

Assimina A Pelegri

List of Publications by Year in descending order

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75
papers

972
citations

567281

15
h-index

454955

30
g-index

77
all docs

77
docs citations

77
times ranked

860
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical generation of a random chopped fiber composite RVE and its elastic properties. <i>Composites Science and Technology</i> , 2008, 68, 2792-2798.	7.8	170
2	Analysis of 3D random chopped fiber reinforced composites using FEM and random sequential adsorption. <i>Computational Materials Science</i> , 2008, 43, 450-461.	3.0	113
3	Nanoindentation on soft film/hard substrate and hard film/soft substrate material systems with finite element analysis. <i>Composites Science and Technology</i> , 2008, 68, 147-155.	7.8	83
4	Growth of internal delaminations under cyclic compression in composite plates. <i>Journal of the Mechanics and Physics of Solids</i> , 1995, 43, 847-866.	4.8	50
5	Finite element analysis on nanoindentation with friction contact at the film/substrate interface. <i>Composites Science and Technology</i> , 2007, 67, 1311-1319.	7.8	46
6	Numerical characterization of material elastic properties for random fiber composites. <i>Journal of Mechanics of Materials and Structures</i> , 2008, 3, 1279-1298.	0.6	43
7	Limiting role of crystalline domain orientation on the modulus and strength of aramid fibers. <i>Polymer</i> , 2018, 140, 96-106.	3.8	33
8	Delamination growth during pre- and post-buckling phases of delaminated composite laminates. <i>International Journal of Solids and Structures</i> , 1998, 35, 19-31.	2.7	32
9	Finite Element Modeling of CNS White Matter Kinematics: Use of a 3D RVE to Determine Material Properties. <i>Frontiers in Bioengineering and Biotechnology</i> , 2013, 1, 19.	4.1	32
10	Nanoindentation Measurements on Low-k Porous Silica Thin Films Spin Coated on Silicon Substrates. <i>Journal of Engineering Materials and Technology</i> , <i>Transactions of the ASME</i> , 2003, 125, 361-367.	1.4	25
11	A Transition Model for Finite Element Simulation of Kinematics of Central Nervous System White Matter. <i>IEEE Transactions on Biomedical Engineering</i> , 2011, 58, 3443-3446.	4.2	22
12	A mechanical model to compute elastic modulus of tissues for harmonic motion imaging. <i>Journal of Biomechanics</i> , 2008, 41, 2150-2158.	2.1	20
13	The stability of delamination growth in compressively loaded composite plates. <i>International Journal of Fracture</i> , 1994, 65, 261-276.	2.2	19
14	Mechanical Characterization of Thin Film Materials with Nanoindentation Measurements and FE Analysis. <i>Journal of Composite Materials</i> , 2006, 40, 1393-1407.	2.4	18
15	Optimization of Laminates' Fracture Toughness Using Design of Experiments and Response Surface. <i>Journal of Composite Materials</i> , 2003, 37, 579-596.	2.4	17
16	Characterization of the three-dimensional kinematic behavior of axons in central nervous system white matter. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015, 14, 1303-1315.	2.8	15
17	Molecular Dynamics Study of Cubic Boron Nitride Nanoparticles: Decomposition with Phase Segregation during Melting. <i>ACS Nano</i> , 2016, 10, 10563-10572.	14.6	15
18	Design of composites using a generic unit cell model coupled with a hybrid genetic algorithm. <i>Composites Part A: Applied Science and Manufacturing</i> , 2008, 39, 1433-1443.	7.6	14

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19	Three-Dimensional Numerical Simulation of Random Fiber Composites With High Aspect Ratio and High Volume Fraction. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2011, 133, .	1.4	14
20	Multiscale modeling of matrix cracking coupled with interfacial debonding in random glass fiber composites based on volume elements. <i>Journal of Composite Materials</i> , 2013, 47, 3389-3399.	2.4	12
21	Dynamic Simulation of Viscoelastic Soft Tissue in Acoustic Radiation Force Creep Imaging. <i>Journal of Biomechanical Engineering</i> , 2014, 136, 094502.	1.3	12
22	Fiberwalk: a random walk approach to fiber representative volume element creation. <i>Acta Mechanica</i> , 2014, 225, 1301-1312.	2.1	12
23	Approximate Analysis of the Buckling Behavior of Composites with Delamination. <i>Journal of Composite Materials</i> , 2003, 37, 673-685.	2.4	11
24	Progressive Damage Analysis of Random Chopped Fiber Composite Using Finite Elements. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2011, 133, .	1.4	11
25	Estimating axonal strain and failure following white matter stretch using contactin-associated protein as a fiduciary marker. <i>Journal of Biomechanics</i> , 2017, 51, 32-41.	2.1	11
26	Multiscale modeling of randomly interwoven fibers for prediction of KM2 Kevlar yarn strength and damage. <i>Acta Mechanica</i> , 2015, 226, 4149-4158.	2.1	10
27	A Bayesian approach for characterization of soft tissue viscoelasticity in acoustic radiation force imaging. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2016, 32, e02741.	2.1	10
28	Tunable Electrical Properties of Embossed, Cellulose-Based Paper for Skin-like Sensing. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 51960-51968.	8.0	10
29	Growth behavior of internal delaminations in composite beam/plates under compression: effect of the end conditions. <i>International Journal of Fracture</i> , 1996, 75, 49-67.	2.2	8
30	Interfacial crack kinking subjected to contact effects. <i>Journal of Mechanics of Materials and Structures</i> , 2008, 3, 591-605.	0.6	8
31	Assessment of the Fracture Behavior of an Asymmetrically Loaded Cantilever Composite Structure. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2003, 125, 353-360.	1.4	7
32	Tensile properties of zinc coated aluminium. <i>Surface and Coatings Technology</i> , 1993, 57, 203-206.	4.8	6
33	Determining the Self-Limiting Electro spray Deposition Compositional Limits for Mechanically Tunable Polymer Composites. <i>ACS Applied Polymer Materials</i> , 2022, 4, 3511-3519.	4.4	6
34	Evolution of Interlayer and Intralayer Cracks Under Compressive Fatigue in Composites. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 1999, 121, 430-435.	1.4	5
35	Influence of matrix plasticity and residual thermal stress on interfacial debonding of a single fiber composite. <i>Journal of Mechanics of Materials and Structures</i> , 2010, 5, 129-142.	0.6	5
36	Graphene-reinforced polymer matrix composites fabricated by in situ shear exfoliation of graphite in polymer solution: processing, rheology, microstructure, and properties. <i>Nanotechnology</i> , 2021, 32, 175703.	2.6	5

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37	Numerical Evaluation of Stiffness and Energy Absorption of a Hybrid Unidirectional/Random Glass Fiber Composite. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2011, 133, .	1.4	4
38	Tests and analysis on the delamination fatigue growth in glass/epoxy composite plates. , 1996, , .		3
39	Interfacial Debonding of Glass Single Fiber Composites Using the Johnson-Cook Failure Model. , 2013, , .		3
40	A Hierarchical Model for Kevlar Fiber Failure. , 2013, , .		3
41	Modelling of global boundary effects on harmonic motion imaging of soft tissues. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 1021-1031.	1.6	3
42	Analytical model of nonlinear twist dependency for Kevlar yarn based on local filament strain. <i>Acta Mechanica</i> , 2017, 228, 561-574.	2.1	3
43	Experimental Investigation of Transverse Mechanical Properties of High-Performance Kevlar KM2 Single Fiber. , 2017, , .		3
44	Sensitivity analysis of effective transverse shear viscoelastic and diffusional properties of myelinated white matter. <i>Physics in Medicine and Biology</i> , 2021, 66, 035027.	3.0	3
45	Dynamic simulation of viscoelastic soft tissues in harmonic motion imaging application. <i>Journal of Biomechanics</i> , 2008, 41, 3031-3037.	2.1	2
46	On the transverse indentation moduli of high-performance KM2 single fibers using a curved area function. <i>Acta Mechanica</i> , 2020, 231, 2113-2124.	2.1	2
47	On the Transversely Isotropic, Hyperelastic Response of Central Nervous System White Matter Using a Hybrid Approach. <i>Journal of Engineering and Science in Medical Diagnostics and Therapy</i> , 2021, 4, .	0.5	2
48	Nanoindentation of freestanding single Kevlar® fibers with an adjusted indentation area function. <i>Journal of Materials Research and Technology</i> , 2022, 19, 1472-1483.	5.8	2
49	On the Energy Release Rate of Fatigued Composites Subjected to Compressive Overloads. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2000, 122, 443-449.	1.4	1
50	Mapping of Regional Cancerous Tissue Mechanical Property Changes Using Harmonic Motion Imaging. , 2007, , .		1
51	Finite element dynamic analysis of soft tissues using state-space model. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2009, 12, 197-209.	1.6	1
52	Simulation of the Mechanical Behavior of White Matter Using a Micromechanics Finite Element Method. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1301, 87.	0.1	1
53	Pseudo 3D RVE Based Finite Element Simulation on White Matter. , 2012, , .		1
54	Modeling Dynamic Responses of Viscoelastic Heterogeneous Soft Tissues to Step Acoustic Radiation Force. , 2013, , .		1

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55	Brain White Matter Model of Orthotropic Viscoelastic Properties in Frequency Domain. , 2019, , .		1
56	Serration effects on interfacial cracks. Journal of Mechanics of Materials and Structures, 2007, 2, 1773-1785.	0.6	1
57	Emulating the Interfacial Kinematics of CNS White Matter With Finite Element Techniques. , 2011, , .		1
58	Special Issue on Durability and Damage Tolerance of Heterogeneous Materials. Journal of Engineering Materials and Technology, Transactions of the ASME, 1999, 121, 405-405.	1.4	0
59	Failure prediction of graphite/epoxy laminates with induced intermittent load surge during fatigue. Acta Materialia, 2002, 50, 4813-4821.	7.9	0
60	Special Issue on Durability and Damage Tolerance of Heterogeneous Materials and Structures. Journal of Engineering Materials and Technology, Transactions of the ASME, 2003, 125, 345-345.	1.4	0
61	Dynamic Analysis of Soft Tissue Viscoelasticity Under Ultrasonic Radiation Force Using FEM. , 2007, , 121.		0
62	Interfacial Debonding and Stress Field Analysis on a Single Fiber Composite Using FEM. , 2008, , .		0
63	Dynamic Analysis of Soft Tissues With Hard Inclusions. , 2008, , .		0
64	Finite Element Analysis on the Random Chopped Fiber Composites. , 2009, , .		0
65	Response of Random Chopped Fiber Reinforced Composite to Uniaxial Tensile Load. , 2009, , .		0
66	Numerical Test Method for Random Chopped Fiber Composites. , 2010, , .		0
67	Recent Advances on Composites and Heterogeneous Materials. Journal of Engineering Materials and Technology, Transactions of the ASME, 2011, 133, .	1.4	0
68	Strain Rate Effect on the Stiffness of Random Fiber Composites due to Matrix Cracking and Interfacial Debonding. , 2012, , .		0
69	Contrast-Transfer Efficiency of Localized Harmonic Motion Imaging for Viscoelastic Soft Tissues: A Simulation Study. , 2012, , .		0
70	On Interfacial Fracture Toughness Measurements of a Single Glass Fiber. , 2012, , .		0
71	A Micromechanical Model for Shear-Induced Platelet Damage in Capillaries Within Gray Matter. , 2013, , .		0
72	Computational-Experimental Investigation of Progressive Damage Using Johnson-Cook and Cohesive Zone Models in Fiberglass Composites. , 2017, , .		0

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73	A Computer Experiment Based Model for a Spirally-Wounded Lithium-Ion Cell. , 2017, , .		0
74	Integrated System for Soft Tissue Dynamic Simulation. , 2010, , .		0
75	Investigation of Cyclic and Frequency Nanoindentation Effects in Polydimethylsiloxane. , 2019, , .		0