

Gregory M Odegard

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

127
papers

5,793
citations

35
h-index

74
g-index

158
ext. papers

6,601
ext. citations

5.1
avg, IF

5.93
L-index

#	Paper	IF	Citations
127	Constitutive modeling of nanotube-reinforced polymer composites. <i>Composites Science and Technology</i> , 2003 , 63, 1671-1687	8.6	606
126	Equivalent-continuum modeling of nano-structured materials. <i>Composites Science and Technology</i> , 2002 , 62, 1869-1880	8.6	486
125	Modeling of the mechanical properties of nanoparticle/polymer composites. <i>Polymer</i> , 2005 , 46, 553-562	3.9	466
124	The stress-strain behavior of polymer-nanotube composites from molecular dynamics simulation. <i>Composites Science and Technology</i> , 2003 , 63, 1655-1661	8.6	386
123	Nanoclay-modified asphalt materials: Preparation and characterization. <i>Construction and Building Materials</i> , 2011 , 25, 1072-1078	6.7	278
122	Physical aging of epoxy polymers and their composites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011 , 49, 1695-1716	2.6	210
121	Molecular modeling of crosslinked epoxy polymers: The effect of crosslink density on thermomechanical properties. <i>Polymer</i> , 2011 , 52, 2445-2452	3.9	209
120	Mechanical properties of graphene nanoplatelet/epoxy composites. <i>Journal of Applied Polymer Science</i> , 2013 , 128, 4217-4223	2.9	196
119	Computational materials: Multi-scale modeling and simulation of nanostructured materials. <i>Composites Science and Technology</i> , 2005 , 65, 2416-2434	8.6	169
118	Characterization of viscoelastic properties of polymeric materials through nanoindentation. <i>Experimental Mechanics</i> , 2005 , 45, 130-136	2.6	166
117	Constitutive modeling of piezoelectric polymer composites. <i>Acta Materialia</i> , 2004 , 52, 5315-5330	8.4	153
116	Mechanical properties of graphene nanoplatelet/carbon fiber/epoxy hybrid composites: Multiscale modeling and experiments. <i>Carbon</i> , 2015 , 95, 100-112	10.4	146
115	Asynchronous Crystal Cell Expansion during Lithiation of K(+)-Stabilized EMnO_2 . <i>Nano Letters</i> , 2015 , 15, 2998-3007	11.5	137
114	Transversely isotropic tensile material properties of skeletal muscle tissue. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2010 , 3, 124-9	4.1	132
113	Predicting mechanical response of crosslinked epoxy using ReaxFF. <i>Chemical Physics Letters</i> , 2014 , 591, 175-178	2.5	93
112	Simulation of the Elastic and Ultimate Tensile Properties of Diamond, Graphene, Carbon Nanotubes, and Amorphous Carbon Using a Revised ReaxFF Parametrization. <i>Journal of Physical Chemistry A</i> , 2015 , 119, 9710-21	2.8	74
111	Molecular modeling of EPON-862/graphite composites: Interfacial characteristics for multiple crosslink densities. <i>Composites Science and Technology</i> , 2013 , 76, 92-99	8.6	73

110	Effect of Nanotube Functionalization on the Elastic Properties of Polyethylene Nanotube Composites. <i>AIAA Journal</i> , 2005 , 43, 1828-1835	2.1	73
109	Determination of shear strength of unidirectional composite materials with the Iosipescu and 10° off-axis shear tests. <i>Composites Science and Technology</i> , 2000 , 60, 2917-2943	8.6	71
108	Direct Evidence of Lithium-Induced Atomic Ordering in Amorphous TiO ₂ Nanotubes. <i>Chemistry of Materials</i> , 2014 , 26, 1660-1669	9.6	65
107	The effect of time step, thermostat, and strain rate on ReaxFF simulations of mechanical failure in diamond, graphene, and carbon nanotube. <i>Journal of Computational Chemistry</i> , 2015 , 36, 1587-96	3.5	61
106	Elastic-plastic and failure properties of a unidirectional carbon/PMR-15 composite at room and elevated temperatures. <i>Composites Science and Technology</i> , 2000 , 60, 2979-2988	8.6	60
105	Finite size effect on the piezoelectric properties of ZnO nanobelts: A molecular dynamics approach. <i>Acta Materialia</i> , 2012 , 60, 5117-5124	8.4	50
104	Comparison of two models of SWCN polymer composites. <i>Composites Science and Technology</i> , 2004 , 64, 1011-1020	8.6	49
103	Micro- and mesomechanics of 8-harness satin woven fabric composites: I Evaluation of elastic behavior. <i>Composites Part A: Applied Science and Manufacturing</i> , 2001 , 32, 1627-1655	8.4	47
102	Giant stretchability and reversibility of tightly wound helical carbon nanotubes. <i>Journal of the American Chemical Society</i> , 2013 , 135, 13775-85	16.4	46
101	Nanocomposite electrical generator based on piezoelectric zinc oxide nanowires. <i>Journal of Applied Physics</i> , 2010 , 108, 114303	2.5	43
100	Multiscale modeling and analysis of graphene nanoplatelet/carbon fiber/epoxy hybrid composite. <i>Composites Part B: Engineering</i> , 2017 , 131, 82-90	10	41
99	Hyperelastic properties of human meniscal attachments. <i>Journal of Biomechanics</i> , 2011 , 44, 413-8	2.9	40
98	Atomic Origins of Monoclinic-Tetragonal (Rutile) Phase Transition in Doped VO ₂ Nanowires. <i>Nano Letters</i> , 2015 , 15, 7179-88	11.5	39
97	Nonlinear multiscale modeling of polymer materials. <i>International Journal of Solids and Structures</i> , 2007 , 44, 1161-1179	3.1	39
96	Molecular Modeling of Cross-Linked Polymers with Complex Cure Pathways: A Case Study of Bismaleimide Resins. <i>Macromolecules</i> , 2018 , 51, 1830-1840	5.5	37
95	2-D nano-scale finite element analysis of a polymer field. <i>Composites Science and Technology</i> , 2003 , 63, 1581-1590	8.6	36
94	Fracture properties of nanographene reinforced EPON 862 thermoset polymer system. <i>Composites Science and Technology</i> , 2015 , 114, 87-93	8.6	35
93	Comparing the Mechanical Response of Di-, Tri-, and Tetra-functional Resin Epoxies with Reactive Molecular Dynamics. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2018 , 56, 255-264	2.6	35

92	Cations controlled growth of MnO ₂ crystals with tunable facets for electrochemical energy storage. <i>Nano Energy</i> , 2018 , 48, 301-311	17.1	32
91	Nanoindentation of the insertional zones of human meniscal attachments into underlying bone. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2009 , 2, 339-47	4.1	32
90	Facesheet delamination of composite sandwich materials at cryogenic temperatures. <i>Composites Science and Technology</i> , 2006 , 66, 2423-2435	8.6	32
89	Thermal conductivity of graphene nanoplatelet/cycloaliphatic epoxy composites: Multiscale modeling. <i>Carbon</i> , 2018 , 140, 653-663	10.4	32
88	Multiscale modeling of carbon fiber- graphene nanoplatelet-epoxy hybrid composites using a reactive force field. <i>Composites Part B: Engineering</i> , 2019 , 172, 628-635	10	31
87	Multiscale modeling of carbon fiber/carbon nanotube/epoxy hybrid composites: Comparison of epoxy matrices. <i>Composites Science and Technology</i> , 2018 , 166, 20-26	8.6	31
86	Regional and fiber orientation dependent shear properties and anisotropy of bovine meniscus. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011 , 4, 2024-30	4.1	31
85	Parametric Study of ReaxFF Simulation Parameters for Molecular Dynamics Modeling of Reactive Carbon Gases. <i>Journal of Chemical Theory and Computation</i> , 2012 , 8, 3003-8	6.4	27
84	Skeletal muscle tensile strain dependence: Hyperviscoelastic nonlinearity. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 53, 445-454	4.1	25
83	Structure-property relationships in polymer composites with micrometer and submicrometer graphite platelets. <i>Experimental Mechanics</i> , 2005 , 45, 507-516	2.6	25
82	Nonlinear Analysis of Woven Fabric-Reinforced Graphite/PMR-15 Composites under Shear-Dominated Biaxial Loads. <i>Mechanics of Advanced Materials and Structures</i> , 2000 , 7, 129-152	1.8	23
81	Determination and Modeling of Mechanical Properties for Graphene Nanoplatelet/Epoxy Composites. <i>Polymer Composites</i> , 2018 , 39, 1845-1851	3	22
80	A validated model of passive skeletal muscle to predict force and intramuscular pressure. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017 , 16, 1011-1022	3.8	19
79	Constitutive Modeling of Nanotube-Reinforced Polymer Composites 2002 ,		19
78	Shielding effectiveness of carbon-filled polypropylene composites. <i>Journal of Composite Materials</i> , 2016 , 50, 2177-2189	2.7	18
77	Simulating the effects of carbon nanotube continuity and interfacial bonding on composite strength and stiffness. <i>Composites Science and Technology</i> , 2018 , 166, 10-19	8.6	18
76	Multiscale thermal modeling of cured cycloaliphatic epoxy/carbon fiber composites. <i>Journal of Applied Polymer Science</i> , 2018 , 135, 46371	2.9	17
75	A machine learning framework for predicting the shear strength of carbon nanotube-polymer interfaces based on molecular dynamics simulation data. <i>Composites Science and Technology</i> , 2021 , 207, 108627	8.6	17

74	Transverse mechanical properties of collagen fibers from nanoindentation. <i>Journal of Materials Science: Materials in Medicine</i> , 2011 , 22, 1375-81	4.5	16
73	Multiscale modeling of polymer materials using a statistics-based micromechanics approach. <i>Acta Materialia</i> , 2009 , 57, 525-532	8.4	16
72	Modeling and Testing of the Viscoelastic Properties of a Graphite Nanoplatelet/Epoxy Composite. <i>Journal of Intelligent Material Systems and Structures</i> , 2006 , 17, 239-246	2.3	16
71	Interfacial characteristics between flattened CNT stacks and polyimides: A molecular dynamics study. <i>Computational Materials Science</i> , 2020 , 185, 109970	3.2	16
70	Multiscale modeling of PEEK using reactive molecular dynamics modeling and micromechanics. <i>Polymer</i> , 2019 , 163, 96-105	3.9	16
69	Intraneural ganglia: a clinical problem deserving a mechanistic explanation and model. <i>Neurosurgical Focus</i> , 2009 , 26, E11	4.2	15
68	Failure Investigation of Graphite/Polyimide Fabric Composites at Room and Elevated Temperatures Using the Biaxial Iosipescu Test. <i>Journal of Composite Materials</i> , 1999 , 33, 2038-2079	2.7	15
67	How does tissue preparation affect skeletal muscle transverse isotropy?. <i>Journal of Biomechanics</i> , 2016 , 49, 3056-3060	2.9	15
66	Insight into Geometry-Controlled Mechanical Properties of Spiral Carbon-Based Nanostructures. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 3226-3238	3.8	14
65	Elasto-Plastic Analysis of the Iosipescu Shear Test. <i>Journal of Composite Materials</i> , 1999 , 33, 1981-2001	2.7	14
64	Error analysis of cine phase contrast MRI velocity measurements used for strain calculation. <i>Journal of Biomechanics</i> , 2015 , 48, 95-103	2.9	13
63	Tensile and conductivity properties of epoxy composites containing carbon black and graphene nanoplatelets. <i>Journal of Composite Materials</i> , 2018 , 52, 3909-3918	2.7	13
62	Size-dependent mechanical behavior of nanoscale polymer particles through coarse-grained molecular dynamics simulation. <i>Nanoscale Research Letters</i> , 2013 , 8, 541	5	13
61	Effects of carbon fillers on the conductivity and tensile properties of polyetheretherketone composites. <i>Polymer Composites</i> , 2018 , 39, E807-E816	3	12
60	Accelerated hydrothermal aging of cycloaliphatic epoxy/graphene nanoparticle composites. <i>Polymer Degradation and Stability</i> , 2016 , 133, 131-135	4.7	12
59	A method for assessing the fit of a constitutive material model to experimental stress-strain data. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2010 , 13, 247-56	2.1	12
58	A continuum elastic-plastic model for woven-fabric/polymer-matrix composite materials under biaxial stresses. <i>Composites Science and Technology</i> , 2001 , 61, 2501-2510	8.6	12
57	ReaxFF Reactive Force Field Study of Polymerization of a Polymer Matrix in a Carbon Nanotube-Composite System. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 20488-20497	3.8	12

56	Modeling Skeletal Muscle Stress and Intramuscular Pressure: A Whole Muscle Active-Passive Approach. <i>Journal of Biomechanical Engineering</i> , 2018 , 140,	2.1	11
55	Molecular modeling of physical aging in epoxy polymers. <i>Journal of Applied Polymer Science</i> , 2013 , 128, 660-666	2.9	11
54	The Effect of Chemical Functionalization on Mechanical Properties of Nanotube/Polymer Composites 2003 ,		11
53	Interfacial modeling of flattened CNT composites with cyanate ester and PEEK polymers. <i>Composites Part B: Engineering</i> , 2021 , 211, 108672	10	11
52	Simulation of mechanical performance limits and failure of carbon nanotube composites. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2016 , 24, 025012	2	10
51	An elastic micropolar mixture theory for predicting elastic properties of cellular materials. <i>Mechanics of Materials</i> , 2008 , 40, 602-615	3.3	10
50	The Effect of Eccentric Loads on the Macroscopic Strain and Stress Distributions in Woven Fabric Composite Iosipescu Specimens. <i>Journal of Composite Materials</i> , 2002 , 36, 571-588	2.7	10
49	Critical Examination of the Iosipescu Shear Test as Applied to 0degrees Unidirectional Composite Materials. <i>Mechanics of Advanced Materials and Structures</i> , 1999 , 6, 229-256	1.8	10
48	The development of multiscale models for predicting the mechanical response of GNP reinforced composite plate. <i>Composite Structures</i> , 2018 , 206, 526-534	5.3	10
47	Shielding effectiveness of carbon-filled polycarbonate composites. <i>Journal of Applied Polymer Science</i> , 2015 , 132, n/a-n/a	2.9	9
46	Investigation of Al-Zn-Zr and Al-Zn-Ni alloys for high electrical conductivity and strength application. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 743, 785-797	5.3	8
45	A case for poroelasticity in skeletal muscle finite element analysis: experiment and modeling. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017 , 20, 598-601	2.1	7
44	Effect of chain architecture on the compression behavior of nanoscale polyethylene particles. <i>Nanoscale Research Letters</i> , 2013 , 8, 322	5	7
43	The assessment of carbon nanotube (CNT) geometry on the mechanical properties of epoxy nanocomposites. <i>Journal of Micromechanics and Molecular Physics</i> , 2020 , 05, 2050005	1.4	7
42	Microstructure and properties of precipitation-hardened Zr and Zn-Zr based aluminum alloys. <i>Journal of Alloys and Compounds</i> , 2019 , 788, 1218-1230	5.7	6
41	Computational Investigation of Large-Diameter Carbon Nanotubes in Bundles for High-Strength Materials. <i>ACS Applied Nano Materials</i> , 2020 , 3, 5014-5018	5.6	6
40	How to characterize interfacial load transfer in spiral carbon-based nanostructure-reinforced nanocomposites: is this a geometry-dependent process?. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 23880-23892	3.6	6
39	Prediction of Mechanical Properties of Polymers with Various Force Fields 2005 ,		6

38	Multiscale Modeling of Epoxy-Based Nanocomposites Reinforced with Functionalized and Non-Functionalized Graphene Nanoplatelets. <i>Polymers</i> , 2021 , 13,	4.5	6
37	Atomistic Modeling of Cross-linked Epoxy Polymer 2010 ,		5
36	Characterization of viscoelastic properties of polymeric materials through nanoindentation 2005 , 45, 130		5
35	Wetting Simulations of High-Performance Polymer Resins on Carbon Surfaces as a Function of Temperature Using Molecular Dynamics. <i>Polymers</i> , 2021 , 13,	4.5	5
34	Prediction of the Interfacial Properties of High-Performance Polymers and Flattened CNT-Reinforced Composites Using Molecular Dynamics. <i>Langmuir</i> , 2021 , 37, 11526-11534	4	4
33	Multiscale Modeling for Virtual Manufacturing of Thermoset Composites 2020 ,		3
32	Accelerated hygrothermal aging of Talc/Cycloaliphatic epoxy composites. <i>Polymer Composites</i> , 2019 , 40, 2946-2953	3	3
31	Constitutive Modeling of Crosslinked Nanotube Materials 2004 ,		3
30	Prediction of Residual Stress Build-up in Polymer Matrix Composite During Cure using a Two-scale Approach		3
29	Multi-scale Approach to Predict Cure-Induced Residual Stresses in an Epoxy System		3
28	Cure Behavior Changes and Compression of Carbon Nanotubes in Aerospace Grade Bismaleimide-Carbon Nanotube Sheet Nanocomposites. <i>ACS Applied Nano Materials</i> , 2021 , 4, 2476-2485 ^{5.6}		3
27	Mechanical Response of Polymer Epoxy/BMI Composites with Graphene and a Boron Nitride Monolayer from First Principles. <i>ACS Applied Polymer Materials</i> , 2021 , 3, 1052-1059	4.3	3
26	Modeling-Driven Damage Tolerant Design of Graphene Nanoplatelet/Carbon Fiber/Epoxy Hybrid Composite Panels for Full-Scale Aerospace Structures 2019 ,		2
25	Thermal, electrical, and mechanical properties of talc- and glass microsphere-Reinforced Cycloaliphatic epoxy composites. <i>Polymer Composites</i> , 2018 , 39, E1581-E1588	3	2
24	Use of a Poroelastic Model to Predict Intramuscular Pressure 2013 , 2013, 2174-2183		2
23	Modeling and Characterization of Elastic Constants of Functionalized Nanotube Materials. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 791, 340		2
22	Predicting the Influence of Nano-scale Material Structure on the In-plane Buckling of Orthotropic Plates 2004 ,		2
21	Molecular Dynamics Modeling of Epoxy Resins Using the Reactive Interface Force Field. <i>Macromolecules</i> ,	5.5	2

20	Predicting Mechanical Properties Using Continuum Mechanics-Based Approach: Micro-mechanics and Finite Element Analysis. <i>Springer Series in Materials Science</i> , 2021 , 203-233	0.9	2
19	Molecular Dynamics Modeling to Probe the Effect of Surface Functionalization on the Interfacial Adhesion and Shear Strength of Graphene/Epoxy Nanocomposites 2021 ,		2
18	Computationally Guided Design of Large-Diameter Carbon Nanotube Bundles for High-Strength Materials. <i>ACS Applied Nano Materials</i> ,	5.6	2
17	Molecular Dynamics Modeling of Interfacial Interactions between Flattened Carbon Nanotubes and Amorphous Carbon: Implications for Ultra-Lightweight Composites.. <i>ACS Applied Nano Materials</i> , 2022 , 5, 5915-5924	5.6	2
16	Molecular Dynamics and Finite Element Investigation of Polymer Interphase Effects on Effective Stiffness of Wavy Aligned Carbon Nanotube Composites 2015 ,		1
15	6.2 Computational Multiscale Modeling [Nanoscale to Macroscale 2018 , 28-51		1
14	Molecular Modeling of the Influence of Crosslink Distribution on Epoxy Polymers 2012 ,		1
13	Thermodynamically-Consistent Multiscale Constitutive Modeling of Glassy Polymer Materials. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2009 , 43-51	0.3	1
12	Multiscale Modeling of Nanocomposite Materials 2009 , 221-245		1
11	Nano-Scale Finite Element Analysis of Polymer Networks 2002 ,		1
10	Modeling of Carbon Nanotube/Polymer Composites 2005 ,		1
9	Reactive Molecular Dynamics Simulation of Epoxy for the Full Cross-Linking Process. <i>ACS Applied Polymer Materials</i> ,	4.3	1
8	Atomic Resolution Studies of W Dopants Effect on the Phase Transformation of VO ₂ . <i>Microscopy and Microanalysis</i> , 2016 , 22, 884-885	0.5	1
7	A Novel Approach to Characterization of Composite Polymer Matrix Materials for Integrated Computational Materials Engineering Approaches 2021 ,		1
6	Mechanical Properties and Characterization of Epoxy Composites Containing Highly Entangled As-Received and Acid Treated Carbon Nanotubes. <i>Nanomaterials</i> , 2021 , 11,	5.4	1
5	Process modeling and characterization of thermoset composites for residual stress prediction. <i>Mechanics of Advanced Materials and Structures</i> ,1-12	1.8	1
4	Multiscale Constitutive Modeling of Polymer Materials 2007 , 179		0
3	Multiscale modeling of polymer-carbon nanotube composites 2011 , 376-399		

- 2 Synthesis, Characterization, and Modeling of Nanotube Materials with Variable Stiffness Tethers.
Materials Research Society Symposia Proceedings, **2004**, 851, 206
- 1 Advanced Nanoengineered Materials **2018**, 275-304