

# Ashfaq Adnan

## List of Publications by Year in descending order

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Version: 2024-02-01

40  
papers

765  
citations

759233

12  
h-index

552781

26  
g-index

41  
all docs

41  
docs citations

41  
times ranked

924  
citing authors

#	ARTICLE	IF	CITATIONS
1	Shock-Induced Damage Mechanism of Perineuronal Nets. <i>Biomolecules</i> , 2022, 12, 10.	4.0	5
2	Three-Dimensional Stochastic Modelling of Wavy Carbon Nanotube Reinforced Epoxy Nanocomposites. <i>Multiscale Science and Engineering</i> , 2021, 3, 51-61.	1.7	1
3	Domain focused and residue focused phosphorylation effect on tau protein: A molecular dynamics simulation study. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 113, 104149.	3.1	13
4	Effect of random fiber networks on bubble growth in gelatin hydrogels. <i>Soft Matter</i> , 2021, 17, 9293-9314.	2.7	4
5	Mechanical behavior of actin and spectrin subjected to high strain rate: A molecular dynamics simulation study. <i>Computational and Structural Biotechnology Journal</i> , 2021, 19, 1738-1749.	4.1	11
6	Void reduction in fused filament fabrication (FFF) through <i>in situ</i> nozzle-integrated compression rolling of deposited filaments. <i>Virtual and Physical Prototyping</i> , 2021, 16, 146-159.	10.4	19
7	Cavitation Induced Damage in Soft Biomaterials. <i>Multiscale Science and Engineering</i> , 2021, 3, 67-87.	1.7	19
8	Viscoelastic Response of Neurofilaments: An Atomistic Simulation Approach. <i>Biomolecules</i> , 2021, 11, 540.	4.0	6
9	Improved print quality in fused filament fabrication through localized dispensing of hot air around the deposited filament. <i>Additive Manufacturing</i> , 2021, 40, 101917.	3.0	8
10	Effect of Strain Rate on Single Tau, Dimerized Tau and Tau-Microtubule Interface: A Molecular Dynamics Simulation Study. <i>Biomolecules</i> , 2021, 11, 1308.	4.0	3
11	Effects of Bubble Size and Gas Density on the Shock-induced Collapse of Nanoscale Cavitation Bubble. <i>Multiscale Science and Engineering</i> , 2020, 2, 127-134.	1.7	4
12	Recent Computational Approaches on Mechanical Behavior of Axonal Cytoskeletal Components of Neuron: A Brief Review. <i>Multiscale Science and Engineering</i> , 2020, 2, 199-213.	1.7	13
13	On the Molecular Level Cavitation in Soft Gelatin Hydrogel. <i>Scientific Reports</i> , 2020, 10, 9635.	3.3	11
14	Effects of Focal Axonal Swelling Level on the Action Potential Signal Transmission. <i>Journal of Computational Neuroscience</i> , 2020, 48, 253-263.	1.0	8
15	Nozzle-integrated pre-deposition and post-deposition heating of previously deposited layers in polymer extrusion based additive manufacturing. <i>Additive Manufacturing</i> , 2019, 28, 719-726.	3.0	28
16	Grain boundary driven mechanical properties of ZrB <sub>2</sub> and ZrCâ€ZrB <sub>2</sub> nanocomposite: A molecular simulation study. <i>Journal of the American Ceramic Society</i> , 2018, 101, 3105-3117.	3.8	8
17	Cavitation nucleation in gelatin: Experiment and mechanism. <i>Acta Biomaterialia</i> , 2018, 67, 295-306.	8.3	28
18	On the elastic stress singularities and mode I notch stress intensity factor for 3D printed polymers. <i>Engineering Fracture Mechanics</i> , 2018, 204, 235-245.	4.3	9

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19	On the atomistic-based continuum viscoelastic constitutive relations for axonal microtubules. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 86, 375-389.	3.1	8
20	Damage and Failure of Axonal Microtubule under Extreme High Strain Rate: An In-Silico Molecular Dynamics Study. <i>Scientific Reports</i> , 2018, 8, 12260.	3.3	16
21	Mode-I Fracture Toughness Prediction of Diamond at the Nanoscale. <i>Journal of Nanomechanics &amp; Micromechanics</i> , 2017, 7, .	1.4	9
22	Effect of Shock-Induced Cavitation Bubble Collapse on the damage in the Simulated Perineuronal Net of the Brain. <i>Scientific Reports</i> , 2017, 7, 5323.	3.3	28
23	Mechanical properties of computationally designed novel carbon enriched Si <sub>1-x</sub> C <sub>x</sub> ceramics: A molecular dynamics simulation study. <i>Computational Materials Science</i> , 2015, 110, 331-339.	3.0	8
24	Computational design of novel carbon enriched Si <sub>1-x</sub> C <sub>x</sub> ceramics: A molecular dynamics simulation study. <i>Computational Materials Science</i> , 2015, 96, 354-359.	3.0	2
25	A study of mechanical behavior and morphology of carbon nanotube reinforced UHMWPE/Nylon 6 hybrid polymer nanocomposite fiber. <i>Fibers and Polymers</i> , 2014, 15, 1484-1492.	2.1	11
26	Role of a single surface vacancy on the tensile stress-strain relations of single crystal Ni nanowire. <i>Computational Materials Science</i> , 2014, 90, 221-231.	3.0	9
27	3D Structural Integrity and Interactions of Single-Stranded Protein-Binding DNA in a Functionalized Nanopore. <i>Journal of Physical Chemistry B</i> , 2014, 118, 5799-5806.	2.6	15
28	Shear fracture of confined NaCl nanofilms. <i>Computational Materials Science</i> , 2013, 68, 271-279.	3.0	5
29	Elastic Properties of UHMWPE-SWCNT Nanocomposites <sup>TM</sup> Fiber: An Experimental, Theoretic, and Molecular Dynamics Evaluation. <i>Journal of Materials Engineering and Performance</i> , 2013, 22, 1593-1600.	2.5	5
30	Role of nanoparticle dispersion and filler-matrix interface on the matrix dominated failure of rigid C60-PE nanocomposites: A molecular dynamics simulation study. <i>Polymer</i> , 2013, 54, 2565-2576.	3.8	42
31	On the size-dependent critical stress intensity factor of confined brittle nanofilms. <i>Engineering Fracture Mechanics</i> , 2012, 86, 13-22.	4.3	16
32	Atomistic Simulation and Measurement of pH Dependent Cancer Therapeutic Interactions with Nanodiamond Carrier. <i>Molecular Pharmaceutics</i> , 2011, 8, 368-374.	4.6	117
33	Evolution of nanoscale defects to planar cracks in a brittle solid. <i>Journal of the Mechanics and Physics of Solids</i> , 2010, 58, 983-1000.	4.8	28
34	A molecular dynamics simulation study to investigate the effect of filler size on elastic properties of polymer nanocomposites. <i>Composites Science and Technology</i> , 2007, 67, 348-356.	7.8	155
35	Carbon nanoparticles/whiskers reinforced composites and their tensile response. <i>Composites Part A: Applied Science and Manufacturing</i> , 2004, 35, 519-527.	7.6	86
36	Mechanical Behavior of Axonal Actin, Spectrin, and Their Periodic Structure: A Brief Review. <i>Multiscale Science and Engineering</i> , 0, , 1.	1.7	1

#	ARTICLE	IF	CITATIONS
37	Molecular Dynamics Study of Carbon Nanotube/Epoxy Interfaces Using ReaxFF. , 0, , .		2
38	Elastic Constants of Carbon Nanotube Reinforced Polymer Nanocomposites. , 0, , .		1
39	Effect of CNT Waviness on the Elastic Modulus of Carbon Nanotube Reinforced Polymer Composites. , 0, , .		0
40	Modeling the Effect of In Situ Nozzle-Integrated Compression Rolling on the Void Reduction and Filaments-Filament Adhesion in Fused Filament Fabrication (FFF). Multiscale Science and Engineering, 0, , 1.	1.7	3