

Dominik Horinek

List of Publications by Year in descending order

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87
papers

6,591
citations

81900

39
h-index

62596

80
g-index

89
all docs

89
docs citations

89
times ranked

7294
citing authors

#	ARTICLE	IF	CITATIONS
1	Artificial Molecular Rotors. <i>Chemical Reviews</i> , 2005, 105, 1281-1376.	47.7	1,119
2	Interfacial Water at Hydrophobic and Hydrophilic Surfaces: Slip, Viscosity, and Diffusion. <i>Langmuir</i> , 2009, 25, 10768-10781.	3.5	433
3	Water Slippage versus Contact Angle: A Quasiuniversal Relationship. <i>Physical Review Letters</i> , 2008, 101, 226101.	7.8	383
4	Reversed Anionic Hofmeister Series: The Interplay of Surface Charge and Surface Polarity. <i>Langmuir</i> , 2010, 26, 7370-7379.	3.5	256
5	Anionic and Cationic Hofmeister Effects on Hydrophobic and Hydrophilic Surfaces. <i>Langmuir</i> , 2013, 29, 2602-2614.	3.5	215
6	Rational design of ion force fields based on thermodynamic solvation properties. <i>Journal of Chemical Physics</i> , 2009, 130, 124507.	3.0	214
7	Specific ion adsorption at the air/water interface: The role of hydrophobic solvation. <i>Chemical Physics Letters</i> , 2009, 479, 173-183.	2.6	208
8	Dipolar and Nonpolar Altitudinal Molecular Rotors Mounted on an Au(111) Surface. <i>Journal of the American Chemical Society</i> , 2004, 126, 4540-4542.	13.7	182
9	Specific Ion Adsorption at Hydrophobic Solid Surfaces. <i>Physical Review Letters</i> , 2007, 99, 226104.	7.8	168
10	Arginine-rich cell-penetrating peptides induce membrane multilamellarity and subsequently enter via formation of a fusion pore. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 11923-11928.	7.1	168
11	Reversed Hofmeister series – The rule rather than the exception. <i>Current Opinion in Colloid and Interface Science</i> , 2016, 23, 10-18.	7.4	163
12	How to explain microemulsions formed by solvent mixtures without conventional surfactants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 4260-4265.	7.1	160
13	Peptide adsorption on a hydrophobic surface results from an interplay of solvation, surface, and intrapeptide forces. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 2842-2847.	7.1	147
14	Interaction of Carboranes with Biomolecules: Formation of Dihydrogen Bonds. <i>ChemPhysChem</i> , 2006, 7, 1100-1105.	2.1	134
15	Progress in Modeling of Ion Effects at the Vapor/Water Interface. <i>Annual Review of Physical Chemistry</i> , 2012, 63, 401-418.	10.8	119
16	On the Origin of the Hydrophobic Water Gap: An X-ray Reflectivity and MD Simulation Study. <i>Journal of the American Chemical Society</i> , 2010, 132, 6735-6741.	13.7	103
17	Insight into the Molecular Mechanisms of Protein Stabilizing Osmolytes from Global Force-Field Variations. <i>Journal of Physical Chemistry B</i> , 2013, 117, 8310-8321.	2.6	102
18	Molecular Dynamics Simulation of an Electric Field Driven Dipolar Molecular Rotor Attached to a Quartz Glass Surface. <i>Journal of the American Chemical Society</i> , 2003, 125, 11900-11910.	13.7	98

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19	Emergence of surfactant-free micelles from ternary solutions. <i>Chemical Science</i> , 2014, 5, 2949-2954.	7.4	94
20	Water at polar and nonpolar solid walls (Review). <i>Biointerphases</i> , 2008, 3, FC23-FC39.	1.6	93
21	Can Simulations Quantitatively Predict Peptide Transfer Free Energies to Urea Solutions? Thermodynamic Concepts and Force Field Limitations. <i>Journal of Physical Chemistry A</i> , 2011, 115, 6125-6136.	2.5	93
22	Surface-mounted altitudinal molecular rotors in alternating electric field: Single-molecule parametric oscillator molecular dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 14175-14180.	7.1	92
23	Unified Description of Urea Denaturation: Backbone and Side Chains Contribute Equally in the Transfer Model. <i>Journal of Physical Chemistry B</i> , 2014, 118, 107-114.	2.6	91
24	Spatial Correlations of Density and Structural Fluctuations in Liquid Water: A Comparative Simulation Study. <i>Journal of the American Chemical Society</i> , 2011, 133, 1391-1398.	13.7	88
25	Electrohydraulic Power Conversion in Planar Nanochannels. <i>Physical Review Letters</i> , 2009, 103, 144503.	7.8	83
26	Design principles for high-pressure force fields: Aqueous TMAO solutions from ambient to kilobar pressures. <i>Journal of Chemical Physics</i> , 2016, 144, 144104.	3.0	79
27	Specific ion effects in physicochemical and biological systems: Simulations, theory and experiments. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2007, 303, 110-136.	4.7	78
28	The Ion Sensitivity of Surface Conductive Single Crystalline Diamond. <i>Journal of the American Chemical Society</i> , 2007, 129, 1287-1292.	13.7	73
29	On the Relationship between Peptide Adsorption Resistance and Surface Contact Angle: A Combined Experimental and Simulation Single-Molecule Study. <i>Journal of the American Chemical Society</i> , 2012, 134, 19628-19638.	13.7	72
30	Hydronium and hydroxide at the interface between water and hydrophobic media. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 4975.	2.8	68
31	Specific Ion Binding to Carboxylic Surface Groups and the pH Dependence of the Hofmeister Series. <i>Langmuir</i> , 2015, 31, 215-225.	3.5	64
32	The dielectric response of chloromethylsilyl and dichloromethylsilyl dipolar rotors on fused silica surfaces. <i>Nanotechnology</i> , 2002, 13, 533-540.	2.6	62
33	Molecular Hydrophobic Attraction and Ion-Specific Effects Studied by Molecular Dynamics. <i>Langmuir</i> , 2008, 24, 1271-1283.	3.5	61
34	Viscous Friction of Hydrogen-Bonded Matter. <i>Journal of the American Chemical Society</i> , 2012, 134, 623-630.	13.7	55
35	Aggregation in detergent-free ternary mixtures with microemulsion-like properties. <i>Current Opinion in Colloid and Interface Science</i> , 2016, 22, 8-13.	7.4	53
36	Specific Ion Adsorption and Surface Forces in Colloid Science. <i>Journal of Physical Chemistry B</i> , 2008, 112, 1580-1585.	2.6	48

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37	Electrokinetics at Aqueous Interfaces without Mobile Charges. <i>Langmuir</i> , 2010, 26, 12614-12625.	3.5	47
38	Nanoroughness, Intrinsic Density Profile, and Rigidity of the Air-Water Interface. <i>Physical Review Letters</i> , 2009, 103, 136102.	7.8	43
39	Pyridine Ligand Rotation in Self-Assembled Trigonal Prisms. Evidence for Intracage Solvent Vapor Bubbles. <i>Journal of the American Chemical Society</i> , 2008, 130, 7629-7638.	13.7	41
40	Polypeptide Friction and Adhesion on Hydrophobic and Hydrophilic Surfaces: A Molecular Dynamics Case Study. <i>Journal of the American Chemical Society</i> , 2008, 130, 12408-12413.	13.7	40
41	Hofmeister versus Neuberg: is ATP really a biological hydrotrope?. <i>Cell Reports Physical Science</i> , 2021, 2, 100343.	5.6	40
42	Water Dynamics at Interfaces and Solutes: Disentangling Free Energy and Diffusivity Contributions. <i>Journal of Statistical Physics</i> , 2011, 145, 240-252.	1.2	38
43	Morphologies Observed in Ultraflexible Microemulsions with and without the Presence of a Strong Acid. <i>ACS Central Science</i> , 2016, 2, 467-475.	11.3	37
44	Effect of Counterions on the Shape, Hydration, and Degree of Order at the Interface of Cationic Micelles: The Triflate Case. <i>Langmuir</i> , 2013, 29, 4193-4203.	3.5	33
45	Theory and simulations of water flow through carbon nanotubes: prospects and pitfalls. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 184110.	1.8	32
46	Entropy and enthalpy convergence of hydrophobic solvation beyond the hard-sphere limit. <i>Journal of Chemical Physics</i> , 2011, 134, 055105.	3.0	32
47	Ion specific correlations in bulk and at biointerfaces. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 424108.	1.8	30
48	Extended Hydrogen Bond Networks for Effective Proton-Coupled Electron Transfer (PCET) Reactions: The Unexpected Role of Thiophenol and Its Acidic Channel in Photocatalytic Hydroamidations. <i>Journal of the American Chemical Society</i> , 2021, 143, 724-735.	13.7	30
49	Consistent definitions of "the interface" in surfactant-free micellar aggregates. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 480, 222-227.	4.7	27
50	Co-Ion and Ion Competition Effects: Ca^{2+} Ion Distributions Close to a Hydrophobic Solid Surface in Mixed Electrolyte Solutions. <i>Langmuir</i> , 2008, 24, 3944-3948.	3.5	25
51	Light Regulation of Enzyme Allostery through Photo-responsive Unnatural Amino Acids. <i>Cell Chemical Biology</i> , 2019, 26, 1501-1514.e9.	5.2	25
52	The Chemical Shift Baseline for High-Pressure NMR Spectra of Proteins. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 8757-8760.	13.8	23
53	Combined molecular dynamics (MD) and small angle scattering (SAS) analysis of organization on a nanometer-scale in ternary solvent solutions containing a hydrotrope. <i>Journal of Colloid and Interface Science</i> , 2019, 540, 623-633.	9.4	23
54	The role of the concentration scale in the definition of transfer free energies. <i>Biophysical Chemistry</i> , 2015, 196, 68-76.	2.8	21

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55	Hydration and self-aggregation of a neutral cosolute from dielectric relaxation spectroscopy and MD simulations: the case of 1,3-dimethylurea. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 219-230.	2.8	21
56	Single Molecule Adhesion Mechanics on Rough Surfaces. <i>Macromolecules</i> , 2009, 42, 9338-9343.	4.8	20
57	Relationship between Nonlinear Pressure-Induced Chemical Shift Changes and Thermodynamic Parameters. <i>Journal of Physical Chemistry B</i> , 2014, 118, 5681-5690.	2.6	20
58	Molecular Dynamics Simulations of Site Geometries of Anthracene in an Argon Matrix. <i>Journal of Physical Chemistry A</i> , 2000, 104, 3786-3791.	2.5	15
59	Sodium Triflate Decreases Interaggregate Repulsion and Induces Phase Separation in Cationic Micelles. <i>Langmuir</i> , 2015, 31, 2609-2614.	3.5	14
60	Pressure-dependent electronic structure calculations using integral equation-based solvation models. <i>Biophysical Chemistry</i> , 2020, 257, 106258.	2.8	14
61	Comment on "An explanation for the charge on water's surface" by A. Gray-Weale and J. K. Beattie, <i>Phys. Chem. Chem. Phys.</i> , 2009, 11, 10994. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 14362.	2.8	12
62	The Interplay of Methyl-Group Distribution and Hydration Pattern of Isomeric Amphiphilic Osmolytes. <i>Journal of Physical Chemistry B</i> , 2018, 122, 5972-5983.	2.6	12
63	Pressure increases the ice-like order of water at hydrophobic interfaces. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 21257-21261.	2.8	12
64	H-Aggregation Effects between π -Conjugated Chromophores in Cofacial Dimers and Trimers: Comparison of Theory and Single-Molecule Experiment. <i>Journal of Physical Chemistry B</i> , 2018, 122, 6431-6441.	2.6	12
65	Molecular Dynamics Shows That Ion Pairing and Counterion Anchoring Control the Properties of Triflate Micelles: A Comparison with Triflate at the Air/Water Interface. <i>Langmuir</i> , 2014, 30, 1239-1249.	3.5	11
66	Structure and thermodynamics of aqueous urea solutions from ambient to kilobar pressures: From thermodynamic modeling, experiments, and first principles simulations to an accurate force field description. <i>Biophysical Chemistry</i> , 2019, 254, 106260.	2.8	10
67	Dehydration Determines Hydrotropic Ion Affinity for Zwitterionic Micelles. <i>Journal of Chemical Information and Modeling</i> , 2020, 60, 604-610.	5.4	10
68	DLVO Theory. , 2014, , 343-346.		10
69	How the Stabilization of INK4 Tumor Suppressor 3D Structure Evaluated by Quantum Chemical and Molecular Mechanics Calculations Corresponds Well with Experimental Results: An Interplay of Association Enthalpy, Entropy, and Solvation Effects. <i>Journal of Physical Chemistry B</i> , 2006, 110, 4423-4429.	2.6	9
70	Solubilization power of surfactant-free microemulsions. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 22185-22189.	2.8	9
71	Phase separation of binary mixtures induced by soft centrifugal fields. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 8261-8272.	2.8	9
72	Forces between air-bubbles in electrolyte solution. <i>Chemical Physics Letters</i> , 2008, 458, 299-302.	2.6	8

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73	Salt effects in surfactant-free microemulsions. <i>Journal of Chemical Physics</i> , 2018, 148, 222818.	3.0	8
74	Density variations of TMAO solutions in the kilobar range: Experiments, PC-SAFT predictions, and molecular dynamics simulations. <i>Biophysical Chemistry</i> , 2019, 253, 106222.	2.8	8
75	Specific Ion Effects on Zwitterionic Micelles Are Independent of Interfacial Hydration Changes. <i>Langmuir</i> , 2018, 34, 11049-11057.	3.5	7
76	Ion-Specificity: From Solvation Thermodynamics to Molecular Simulations and Back. , 2009, , 231-265.		6
77	Molecular Dynamics Simulations of the Initial-State Predict Product Distributions of Dediazoniating Aryldiazonium in Binary Solvents. <i>Journal of Organic Chemistry</i> , 2015, 80, 8637-8642.	3.2	5
78	Theory of Ternary Fluids under Centrifugal Fields. <i>Journal of Physical Chemistry B</i> , 2021, 125, 12054-12062.	2.6	5
79	The potential energy surfaces of the six lowest singlet states of HOCl: global optimization of parameters for an extended anti-Morse function and a diatomics-in-molecules (DIM) model. <i>Physical Chemistry Chemical Physics</i> , 1999, 1, 2667-2674.	2.8	3
80	Die Basislinie der chemischen Verschiebung in Hochdruck- ¹³ C-NMR-Spektren von Proteinen. <i>Angewandte Chemie</i> , 2016, 128, 8900-8904.	2.0	3
81	Location and Conformation of the LK14 Peptide in Water/Ethanol Mixtures. <i>Langmuir</i> , 2021, 37, 469-477.	3.5	3
82	Artificial Molecular Rotors. <i>ChemInform</i> , 2005, 36, no.	0.0	2
83	The Hydrophobic Gap at High Hydrostatic Pressures. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 12958-12961.	13.8	2
84	The Stabilization Energy of the GLU-LYS Salt Bridge in the Protein/Water Environment: Correlated Quantum Chemical ab initio, DFT and Empirical Potential Studies. <i>Collection of Czechoslovak Chemical Communications</i> , 2008, 73, 921-936.	1.0	2
85	The Hydrophobic Gap at High Hydrostatic Pressures. <i>Angewandte Chemie</i> , 2017, 129, 13138-13141.	2.0	1
86	Specific Ion Effects, Theory. , 2014, , 2050-2053.		1
87	Short-chain branched sulfosuccinate as missing link between surfactants and hydrotropes. <i>Physical Chemistry Chemical Physics</i> , 2022, , .	2.8	0