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	Short-chain branched sulfosuccinate as missing link between surfactants and hydrotropes. Physical Chemistry Chemical Physics, 2022, , .	2.8	0
2	Location and Conformation of the LKÎ±14 Peptide in Water/Ethanol Mixtures. Langmuir, 2021, 37, 469-477.	3.5	3
3	Extended Hydrogen Bond Networks for Effective Proton-Coupled Electron Transfer (PCET) Reactions: The Unexpected Role of Thiophenol and Its Acidic Channel in Photocatalytic Hydroamidations. Journal of the American Chemical Society, 2021, 143, 724-735.	13.7	30
4	Phase separation of binary mixtures induced by soft centrifugal fields. Physical Chemistry Chemical Physics, 2021, 23, 8261-8272.	2.8	9
5	Hofmeister versus Neuberg: is ATP really a biological hydrotrope?. Cell Reports Physical Science, 2021, 2, 100343.	5.6	40
6	Theory of Ternary Fluids under Centrifugal Fields. Journal of Physical Chemistry B, 2021, 125, 12054-12062.	2.6	5
7	Pressure-dependent electronic structure calculations using integral equation-based solvation models. Biophysical Chemistry, 2020, 257, 106258.	2.8	14
8	Dehydration Determines Hydrotropic Ion Affinity for Zwitterionic Micelles. Journal of Chemical Information and Modeling, 2020, 60, 604-610.	5.4	10
9	Solubilization power of surfactant-free microemulsions. Physical Chemistry Chemical Physics, 2020, 22, 22185-22189.	2.8	9
10	Density variations of TMAO solutions in the kilobar range: Experiments, PC-SAFT predictions, and molecular dynamics simulations. Biophysical Chemistry, 2019, 253, 106222.	2.8	8
11	Light Regulation of Enzyme Allostery through Photo-responsive Unnatural Amino Acids. Cell Chemical Biology, 2019, 26, 1501-1514.e9.	5.2	25
12	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. Biophysical Chemistry, 2019, 254, 106260.	2.8	10
13	Combined molecular dynamics (MD) and small angle scattering (SAS) analysis of organization on a nanometer-scale in ternary solvent solutions containing a hydrotrope. Journal of Colloid and Interface Science, 2019, 540, 623-633.	9.4	23
14	Salt effects in surfactant-free microemulsions. Journal of Chemical Physics, 2018, 148, 222818.	3.0	8
15	The Interplay of Methyl-Group Distribution and Hydration Pattern of Isomeric Amphiphilic Osmolytes. Journal of Physical Chemistry B, 2018, 122, 5972-5983.	2.6	12
16	Arginine-rich cell-penetrating peptides induce membrane multilamellarity and subsequently enter via formation of a fusion pore. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11923-11928.	7.1	168
17	Pressure increases the ice-like order of water at hydrophobic interfaces. Physical Chemistry Chemical Physics, 2018, 20, 21257-21261.	2.8	12
18	H-Aggregation Effects between Ï€-Conjugated Chromophores in Cofacial Dimers and Trimers: Comparison of Theory and Single-Molecule Experiment. Journal of Physical Chemistry B, 2018, 122, 6431-6441.	2.6	12

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19	Specific Ion Effects on Zwitterionic Micelles Are Independent of Interfacial Hydration Changes. Langmuir, 2018, 34, 11049-11057.	3.5	7
20	Hydration and self-aggregation of a neutral cosolute from dielectric relaxation spectroscopy and MD simulations: the case of 1,3-dimethylurea. Physical Chemistry Chemical Physics, 2017, 19, 219-230.	2.8	21
21	The Hydrophobic Gap at High Hydrostatic Pressures. Angewandte Chemie, 2017, 129, 13138-13141.	2.0	1
22	The Hydrophobic Gap at High Hydrostatic Pressures. Angewandte Chemie - International Edition, 2017, 56, 12958-12961.	13.8	2
23	Die Basislinie der chemischen Verschiebung in Hochdruckâ€NMRâ€Spektren von Proteinen. Angewandte Chemie, 2016, 128, 8900-8904.	2.0	3
24	The Chemical Shift Baseline for Highâ€Pressure NMR Spectra of Proteins. Angewandte Chemie - International Edition, 2016, 55, 8757-8760.	13.8	23
25	Design principles for highâ€“pressure force fields: Aqueous TMAO solutions from ambient to kilobar pressures. Journal of Chemical Physics, 2016, 144, 144104.	3.0	79
26	Reversed Hofmeister seriesâ€”The rule rather than the exception. Current Opinion in Colloid and Interface Science, 2016, 23, 10-18.	7.4	163
27	How to explain microemulsions formed by solvent mixtures without conventional surfactants. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4260-4265.	7.1	160
28	Aggregation in detergent-free ternary mixtures with microemulsion-like properties. Current Opinion in Colloid and Interface Science, 2016, 22, 8-13.	7.4	53
29	Morphologies Observed in Ultraflexible Microemulsions with and without the Presence of a Strong Acid. ACS Central Science, 2016, 2, 467-475.	11.3	37
30	Consistent definitions of â€œthe interfaceâ€•in surfactant-free micellar aggregates. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 480, 222-227.	4.7	27
31	Sodium Triflate Decreases Interaggregate Repulsion and Induces Phase Separation in Cationic Micelles. Langmuir, 2015, 31, 2609-2614.	3.5	14
32	Molecular Dynamics Simulations of the Initial-State Predict Product Distributions of Dediazoniation of Aryldiazonium in Binary Solvents. Journal of Organic Chemistry, 2015, 80, 8637-8642.	3.2	5
33	Specific Ion Binding to Carboxylic Surface Groups and the pH Dependence of the Hofmeister Series. Langmuir, 2015, 31, 215-225.	3.5	64
34	The role of the concentration scale in the definition of transfer free energies. Biophysical Chemistry, 2015, 196, 68-76.	2.8	21
35	Emergence of surfactant-free micelles from ternary solutions. Chemical Science, 2014, 5, 2949-2954.	7.4	94
36	Relationship between Nonlinear Pressure-Induced Chemical Shift Changes and Thermodynamic Parameters. Journal of Physical Chemistry B, 2014, 118, 5681-5690.	2.6	20

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37	Unified Description of Urea Denaturation: Backbone and Side Chains Contribute Equally in the Transfer Model. Journal of Physical Chemistry B, 2014, 118, 107-114.	2.6	91
38	Molecular Dynamics Shows That Ion Pairing and Counterion Anchoring Control the Properties of Triflate Micelles: A Comparison with Triflate at the Air/Water Interface. Langmuir, 2014, 30, 1239-1249.	3.5	11
39	Specific Ion Effects, Theory. , 2014, , 2050-2053.		1
40	DLVO Theory. , 2014, , 343-346.		10
41	Effect of Counterions on the Shape, Hydration, and Degree of Order at the Interface of Cationic Micelles: The Triflate Case. Langmuir, 2013, 29, 4193-4203.	3.5	33
42	Anionic and Cationic Hofmeister Effects on Hydrophobic and Hydrophilic Surfaces. Langmuir, 2013, 29, 2602-2614.	3.5	215
43	Insight into the Molecular Mechanisms of Protein Stabilizing Osmolytes from Global Force-Field Variations. Journal of Physical Chemistry B, 2013, 117, 8310-8321.	2.6	102
44	On the Relationship between Peptide Adsorption Resistance and Surface Contact Angle: A Combined Experimental and Simulation Single-Molecule Study. Journal of the American Chemical Society, 2012, 134, 19628-19638.	13.7	72
45	Viscous Friction of Hydrogen-Bonded Matter. Journal of the American Chemical Society, 2012, 134, 623-630.	13.7	55
46	Progress in Modeling of Ion Effects at the Vapor/Water Interface. Annual Review of Physical Chemistry, 2012, 63, 401-418.	10.8	119
47	Can Simulations Quantitatively Predict Peptide Transfer Free Energies to Urea Solutions? Thermodynamic Concepts and Force Field Limitations. Journal of Physical Chemistry A, 2011, 115, 6125-6136.	2.5	93
48	Spatial Correlations of Density and Structural Fluctuations in Liquid Water: A Comparative Simulation Study. Journal of the American Chemical Society, 2011, 133, 1391-1398.	13.7	88
49	Water Dynamics at Interfaces and Solutes: Disentangling Free Energy and Diffusivity Contributions. Journal of Statistical Physics, 2011, 145, 240-252.	1.2	38
50	Theory and simulations of water flow through carbon nanotubes: prospects and pitfalls. Journal of Physics Condensed Matter, 2011, 23, 184110.	1.8	32
51	Entropy and enthalpy convergence of hydrophobic solvation beyond the hard-sphere limit. Journal of Chemical Physics, 2011, 134, 055105.	3.0	32
52	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
53	Electrokinetics at Aqueous Interfaces without Mobile Charges. Langmuir, 2010, 26, 12614-12625.	3.5	47
54	On the Origin of the Hydrophobic Water Gap: An X-ray Reflectivity and MD Simulation Study. Journal of the American Chemical Society, 2010, 132, 6735-6741.	13.7	103

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55	Reversed Anionic Hofmeister Series: The Interplay of Surface Charge and Surface Polarity. Langmuir, 2010, 26, 7370-7379.	3.5	256
56	Nanoroughness, Intrinsic Density Profile, and Rigidity of the Air-Water Interface. Physical Review Letters, 2009, 103, 136102.	7.8	43
57	Electrohydraulic Power Conversion in Planar Nanochannels. Physical Review Letters, 2009, 103, 144503.	7.8	83
58	Ion specific correlations in bulk and at biointerfaces. Journal of Physics Condensed Matter, 2009, 21, 424108.	1.8	30
59	Specific ion adsorption at the air/water interface: The role of hydrophobic solvation. Chemical Physics Letters, 2009, 479, 173-183.	2.6	208
60	Ion-Specificity: From Solvation Thermodynamics to Molecular Simulations and Back. , 2009, , 231-265.		6
61	Interfacial Water at Hydrophobic and Hydrophilic Surfaces: Slip, Viscosity, and Diffusion. Langmuir, 2009, 25, 10768-10781.	3.5	433
62	Single Molecule Adhesion Mechanics on Rough Surfaces. Macromolecules, 2009, 42, 9338-9343.	4.8	20
63	Rational design of ion force fields based on thermodynamic solvation properties. Journal of Chemical Physics, 2009, 130, 124507.	3.0	214
64	Forces between air-bubbles in electrolyte solution. Chemical Physics Letters, 2008, 458, 299-302.	2.6	8
65	Water Slippage versus Contact Angle: A Quasiuniversal Relationship. Physical Review Letters, 2008, 101, 226101.	7.8	383
66	Water at polar and nonpolar solid walls (Review). Biointerphases, 2008, 3, FC23-FC39.	1.6	93
67	Polypeptide Friction and Adhesion on Hydrophobic and Hydrophilic Surfaces: A Molecular Dynamics Case Study. Journal of the American Chemical Society, 2008, 130, 12408-12413.	13.7	40
68	Hydronium and hydroxide at the interface between water and hydrophobic media. Physical Chemistry Chemical Physics, 2008, 10, 4975.	2.8	68
69	Co-Ion and Ion Competition Effects:â€‰ Ion Distributions Close to a Hydrophobic Solid Surface in Mixed Electrolyte Solutions. Langmuir, 2008, 24, 3944-3948.	3.5	25
70	Pyridine Ligand Rotation in Self-Assembled Trigonal Prisms. Evidence for Intracage Solvent Vapor Bubbles. Journal of the American Chemical Society, 2008, 130, 7629-7638.	13.7	41
71	Molecular Hydrophobic Attraction and Ion-Specific Effects Studied by Molecular Dynamics. Langmuir, 2008, 24, 1271-1283.	3.5	61
72	Specific Ion Adsorption and Surface Forces in Colloid Science. Journal of Physical Chemistry B, 2008, 112, 1580-1585.	2.6	48

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73	Peptide adsorption on a hydrophobic surface results from an interplay of solvation, surface, and intrapeptide forces. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2842-2847.	7.1	147
74	The Stabilization Energy of the GLU-LYS Salt Bridge in the Protein/Water Environment: Correlated Quantum Chemical ab initio, DFT and Empirical Potential Studies. Collection of Czechoslovak Chemical Communications, 2008, 73, 921-936.	1.0	2
75	Specific Ion Adsorption at Hydrophobic Solid Surfaces. Physical Review Letters, 2007, 99, 226104.	7.8	168
76	Specific ion effects in physicochemical and biological systems: Simulations, theory and experiments. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 303, 110-136.	4.7	78
77	The Ion Sensitivity of Surface Conductive Single Crystalline Diamond. Journal of the American Chemical Society, 2007, 129, 1287-1292.	13.7	73
78	How the Stabilization of INK4 Tumor Suppressor 3D Structure Evaluated by Quantum Chemical and Molecular Mechanics Calculations Corresponds Well with Experimental Results:Â Interplay of Association Enthalpy, Entropy, and Solvation Effects. Journal of Physical Chemistry B, 2006, 110, 4423-4429.	2.6	9
79	Interaction of Carboranes with Biomolecules: Formation of Dihydrogen Bonds. ChemPhysChem, 2006, 7, 1100-1105.	2.1	134
80	Artificial Molecular Rotors. ChemInform, 2005, 36, no.	0.0	2
81	Surface-mounted altitudinal molecular rotors in alternating electric field: Single-molecule parametric oscillator molecular dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 14175-14180.	7.1	92
82	Artificial Molecular Rotors. Chemical Reviews, 2005, 105, 1281-1376.	47.7	1,119
83	Dipolar and Nonpolar Altitudinal Molecular Rotors Mounted on an Au(111) Surface. Journal of the American Chemical Society, 2004, 126, 4540-4542.	13.7	182
84	Molecular Dynamics Simulation of an Electric Field Driven Dipolar Molecular Rotor Attached to a Quartz Glass Surface. Journal of the American Chemical Society, 2003, 125, 11900-11910.	13.7	98
85	The dielectric response of chloromethylsilyl and dichloromethylsilyl dipolar rotors on fused silica surfaces. Nanotechnology, 2002, 13, 533-540.	2.6	62
86	Molecular Dynamics Simulations of Site Geometries of Anthracene in an Argon Matrixâ€. Journal of Physical Chemistry A, 2000, 104, 3786-3791.	2.5	15
87	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. Physical Chemistry Chemical Physics, 1999, 1, 2667-2674.	2.8	3