

# Frank Heinrich

## List of Publications by Year in descending order

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65  
papers

2,574  
citations

201674

27  
h-index

197818

49  
g-index

68  
all docs

68  
docs citations

68  
times ranked

3044  
citing authors

#	ARTICLE	IF	CITATIONS
1	Soluble Amyloid $\beta$ -Oligomers Affect Dielectric Membrane Properties by Bilayer Insertion and Domain Formation: Implications for Cell Toxicity. <i>Biophysical Journal</i> , 2008, 95, 4845-4861.	0.5	190
2	Molecular-scale structural and functional characterization of sparsely tethered bilayer lipid membranes. <i>Biointerphases</i> , 2007, 2, 21-33.	1.6	180
3	Phase-sensitive specular neutron reflectometry for imaging the nanometer scale composition depth profile of thin-film materials. <i>Current Opinion in Colloid and Interface Science</i> , 2012, 17, 44-53.	7.4	159
4	Structure of Functional <i>Staphylococcus aureus</i> $\beta$ -Hemolysin Channels in Tethered Bilayer Lipid Membranes. <i>Biophysical Journal</i> , 2009, 96, 1547-1553.	0.5	138
5	A New Lipid Anchor for Sparsely Tethered Bilayer Lipid Membranes. <i>Langmuir</i> , 2009, 25, 4219-4229.	3.5	123
6	HIV-1 Gag Extension: Conformational Changes Require Simultaneous Interaction with Membrane and Nucleic Acid. <i>Journal of Molecular Biology</i> , 2011, 406, 205-214.	4.2	103
7	Structure and Properties of Tethered Bilayer Lipid Membranes with Unsaturated Anchor Molecules. <i>Langmuir</i> , 2013, 29, 8645-8656.	3.5	96
8	Depth of $\beta$ -Synuclein in a Bilayer Determined by Fluorescence, Neutron Reflectometry, and Computation. <i>Biophysical Journal</i> , 2012, 102, 613-621.	0.5	94
9	An Accurate In Vitro Model of the <i>E. coli</i> Envelope. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 11952-11955.	13.8	91
10	Zooming in on disordered systems: Neutron reflection studies of proteins associated with fluid membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2014, 1838, 2341-2349.	2.6	85
11	Structure and Stability of Phospholipid Bilayers Hydrated by a Room-Temperature Ionic Liquid/Water Solution: A Neutron Reflectometry Study. <i>Journal of Physical Chemistry B</i> , 2014, 118, 12192-12206.	2.6	82
12	An ion-channel-containing model membrane: structural determination by magnetic contrast neutron reflectometry. <i>Soft Matter</i> , 2009, 5, 2576-2586.	2.7	67
13	A bacteriophage endolysin that eliminates intracellular streptococci. <i>ELife</i> , 2016, 5, .	6.0	64
14	Membrane Association of the PTEN Tumor Suppressor: Molecular Details of the Protein-Membrane Complex from SPR Binding Studies and Neutron Reflection. <i>PLoS ONE</i> , 2012, 7, e32591.	2.5	61
15	Continuous distribution model for the investigation of complex molecular architectures near interfaces with scattering techniques. <i>Journal of Applied Physics</i> , 2011, 110, 102216-10221612.	2.5	58
16	Membrane Binding of HIV-1 Matrix Protein: Dependence on Bilayer Composition and Protein Lipidation. <i>Journal of Virology</i> , 2016, 90, 4544-4555.	3.4	55
17	Selective Interaction of Colistin with Lipid Model Membranes. <i>Biophysical Journal</i> , 2018, 114, 919-928.	0.5	54
18	Protein Adsorption and Layer Formation at the Stainless Steel/Solution Interface Mediates Shear-Induced Particle Formation for an IgG1 Monoclonal Antibody. <i>Molecular Pharmaceutics</i> , 2018, 15, 1319-1331.	4.6	50

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19	Electrostatic Interactions and Binding Orientation of HIV-1 Matrix Studied by Neutron Reflectivity. <i>Biophysical Journal</i> , 2010, 99, 2516-2524.	0.5	49
20	Solid supported lipid membranes: New concepts for the biomimetic functionalization of solid surfaces. <i>Biointerphases</i> , 2008, 3, FA125-FA135.	1.6	47
21	Neutron scattering in the biological sciences: progress and prospects. <i>Acta Crystallographica Section D: Structural Biology</i> , 2018, 74, 1129-1168.	2.3	47
22	Molecular Details of $\hat{\text{I}}\pm$ -Synuclein Membrane Association Revealed by Neutrons and Photons. <i>Journal of Physical Chemistry B</i> , 2015, 119, 4812-4823.	2.6	46
23	Structural Features of Membrane-bound Glucocerebrosidase and $\hat{\text{I}}\pm$ -Synuclein Probed by Neutron Reflectometry and Fluorescence Spectroscopy. <i>Journal of Biological Chemistry</i> , 2015, 290, 744-754.	3.4	44
24	Biomimetic supported lipid bilayers with high cholesterol content formed by $\hat{\text{I}}\pm$ -helical peptide-induced vesicle fusion. <i>Journal of Materials Chemistry</i> , 2012, 22, 19506.	6.7	43
25	Fast formation of low-defect-density tethered bilayers by fusion of multilamellar vesicles. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2017, 1859, 669-678.	2.6	34
26	Uncovering a membrane-distal conformation of KRAS available to recruit RAF to the plasma membrane. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 24258-24268.	7.1	34
27	Myristoylation Restricts Orientation of the GRASP Domain on Membranes and Promotes Membrane Tethering. <i>Journal of Biological Chemistry</i> , 2014, 289, 9683-9691.	3.4	32
28	Modification of Tethered Bilayers by Phospholipid Exchange with Vesicles. <i>Langmuir</i> , 2013, 29, 4320-4327.	3.5	30
29	The PTEN Tumor Suppressor Forms Homodimers in Solution. <i>Structure</i> , 2015, 23, 1952-1957.	3.3	30
30	Membrane association of the PTEN tumor suppressor: Neutron scattering and MD simulations reveal the structure of protein-membrane complexes. <i>Methods</i> , 2015, 77-78, 136-146.	3.8	28
31	Membrane surface recognition by the ASAP1 PH domain and consequences for interactions with the small GTPase Arf1. <i>Science Advances</i> , 2020, 6, .	10.3	26
32	Tethered bilayer membranes as a complementary tool for functional and structural studies: The polylysine case. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2016, 1858, 2070-2080.	2.6	25
33	Segmental Deuteration of $\hat{\text{I}}\pm$ -Synuclein for Neutron Reflectometry on Tethered Bilayers. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 29-34.	4.6	24
34	Association of Model Neurotransmitters with Lipid Bilayer Membranes. <i>Biophysical Journal</i> , 2020, 118, 1044-1057.	0.5	23
35	Optimization of reflectometry experiments using information theory. <i>Journal of Applied Crystallography</i> , 2019, 52, 47-59.	4.5	23
36	Deuteration in Biological Neutron Reflectometry. <i>Methods in Enzymology</i> , 2016, 566, 211-230.	1.0	21

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37	On the interaction of softwood hemicellulose with cellulose surfaces in relation to molecular structure and physicochemical properties of hemicellulose. <i>Soft Matter</i> , 2020, 16, 7063-7076.	2.7	20
38	Structural characterization of membrane-bound human immunodeficiency virus-1 Gag matrix with neutron reflectometry. <i>Biointerphases</i> , 2017, 12, 02D408.	1.6	17
39	Structural Investigations of Protein-Lipid Complexes Using Neutron Scattering. <i>Methods in Molecular Biology</i> , 2019, 2003, 201-251.	0.9	17
40	HIV-1 matrix-31 membrane binding peptide interacts differently with membranes containing PS vs. PI(4,5)P2. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2016, 1858, 3071-3081.	2.6	16
41	When beauty is only skin deep; optimizing the sensitivity of specular neutron reflectivity for probing structure beneath the surface of thin films. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	15
42	The cytosolic domain of T-cell receptor $\zeta$ associates with membranes in a dynamic equilibrium and deeply penetrates the bilayer. <i>Journal of Biological Chemistry</i> , 2017, 292, 17746-17759.	3.4	14
43	Spatial Distribution of PEO-PPO-PEO Block Copolymer and PEO Homopolymer in Lipid Bilayers. <i>Langmuir</i> , 2020, 36, 3393-3403.	3.5	14
44	Insertion of Dengue E into lipid bilayers studied by neutron reflectivity and molecular dynamics simulations. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2018, 1860, 1216-1230.	2.6	12
45	Membrane Anchoring of Hck Kinase via the Intrinsically Disordered SH4-U and Length Scale Associated with Subcellular Localization. <i>Journal of Molecular Biology</i> , 2020, 432, 2985-2997.	4.2	10
46	Synergistic Biophysical Techniques Reveal Structural Mechanisms of Engineered Cationic Antimicrobial Peptides in Lipid Model Membranes. <i>Chemistry - A European Journal</i> , 2020, 26, 6247-6256.	3.3	9
47	Copper-binding anticancer peptides from the piscidin family: an expanded mechanism that encompasses physical and chemical bilayer disruption. <i>Scientific Reports</i> , 2021, 11, 12620.	3.3	9
48	PAC Studies of BSA Conformational Changes. <i>Hyperfine Interactions</i> , 2005, 159, 323-329.	0.5	8
49	3. Structural investigations of membrane-associated proteins by neutron reflectometry. , 2019, , 87-130.		8
50	Information gain from isotopic contrast variation in neutron reflectometry on protein-membrane complex structures. <i>Journal of Applied Crystallography</i> , 2020, 53, 800-810.	4.5	8
51	An Accurate In Vitro Model of the <i>E. coli</i> Envelope. <i>Angewandte Chemie</i> , 2015, 127, 12120-12123.	2.0	7
52	Steering Molecular Dynamics Simulations of Membrane-Associated Proteins with Neutron Reflection Results. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 3408-3419.	5.3	7
53	Accurate background correction in neutron reflectometry studies of soft condensed matter films in contact with fluid reservoirs. <i>Journal of Applied Crystallography</i> , 2020, 53, 15-26.	4.5	7
54	The Nuclear Quadrupole Interaction of $^{204}\text{mPb}$ in Lead Oxides. <i>Hyperfine Interactions</i> , 2005, 159, 313-322.	0.5	6

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55	Coverage-dependent morphology of PEGylated lysozyme layers adsorbed on silica. <i>Journal of Colloid and Interface Science</i> , 2012, 370, 170-175.	9.4	5
56	The Electric Field Gradient of <sup>111</sup> Ag in Macrocyclic Crown Thioethers. <i>Hyperfine Interactions</i> , 2004, 158, 79-88.	0.5	3
57	Investigating partitioning of free <i>i</i> versus <i>j</i> macrocycle bound guest into a model POPC lipid bilayer. <i>RSC Advances</i> , 2020, 10, 15148-15153.	3.6	2
58	Structural and biophysical properties of farnesylated KRas interacting with the chaperone SmgGDS-558. <i>Biophysical Journal</i> , 2022, , .	0.5	2
59	The nuclear quadrupole interaction at inequivalent lattice sites in ammonium paramolybdate: A TDPAC study. <i>Chemical Physics</i> , 2006, 327, 291-299.	1.9	1
60	Membrane-bound KRAS approximates an entropic ensemble of configurations. <i>Biophysical Journal</i> , 2021, 120, 4055-4066.	0.5	1
61	Are LCAO-MO Models Useful Estimators for Electric Field Gradients in Simple Molecules?. <i>Hyperfine Interactions</i> , 2004, 158, 71-78.	0.5	0
62	Studying the Alpha-Synuclein Membrane Interface with Photons and Neutrons. <i>Biophysical Journal</i> , 2011, 100, 540a.	0.5	0
63	Structure, Dynamics, and Function of the Membrane Associated SRC Family Kinase HCK. <i>Biophysical Journal</i> , 2017, 112, 388a-389a.	0.5	0
64	Membrane Binding of HIV-1 Accessory Protein Nef on Sparsely-Tethered Bilayer Lipid Membranes: An Spr Study. <i>Biophysical Journal</i> , 2019, 116, 57a.	0.5	0
65	Membrane Surface Recognition by the ASAP1 Ph Domain and Consequences for Interactions with the Small GTPASE ARF1. <i>Biophysical Journal</i> , 2021, 120, 110a.	0.5	0