polymer nanocomposites. *ACS Nano*, **2011**, 5, 6601-9	16.7	140
93	Light-Weight, Fast-Cycling, Shape-Memory Actuation Structures **2011**,		1
92	Neutron diffraction studies and multivariant simulations of shape memory alloys: Concurrent verification of texture development and mechanical response predictions. *Acta Materialia*, **2011**, 59, 5924-5937	8.4	12
91	A new model to simulate the elastic properties of mineralized collagen fibril. *Biomechanics and Modeling in Mechanobiology*, **2011**, 10, 147-60	3.8	59
90	Model and Simulation of an SMA Enhanced Lip Seal. *Journal of Materials Engineering and Performance*, **2011**, 20, 570-578	1.6	1
89	Effect of particle agglomeration and interphase on the glass transition temperature of polymer nanocomposites. *Journal of Polymer Science, Part B: Polymer Physics*, **2011**, 49, 740-748	2.6	98
88	Interfacial and Substrate Effects on Local Elastic Properties of Polymers Using Coupled Experiments and Modeling of Nanoindentation. *Advanced Engineering Materials*, **2011**, 13, 400-404	3.5	56
87	Bio-inspired borate cross-linking in ultra-stiff graphene oxide thin films. *Advanced Materials*, **2011**, 23, 3842-6	24	245
86	Multi-scale reinforcement of CFRPs using carbon nanofibers. *Composites Science and Technology*, **2011**, 71, 79-86	8.6	56
85	Neutron diffraction studies and multivariant simulations of shape memory alloys: Empirical texture development□echanical response relations of martensitic nickel□itanium. *Acta Materialia*, **2011**, 59, 2841-2849	8.4	22
84	Bridged crack models for the toughness of composites reinforced with curved nanotubes. *Journal of the Mechanics and Physics of Solids*, **2011**, 59, 1938-1952	5	23
83	A numerical investigation of porous titanium as orthopedic implant material. *Mechanics of Materials* , **2011**, 43, 420-430	3.3	29
82	Internal strain gradients quantified in bone under load using high-energy X-ray scattering. *Journal of Biomechanics*, **2011**, 44, 291-6	2.9	14
81	Simulations of tensile failure in glassy polymers: effect of cross-link density. *Modelling and Simulation in Materials Science and Engineering*, **2010**, 18, 055005	2	23
80	Physical Aging of Single Wall Carbon Nanotube Polymer Nanocomposites: Effect of Functionalization of the Nanotube on the Enthalpy Relaxation. *Macromolecules*, **2010**, 43, 4247-4252	5.5	41
79	Sacrificial bonds in stacked-cup carbon nanofibers: biomimetic toughening mechanisms for composite systems. *ACS Nano*, **2010**, 4, 4256-64	16.7	87
78	High-Nanofiller-Content Graphene Oxide□Polymer Nanocomposites via Vacuum-Assisted Self-Assembly. *Advanced Functional Materials*, **2010**, 20, 3322-3329	15.6	434
77	Electrically conductive "alkylated" graphene paper via chemical reduction of amine-functionalized graphene oxide paper. *Advanced Materials*, **2010**, 22, 892-6	24	524

76	Measurement of the critical aspect ratio and interfacial shear strength in MWNT/polymer composites. *Composites Science and Technology*, **2010**, 70, 599-605	8.6	29
75	Effect of an interphase region on debonding of a CNT reinforced polymer composite. *Composites Science and Technology*, **2010**, 70, 2207-2215	8.6	73
74	Curved-fiber pull-out model for nanocomposites. Part 1: Bonded stage formulation. *Mechanics of Materials*, **2009**, 41, 279-292	3.3	40
73	Planar aqueous electrode technique for polymer impedance spectroscopy. *Polymer Engineering and Science*, **2009**, 49, 441-453	2.3	3
72	Modeling mechanical aging shift factors in glassy polymers during nonisothermal physical aging. I. Experiments and KAHR-ate model prediction. *Journal of Polymer Science, Part B: Polymer Physics*, **2009**, 47, 340-352	2.6	10
71	Preparation and characterization of multiwalled carbon nanotube dispersions in polypropylene: Melt mixing versus solid-state shear pulverization. *Journal of Polymer Science, Part B: Polymer Physics*, **2009**, 47, 1426-1436	2.6	37
70	Curved-fiber pull-out model for nanocomposites. Part 2: Interfacial debonding and sliding. *Mechanics of Materials*, **2009**, 41, 293-307	3.3	34
69	Simulation of interphase percolation and gradients in polymer nanocomposites. *Composites Science and Technology*, **2009**, 69, 491-499	8.6	222
68	Effects of dispersion and interfacial modification on the macroscale properties of TiO(2) polymer matrix nanocomposites. *Composites Science and Technology*, **2009**, 69, 1880-1886	8.6	138
67	Comments to the paper Differential and integrated form consistency in 1-D phenomenological models for shape memory alloy constitutive behavior by V.R. Buravalla and A. Khandelwal [Int. J. Solids and Struct. 44 (2007) 4369–4381]. *International Journal of Solids and Structures*, **2009**, 46, 217-220	3.1	5
66	Functionalized graphene sheets for polymer nanocomposites. *Nature Nanotechnology*, **2008**, 3, 327-31	28.7	2899
65	Polymer Engineering Science and Viscoelasticity **2008**,		259
64	Polymer–Graphite Nanocomposites: Effective Dispersion and Major Property Enhancement via Solid-State Shear Pulverization. *Macromolecules*, **2008**, 41, 1905-1908	5.5	250
63	Effect of Cross-Link Density on Interphase Creation in Polymer Nanocomposites. *Macromolecules*, **2008**, 41, 6752-6756	5.5	190
62	Junction-Controlled Elasticity of Single-Walled Carbon Nanotube Dispersions in Acrylic Copolymer Gels and Solutions. *Macromolecules*, **2008**, 41, 4340-4346	5.5	15
61	Comment on: A Correction to the Brinson's Evolution Kinetics for Shape Memory Alloys. *Journal of Intelligent Material Systems and Structures*, **2008**, 19, 1113-1113	2.3	0
60	Titanium with aligned, elongated pores for orthopedic tissue engineering applications. *Journal of Biomedical Materials Research - Part A*, **2008**, 84, 402-12	5.4	39
59	Effect of microstructural configurations on the mechanical responses of porous titanium: A numerical design of experiment analysis for orthopedic applications. *Mechanics of Materials*, **2008**, 40, 708-720	3.3	29

58	Reinforcing efficiency of nanoparticles: A simple comparison for polymer nanocomposites. *Composites Science and Technology*, **2008**, 68, 1502-1512	8.6	181
57	Mimicking mussel adhesion to improve interfacial properties in composites. *Composites Science and Technology*, **2008**, 68, 2042-2048	8.6	59
56	Computational modeling of porous shape memory alloys. *International Journal of Solids and Structures*, **2008**, 45, 5613-5626	3.1	61
55	Phase diagram kinetics for shape memory alloys: a robust finite element implementation. *Smart Materials and Structures*, **2007**, 16, 2102-2115	3.4	32
54	Finite element modeling of porous titanium. *International Journal of Solids and Structures*, **2007**, 44, 320-335	3.1	77
53	A three-dimensional phenomenological model for martensite reorientation in shape memory alloys. *Journal of the Mechanics and Physics of Solids*, **2007**, 55, 2491-2511	5	203
52	Graphitic nanofillers in PMMA nanocomposites—An investigation of particle size and dispersion and their influence on nanocomposite properties. *Journal of Polymer Science, Part B: Polymer Physics*, **2007**, 45, 2097-2112	2.6	204
51	Polymer nanocomposites: A small part of the story. *Jom*, **2007**, 59, 53-60	2.1	192
50	Finite element simulation of a self-healing shape memory alloy composite. *Mechanics of Materials*, **2006**, 38, 525-537	3.3	68
49	Shape memory alloys, Part I: General properties and modeling of single crystals. *Mechanics of Materials*, **2006**, 38, 391-429	3.3	348
48	Shape memory alloys, Part II: Modeling of polycrystals. *Mechanics of Materials*, **2006**, 38, 430-462	3.3	267
47	Use of electrical resistance testing to redefine the transformation kinetics and phase diagram for shape-memory alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2006**, 37, 579-587	2.3	18
46	Finite Element Analysis of Adaptive-Stiffening and Shape-Control SMA Hybrid Composites. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2006**, 128, 285	1.8	12
45	A Hybrid Numerical-Analytical Method for Modeling the Viscoelastic Properties of Polymer Nanocomposites. *Journal of Applied Mechanics, Transactions ASME*, **2006**, 73, 758-768	2.7	63
44	A numerical investigation of the effect of boundary conditions and representative volume element size for porous titanium. *Journal of Mechanics of Materials and Structures*, **2006**, 1, 1179-1204	1.2	32
43	Multiresolution analysis for material design. *Computer Methods in Applied Mechanics and Engineering*, **2006**, 195, 5053-5076	5.7	67
42	Reinforcement mechanisms in MWCNT-filled polycarbonate. *Composites Science and Technology*, **2006**, 66, 1162-1173	8.6	280
41	Numerical modeling of pore size and distribution in foamed titanium. *Mechanics of Materials*, **2006**, 38, 933-944	3.3	100

40	Amino-Functionalized Carbon Nanotubes for Binding to Polymers and Biological Systems. *Chemistry of Materials*, **2005**, 17, 1290-1295	9.6	860
39	New directions in mechanics. *Mechanics of Materials*, **2005**, 37, 231-259	3.3	104
38	A bioactive titanium foam scaffold for bone repair. *Acta Biomaterialia*, **2005**, 1, 523-33	10.8	154
37	Functionalized SWNT/polymer nanocomposites for dramatic property improvement. *Journal of Polymer Science, Part B: Polymer Physics*, **2005**, 43, 2269-2279	2.6	237
36	SMA texture and reorientation: simulations and neutron diffraction studies **2005**, 5764, 715		3
35	Finite element analysis of adaptive-stiffening and shape-control SMA hybrid composites **2005**,		1
34	Chronic aspartame affects T-maze performance, brain cholinergic receptors and Na+,K+-ATPase in rats. *Pharmacology Biochemistry and Behavior*, **2004**, 78, 121-7	3.9	46
33	Mechanics considerations for microporous titanium as an orthopedic implant material. *Journal of Biomedical Materials Research Part B*, **2004**, 69, 601-10		110
32	Effects of Pore Morphology and Bone Ingrowth on Mechanical Properties of Microporous Titanium as an Orthopaedic Implant Material. *Materials Transactions*, **2004**, 45, 1124-1131	1.3	72
31	Experimental Study of Viscoelastic Effects and Aging on Elevated Temperature Damage and Failure in Polymer Composites. *Mechanics of Time-Dependent Materials*, **2003**, 7, 1-19	1.2	1
30	Fiber waviness in nanotube-reinforced polymer composites Modulus predictions using effective nanotube properties. *Composites Science and Technology*, **2003**, 63, 1689-1703	8.6	384
29	Fiber waviness in nanotube-reinforced polymer composites : modeling via numerical approximation of the dilute strain concentration tensor. *Composites Science and Technology*, **2003**, 63, 1705-1722	8.6	183
28	Direct Observation of Polymer Sheathing in Carbon Nanotube Polycarbonate Composites. *Nano Letters*, **2003**, 3, 1593-1597	11.5	232
27	Bone-Shaped Nanomaterials for Nanocomposite Applications. *Nano Letters*, **2003**, 3, 1135-1139	11.5	47
26	Model for high-strain-rate deformation of uranium niobium alloys. *Journal of Applied Physics*, **2003**, 93, 9644-9654	2.5	11
25	Micro and macromechanical observation of polycrystalline NiTi using in situ optical microscopy. *European Physical Journal Special Topics*, **2003**, 112, 655-658		3
24	Three-dimensional constitutive model for shape memory alloys based on microplane model. *Journal of the Mechanics and Physics of Solids*, **2002**, 50, 1051-1077	5	133
23	A Simplified Multivariant SMA Model Based on Invariant Plane Nature of Martensitic Transformation. *Journal of Intelligent Material Systems and Structures*, **2002**, 13, 795-810	2.3	30

22	Micro and Macromechanical Investigations of CuAlNi Single Crystal and CuAlMnZn Polycrystalline Shape Memory Alloys. *Journal of Intelligent Material Systems and Structures*, **2002**, 13, 761-772	2.3	19
21	Effects of nanotube waviness on the modulus of nanotube-reinforced polymers. *Applied Physics Letters*, **2002**, 80, 4647-4649	3.4	244
20	Viscoelastic interphases in polymer-matrix composites: theoretical models and finite-element analysis. *Composites Science and Technology*, **2001**, 61, 731-748	8.6	134
19	SMA single-crystal experiments and micromechanical modeling for complex thermomechanical loading **2000**, 3992, 516		1
18	A multivariant micromechanical model for SMAs Part 1. Crystallographic issues for single crystal model. *International Journal of Plasticity*, **2000**, 16, 1345-1369	7.6	94
17	A multivariant micromechanical model for SMAs Part 2. Polycrystal model. *International Journal of Plasticity*, **2000**, 16, 1371-1390	7.6	74
16	The variant selection criteria in single-crystal CuAlNi shape memory alloys. *Smart Materials and Structures*, **2000**, 9, 571-581	3.4	23
15	A continuous test data method to determine a reference curve and shift rate for isothermal physical aging. *Polymer Engineering and Science*, **1999**, 39, 211-235	2.3	16
14	Mechanical response of linear viscoelastic composite laminates incorporating non-isothermal physical aging effects. *Composites Science and Technology*, **1999**, 59, 1411-1427	8.6	28
13	Queen Elizabeth's image repair discourse: Insensitive royal or compassionate queen?. *Public Relations Review*, **1999**, 25, 145-156	4.1	69
12	Phase diagram based description of the hysteresis behavior of shape memory alloys. *Acta Materialia*, **1998**, 46, 3649-3665	8.4	126
11	A Multivariant model for single crystal shape memory alloy behavior. *Journal of the Mechanics and Physics of Solids*, **1998**, 46, 1379-1409	5	137
10	Comparison of micromechanics methods for effective properties of multiphase viscoelastic composites. *Composite Structures*, **1998**, 41, 353-367	5.3	116
9	Recovering Nonisothermal Physical Aging Shift Factors Via Continuous Test Data: Theory and Experimental Results. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **1997**, 119, 233-241	1.8	11
8	Special Issue on Characterization and Modeling of Polymeric Material Systems. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **1997**, 119, 197-197	1.8	
7	Physical aging in polymers and polymer composites: An analysis and method for time-aging time superposition. *Polymer Engineering and Science*, **1997**, 37, 31-44	2.3	77
6	Temperature-induced phase transformation in a shape memory alloy: Phase diagram based kinetics approach. *Journal of the Mechanics and Physics of Solids*, **1997**, 45, 949-988	5	105
5	Effects of physical aging on long term creep of polymers and polymer matrix composites. *International Journal of Solids and Structures*, **1995**, 32, 827-846	3.1	111

4	Finite element analysis of the behavior of shape memory alloys and their applications. *International Journal of Solids and Structures*, **1993**, 30, 3261-3280	3.1	213
3	Finite Element Analysis of Multiphase Viscoelastic Solids. *Journal of Applied Mechanics, Transactions ASME*, **1992**, 59, 730-737	2.7	37
2	Thermorheologically complex behavior of multi-phase viscoelastic materials. *Journal of the Mechanics and Physics of Solids*, **1991**, 39, 859-880	5	30
1	The materials tetrahedron has a digital twin *MRS Bulletin*,1	3.2	4