

Heiko Heerklotz

List of Publications by Year in descending order

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73
papers

4,312
citations

87843

38
h-index

106281

65
g-index

96
all docs

96
docs citations

96
times ranked

4555
citing authors

#	ARTICLE	IF	CITATIONS
1	Detergent-resistant membranes should not be identified with membrane rafts. Trends in Biochemical Sciences, 2005, 30, 430-436.	3.7	446
2	Interactions of surfactants with lipid membranes. Quarterly Reviews of Biophysics, 2008, 41, 205-264.	2.4	255
3	Structure of BeF ₃ ⁻ -Modified Response Regulator PleD: Implications for Diguanylate Cyclase Activation, Catalysis, and Feedback Inhibition. Structure, 2007, 15, 915-927.	1.6	209
4	Detergent-Like Action of the Antibiotic Peptide Surfactin on Lipid Membranes. Biophysical Journal, 2001, 81, 1547-1554.	0.2	182
5	Leakage and lysis of lipid membranes induced by the lipopeptide surfactin. European Biophysics Journal, 2007, 36, 305-314.	1.2	168
6	Activation of the Diguanylate Cyclase PleD by Phosphorylation-mediated Dimerization. Journal of Biological Chemistry, 2007, 282, 29170-29177.	1.6	167
7	The Sensitivity of Lipid Domains to Small Perturbations Demonstrated by the Effect of Triton. Journal of Molecular Biology, 2003, 329, 793-799.	2.0	159
8	Classifying Surfactants with Respect to Their Effect on Lipid Membrane Order. Biophysical Journal, 2012, 102, 498-506.	0.2	138
9	Molecular determinants for the recruitment of the ubiquitin ligase MuRF1 onto α -tubulin. FASEB Journal, 2007, 21, 1383-1392.	0.2	91
10	The Enthalpy of Acyl Chain Packing and the Apparent Water-Accessible Apolar Surface Area of Phospholipids. Biophysical Journal, 2001, 80, 271-279.	0.2	90
11	All-or-none membrane permeabilization by fengycin-type lipopeptides from Bacillus subtilis QST713. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 2000-2008.	1.4	88
12	pH-Dependent doxorubicin release from terpolymer of starch, polymethacrylic acid and polysorbate 80 nanoparticles for overcoming multi-drug resistance in human breast cancer cells. European Journal of Pharmaceutics and Biopharmaceutics, 2012, 82, 587-597.	2.0	88
13	Volumetric Characterization of Sodium-Induced G-Quadruplex Formation. Journal of the American Chemical Society, 2011, 133, 4518-4526.	6.6	84
14	Characterizing vesicle leakage by fluorescence lifetime measurements. Soft Matter, 2009, 5, 2849.	1.2	82
15	Lipid/Detergent Interaction Thermodynamics as a Function of Molecular Shape. Journal of Physical Chemistry B, 1997, 101, 639-645.	1.2	80
16	Application of Pressure Perturbation Calorimetry to Lipid Bilayers. Biophysical Journal, 2002, 82, 1445-1452.	0.2	75
17	Interactions of Cholesterol with Lipid Membranes and Cyclodextrin Characterized by Calorimetry. Biophysical Journal, 2005, 89, 1109-1119.	0.2	74
18	A Δ -Release Protocol for Isothermal Titration Calorimetry. Biophysical Journal, 1999, 76, 2606-2613.	0.2	73

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19	Thermodynamic Comparison of the Interactions of Cholesterol with Unsaturated Phospholipid and Sphingomyelins. <i>Biophysical Journal</i> , 2006, 90, 4479-4487.	0.2	73
20	Design of pH-responsive nanoparticles of terpolymer of poly(methacrylic acid), polysorbate 80 and starch for delivery of doxorubicin. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013, 101, 405-413.	2.5	73
21	Monitoring Lipid Membrane Translocation of Sodium Dodecyl Sulfate by Isothermal Titration Calorimetry. <i>Journal of the American Chemical Society</i> , 2006, 128, 1279-1286.	6.6	70
22	Thermodynamics of Lipid Membrane Solubilization by Sodium Dodecyl Sulfate. <i>Biophysical Journal</i> , 2006, 90, 4509-4521.	0.2	70
23	Structural, Volumetric, and Thermodynamic Characterization of a Micellar Sphere-to-Rod Transition. <i>Journal of the American Chemical Society</i> , 2004, 126, 16544-16552.	6.6	68
24	Membrane Stress and Permeabilization Induced by Asymmetric Incorporation of Compounds. <i>Biophysical Journal</i> , 2001, 81, 184-195.	0.2	67
25	The microcalorimetry of lipid membranes. <i>Journal of Physics Condensed Matter</i> , 2004, 16, R441-R467.	0.7	67
26	Gradual Change or Phase Transition: Characterizing Fluid Lipid-Cholesterol Membranes on the Basis of Thermal Volume Changes. <i>Biophysical Journal</i> , 2006, 91, 600-607.	0.2	61
27	Monitoring detergent-mediated solubilization and reconstitution of lipid membranes by isothermal titration calorimetry. <i>Nature Protocols</i> , 2009, 4, 686-697.	5.5	60
28	Uptake and release protocol for assessing membrane binding and permeation by way of isothermal titration calorimetry. <i>Nature Protocols</i> , 2007, 2, 695-704.	5.5	57
29	Membrane Perturbation by the Lipopeptide Surfactin and Detergents as Studied by Deuterium NMR. <i>Journal of Physical Chemistry B</i> , 2004, 108, 4909-4915.	1.2	55
30	Surface areas and packing constraints in membranes. A time-resolved fluorescence study. <i>Biophysical Chemistry</i> , 1996, 58, 289-302.	1.5	52
31	Application of isothermal titration calorimetry for detecting lipid membrane solubilization. <i>Chemical Physics Letters</i> , 1995, 235, 517-520.	1.2	50
32	Vesicle Leakage Reflects the Target Selectivity of Antimicrobial Lipopeptides from <i>Bacillus subtilis</i> . <i>Biophysical Journal</i> , 2015, 109, 2079-2089.	0.2	50
33	Engineering Asymmetric Lipid Vesicles: Accurate and Convenient Control of the Outer Leaflet Lipid Composition. <i>Langmuir</i> , 2018, 34, 1999-2005.	1.6	50
34	Correlating antimicrobial activity and model membrane leakage induced by nylon-3 polymers and detergents. <i>Soft Matter</i> , 2015, 11, 6840-6851.	1.2	48
35	Nonideal mixing in multicomponent lipid/detergent systems. <i>Journal of Physics Condensed Matter</i> , 2006, 18, S1125-S1138.	0.7	46
36	Membrane/water partition of oligo(ethylene oxide) dodecyl ethers and its relevance for solubilization. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1994, 1196, 114-122.	1.4	42

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37	Surface area per molecule in lipid/C12E n membranes as seen by fluorescence resonance energy transfer. <i>Journal of Fluorescence</i> , 1994, 4, 339-343.	1.3	40
38	A Quantitative Model Describing the Selective Solubilization of Membrane Domains. <i>Journal of the American Chemical Society</i> , 2005, 127, 11469-11476.	6.6	39
39	Hydration and Lyotropic Melting of Amphiphilic Molecules: A Thermodynamic Study Using Humidity Titration Calorimetry. <i>Journal of Colloid and Interface Science</i> , 1999, 220, 235-249.	5.0	38
40	A humidity titration calorimetry technique to study the thermodynamics of hydration. <i>Chemical Physics Letters</i> , 1999, 304, 329-335.	1.2	36
41	Utilizing zeta potential measurements to study the effective charge, membrane partitioning, and membrane permeation of the lipopeptide surfactin. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2014, 1838, 2306-2312.	1.4	35
42	Modeling the Micellization Behavior of Mixed and Pure <i>n</i> -Alkyl-Maltosides. <i>Langmuir</i> , 2009, 25, 4393-4401.	1.6	34
43	Effects of glycerol and urea on micellization, membrane partitioning and solubilization by a non-ionic surfactant. <i>Biophysical Chemistry</i> , 2010, 150, 119-128.	1.5	34
44	Additive and Synergistic Membrane Permeabilization by Antimicrobial (Lipo)Peptides and Detergents. <i>Biophysical Journal</i> , 2014, 106, 2115-2125.	0.2	31
45	Complex Micellization Behavior of the Polysorbates Tween 20 and Tween 80. <i>Molecular Pharmaceutics</i> , 2021, 18, 3147-3157.	2.3	31
46	Preparation of Asymmetric Liposomes Using a Phosphatidylserine Decarboxylase. <i>Biophysical Journal</i> , 2018, 115, 1509-1517.	0.2	30
47	Helix \rightarrow Coil Transition of DNA Monitored by Pressure Perturbation Calorimetry. <i>Journal of Physical Chemistry B</i> , 2009, 113, 1738-1742.	1.2	29
48	Efficacy as an Intrinsic Property of the M ₂ Muscarinic Receptor in Its Tetrameric State. <i>Biochemistry</i> , 2013, 52, 7405-7427.	1.2	28
49	Stairway to Asymmetry: Five Steps to Lipid-Asymmetric Proteoliposomes. <i>Biophysical Journal</i> , 2020, 118, 294-302.	0.2	27
50	Design and Characterization of a Multifunctional pH-Triggered Peptide C8 for Selective Anticancer Activity. <i>Advanced Healthcare Materials</i> , 2015, 4, 2709-2718.	3.9	23
51	Extension of ThermoML: The IUPAC standard for thermodynamic data communications (IUPAC) Tj ETQq1 1 0.784314 rgBT /Overlock 10 0,9 19		
52	Folding thermodynamics of the hybrid β 1 type intramolecular human telomeric G β quadruplex. <i>Biopolymers</i> , 2014, 101, 216-227.	1.2	19
53	Biomembrane Permeabilization: Statistics of Individual Leakage Events Harmonize the Interpretation of Vesicle Leakage. <i>ACS Nano</i> , 2018, 12, 813-819.	7.3	19
54	Additive Action of Two or More Solutes on Lipid Membranes. <i>Langmuir</i> , 2008, 24, 8833-8840.	1.6	16

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55	Digitonin does not flip across cholesterol-poor membranes. <i>Journal of Colloid and Interface Science</i> , 2017, 504, 283-293.	5.0	16
56	Determining critical parameters that influence in vitro performance characteristics of a thermosensitive liposome formulation of vinorelbine. <i>Journal of Controlled Release</i> , 2020, 328, 551-561.	4.8	16
57	Effects of buffer ionization in protein transition volumes. <i>Biophysical Chemistry</i> , 2010, 148, 144-147.	1.5	15
58	“Staying Out” Rather than “Cracking In”: Asymmetric Membrane Insertion of 12:0 Lysophosphocholine. <i>Langmuir</i> , 2016, 32, 11655-11663.	1.6	15
59	How Membrane Partitioning Modulates Receptor Activation: Parallel versus Serial Effects of Hydrophobic Ligands. <i>Biophysical Journal</i> , 2013, 105, 2607-2610.	0.2	13
60	Effect of Hydrophobic Interactions on Volume and Thermal Expansivity as Derived from Micelle Formation. <i>Langmuir</i> , 2012, 28, 14129-14136.	1.6	12
61	ThermoML: An XML-Based Approach for Storage and Exchange of Experimental and Critically Evaluated Thermophysical and Thermochemical Property Data. 4. Biomaterials. <i>Journal of Chemical & Engineering Data</i> , 2010, 55, 1564-1572.	1.0	11
62	Volume and Expansivity Changes of Micelle Formation Measured by Pressure Perturbation Calorimetry. <i>Langmuir</i> , 2011, 27, 1693-1699.	1.6	11
63	The Optimal Lipid Chain Length of a Membrane-Permeabilizing Lipopeptide Results From the Balance of Membrane Partitioning and Local Damage. <i>Frontiers in Microbiology</i> , 2021, 12, 669709.	1.5	11
64	Determination of the partition coefficients of the nonionic detergent C12E7 between lipid-detergent mixed membranes and water by means of Laurdan fluorescence spectroscopy. <i>Journal of Fluorescence</i> , 1994, 4, 349-352.	1.3	10
65	Lipid Scrambling Induced by Membrane-Active Substances. <i>Biophysical Journal</i> , 2020, 119, 767-779.	0.2	10
66	ThermoML: an XML-Based Approach for Storage and Exchange of Experimental and Critically Evaluated Thermophysical and Thermochemical Property Data. 5. Speciation and Complex Equilibria. <i>Journal of Chemical & Engineering Data</i> , 2011, 56, 307-316.	1.0	8
67	Screening for Optimal Liposome Preparation Conditions by Using Dual Centrifugation and Time-Resolved Fluorescence Measurements. <i>Pharmaceutics</i> , 2021, 13, 2046.	2.0	7
68	Calcineurin B homologous protein 3 binds with high affinity to the CHP binding domain of the human sodium/proton exchanger NHE1. <i>Scientific Reports</i> , 2018, 8, 14837.	1.6	5
69	Membrane-water partitioning “Tackling the challenges of poorly soluble drugs using chaotropic co-solvents. <i>Biophysical Chemistry</i> , 2021, 277, 106654.	1.5	5
70	Calcium affects CHP1 and CHP2 conformation and their interaction with sodium/proton exchanger 1. <i>FASEB Journal</i> , 2020, 34, 3253-3266.	0.2	4
71	Primary and Secondary Binding of Exenatide to Liposomes. <i>Biophysical Journal</i> , 2020, 118, 600-611.	0.2	4
72	Lipid Selectivity of Fungicidal Lipopeptides. <i>Biophysical Journal</i> , 2015, 108, 549a.	0.2	2

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73	Kiss and Run Asymmetric Vesicles to Investigate Coupling. Biophysical Journal, 2019, 117, 1009-1011.	0.2	1