Brian R Novak

List of Publications by Year
in descending order

23 papers	530 citations	840585 11 h-index	677027 22 g-index
24 all docs	24 docs citations	24 times ranked	603 citing authors

#	Article	IF	Citations
1	Rapid microwave-assisted biomass delignification and lignin depolymerization in deep eutectic solvents. Energy Conversion and Management, 2019, 196, 1080-1088.	4.4	117
2	Electrochemiluminescence of Ruthenium(II) Tris(bipyridine) Encapsulated in Solâ˜Gel Glasses. Analytical Chemistry, 2000, 72, 2914-2918.	3.2	116
3	Comparison of heterogeneous and homogeneous bubble nucleation using molecular simulations. Physical Review B, 2007, 75, .	1.1	58
4	Combined molecular dynamics and phase field simulation investigations of crystal-melt interfacial properties and dendritic solidification of highly undercooled titanium. Computational Materials Science, 2019, 163, 218-229.	1.4	32
5	Molecular Dynamics Simulation Study of the Effect of DMSO on Structural and Permeation Properties of DMPC Lipid Bilayers. Journal of Physical Chemistry B, 2012, 116, 1299-1308.	1.2	27
6	An Atomistic Simulation Study of the Role of Asperities and Indentations on Heterogeneous Bubble Nucleation. Journal of Heat Transfer, 2008, 130, .	1.2	25
7	Modified embedded-atom method potential for high-temperature crystal-melt properties of Tiâ€“Ni alloys and its application to phase field simulation of solidification. Modelling and Simulation in Materials Science and Engineering, 2020, 28, 015006.	0.8	24
8	Interface kinetics of rapid solidification of binary alloys by atomistic simulations: Application to Ti-Ni alloys. Computational Materials Science, 2020, 184, 109854.	1.4	24
9	Title is missing!. Journal of Sol-Gel Science and Technology, 2002, 23, 215-220.	1.1	14
10	Distinguishing Single DNA Nucleotides Based on Their Times of Flight Through Nanoslits: A Molecular Dynamics Simulation Study. Journal of Physical Chemistry B, 2013, 117, 3271-3279.	1.2	13
11	Experimental and Molecular Dynamics Simulation Study of the Effects of Lignin Dimers on the Gel-to-Fluid Phase Transition in DPPC Bilayers. Journal of Physical Chemistry B, 2019, 123, 8247-8260.	1.2	13
12	Identifying structural changes with unsupervised machine learning methods. Physical Review E, 2018, 98, .	0.8	12
13	Electrophoretic Transport of Single DNA Nucleotides through Nanoslits: A Molecular Dynamics Simulation Study. Journal of Physical Chemistry B, 2015, 119, 11443-11458.	1.2	10
14	Quantitative prediction of rapid solidification by integrated atomistic and phase-field modeling. Acta Materialia, 2021, 211, 116885.	3.8	10
15	Unraveling the Role of Charge Patterning in the Micellar Structure of Sequence-Defined Amphiphilic Peptoid Oligomers by Molecular Dynamics Simulations. Macromolecules, 2022, 55, 5197-5212.	2.2	8
16	Umbrella Sampling Simulations of Biotin Carboxylase: Is a Structure with an Open ATP Grasp Domain Stable in Solution?. Journal of Physical Chemistry B, 2009, 113, 10097-10103.	1.2	6
17	Behavior of the ATP grasp domain of biotin carboxylase monomers and dimers studied using molecular dynamics simulations. Proteins: Structure, Function and Bioinformatics, 2011, 79, 622-632.	1.5	5
18	Molecular dynamics simulation study of the positioning and dynamics of Î±-tocopherol in phospholipid bilayers. European Biophysics Journal, 2021, 50, 889-903.	1.2	5

#	Article	IF	Citations
19	The role of the asymmetric bolaamphiphilic character of VECAR on the kinetic and structural aspects of its self-assembly: A molecular dynamics simulation study. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 523, 9-18.	2.3	3
20	Interaction of lignin dimers with model cell membranes: A quartz crystal microbalance and molecular dynamics simulation study. Biointerphases, 2021, 16, 041003.	0.6	3
21	Single Nucleotides Moving through Nanoslits Composed of Self-Assembled Monolayers via Equilibrium and Nonequilibrium Molecular Dynamics. Journal of Physical Chemistry B, 2021, 125, 1259-1270.	1.2	2
22	Complexation of Lignin Dimers with Î²-Cyclodextrin and Binding Stability Analysis by ESI-MS, Isothermal Titration Calorimetry, and Molecular Dynamics Simulations. Journal of Physical Chemistry B, 2022, 126, 1655-1667.	1.2	2
23	Multi-species Fluid Flow Simulations Using a Hybrid Computational Fluid Dynamics - Molecular Dynamics Approach. , 2012, , .		1