

# Ashfaq Adnan

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7507899/publications.pdf>

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  | 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       |
| 2  | Atomistic Simulation and Measurement of pH Dependent Cancer Therapeutic Interactions with Nanodiamond Carrier. <i>Molecular Pharmaceutics</i> , 2011, 8, 368-374.  | 4.6  | 117       |
| 3  | 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        |
| 4  | 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        |
| 5  | 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        |
| 6  | 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        |
| 7  | Cavitation nucleation in gelatin: Experiment and mechanism. <i>Acta Biomaterialia</i> , 2018, 67, 295-306.   | 8.3  | 28        |
| 8  | 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        |
| 9  | 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        |
| 10 | Cavitation Induced Damage in Soft Biomaterials. <i>Multiscale Science and Engineering</i> , 2021, 3, 67-87.  | 1.7  | 19        |
| 11 | On the size-dependent critical stress intensity factor of confined brittle nanofilms. <i>Engineering Fracture Mechanics</i> , 2012, 86, 13-22.   | 4.3  | 16        |
| 12 | 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        |
| 13 | 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        |
| 14 | 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        |
| 15 | 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        |
| 16 | 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        |
| 17 | On the Molecular Level Cavitation in Soft Gelatin Hydrogel. <i>Scientific Reports</i> , 2020, 10, 9635.  | 3.3  | 11        |
| 18 | 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        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Role of a single surface vacancy on the tensile stress-strain relations of single crystal Ni nanowire. Computational Materials Science, 2014, 90, 221-231.   | 3.0 | 9         |
| 20 | Mode-I Fracture Toughness Prediction of Diamond at the Nanoscale. Journal of Nanomechanics & Micromechanics, 2017, 7, .  | 1.4 | 9         |
| 21 | On the elastic stress singularities and mode I notch stress intensity factor for 3D printed polymers. Engineering Fracture Mechanics, 2018, 204, 235-245.  | 4.3 | 9         |
| 22 | Mechanical properties of computationally designed novel carbon enriched Si <sub>1-x</sub> C <sub>x</sub> ceramics: A molecular dynamics simulation study. Computational Materials Science, 2015, 110, 331-339. | 3.0 | 8         |
| 23 | Grain boundary driven mechanical properties of ZrB <sub>2</sub> and ZrC/ZrB <sub>2</sub> nanocomposite: A molecular simulation study. Journal of the American Ceramic Society, 2018, 101, 3105-3117.           | 3.8 | 8         |
| 24 | On the atomistic-based continuum viscoelastic constitutive relations for axonal microtubules. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 86, 375-389.                                   | 3.1 | 8         |
| 25 | Improved print quality in fused filament fabrication through localized dispensing of hot air around the deposited filament. Additive Manufacturing, 2021, 40, 101917.  | 3.0 | 8         |
| 26 | Effects of Focal Axonal Swelling Level on the Action Potential Signal Transmission. Journal of Computational Neuroscience, 2020, 48, 253-263.  | 1.0 | 8         |
| 27 | Viscoelastic Response of Neurofilaments: An Atomistic Simulation Approach. Biomolecules, 2021, 11, 540.  | 4.0 | 6         |
| 28 | Shear fracture of confined NaCl nanofilms. Computational Materials Science, 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. Journal of Materials Engineering and Performance, 2013, 22, 1593-1600.   | 2.5 | 5         |
| 30 | Shock-Induced Damage Mechanism of Perineuronal Nets. Biomolecules, 2022, 12, 10.   | 4.0 | 5         |
| 31 | Effects of Bubble Size and Gas Density on the Shock-induced Collapse of Nanoscale Cavitation Bubble. Multiscale Science and Engineering, 2020, 2, 127-134.   | 1.7 | 4         |
| 32 | Effect of random fiber networks on bubble growth in gelatin hydrogels. Soft Matter, 2021, 17, 9293-9314.   | 2.7 | 4         |
| 33 | Effect of Strain Rate on Single Tau, Dimerized Tau and Tau-Microtubule Interface: A Molecular Dynamics Simulation Study. Biomolecules, 2021, 11, 1308.   | 4.0 | 3         |
| 34 | 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         |
| 35 | Computational design of novel carbon enriched Si <sub>1-x</sub> C <sub>x</sub> ceramics: A molecular dynamics simulation study. Computational Materials Science, 2015, 96, 354-359.                            | 3.0 | 2         |
| 36 | Molecular Dynamics Study of Carbon Nanotube/Epoxy Interfaces Using ReaxFF. , 0, , .  |     | 2         |

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|----|---|-----|-----------|
| 37 | Three-Dimensional Stochastic Modelling of Wavy Carbon Nanotube Reinforced Epoxy Nanocomposites. Multiscale Science and Engineering, 2021, 3, 51-61. | 1.7 | 1         |
| 38 | Mechanical Behavior of Axonal Actin, Spectrin, and Their Periodic Structure: A Brief Review. Multiscale Science and Engineering, 0, , 1.            | 1.7 | 1         |
| 39 | Elastic Constants of Carbon Nanotube Reinforced Polymer Nanocomposites. , 0, , .  |     | 1         |
| 40 | Effect of CNT Waviness on the Elastic Modulus of Carbon Nanotube Reinforced Polymer Composites. , 0, , .  |     | 0         |