Robert VÃ¡cha

List of Publications by Year
in descending order

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68 papers	4,756 citations	101543 36 h-index	95266 68 g-index
74 all docs	74 docs citations	74 times ranked	5733 citing authors

#	Article	IF	Citations
1	Magainin 2 and PGLa in Bacterial Membrane Mimics III: Membrane Fusion and Disruption. Biophysical Journal, 2022, , .	0.5	4
2	Synthesis and Profiling of Highly Selective Inhibitors of Methyltransferase DOT1L Based on Carbocyclic C-Nucleosides. Journal of Medicinal Chemistry, 2022, 65, 5701-5723.	6.4	5
3	Capsid Structure of <i>Leishmania</i> RNA Virus 1. Journal of Virology, 2021, 95, .	3.4	10
4	Phosphorylation-induced changes in the PDZ domain of Dishevelled 3. Scientific Reports, 2021, 11, 1484.	3.3	2
5	Capsid opening enables genome release of iflaviruses. Science Advances, 2021, 7, .	10.3	13
6	Selecting Collective Variables and Free-Energy Methods for Peptide Translocation across Membranes. Journal of Chemical Information and Modeling, 2021, 61, 819-830.	5.4	22
7	Advances in Molecular Understanding of Î±-Helical Membrane-Active Peptides. Accounts of Chemical Research, 2021, 54, 2196-2204.	15.6	47
8	Enhanced translocation of amphiphilic peptides across membranes by transmembrane proteins. Biophysical Journal, 2021, 120, 2296-2305.	0.5	7
9	The impact of the glycan headgroup on the nanoscopic segregation of gangliosides. Biophysical Journal, 2021, 120, 5530-5543.	0.5	8
10	Cargo Release from Nonenveloped Viruses and Virus-like Nanoparticles: Capsid Rupture or Pore Formation. ACS Nano, 2021, 15, 19233-19243.	14.6	7
11	Magainin 2 and PGLa in Bacterial Membrane Mimics II: Membrane Fusion and Sponge Phase Formation. Biophysical Journal, 2020, 118, 612-623.	0.5	25
12	Effect of membrane composition on DivIVA-membrane interaction. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183144.	2.6	3
13	Yeast Spt6 Reads Multiple Phosphorylation Patterns of RNA Polymerase II C-Terminal Domain In Vitro. Journal of Molecular Biology, 2020, 432, 4092-4107.	4.2	6
14	Effect of Helical Kink on Peptide Translocation across Phospholipid Membranes. Journal of Physical Chemistry B, 2020, 124, 5940-5947.	2.6	13
15	Effect of helical kink in antimicrobial peptides on membrane pore formation. ELife, 2020, 9, .	6.0	39
16	Magainin 2 and PGLa in Bacterial Membrane Mimics I: Peptide-Peptide and Lipid-Peptide Interactions. Biophysical Journal, 2019, 117, 1858-1869.	0.5	30
17	Dishevelled-3 conformation dynamics analyzed by FRET-based biosensors reveals a key role of casein kinase 1. Nature Communications, 2019, 10, 1804.	12.8	20
18	Enterovirus particles expel capsid pentamers to enable genome release. Nature Communications, 2019, 10, 1138.	12.8	33

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19	Aggregate Size Dependence of Amyloid Adsorption onto Charged Interfaces. Langmuir, 2018, 34, 1266-1273.	3.5	5
20	Synergism of Antimicrobial Frog Peptides Couples to Membrane Intrinsic Curvature Strain. Biophysical Journal, 2018, 114, 1945-1954.	0.5	55
21	Optimal Hydrophobicity and Reorientation of Amphiphilic Peptides Translocating through Membrane. Biophysical Journal, 2018, 115, 1045-1054.	0.5	29
22	Design of Multivalent Inhibitors for Preventing Cellular Uptake. Scientific Reports, 2017, 7, 11689.	3.3	9
23	Self-assembled clusters of patchy rod-like molecules. Soft Matter, 2017, 13, 7492-7497.	2.7	8
24	GM 1 â€Gangliosid hemmt die Î²â€Amyloidâ€Oligomerisation, wÃhrend Sphingomyelin diese initiiert. Angewandte Chemie, 2016, 128, 9557-9562.	2.0	1
25	GM₁ Ganglioside Inhibits Î²â€Amyloid Oligomerization Induced by Sphingomyelin. Angewandte Chemie - International Edition, 2016, 55, 9411-9415.	13.8	86
26	Optimal conditions for opening of membrane pore by amphiphilic peptides. Journal of Chemical Physics, 2015, 143, 243115.	3.0	21
27	Influence of ligand distribution on uptake efficiency. Soft Matter, 2015, 11, 2726-2730.	2.7	49
28	Simulations Suggest Possible Novel Membrane Pore Structure. Langmuir, 2014, 30, 1304-1310.	3.5	19
29	Surface Effects on Aggregation Kinetics of Amyloidogenic Peptides. Journal of the American Chemical Society, 2014, 136, 11776-11782.	13.7	158
30	Stability of Bicelles: A Simulation Study. Langmuir, 2014, 30, 4229-4235.	3.5	14
31	Composition- and Size-Controlled Cyclic Self-Assembly by Solvent- and C₆₀-Responsive Self-Sorting. Journal of the American Chemical Society, 2013, 135, 15263-15268.	13.7	30
32	<i>Faunus</i>â€" a flexible framework for Monte Carlo simulation. Molecular Simulation, 2013, 39, 1233-1239.	2.0	44
33	Connecting Macroscopic Observables and Microscopic Assembly Events in Amyloid Formation Using Coarse Grained Simulations. PLoS Computational Biology, 2012, 8, e1002692.	3.2	63
34	Aqueous Solutions at the Interface with Phospholipid Bilayers. Accounts of Chemical Research, 2012, 45, 74-82.	15.6	100
35	Intracellular Release of Endocytosed Nanoparticles Upon a Change of Ligandâ€"Receptor Interaction. ACS Nano, 2012, 6, 10598-10605.	14.6	55
36	Sodium Dodecyl Sulfate at Waterâ€"Hydrophobic Interfaces: A Simulation Study. Journal of Physical Chemistry B, 2012, 116, 11936-11942.	2.6	31

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37	Charge Transfer between Water Molecules As the Possible Origin of the Observed Charging at the Surface of Pure Water. Journal of Physical Chemistry Letters, 2012, 3, 107-111.	4.6	101
38	Ions at Hydrophobic Aqueous Interfaces: Molecular Dynamics with Effective Polarization. Journal of Physical Chemistry Letters, 2012, 3, 2087-2091.	4.6	89
39	Study of the betulin molecule in a water environment; ab initio and molecular simulation calculations. Journal of Molecular Modeling, 2012, 18, 367-376.	1.8	5
40	Relation between Molecular Shape and the Morphology of Self-Assembling Aggregates: A Simulation Study. Biophysical Journal, 2011, 101, 1432-1439.	0.5	62
41	The Orientation and Charge of Water at the Hydrophobic Oil Dropletâ€"Water Interface. Journal of the American Chemical Society, 2011, 133, 10204-10210.	13.7	213
42	Receptor-Mediated Endocytosis of Nanoparticles of Various Shapes. Nano Letters, 2011, 11, 5391-5395.	9.1	441
43	Three-dimensional energy profile measurement of a molecular ion beam by coincidence momentum imaging compared to a retarding field analyzer. Journal of Instrumentation, 2010, 5, P10006-P10006.	1.2	0
44	Dielectric Interpretation of Specificity of Ion Pairing in Water. Journal of Physical Chemistry Letters, 2010, 1, 300-303.	4.6	41
45	Comment on â€œAn explanation for the charge on water's surfaceâ€• by A. Gray-Weale and J. K. Beattie, Phys. Chem. Chem. Phys., 2009, 11, 10994. Physical Chemistry Chemical Physics, 2010, 12, 14362.	2.8	12
46	Mechanism of Interaction of Monovalent Ions with Phosphatidylcholine Lipid Membranes. Journal of Physical Chemistry B, 2010, 114, 9504-9509.	2.6	89
47	Large variations in the propensity of aqueous oxychlorine anions for the solution/vapor interface. Journal of Chemical Physics, 2009, 131, 124706.	3.0	24
48	Hofmeister series and specific interactions of charged headgroups with aqueous ions. Advances in Colloid and Interface Science, 2009, 146, 42-47.	14.7	378
49	Reply to comments on Frontiers Article â€˜Behavior of hydroxide at the water/vapor interfaceâ€™. Chemical Physics Letters, 2009, 481, 19-21.	2.6	22
50	Behavior of hydroxide at the water/vapor interface. Chemical Physics Letters, 2009, 474, 241-247.	2.6	110
51	Effects of Alkali Cations and Halide Anions on the DOPC Lipid Membrane. Journal of Physical Chemistry A, 2009, 113, 7235-7243.	2.5	144
52	Ion specific effects of sodium and potassium on the catalytic activity of HIV-1 protease. Physical Chemistry Chemical Physics, 2009, 11, 7599.	2.8	36
53	Molecular Model of a Cell Plasma Membrane With an Asymmetric Multicomponent Composition: Water Permeation and Ion Effects. Biophysical Journal, 2009, 96, 4493-4501.	0.5	75
54	Benchmarking Polarizable Molecular Dynamics Simulations of Aqueous Sodium Hydroxide by Diffraction Measurements. Journal of Physical Chemistry A, 2009, 113, 4022-4027.	2.5	22

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55	Specific Ion Binding to Macromolecules:â€‰ Effects of Hydrophobicity and Ion Pairing. Langmuir, 2008, 24, 3387-3391.	3.5	106
56	Response to Comment on Autoionization at the surface of neat water: is the top layer pH neutral, basic, or acidic? by J. K. Beattie, Phys. Chem. Chem. Phys., 2007,9, DOI: 10.1039/b713702h. Physical Chemistry Chemical Physics, 2008, 10, 332-333.	2.8	37
57	Cation-Specific Interactions with Carboxylate in Amino Acid and Acetate Aqueous Solutions: X-ray Absorption and <i>ab initio</i> Calculations. Journal of Physical Chemistry B, 2008, 112, 12567-12570.	2.6	149
58	Biomolecular simulations of membranes: Physical properties from different force fields. Journal of Chemical Physics, 2008, 128, 125103.	3.0	242
59	Hydronium and hydroxide at the interface between water and hydrophobic media. Physical Chemistry Chemical Physics, 2008, 10, 4975.	2.8	68
60	Adsorption of Aromatic Hydrocarbons and Ozone at Environmental Aqueous Surfaces. Journal of Physical Chemistry A, 2008, 112, 4942-4950.	2.5	38
61	Water Structuring and Hydroxide Ion Binding at the Interface between Water and Hydrophobic Walls of Varying Rigidity and van der Waals Interactions. Journal of Physical Chemistry C, 2008, 112, 7689-7692.	3.1	53
62	Water surface is acidic. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 7342-7347.	7.1	332
63	Ion Pairing as a Possible Clue for Discriminating between Sodium and Potassium in Biological and Other Complex Environments. Journal of Physical Chemistry B, 2007, 111, 14077-14079.	2.6	80
64	Autoionization at the surface of neat water: is the top layer pH neutral, basic, or acidic?. Physical Chemistry Chemical Physics, 2007, 9, 4736.	2.8	151
65	Adsorption of polycyclic aromatic hydrocarbons at the airâ€“water interface: Molecular dynamics simulations and experimental atmospheric observations. Physical Chemistry Chemical Physics, 2006, 8, 4461-4467.	2.8	70
66	Propensity for the Air/Water Interface and Ion Pairing in Magnesium Acetate vs Magnesium Nitrate Solutions:Â Molecular Dynamics Simulations and Surface Tension Measurements. Journal of Physical Chemistry B, 2006, 110, 15939-15944.	2.6	86
67	Quantification and rationalization of the higher affinity of sodium over potassium to protein surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15440-15444.	7.1	212
68	Adsorption of Atmospherically Relevant Gases at the Air/Water Interface:â€‰ Free Energy Profiles of Aqueous Solvation of N2, O2, O3, OH, H2O, HO2, and H2O2. Journal of Physical Chemistry A, 2004, 108, 11573-11579.	2.5	195