

# Nilanjan Mitra

## List of Publications by Year in descending order

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59  
papers

843  
citations

567281

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526287

27  
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all docs

59  
docs citations

59  
times ranked

674  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-temperature and high-pressure plastic phase of ice at the boundary of liquid water and ice VII. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	2.1	5
2	Influence of polyester microfiber reinforcement on flexural fatigue characteristics of concrete. Road Materials and Pavement Design, 2021, 22, 2866-2882.	4.0	8
3	Evolution of microstructural deformation mechanisms under equal-channel angular extrusion loading conditions: a molecular dynamics case study of single crystal titanium. Philosophical Magazine, 2021, 101, 435-449.	1.6	1
4	Molecular deformation response of portlandite under compressive loading. Construction and Building Materials, 2021, 274, 122020.	7.2	5
5	Epoxy Resin (DGEBA/TETA) Exposed to Water: a Spectroscopic Investigation to Determine Water-Epoxy Interactions. Journal of Infrared, Millimeter, and Terahertz Waves, 2021, 42, 558-571.	2.2	9
6	Thermal conductivity of cement paste: Influence of macro-porosity. Cement and Concrete Research, 2021, 143, 106385.	11.0	15
7	{101 <sub>1</sub> ,2} twinning in single-crystal titanium under shock loading. Philosophical Magazine, 2021, 101, 836-850.	1.6	4
8	Interfacial delamination in glass-fiber/polymer-foam-core sandwich composites using singlemode“multimode“singlemode optical fiber sensors: Identification based on experimental investigation. Journal of Sandwich Structures and Materials, 2020, 22, 40-54.	3.5	7
9	Twinning, phase transformation and dislocation evolution in single crystal titanium under uniaxial strain conditions: A molecular dynamics study. Computational Materials Science, 2020, 172, 109325.	3.0	18
10	Stretch“induced helix to extended coil transition of crystalline Î± phase isotactic polypropylene: A molecular dynamics study. Polymer Crystallization, 2020, 3, e10143.	0.8	2
11	Influence of Surface Morphology of Fibers on the Tensile and Flexural Ductility of Polypropylene-Reinforced Cementitious Composites. Journal of Materials in Civil Engineering, 2020, 32, 04020042.	2.9	1
12	Comparison of Mechanical Performance and Life Cycle Cost of Natural and Synthetic Fiber-Reinforced Cementitious Composites. Journal of Materials in Civil Engineering, 2020, 32, 04020150.	2.9	3
13	Morphological changes in epoxy resin (DGEBA/TETA) exposed to low temperatures. Journal of Adhesion Science and Technology, 2020, 34, 2262-2273.	2.6	6
14	High temperature“high pressure phase transformation of Cu. Computational Materials Science, 2019, 170, 109154.	3.0	4
15	Molecular level deformation mechanism of ettringite. Cement and Concrete Research, 2019, 124, 105836.	11.0	12
16	Compressive response of tricalcium aluminate crystal: Molecular dynamics investigations. Construction and Building Materials, 2019, 224, 188-197.	7.2	7
17	Intermolecular Dynamics of Water: Suitability of Reactive Interatomic Potential. Journal of Physical Chemistry B, 2019, 123, 6529-6535.	2.6	9
18	Identification of molecular vibrations associated with tacticity in polypropylene: Density functional theory“based simulations. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 1378-1385.	2.1	1

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19	Influence of aggregate size on flexural fatigue response of concrete. Construction and Building Materials, 2019, 229, 116922.	7.2	25
20	Multiscale Estimation of Elastic Constants of Hydrated Cement. Journal of Engineering Mechanics - ASCE, 2019, 145, .	2.9	10
21	Role of confined interstitial water in compressive response of calcium sulfate (CaSO <sub>4</sub> .n) Tj ETQq1 1 0.784314 rgBT/Overlock_10 Tf 50	2.9	8
22	Interfacial delamination crack profile estimation in polymer foam-cored sandwich composites. Engineering Structures, 2019, 189, 635-643.	5.3	4
23	Intermolecular dynamics of ultraconfined interlayer water in tobermorite: influence on mechanical performance. Physical Chemistry Chemical Physics, 2019, 21, 11416-11423.	2.8	12
24	Terahertz spectroscopy of diglycidylether of bisphenol A: Experimental investigations and density functional theory based simulations. Journal of Molecular Structure, 2019, 1184, 114-122.	3.6	7
25	Microstructural Response of Shock-Loaded Concrete, Mortar, and Cementitious Composite Materials in a Shock Tube Setup. Journal of Materials in Civil Engineering, 2019, 31, .	2.9	4
26	Terahertz Spectroscopy of Adhesive material under various climatic conditions. , 2019, , .		0
27	Gypsum under tensile loading: A molecular dynamics study. Construction and Building Materials, 2019, 201, 1-10.	7.2	12
28	An atomistic study of phase transition in cubic diamond Si single crystal subjected to static compression. Computational Materials Science, 2019, 156, 232-240.	3.0	7
29	Mixed-mode fracture of sandwich composites: Performance improvement with multiwalled carbon nanotube sonicated resin. Journal of Sandwich Structures and Materials, 2018, 20, 379-395.	3.5	8
30	Evolution of tension twinning in single crystal Ti under compressive uniaxial strain conditions. Computational Materials Science, 2018, 141, 302-312.	3.0	16
31	Molecular dynamics investigation of c-axis deformation of single crystal Ti under uniaxial stress conditions: Evolution of compression twinning and dislocations. Computational Materials Science, 2018, 141, 19-29.	3.0	30
32	Cavitation in epoxies under composite-like stress states. Composites Part A: Applied Science and Manufacturing, 2018, 106, 52-58.	7.6	22
33	Molecular mechanisms of tricalcium aluminate under tensile loads. Computational Materials Science, 2018, 154, 547-556.	3.0	5
34	Improvement in tensile and flexural ductility with the addition of different types of polypropylene fibers in cementitious composites. Construction and Building Materials, 2018, 180, 405-411.	7.2	30
35	Underwater oblique shock wave reflection. Physical Review Fluids, 2018, 3, .	2.5	4
36	Pedestrian injury severity in the event of a collision with a truck: are energy absorbing adaptive deformable fronts suitable. International Journal of Vehicle Safety, 2018, 10, 235.	0.2	0

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37	Evolution of dislocation mechanisms in single-crystal Cu under shock loading in different directions. Modelling and Simulation in Materials Science and Engineering, 2017, 25, 025013.	2.0	35
38	Shock induced deformation response of single crystal copper: Effect of crystallographic orientation. Computational Materials Science, 2017, 135, 141-151.	3.0	31
39	A metastable phase of shocked bulk single crystal copper: an atomistic simulation study. Scientific Reports, 2017, 7, 7337.	3.3	46
40	Shock-Induced phase transition of single crystal copper. AIP Conference Proceedings, 2017, , .	0.4	4
41	Twinning assisted $\beta$ to $\alpha$ phase transformation in titanium single crystal. AIP Conference Proceedings, 2017, , .	0.4	0
42	Compression twinning and structural phase transformation of single crystal titanium under uniaxial compressive strain conditions: Comparison of inter-atomic potentials. Computational Materials Science, 2017, 126, 228-237.	3.0	30
43	Estimation of Elastic Parameters of Sandwich Composite Plates Using a Gradient Based Finite Element Model Updating Approach. , 2016, , .		1
44	Shock induced phase transition of water: Molecular dynamics investigation. Physics of Fluids, 2016, 28, .	4.0	26
45	Underwater explosion induced shock loading of structures: Influence of water depth, salinity and temperature. Ocean Engineering, 2016, 126, 22-28.	4.3	14
46	Shock compression of polyvinyl chloride. Journal of Applied Physics, 2016, 119, .	2.5	10
47	On shock response of nano-void closed/open cell copper material: Non-equilibrium molecular dynamic simulations. Journal of Applied Physics, 2014, 115, .	2.5	33
48	On core compressibility of sandwich composite panels subjected to intense underwater shock loads. Journal of Applied Physics, 2014, 115, .	2.5	10
49	Interface fracture of sandwich composites: Influence of MWCNT sonicated epoxy resin. Composites Science and Technology, 2014, 101, 94-101.	7.8	43
50	Non-contact near-field underwater explosion induced shock-wave loading of submerged rigid structures: Nonlinear compressibility effects in fluid structure interaction. Journal of Applied Physics, 2012, 112, 024911.	2.5	25
51	Failure Initiation of Reinforced-Concrete Beam-Column Connections â€” Binomial Logistic Regression Based Probabilistic Model. Advances in Structural Engineering, 2012, 15, 121-137.	2.4	1
52	Prediction of performance of exterior beam-column connections with headed bars subject to load reversal. Engineering Structures, 2012, 41, 209-217.	5.3	14
53	Probabilistic model for failure initiation of reinforced concrete interior beamâ€”column connections subjected to seismic loading. Engineering Structures, 2011, 33, 154-162.	5.3	15
54	A methodology for improving shear performance of marine grade sandwich composites: Sandwich composite panel with shear key. Composite Structures, 2010, 92, 1065-1072.	5.8	52

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55	Headed Reinforcement Applications for Reinforced Concrete Beam-Column Connections. , 2009, , .		2
56	Evaluation, Calibration, and Verification of a Reinforced Concrete Beam-Column Joint Model. Journal of Structural Engineering, 2007, 133, 105-120.	3.4	130
57	Mitigation of Mechanical Property Degradation of Epoxy Resin Subjected to UV with Addition of Different Nanofillers. , 0, , .		0
58	Epoxy Resin (DGEBA/TETA) Under Extreme Environment. , 0, , .		0
59	Construction Practices of Short Paneled Concrete Pavements (SPCP) for High Volume Roads. , 0, , .		0