Sasan Nouranian

List of Publications by Year
in descending order

45 papers	1,213 citations	361413 20 h-index	377865 34 g-index
46 all docs	46 docs citations	46 times ranked	1323 citing authors

#	Article	IF	Citations
1	Molecular simulation of pH-dependent diffusion, loading, and release of doxorubicin in graphene and graphene oxide drug delivery systems. Journal of Materials Chemistry B, 2016, 4, 7441-7451.	5.8	120
2	Two-phase solidâ€“liquid coexistence of Ni, Cu, and Al by molecular dynamics simulations using the modified embedded-atom method. Acta Materialia, 2015, 86, 169-181.	7.9	105
3	Quantitative modeling of the equilibration of two-phase solid-liquid Fe by atomistic simulations on diffusive time scales. Physical Review B, 2015, 91, .	3.2	67
4	Review of Hierarchical Multiscale Modeling to Describe the Mechanical Behavior of Amorphous Polymers. Journal of Engineering Materials and Technology, Transactions of the ASME, 2009, 131, .	1.4	65
5	A review of recent progress in improving the fracture toughness of epoxyâ€based composites using carbonaceous nanofillers. Polymer Composites, 2022, 43, 1871-1886.	4.6	64
6	Molecular dynamics simulations of vinyl ester resin monomer interactions with a pristine vapor-grown carbon nanofiber and their implications for composite interphase formation. Carbon, 2011, 49, 3219-3232.	10.3	53
7	Mechanical properties of bamboo fiber-reinforced polymer composites: a review of recent case studies. Journal of Materials Science, 2022, 57, 3143-3167.	3.7	53
8	A review of electrical and thermal conductivities of epoxy resin systems reinforced with carbon nanotubes and graphene-based nanoparticles. Polymer Testing, 2022, 112, 107645.	4.8	51
9	Molecular Insights on the CH₄/CO₂ Separation in Nanoporous Graphene and Graphene Oxide Separation Platforms: Adsorbents versus Membranes. Journal of Physical Chemistry C, 2017, 121, 12308-12320.	3.1	48
10	Reactive Molecular Simulation of the Damage Mitigation Efficacy of POSS-, Graphene-, and Carbon Nanotube-Loaded Polyimide Coatings Exposed to Atomic Oxygen Bombardment. ACS Applied Materials & Interfaces, 2017, 9, 12802-12811.	8.0	47
11	Hyperbranched polyethylenimine functionalized silica/polysulfone nanocomposite membranes for water purification. Chemosphere, 2022, 290, 133363.	8.2	43
12	An interatomic potential for saturated hydrocarbons based on the modified embedded-atom method. Physical Chemistry Chemical Physics, 2014, 16, 6233-6249.	2.8	41
13	Highly antifouling polymer-nanoparticle-nanoparticle/polymer hybrid membranes. Science of the Total Environment, 2022, 810, 152228.	8.0	41
14	Molecular dynamics simulations of oxidized vapor-grown carbon nanofiber surface interactions with vinyl ester resin monomers. Carbon, 2012, 50, 748-760.	10.3	40
15	Molecular Insights into the Loading and Dynamics of Doxorubicin on PEGylated Graphene Oxide Nanocarriers. ACS Applied Bio Materials, 2020, 3, 1354-1363.	4.6	37
16	Free volume and internal structural evolution during creep in model amorphous polyethylene by Molecular Dynamics simulations. Polymer, 2019, 170, 85-100.	3.8	30
17	Substantially enhanced durability of polyhedral oligomeric silsequioxane-polyimide nanocomposites against atomic oxygen erosion. European Polymer Journal, 2017, 92, 233-249.	5.4	28
18	Melting and solidification behavior of Cu/Al and Ti/Al bimetallic core/shell nanoparticles during additive manufacturing by molecular dynamics simulation. Journal of Nanoparticle Research, 2018, 20, 1.	1.9	28

#	Article	IF	Citations
19	Data mining and knowledge discovery in materials science and engineering: A polymer nanocomposites case study. Advanced Engineering Informatics, 2013, 27, 615-624.	8.0	23
20	Interatomic Potential for Hydrocarbons on the Basis of the Modified Embedded-Atom Method with Bond Order (MEAM-BO). Journal of Physical Chemistry A, 2017, 121, 1502-1524.	2.5	18
21	Confinement effects on the thermal stability of poly(ethylene oxide)/graphene nanocomposites: A reactive molecular dynamics simulation study. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 1026-1035.	2.1	16
22	Molecular simulation insights on the in vacuo adsorption of amino acids on graphene oxide surfaces with varying surface oxygen densities. Journal of Nanoparticle Research, 2016, 18, 1.	1.9	15
23	Simulations of tensile bond rupture in single alkane molecules using reactive interatomic potentials. Chemical Physics Letters, 2015, 635, 278-284.	2.6	14
24	Thermal barrier coatings for cellulosic substrates: A statistically designed molecular dynamics study of the coating formulation effects on thermal conductivity. Applied Surface Science, 2022, 587, 152879.	6.1	14
25	Characterization, prediction, and optimization of flexural properties of vapor-grown carbon nanofiber/vinyl ester nanocomposites by response surface modeling. Journal of Applied Polymer Science, 2013, 130, 2087-2099.	2.6	13
26	Homogeneous and biphasic cellulose acetate/room temperature ionic liquid membranes for gas separations: Solvent and phase-inversion casting vs. supported ionic liquid membranes. Journal of Membrane Science, 2019, 589, 117228.	8.2	13
27	Statistical characterization of the impact strengths of vaporâ€grown carbon nanofiber/vinyl ester nanocomposites using a central composite design. Journal of Applied Polymer Science, 2013, 128, 1070-1080.	2.6	12
28	3D Graphene as an Unconventional Support Material for Ionic Liquid Membranes: Computational Insights into Gas Separations. Industrial & Engineering Chemistry Research, 2020, 59, 2203-2210.	3.7	12
29	Response surface predictions of the viscoelastic properties of vaporâ€grown carbon nanofiber/vinyl ester nanocomposites. Journal of Applied Polymer Science, 2013, 130, 234-247.	2.6	10
30	Comprehensive mechanical property classification of vapor-grown carbon nanofiber/vinyl ester nanocomposites using support vector machines. Computational Materials Science, 2015, 99, 316-325.	3.0	9
31	A fundamental investigation of the surfactant-stabilized single-walled carbon nanotube/epoxy resin suspensions by molecular dynamics simulation. Materials Research Express, 2017, 4, 015016.	1.6	9
32	Effects of Ionic Liquid Nanoconfinement on the CO₂/CH₄ Separation in Poly(vinylidene fluoride)/1-Ethyl-3-methylimidazolium Thiocyanate Membranes. ACS Applied Materials & Interfaces, 2021, 13, 44460-44469.	8.0	9
33	Thermal Analysis of Montmorillonite/Graphene Double-Layer Coating as a Potential Lightning Strike Protective Layer for Cross-Linked Epoxy by Molecular Dynamics Simulation. ACS Applied Nano Materials, 2018, 1, 2521-2525.	5.0	7
34	Molecular dynamics study of temperature and heating rateâ€“dependent sintering of titanium nanoparticles and its influence on the sequent tension tests of the formed particle-chain products. Journal of Nanoparticle Research, 2020, 22, 1.	1.9	7
35	Solvation of potential stable cations and anions originating from the Martian regolith in select ionic liquids. Journal of Molecular Liquids, 2021, 324, 114691.	4.9	5
36	Characterization and failure analysis of a polymeric clamp hanger component. Engineering Failure Analysis, 2012, 26, 230-239.	4.0	4

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37	Quantifying Parameter Sensitivity and Uncertainty for Interatomic Potential Design: Application to Saturated Hydrocarbons. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering, 2018, 4, .	1.1	4
38	Application of materials informatics to vapor-grown carbon nanofiber/vinyl ester nanocomposites through self-organizing maps and clustering techniques. Computational Materials Science, 2019, 158, 98-109.	3.0	3
39	Doxorubicin Stability and Retention on PEGylated Graphene Oxide Nanocarriers Adjacent to Human Serum Albumin. ACS Applied Bio Materials, 2020, 3, 7646-7653.	4.6	3
40	On the potential of ionic liquids to recover metals from the Martian regolith: Computational insights into interfacial interactions. Journal of Molecular Liquids, 2020, 319, 114208.	4.9	3
41	Sintered Ti/Al core/shell nanoparticles: computational investigation of the effects of core volume fraction, heating rate, and room-temperature relaxation on tensile properties. Journal Physics D: Applied Physics, 2022, 55, 025302.	2.8	3
42	Creep characterization of vaporâ€grown carbon nanofiber/vinyl ester nanocomposites using a response surface methodology. Journal of Applied Polymer Science, 2015, 132, .	2.6	2
43	Dynamic Mechanical and Thermal Properties of Cellulose Nanocrystal/Epoxy Nanocomposites. Green Materials, 0, , 1-47.	2.1	1
44	High Strain Rate Behavior of Carbon Nanofiber Reinforced Vinyl Ester. , 2009, , .		0
45	Creep Compliance Characterization of Vapor-Grown Carbon Nanofiber/Vinyl Ester Nanocomposites Using a Central Composite Design of Experiments. , 2013, , .		0