

Kalpana S Katti

List of Publications by Year in descending order

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154
papers

5,338
citations

66343

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68
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159
all docs

159
docs citations

159
times ranked

5107
citing authors

#	ARTICLE	IF	CITATIONS
1	Biomaterials in total joint replacement. <i>Colloids and Surfaces B: Biointerfaces</i> , 2004, 39, 133-142.	5.0	437
2	Synthesis and characterization of a novel chitosan/montmorillonite/hydroxyapatite nanocomposite for bone tissue engineering. <i>Biomedical Materials (Bristol)</i> , 2008, 3, 034122.	3.3	215
3	Platelet interlocks are the key to toughness and strength in nacre. <i>Journal of Materials Research</i> , 2005, 20, 1097-1100.	2.6	181
4	Molecular dynamics simulation of hydroxyapatite-polyacrylic acid interfaces. <i>Polymer</i> , 2007, 48, 664-674.	3.8	172
5	Molecular interactions in intercalated organically modified clay and clay-polycaprolactam nanocomposites: Experiments and modeling. <i>Polymer</i> , 2006, 47, 403-414.	3.8	147
6	Why is nacre so tough and strong?. <i>Materials Science and Engineering C</i> , 2006, 26, 1317-1324.	7.3	132
7	3D finite element modeling of mechanical response in nacre-based hybrid nanocomposites. <i>Computational and Theoretical Polymer Science</i> , 2001, 11, 397-404.	1.1	122
8	Nanomechanical properties of nacre. <i>Journal of Materials Research</i> , 2006, 21, 1237-1242.	2.6	110
9	MMP-9 Responsive PEG Cleavable Nanovesicles for Efficient Delivery of Chemotherapeutics to Pancreatic Cancer. <i>Molecular Pharmaceutics</i> , 2014, 11, 2390-2399.	4.6	91
10	Mechanics of molecular collagen is influenced by hydroxyapatite in natural bone. <i>Journal of Materials Science</i> , 2007, 42, 8795-8803.	3.7	89
11	Mineral Proximity Influences Mechanical Response of Proteins in Biological Mineral-Protein Hybrid Systems. <i>Biomacromolecules</i> , 2007, 8, 851-856.	5.4	85
12	Modeling the response of pyrophyllite interlayer to applied stress using steered molecular dynamics. <i>Clays and Clay Minerals</i> , 2005, 53, 171-178.	1.3	84
13	Nanoclay Based Composite Scaffolds for Bone Tissue Engineering Applications. <i>Journal of Nanotechnology in Engineering and Medicine</i> , 2010, 1, .	0.8	84
14	Evolution of Mechanical Response of Sodium Montmorillonite Interlayer with Increasing Hydration by Molecular Dynamics. <i>Langmuir</i> , 2005, 21, 8069-8076.	3.5	83
15	Nature of organic fluid-montmorillonite interactions: An FTIR spectroscopic study. <i>Journal of Colloid and Interface Science</i> , 2009, 337, 97-105.	9.4	83
16	Title is missing!. <i>Journal of Materials Science</i> , 2001, 36, 1411-1417.	3.7	81
17	Dynamic nanomechanical response of nacre. <i>Journal of Materials Research</i> , 2006, 21, 2045-2051.	2.6	81
18	Multifunctional polymersomes for cytosolic delivery of gemcitabine and doxorubicin to cancer cells. <i>Biomaterials</i> , 2014, 35, 6482-6497.	11.4	81

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19	An in situ FTIR step-scan photoacoustic investigation of kerogen and minerals in oil shale. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2012, 89, 105-113.	3.9	79
20	Mechanical Properties of the Sodium Montmorillonite Interlayer Intercalated with Amino Acids. <i>Biomacromolecules</i> , 2005, 6, 3276-3282.	5.4	78
21	Engineering Physical Properties of Asphalt Binders through Nanoclay-Asphalt Interactions. <i>Journal of Materials in Civil Engineering</i> , 2014, 26, .	2.9	72
22	Biomaterialized hydroxyapatite nanoclay composite scaffolds with polycaprolactone for stem cell-based bone tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , 2015, 103, 2077-2101.	4.0	71
23	Insight into molecular interactions between constituents in polymer clay nanocomposites. <i>Polymer</i> , 2006, 47, 5196-5205.	3.8	66
24	In situ mineralized hydroxyapatite on amino acid modified nanoclays as novel bone biomaterials. <i>Materials Science and Engineering C</i> , 2011, 31, 1017-1029.	7.3	66
25	Nanoclays mediate stem cell differentiation and mineralized ECM formation on biopolymer scaffolds. <i>Journal of Biomedical Materials Research - Part A</i> , 2013, 101A, 2644-2660.	4.0	66
26	Role of coordinated metal ions on the orientation of phthalocyanine based coatings. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2008, 70, 1180-1186.	3.9	65
27	Experimental investigation of nanomechanics of the mineral-protein interface in nacre. <i>Mechanics Research Communications</i> , 2008, 35, 17-23.	1.8	64
28	Altered Phase Model for Polymer Clay Nanocomposites. <i>Langmuir</i> , 2008, 24, 5599-5607.	3.5	63
29	Bioactivity in in situ hydroxyapatite-polycaprolactone composites. <i>Journal of Biomedical Materials Research - Part A</i> , 2006, 78A, 772-780.	4.0	62
30	Use of unnatural amino acids for design of novel organomodified clays as components of nanocomposite biomaterials. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 1963-1980.	3.4	62
31	Relationship of Swelling and Swelling Pressure on Silica-Water Interactions in Montmorillonite. <i>Langmuir</i> , 2006, 22, 532-537.	3.5	59
32	Multiscale modeling of swelling clays: A computational and experimental approach. <i>KSCE Journal of Civil Engineering</i> , 2009, 13, 243-255.	1.9	57
33	Mechanical response and multilevel structure of biomimetic hydroxyapatite/polygalacturonic/chitosan nanocomposites. <i>Materials Science and Engineering C</i> , 2008, 28, 399-405.	7.3	55
34	Directional dependence of hydroxyapatite-collagen interactions on mechanics of collagen. <i>Journal of Biomechanics</i> , 2010, 43, 1723-1730.	2.1	53
35	Nature of water in nacre: A 2D Fourier transform infrared spectroscopic study. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2007, 67, 784-788.	3.9	51
36	Mechanisms of Load-Deformation Behavior of Molecular Collagen in Hydroxyapatite-Tropocollagen Molecular System: Steered Molecular Dynamics Study. <i>Journal of Engineering Mechanics - ASCE</i> , 2009, 135, 413-421.	2.9	51

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37	Molecular modeling of the mechanical behavior and interactions in dry and slightly hydrated sodium montmorillonite interlayer. <i>Canadian Geotechnical Journal</i> , 2007, 44, 425-435.	2.8	50
38	Nanoscale Morphology of Kerogen and In Situ Nanomechanical Properties of Green River Oil Shale. <i>Journal of Nanomechanics & Micromechanics</i> , 2016, 6, .	1.4	50
39	Osteoblast adhesion, proliferation and growth on polyelectrolyte complexed hydroxyapatite nanocomposites. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 2083-2097.	3.4	49
40	Experimental investigation of interfaces in hydroxyapatite/polyacrylic acid/polycaprolactone composites using photoacoustic FTIR spectroscopy. <i>Journal of Biomedical Materials Research - Part A</i> , 2006, 77A, 59-66.	4.0	48
41	A Molecular Model for μ -Caprolactam-Based Intercalated Polymer Clay Nanocomposite: Integrating Modeling and Experiments. <i>Langmuir</i> , 2006, 22, 7738-7747.	3.5	47
42	Nuclear Localizing Peptide-Conjugated, Redox-Sensitive Polymersomes for Delivering Curcumin and Doxorubicin to Pancreatic Cancer Microtumors. <i>Molecular Pharmaceutics</i> , 2017, 14, 1916-1928.	4.6	44
43	The role of interfacial interactions on the crystallinity and nanomechanical properties of clay-polymer nanocomposites: A molecular dynamics study. <i>Journal of Applied Polymer Science</i> , 2008, 107, 3137-3148.	2.6	43
44	Composite nanoclay-hydroxyapatite-polymer fiber scaffolds for bone tissue engineering manufactured using pressurized gyration. <i>Composites Science and Technology</i> , 2021, 202, 108598.	7.8	43
45	Insight into Role of Clay-Fluid Molecular Interactions on Permeability and Consolidation Behavior of Na-Montmorillonite Swelling Clay. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2012, 138, 138-146.	3.0	42
46	Probing molecular interactions in bone biomaterials: Through molecular dynamics and Fourier transform infrared spectroscopy. <i>Materials Science and Engineering C</i> , 2007, 27, 352-371.	7.3	41
47	Polyelectrolyte-complex nanostructured fibrous scaffolds for tissue engineering. <i>Materials Science and Engineering C</i> , 2009, 29, 2079-2084.	7.3	40
48	Fourier transform infrared spectroscopy based spectral biomarkers of metastasized breast cancer progression. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 208, 85-96.	3.9	40
49	Effect of organic modifiers on dynamic and static nanomechanical properties and crystallinity of intercalated clay-polycaprolactam nanocomposites. <i>Journal of Applied Polymer Science</i> , 2007, 105, 790-802.	2.6	39
50	Bone nodules on chitosan-polygalacturonic acid-hydroxyapatite nanocomposite films mimic hierarchy of natural bone. <i>Acta Biomaterialia</i> , 2011, 7, 1173-1183.	8.3	39
51	Steered Molecular Dynamics Study of Mechanical Response of Full Length and Short Collagen Molecules. <i>Journal of Nanomechanics & Micromechanics</i> , 2011, 1, 104-110.	1.4	37
52	Molecular Hydraulic Properties of Montmorillonite: A Polarized Fourier Transform Infrared Spectroscopic Study. <i>Applied Spectroscopy</i> , 2008, 62, 1303-1313.	2.2	34
53	The Roles of Cellular Nanomechanics in Cancer. <i>Medicinal Research Reviews</i> , 2015, 35, 198-223.	10.5	34
54	Molecular modeling of initiation of interlayer swelling in Na-montmorillonite expansive clay. <i>Canadian Geotechnical Journal</i> , 2015, 52, 1385-1395.	2.8	33

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55	Polymer-Coated Echogenic Lipid Nanoparticles with Dual Release Triggers. <i>Biomacromolecules</i> , 2013, 14, 841-853.	5.4	32
56	Evolution of Molecular Interactions in the Interlayer of Na-Montmorillonite Swelling Clay with Increasing Hydration. <i>International Journal of Geomechanics</i> , 2015, 15, .	2.7	32
57	pH-Triggered Echogenicity and Contents Release from Liposomes. <i>Molecular Pharmaceutics</i> , 2014, 11, 4059-4068.	4.6	31
58	Photoacoustic FTIR spectroscopic study of undisturbed nacre from red abalone. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2006, 64, 1051-1057.	3.9	30
59	Effect of Biopolymers on Structure of Hydroxyapatite and Interfacial Interactions in Biomimetically Synthesized Hydroxyapatite/Biopolymer Nanocomposites. <i>Annals of Biomedical Engineering</i> , 2008, 36, 1024-1032.	2.5	30
60	Photoacoustic FTIR spectroscopic study of undisturbed human cortical bone. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2013, 103, 25-37.	3.9	30
61	Modeling molecular interactions of sodium montmorillonite clay with 3D kerogen models. <i>Fuel</i> , 2017, 199, 641-652.	6.4	30
62	Tissue-engineered nanoclay-based 3D <i>in vitro</i> breast cancer model for studying breast cancer metastasis to bone. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2019, 13, 119-130.	2.7	30
63	Wnt/ β -Catenin Signaling Pathway Regulates Osteogenesis for Breast Cancer Bone Metastasis: Experiments in an <i>In Vitro</i> Nanoclay Scaffold Cancer Testbed. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 2600-2611.	5.2	30
64	In vitro measurement of attenuation and nonlinear scattering from echogenic liposomes. <i>Ultrasonics</i> , 2012, 52, 962-969.	3.9	29
65	Structural Hierarchy Controls Deformation Behavior of Collagen. <i>Biomacromolecules</i> , 2012, 13, 2562-2569.	5.4	29
66	Nanomechanics of Surface Modified Nanohydroxyapatite Particulates Used in Biomaterials. <i>Journal of Engineering Mechanics - ASCE</i> , 2009, 135, 468-478.	2.9	28
67	Molecular interactions in biomineralized hydroxyapatite amino acid modified nanoclay: In silico design of bone biomaterials. <i>Materials Science and Engineering C</i> , 2015, 46, 207-217.	7.3	28
68	Molecular interactions of kerogen moieties with Na-montmorillonite: An experimental and modeling study. <i>Fuel</i> , 2014, 130, 34-45.	6.4	24
69	Cancer cell mechanics with altered cytoskeletal behavior and substrate effects: A 3D finite element modeling study. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 76, 125-134.	3.1	23
70	In vitro design of mesenchymal to epithelial transition of prostate cancer metastasis using 3D nanoclay bone-mimetic scaffolds. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2018, 12, 727-737.	2.7	23
71	Vesicular delivery of crystalline calcium minerals to ECM in biomineralized nanoclay composites. <i>Materials Research Express</i> , 2015, 2, 045401.	1.6	22
72	Sequential culture on biomimetic nanoclay scaffolds forms three-dimensional tumoroids. <i>Journal of Biomedical Materials Research - Part A</i> , 2016, 104, 1591-1602.	4.0	22

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73	Carbon nanotube proximity influences rice DNA. <i>Chemical Physics</i> , 2015, 455, 17-22.	1.9	20
74	The role of fluid polarity in the swelling of sodium-montmorillonite clay: A molecular dynamics and Fourier transform infrared spectroscopy study. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2018, 10, 1133-1144.	8.1	19
75	Static and Dynamic Mechanical Behavior of Hydroxyapatite-Polyacrylic Acid Composites Under Simulated Body Fluid. <i>American Journal of Biochemistry and Biotechnology</i> , 2006, 2, 73-79.	0.4	19
76	Low-loss Electron Energy-loss Spectroscopy and Dielectric Function of Biological and Geological Polymorphs of CaCO ₃ . <i>Microscopy and Microanalysis</i> , 1999, 5, 358-364.	0.4	18
77	Influence of backbone chain length and functional groups of organic modifiers on crystallinity and nanomechanical properties of intercalated clay-polycaprolactam nanocomposites. <i>International Journal of Nanotechnology</i> , 2009, 6, 468.	0.2	18
78	Multiscale Models of Degradation and Healing of Bone Tissue Engineering Nanocomposite Scaffolds. <i>Journal of Nanomechanics & Micromechanics</i> , 2017, 7, .	1.4	18
79	Modeling the Behavior of Organic Kerogen in the Proximity of Calcite Mineral by Molecular Dynamics Simulations. <i>Energy & Fuels</i> , 2020, 34, 2849-2860.	5.1	18
80	Mineral and Protein-Bound Water and Latching Action Control Mechanical Behavior at Protein-Mineral Interfaces in Biological Nanocomposites. <i>Journal of Nanomaterials</i> , 2008, 2008, 1-8.	2.7	16
81	Experiments in Nanomechanical Properties of Live Osteoblast Cells and Cellâ€“Biomaterial Interface. <i>Journal of Nanotechnology in Engineering and Medicine</i> , 2011, 2, .	0.8	16
82	Perfusion bioreactor enabled fluid-derived shear stress conditions for novel bone metastatic prostate cancer testbed. <i>Biofabrication</i> , 2021, 13, 035004.	7.1	16
83	Characterization of Highly Luminescent LaPO ₄ :Eu ³⁺ /LaPO ₄ One-Dimensional Core/Shell Heterostructures. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 1266-1271.	0.9	15
84	Molecular interactions of degradable and non-degradable polymers with hydroxyapatite influence mechanics of polymer-hydroxyapatite nanocomposite biomaterials. <i>International Journal of Nanotechnology</i> , 2009, 6, 511.	0.2	15
85	An Insight into Molecular Scale Interactions and In-situ Nanomechanical Properties of Kerogen in Green River Oil Shale. , 2013, , .		15
86	Compression of Naâ€“Montmorillonite Swelling Clay Interlayer Is Influenced by Fluid Polarity: A Steered Molecular Dynamics Study. <i>Langmuir</i> , 2020, 36, 11742-11753.	3.5	15
87	An insight into quartz mineral interactions with kerogen in Green River oil shale. <i>International Journal of Coal Geology</i> , 2021, 238, 103729.	5.0	15
88	Conductivity model and photoacoustic FT-IR surface depth profiling of heterogeneous polymers. <i>Polymer</i> , 2003, 44, 3319-3325.	3.8	14
89	Role of Polymer Interactions with Clays and Modifiers on Nanomechanical Properties and Crystallinity in Polymer Clay Nanocomposites. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-15.	2.7	14
90	Modelling clayâ€“fluid interactions in montmorillonite clays. <i>Environmental Geotechnics</i> , 2017, 4, 322-338.	2.3	14

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91	Bone interface modulates drug resistance in breast cancer bone metastasis. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020, 195, 111224.	5.0	14
92	Prostate Cancer Phenotype Influences Bone Mineralization at Metastasis: A Study Using an In Vitro Prostate Cancer Metastasis Testbed. <i>JBMR Plus</i> , 2020, 4, e10256.	2.7	14
93	Multiscale Model of Collagen Fibril in Bone: Elastic Response. <i>Journal of Engineering Mechanics - ASCE</i> , 2014, 140, 454-461.	2.9	13
94	Evaluating Molecular Interactions in Polycaprolactone-Biomaterialized Hydroxyapatite Nanocomposites using Steered Molecular Dynamics. <i>Jom</i> , 2015, 67, 733-743.	1.9	13
95	Molecular mechanics of the swelling clay tactoid under compression, tension and shear. <i>Applied Clay Science</i> , 2021, 200, 105908.	5.2	13
96	Anisotropic properties of human cortical bone with osteogenesis imperfecta. <i>Biomechanics and Modeling in Mechanobiology</i> , 2016, 15, 155-167.	2.8	12
97	An in vitro model of prostate cancer bone metastasis for highly metastatic and non-metastatic prostate cancer using nanoclay bone-mimetic scaffolds. <i>MRS Advances</i> , 2019, 4, 1207-1213.	0.9	11
98	Molecular Interactions Alter Clay and Polymer Structure in Polymer Clay Nanocomposites. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 1638-1657.	0.9	11
99	Dopant Effect on Local Dielectric Properties in Barium Titanate Based Electroceramics Determined by Transmission EELS. <i>Journal of the American Ceramic Society</i> , 2002, 85, 2236-2243.	3.8	9
100	Impact of β -Sheet Conformations on the Mechanical Response of Protein in Biocomposites. <i>Materials and Manufacturing Processes</i> , 2006, 21, 676-682.	4.7	9
101	In Situ Swelling Behavior of Chitosan-Polygalacturonic Acid/Hydroxyapatite Nanocomposites in Cell Culture Media. <i>International Journal of Polymer Science</i> , 2010, 2010, 1-12.	2.7	9
102	Effects of entrapment on nucleic acid content, cell morphology, cell surface property, and stress of pure cultures commonly found in biological wastewater treatment. <i>Applied Microbiology and Biotechnology</i> , 2011, 92, 407-418.	3.6	9
103	Probing electronic structure of biomaterialized hydroxyapatite inside nanoclay galleries. <i>Micron</i> , 2016, 90, 78-86.	2.2	9
104	Tissue-Engineered Interlocking Scaffold Blocks for the Regeneration of Bone. <i>Jom</i> , 2020, 72, 1443-1457.	1.9	9
105	Nanostructured biomaterials for in vitro models of bone metastasis cancer. <i>Current Opinion in Biomedical Engineering</i> , 2021, 17, 100254.	3.4	9
106	A Coarse-Grained Model for the Mechanical Behavior of Na-Montmorillonite Clay. <i>Langmuir</i> , 2022, 38, 4859-4869.	3.5	9
107	Microstructural and Photoacoustic Infrared Spectroscopic Studies of Human Cortical Bone with Osteogenesis Imperfecta. <i>Jom</i> , 2016, 68, 1116-1127.	1.9	8
108	Evaluation of quasi-static and dynamic nanomechanical properties of bone-metastatic breast cancer cells using a nanoclay cancer testbed. <i>Scientific Reports</i> , 2021, 11, 3096.	3.3	7

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109	Mechanobiological evaluation of prostate cancer metastasis to bone using an in vitro prostate cancer testbed. <i>Journal of Biomechanics</i> , 2021, 114, 110142.	2.1	6
110	Dissociation Mechanisms of G-actin Subunits Govern Deformation Response of Actin Filament. <i>Biomacromolecules</i> , 2021, 22, 907-917.	5.4	6
111	Influence of Mineral on the Load Deformation Behavior of Polymer in Hydroxyapatite-Polyacrylic Acid Nanocomposite Biomaterials: A Steered Molecular Dynamics Study. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 2075-2084.	0.9	6
112	Tailoring Crystallinity and Nanomechanical Properties of Clay Polymer Nanocomposites: A Molecular Dynamics Study. <i>International Journal for Multiscale Computational Engineering</i> , 2010, 8, 561-584.	1.2	6
113	Label-free discrimination of tumorigenesis stages using in vitro prostate cancer bone metastasis model by Raman imaging. <i>Scientific Reports</i> , 2022, 12, 8050.	3.3	6
114	Determination of local high-frequency dielectric function during the cubic-to-tetragonal phase transformation in barium titanate. <i>Journal of Materials Research</i> , 1997, 12, 1582-1588.	2.6	5
115	In situ Mineralization of Hydroxyapatite for a Molecular Control of Mechanical Responses in Hydroxyapatite-Polymer Composites for Bone Replacement. <i>Materials Research Society Symposia Proceedings</i> , 2001, 711, 1.	0.1	5
116	On-site SEM and nanomechanical properties of human OI bone. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2016, 5, 106-120.	0.9	5
117	Binding of SARS-COV-2 (COVID-19) and SARS-COV to human ACE2: Identifying binding sites and consequences on ACE2 stiffness. <i>Chemical Physics</i> , 2021, 551, 111353.	1.9	5
118	Effect of carbon black on adhesion to plastics in solventborne 2K polyurethanes. <i>Journal of Coatings Technology</i> , 2000, 72, 35-44.	0.7	4
119	Dynamic nanomechanical behaviour of healthy and OI human cortical bone. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2015, 4, 15-25.	0.9	4
120	Differences in Interactions Within Viral Replication Complexes of SARS-CoV-2 (COVID-19) and SARS-CoV Coronaviruses Control RNA Replication Ability. <i>Jom</i> , 2021, 73, 1684-1695.	1.9	4
121	Nanoarchitectonics of a Microsphere-Based Scaffold for Modeling Neurodevelopment and Neurological Disease. <i>ACS Applied Bio Materials</i> , 2022, 5, 528-544.	4.6	4
122	Molecular interactions alter clay and polymer structure in polymer clay nanocomposites. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 1638-57.	0.9	4
123	Quantum structural parameters for electron- and hole-carrying copper oxide superconductors. <i>Physical Review B</i> , 1992, 45, 10155-10157.	3.2	3
124	Effects of Nanostructure on Bulk Mechanical Properties of Nacre - 3D Finite Element Modeling of the Segmented/Layered Biocomposite. <i>Materials Research Society Symposia Proceedings</i> , 2001, 677, 781.	0.1	3
125	Role of Clay-Solvent Inter and Intraparticle Interactions on Swelling Characteristics of Montmorillonite Nano-Meso-Micro Scale Particulate Systems. <i>Materials Research Society Symposia Proceedings</i> , 2001, 704, 9141.	0.1	3
126	Mechanical Properties of Biological Nanocomposite Nacre: Multiscale Modeling and Experiments on Nacre from Red Abalone. <i>Materials Research Society Symposia Proceedings</i> , 2005, 898, 1.	0.1	3

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127	Biomechanics of Cells as Potential Biomarkers for Diseases: A New Tool in Mechanobiology. , 2019, , 1-21.		3
128	Investigating the Interfacial Interactions Between Organic and Inorganic Phases and Their Influence on the Mechanics of Organic Phase in Natural Bone. Materials Research Society Symposia Proceedings, 2006, 975, 1.	0.1	2
129	Evaluation of Cancer Tumors in 3D Porous Bone Mimetic Scaffolds. , 2017, , .		2
130	Mechanics of amelogenin TRAP protein in the proximity of hydroxyapatite mineral is altered by interfacial water. Chemical Physics, 2019, 522, 104-111.	1.9	2
131	Computational Mechanics Routes to Explore the Origin of Mechanical Properties in a Biological Nanocomposite: Nacre. Materials Research Society Symposia Proceedings, 2004, 844, 1.	0.1	1
132	Mechanical Properties of Biomimetic Composites for Bone Tissue Engineering. Materials Research Society Symposia Proceedings, 2004, 844, 1.	0.1	1
133	Time Dependent Nanomechanical Response of Nacre. Materials Research Society Symposia Proceedings, 2006, 975, 1.	0.1	1
134	Modeling the Evolution of Montmorillonite Clay Particulate Structure: A Discrete Element Modeling Study. , 2007, , .		1
135	Mechanics of Collagen in the Human Bone: Role of Collagen-Hydroxyapatite Interactions. Materials Research Society Symposia Proceedings, 2010, 1274, 1.	0.1	1
136	Modeling the Nanoscale Kerogen Inclusions in Green River Oil Shale. , 2017, , .		1
137	Spectrochemical Probing of MicroRNA Duplex Using Spontaneous Raman Spectroscopy for Biosensing Applications. Analytical Chemistry, 2020, 92, 14423-14431.	6.5	1
138	Dynamic Behavior of Twins In BaTiO ₃ . Materials Research Society Symposia Proceedings, 1994, 357, 121.	0.1	0
139	A Novel Technique for Determining Local Dielectric Function During Ferroelectric to Paraelectric Phase Transformation in Barium Titanate with a Transmission Eels. Materials Research Society Symposia Proceedings, 1995, 404, 101.	0.1	0
140	Low Loss Transmission Electron Spectroscopic Studies in Donor Doped BaTiO ₃ . Materials Research Society Symposia Proceedings, 1995, 411, 191.	0.1	0
141	Local Dielectric Function Of Biogenic and Geological Polymorphs of CaCO ₃ Via Transmission Eels. Microscopy and Microanalysis, 1998, 4, 782-783.	0.4	0
142	Influence of Protein Structures on Mechanical Response. Materials Research Society Symposia Proceedings, 2004, 844, 1.	0.1	0
143	Effect of Molecular Interactions at Polymer-Mineral Interfaces on Mechanical Response. Materials Research Society Symposia Proceedings, 2004, 844, 1.	0.1	0
144	Evaluation of Deformation Mechanisms at Mineral-Protein Composite Interface Using Steered Molecular Dynamics Simulations. Materials Research Society Symposia Proceedings, 2004, 844, 1.	0.1	0

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145	Biopolymer Polyelectrolyte Complex " Hydroxyapatite Composites for Bone Tissue Engineering. Materials Research Society Symposia Proceedings, 2006, 975, 1.	0.1	0
146	Influence of Mineral -Polymer Interactions on Molecular Mechanics of Polymer in Composite Bone Biomaterials. Materials Research Society Symposia Proceedings, 2006, 978, .	0.1	0
147	Biopolymer Polyelectrolyte Complex Nanocomposites for Bone Tissue Engineering. , 2009, , .		0
148	FTIR Investigation of Molecular Interactions in Swelling Clays and their Role on Swelling and Other Macroscopic Properties. , 2013, , .		0
149	Molecular Modeling of Early Stage of Swelling in Na-Montmorillonite Clay. , 2013, , .		0
150	Microstructure, Spectroscopic Studies and Nanomechanical Properties of Human Cortical Bone with Osteogenesis Imperfecta. Materials Research Society Symposia Proceedings, 2014, 1621, 163-168.	0.1	0
151	Role of nanostructure on mechanical properties of nacre. , 2003, , 1734-1737.		0
152	Characterizing Biointerfaces and Biosurfaces in Biomaterials Design. , 2009, , 178-204.		0
153	Collagen Mechanics: Role of Structural Hierarchy. , 2012, , .		0
154	On the Impacts of Flow on the Migration and Growth of Cancer Cells. , 2022, , .		0