Mohammad Reza Ejtehadi

List of Publications by Year
in descending order

77 papers	3,038 citations	279778 23 h-index	161844 54 g-index
80 all docs	80 docs citations	80 times ranked	5524 citing authors

#	Article	IF	Citations
1	Proteinâ^'Nanoparticle Interactions: Opportunities and Challenges. Chemical Reviews, 2011, 111, 5610-5637.	47.7	1,242
2	Temperature: The â€œIgnoredâ€•Factor at the NanoBio Interface. ACS Nano, 2013, 7, 6555-6562.	14.6	299
3	Understanding the nanoparticleâ€“protein corona complexes using computational and experimental methods. International Journal of Biochemistry and Cell Biology, 2016, 75, 162-174.	2.8	96
4	Three-body interactions improve the prediction of rate and mechanism in protein folding models. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 15088-15093.	7.1	91
5	Cell-Imprinted Substrates Act as an Artificial Niche for Skin Regeneration. ACS Applied Materials & Interfaces, 2014, 6, 13280-13292.	8.0	70
6	Nanoscale characterization of the biomolecular corona by cryo-electron microscopy, cryo-electron tomography, and image simulation. Nature Communications, 2021, 12, 573.	12.8	61
7	Physiological Temperature Has a Crucial Role in Amyloid Beta in the Absence and Presence of Hydrophobic and Hydrophilic Nanoparticles. ACS Chemical Neuroscience, 2013, 4, 375-378.	3.5	59
8	Mechanistic Understanding of the Interactions between Nano-Objects with Different Surface Properties and Î±-Synuclein. ACS Nano, 2019, 13, 3243-3256.	14.6	51
9	Interdisciplinary challenges and promising theranostic effects of nanoscience in Alzheimer's disease. RSC Advances, 2012, 2, 5008.	3.6	48
10	Engineering of Mature Human Induced Pluripotent Stem Cellâ€Derived Cardiomyocytes Using Substrates with Multiscale Topography. Advanced Functional Materials, 2018, 28, 1707378.	14.9	43
11	Bare surface of gold nanoparticle induces inflammation through unfolding of plasma fibrinogen. Scientific Reports, 2018, 8, 12557.	3.3	43
12	Chain deformation in translocation phenomena. Soft Matter, 2013, 9, 2750.	2.7	42
13	Diffusion and self-assembly of C60 molecules on monolayer graphyne sheets. Scientific Reports, 2016, 6, 21910.	3.3	42
14	Coarse-grained interaction potentials for anisotropic molecules. Journal of Chemical Physics, 2006, 124, 174708.	3.0	39
15	Sequence dependence of the binding energy in chaperone-driven polymer translocation through a nanopore. Physical Review E, 2011, 83, 011902.	2.1	36
16	Ruddlesdenâ€“Popper Phases of Methylammonium-Based Two-Dimensional Perovskites with 5-Ammonium Valeric Acid AVA₂MA_{nâ€“1}Pb_nI_{3n+1} with n = 1, 2, and 3. Journal of Physical Chemistry Letters, 2019, 10, 3543-3549.	4.6	35
17	Active Brownian particles and run-and-tumble particles separate inside a maze. Scientific Reports, 2016, 6, 37670.	3.3	34
18	Development of a Virtual Cell Model to Predict Cell Response to Substrate Topography. ACS Nano, 2017, 11, 9084-9092.	14.6	33

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19	Micro helical polymeric structures produced by variable voltage direct electrospinning. Soft Matter, 2011, 7, 10548.	2.7	32
20	Interaction of spherical colloidal particles in nematic media with degenerate planar anchoring. Soft Matter, 2011, 7, 1107-1113.	2.7	29
21	Rigid-body molecular dynamics of DNA inside a nucleosome. European Physical Journal E, 2013, 36, 21.	1.6	29
22	A liquid film motor. Microfluidics and Nanofluidics, 2009, 6, 711-715.	2.2	28
23	Effects of topological constraints on linked ring polymers in solvents of varying quality. Soft Matter, 2020, 16, 3029-3038.	2.7	27
24	Geometrically Reduced Number of Protein Ground State Candidates. Physical Review Letters, 1999, 82, 4723-4726.	7.8	22
25	Molecular Dynamics Simulation of Supercoiled DNA Rings. Macromolecules, 2015, 48, 164-172.	4.8	21
26	Molecular interaction of fibrinogen with zeolite nanoparticles. Scientific Reports, 2019, 9, 1558.	3.3	21
27	Role of Graphene Surface Ripples and Thermal Vibrations in Molecular Dynamics of C₆₀. Journal of Physical Chemistry C, 2019, 123, 20026-20036.	3.1	19
28	S494 O-glycosylation site on the SARS-CoV-2 RBD affects the virus affinity to ACE2 and its infectivity; a molecular dynamics study. Scientific Reports, 2021, 11, 15162.	3.3	19
29	Stability of preferable structures for a hydrophobic-polar model of protein folding. Physical Review E, 1998, 57, 3298-3301.	2.1	18
30	Geometry selects highly designable structures. Journal of Chemical Physics, 2000, 113, 6437-6442.	3.0	18
31	Electrically rotating suspended films of polar liquids. Experiments in Fluids, 2011, 50, 419-428.	2.4	18
32	Particle selection through topographic templates in nematic colloids. Soft Matter, 2014, 10, 9681-9687.	2.7	17
33	Equilibrium state of a cylindrical particle with flat ends in nematic liquid crystals. Physical Review E, 2015, 91, 012503.	2.1	17
34	Protein Folding Rates Correlate with Heterogeneity of Folding Mechanism. Physical Review Letters, 2004, 93, 208105.	7.8	16
35	First passage time distribution of chaperone driven polymer translocation through a nanopore: Homopolymer and heteropolymer cases. Journal of Chemical Physics, 2011, 135, 245102.	3.0	16
36	Confined nematic liquid crystal between two spherical boundaries with planar anchoring. Physical Review E, 2013, 88, 012508.	2.1	16

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37	Topology of polymer chains under nanoscale confinement. Nanoscale, 2017, 9, 12170-12177.	5.6	16
38	Energy-landscape networks of spin glasses. Physical Review E, 2008, 77, 031105.	2.1	15
39	Analytical first derivatives of the RE-squared interaction potential. Journal of Computational Physics, 2006, 219, 770-779.	3.8	14
40	Extreme bendability of DNA double helix due to bending asymmetry. Journal of Chemical Physics, 2015, 143, 104904.	3.0	14
41	Topology of internally constrained polymer chains. Physical Chemistry Chemical Physics, 2017, 19, 18389-18393.	2.8	14
42	Molecular Dynamics Simulations of Orai Reveal How the Third Transmembrane Segment Contributes to Hydration and Ca2+ Selectivity in Calcium Release-Activated Calcium Channels. Journal of Physical Chemistry B, 2018, 122, 4407-4417.	2.6	14
43	Protein ground state candidates in a simple model: An enumeration study. Physical Review E, 1999, 60, 4629-4636.	2.1	13
44	Locomotion of the C60-based nanomachines on graphene surfaces. Scientific Reports, 2021, 11, 2576.	3.3	13
45	Simulation of droplet trains in microfluidic networks. Physical Review E, 2010, 82, 037303.	2.1	12
46	Rotational regimes of freely suspended liquid crystal films under electric current in presence of an external electric field. Microfluidics and Nanofluidics, 2012, 13, 83-89.	2.2	12
47	Electrical bending instability in electrospinning viscoâ€elastic solutions. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1036-1042.	2.1	11
48	The hot sites of Î±-synuclein in amyloid fibril formation. Scientific Reports, 2020, 10, 12175.	3.3	10
49	Structural and dynamical fingerprints of the anomalous dielectric properties of water under confinement. Physical Review Materials, 2021, 5, .	2.4	10
50	Effect of Cysteine Oxidation in SARS-CoV-2 Receptor-Binding Domain on Its Interaction with Two Cell Receptors: Insights from Atomistic Simulations. Journal of Chemical Information and Modeling, 2022, 62, 129-141.	5.4	9
51	Nanomechanical properties of lipid bilayer: Asymmetric modulation of lateral pressure and surface tension due to protein insertion in one leaflet of a bilayer. Journal of Chemical Physics, 2013, 138, 065101.	3.0	8
52	Cooperation within von Willebrand factors enhances adsorption mechanism. Journal of the Royal Society Interface, 2015, 12, 20150334.	3.4	8
53	Calcium chloride adsorption at liquid-liquid interfaces: A molecular dynamics simulation study. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 527, 70-80.	4.7	8
54	GAG positioning on IL-1RI; A mechanism regulated by dual effect of glycosylation. Glycobiology, 2019, 29, 803-812.	2.5	8

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55	Monte Carlo simulation of a lattice model for the dynamics of randomly branching double-folded ring polymers. Physical Review E, 2021, 104, 014501.	2.1	8
56	Collective movement and thermal stability of fullerene clusters on the graphene layer. Physical Chemistry Chemical Physics, 2022, 24, 11770-11781.	2.8	7
57	An exact treatment of ellipsoid-substrate interactions. Europhysics Letters, 2007, 77, 23002.	2.0	6
58	Low-Reynolds-number predator. Physical Review E, 2015, 92, 063035.	2.1	6
59	Glycan-mediated functional assembly of IL-1RI: structural insights into completion of the current description for immune response. Journal of Biomolecular Structure and Dynamics, 2022, 40, 2575-2585.	3.5	6
60	Molecular Machinery Responsible for Graphene Oxideâ€™s Distinct Inhibitory Effects toward Pseudomonas aeruginosa and Staphylococcus aureus Pathogens. ACS Applied Bio Materials, 2021, 4, 660-668.	4.6	6
61	Field theory of Skyrme lattices in quantum Hall ferromagnets. Physical Review B, 1998, 58, 10665-10673.	3.2	5
62	Different buckling regimes in direct electrospinning: A comparative approach to rope buckling. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 451-456.	2.1	5
63	Vortex with fourfold defect lines in a simple model of self-propelled particles. Physical Review E, 2016, 93, 032113.	2.1	4
64	Mechanism of water permeation through modified carbon nanotubes as a model for peptide nanotube channels. International Journal of Nanotechnology, 2009, 6, 926.	0.2	3
65	Gaussian theory for spatially distributed self-propelled particles. Physical Review E, 2016, 94, 062603.	2.1	3
66	Thermal conductivity of the cell membrane in the presence of cholesterol and amyloid precursor protein. Physical Review E, 2020, 102, 042401.	2.1	3
67	Impact of temporal correlations on high risk outbreaks of independent and cooperative SIR dynamics. PLoS ONE, 2021, 16, e0253563.	2.5	3
68	A Molecular Dynamics Simulation Study of Nanomechanical Properties of Asymmetric Lipid Bilayer. Journal of Membrane Biology, 2013, 246, 67-73.	2.1	2
69	Gating and conduction of nano-channel forming proteins: a computational approach. Journal of Biomolecular Structure and Dynamics, 2013, 31, 818-828.	3.5	2
70	Polyelectrolytes polarization in nonuniform electric fields. International Journal of Modern Physics C, 2014, 25, 1441010.	1.7	2
71	OmpF, a nucleotide-sensing nanoprobe, computational evaluation of single channel activities. Physica A: Statistical Mechanics and Its Applications, 2016, 457, 215-224.	2.6	2
72	Chaotic dynamics of active topological defects. Soft Materials, 0, , 1-7.	1.7	2

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73	Conformation- and phosphorylation-dependent electron tunnelling across self-assembled monolayers of tau peptides. Journal of Colloid and Interface Science, 2022, 606, 2038-2050.	9.4	2
74	Rigid-body formalism for simulating macromolecules. Computer Physics Communications, 2002, 147, 339-341.	7.5	1
75	Biomedical Applications: Engineering of Mature Human Induced Pluripotent Stem Cellâ€Derived Cardiomyocytes Using Substrates with Multiscale Topography (Adv. Funct. Mater. 19/2018). Advanced Functional Materials, 2018, 28, 1870128.	14.9	1
76	Electronic polarization effects on membrane translocation of anti-cancer drugs. Physical Chemistry Chemical Physics, 2022, 24, 12281-12292.	2.8	1
77	A modified Jarzynski free-energy estimator to eliminate non-conservative forces and its application in nanoparticleâ€“membrane interactions. Physical Chemistry Chemical Physics, 2022, 24, 3647-3654.	2.8	0