Norbert Kucerka

List of Publications by Year
in descending order

116 papers	7,958 citations	66343 42 h-index	49909 87 g-index
117 all docs	117 docs citations	117 times ranked	6552 citing authors

#	Article	IF	Citations
1	Approaches for a Closer Look at Problems of Liquid Membranes with Amyloid-Beta Peptides. Springer Proceedings in Physics, 2022, , 265-294.	0.2	2
2	Reflectometry and molecular dynamics study of the impact of cholesterol and melatonin on model lipid membranes. European Biophysics Journal, 2021, 50, 1025-1035.	2.2	5
3	Investigating the competitive effects of cholesterol and melatonin in model lipid membranes. Biochimica Et Biophysica Acta - Biomembranes, 2021, 1863, 183651.	2.6	4
4	Cationâ€"Zwitterionic Lipid Interactions Are Affected by the Lateral Area per Lipid. Langmuir, 2021, 37, 278-288.	3.5	12
5	Amyloid-beta peptide (25â€"35) triggers a reorganization of lipid membranes driven by temperature changes. Scientific Reports, 2021, 11, 21990.	3.3	6
6	Molecular Structure of Sphingomyelin in Fluid Phase Bilayers Determined by the Joint Analysis of Small-Angle Neutron and X-ray Scattering Data. Journal of Physical Chemistry B, 2020, 124, 5186-5200.	2.6	24
7	The structures of polyunsaturated lipid bilayers by joint refinement of neutron and X-ray scattering data. Chemistry and Physics of Lipids, 2020, 229, 104892.	3.2	21
8	Interactions in the model membranes mimicking preclinical conformational diseases. Advances in Biomembranes and Lipid Self-Assembly, 2020, 31, 185-214.	0.6	5
9	Structural changes introduced by cholesterol and melatonin to the model membranes mimicking preclinical conformational diseases. General Physiology and Biophysics, 2020, 39, 135-144.	0.9	12
10	Size and distribution of the iron oxide nanoparticles in SBA-15 nanoporous silica via SANS study. Scientific Reports, 2019, 9, 15852.	3.3	13
11	Long and very long lamellar phases in model stratum corneum lipid membranes. Journal of Lipid Research, 2019, 60, 963-971.	4.2	18
12	The membrane structure and function affected by water. Chemistry and Physics of Lipids, 2019, 221, 140-144.	3.2	11
13	Software for Direct Comparison of Membrane Scattering Experiments Data to Molecular Dynamics Simulations. Biophysical Journal, 2017, 112, 81a.	0.5	1
14	The Molecular Structure of Sphingomyelin in Fluid Phase Bilayers Determined by the Joint Analysis of Neutron and X-Ray Scattering Data. Biophysical Journal, 2017, 112, 223a.	0.5	0
15	Calcium and Zinc Differentially Affect the Structure of Lipid Membranes. Langmuir, 2017, 33, 3134-3141.	3.5	34
16	Cation-containing lipid membranes â€" experiment and md simulations. European Pharmaceutical Journal, 2017, 64, 9-14.	0.3	3
17	Alcohol Interactions with Lipid Bilayers. Molecules, 2017, 22, 2078.	3.8	28
18	Lipid membranes loaded with Ca²⁺ and Zn²⁺ cations. Journal of Physics: Conference Series, 2017, 848, 012008.	0.4	0

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19	Effect of alkan-1-ols on the structure of dopc model membrane. European Pharmaceutical Journal, 2017, 64, 4-8.	0.3	4
20	Cholesterol's location in lipid bilayers. Chemistry and Physics of Lipids, 2016, 199, 17-25.	3.2	83
21	III International Conference on Small Angle Neutron Scattering Dedicated to the 80th Anniversary of Yu. M. Ostanevich. Neutron News, 2016, 27, 14-16.	0.2	2
22	Hydrocarbon Thickness Dictates Cholesterol's Location, Orientation and Motion in a Phospholipid Bilayer. Biophysical Journal, 2015, 108, 86a.	0.5	1
23	Structural Significance of Lipid Diversity as Studied by Small Angle Neutron and X-ray Scattering. Membranes, 2015, 5, 454-472.	3.0	70
24	Aspirin inhibits formation of cholesterol rafts in fluid lipid membranes. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 805-812.	2.6	33
25	<i>Î±-</i>Tocopherolâ€™s Location in Membranes Is Not Affected by Their Composition. Langmuir, 2015, 31, 4464-4472.	3.5	30
26	In-situ temperature-controllable shear flow device for neutron scattering measurementâ€"An example of aligned bicellar mixtures. Review of Scientific Instruments, 2015, 86, 025112.	1.3	2
27	Î±-Tocopherol Is Well Designed to Protect Polyunsaturated Phospholipids: MD Simulations. Biophysical Journal, 2015, 109, 1608-1618.	0.5	36
28	The component group structure of DPPC bilayers obtained by specular neutron reflectometry. Soft Matter, 2015, 11, 6275-6283.	2.7	21
29	Molecular Structures of Fluid Phosphatidylethanolamine Bilayers Obtained from Simulation-to-Experiment Comparisons and Experimental Scattering Density Profiles. Journal of Physical Chemistry B, 2015, 119, 1947-1956.	2.6	81
30	Structure of Cholesterol in Lipid Rafts. Physical Review Letters, 2014, 113, 228101.	7.8	55
31	Effects of N,N-dimethyl-N-alkylamine-N-oxides on DOPC bilayers in unilamellar vesicles: small-angle neutron scattering study. European Biophysics Journal, 2014, 43, 179-189.	2.2	9
32	The molecular structure of a phosphatidylserine bilayer determined by scattering and molecular dynamics simulations. Soft Matter, 2014, 10, 3716.	2.7	84
33	Global small-angle X-ray scattering data analysis for multilamellar vesicles: the evolution of the scattering density profile model. Journal of Applied Crystallography, 2014, 47, 173-180.	4.5	62
34	Revisiting the bilayer structures of fluid phase phosphatidylglycerol lipids: Accounting for exchangeable hydrogens. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 2966-2969.	2.6	46
35	Dimyristoyl Phosphatidylcholine: A Remarkable Exception to Î±-Tocopherolâ€™s Membrane Presence. Journal of the American Chemical Society, 2014, 136, 203-210.	13.7	38
36	SIMtoEXP: Software for Comparing Simulations to Experimental Scattering Data. Biophysical Journal, 2014, 106, 384a.	0.5	2

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37	DMPC: A Remarkable Exception to the Tocopherol's Membrane Presence. Biophysical Journal, 2014, 106, 41a.	0.5	2
38	MD Simulations on Alpha-Tocopherol in PUFA Containing Lipid. Biophysical Journal, 2014, 106, 94a.	0.5	0
39	Morphological Characterization of DMPC/CHAPSO Bicellar Mixtures: A Combined SANS and NMR Study. Langmuir, 2013, 29, 15943-15957.	3.5	36
40	Melatonin Counteracts Cholesterol's Effects on Lipid Membrane Structure. Biophysical Journal, 2013, 104, 182a.	0.5	3
41	The Location of Vitamin E in Model Membranes and its Effect on Oxidation. Biophysical Journal, 2013, 104, 249a-250a.	0.5	0
42	Interaction of Î±-Tocopherol with a Polyunsaturated Lipid Studied by MD Simulations. Biophysical Journal, 2013, 104, 590a.	0.5	0
43	Growth kinetics of lipid-based nanodiscs to unilamellar vesiclesâ€"A time-resolved small angle neutron scattering (SANS) study. Biochimica Et Biophysica Acta - Biomembranes, 2013, 1828, 1025-1035.	2.6	28
44	Bilayer Thickness Mismatch Controls Domain Size in Model Membranes. Journal of the American Chemical Society, 2013, 135, 6853-6859.	13.7	267
45	Tocopherol Activity Correlates with Its Location in a Membrane: A New Perspective on the Antioxidant Vitamin E. Journal of the American Chemical Society, 2013, 135, 7523-7533.	13.7	114
46	Effect of melatonin and cholesterol on the structure of DOPC and DPPC membranes. Biochimica Et Biophysica Acta - Biomembranes, 2013, 1828, 2247-2254.	2.6	92
47	The Observation of Highly Ordered Domains in Membranes with Cholesterol. PLoS ONE, 2013, 8, e66162.	2.5	100
48	Lipid bilayer â€" DNA interaction mediated by divalent metal cations: SANS and SAXD study. Journal of Physics: Conference Series, 2012, 351, 012011.	0.4	13
49	Molecular Structure of Phosphatidylglycerol Bilayers: Fluid Phase Lipid Areas and Bilayer Thicknesses as a Function of Temperature. Biophysical Journal, 2012, 102, 504a.	0.5	3
50	Co-existence of gel and fluid lipid domains in single-component phospholipid membranes. Soft Matter, 2012, 8, 4687.	2.7	38
51	Interactions between Ether Phospholipids and Cholesterol As Determined by Scattering and Molecular Dynamics Simulations. Journal of Physical Chemistry B, 2012, 116, 14829-14838.	2.6	36
52	Interaction of the full-length Bax protein with biomimetic mitochondrial liposomes: A small-angle neutron scattering and fluorescence study. Biochimica Et Biophysica Acta - Biomembranes, 2012, 1818, 384-401.	2.6	24
53	Molecular structures of fluid phase phosphatidylglycerol bilayers as determined by small angle neutron and X-ray scattering. Biochimica Et Biophysica Acta - Biomembranes, 2012, 1818, 2135-2148.	2.6	189
54	The Detailed Scattering Density Profile Model of Pg Bilayers as Determined by Molecular Dynamics Simulations, and Small-Angle Neutron and X-ray Scattering Experiments. Biophysical Journal, 2012, 102, 504a-505a.	0.5	4

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55	Scattering Density Profile Model of POPG Bilayers As Determined by Molecular Dynamics Simulations and Small-Angle Neutron and X-ray Scattering Experiments. Journal of Physical Chemistry B, 2012, 116, 232-239.	2.6	92
56	Model-based approaches for the determination of lipid bilayer structure from small-angle neutron and X-ray scattering data. European Biophysics Journal, 2012, 41, 875-890.	2.2	66
57	Interaction of Aspirin (Acetylsalicylic Acid) with Lipid Membranes. PLoS ONE, 2012, 7, e34357.	2.5	58
58	Lipid Areas Obtained from the Simultaneous Analysis of Neutron and X-ray Scattering. Biophysical Journal, 2011, 100, 625a-626a.	0.5	0
59	Formation of Kinetically Trapped Nanoscopic Unilamellar Vesicles from Metastable Nanodiscs. Langmuir, 2011, 27, 14308-14316.	3.5	41
60	The effect of aliphatic alcohols on fluid bilayers in unilamellar DOPC vesicles â€" A small-angle neutron scattering and molecular dynamics study. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 2136-2146.	2.6	28
61	Fluid phase lipid areas and bilayer thicknesses of commonly used phosphatidylcholines as a function of temperature. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 2761-2771.	2.6	850
62	Influence of Cholesterol and Î²-Sitosterol on the Structure of EYPC Bilayers. Journal of Membrane Biology, 2011, 243, 1-13.	2.1	19
63	The effects of cholesterol and Î²-sitosterol on the structure of saturated diacylphosphatidylcholine bilayers. European Biophysics Journal, 2011, 40, 153-163.	2.2	24
64	The need to revisit lipid areas. Journal of Physics: Conference Series, 2010, 251, 012043.	0.4	1
65	Cholesterol in unusual places. Journal of Physics: Conference Series, 2010, 251, 012038.	0.4	1
66	Adapting a triple-axis spectrometer for small angle neutron scattering measurements. Journal of Physics: Conference Series, 2010, 251, 012061.	0.4	1
67	Comparing Membrane Simulations to Scattering Experiments: Introducing the SIMtoEXP Software. Journal of Membrane Biology, 2010, 235, 43-50.	2.1	97
68	Partial area of cholesterol in monounsaturated diacylphosphatidylcholine bilayers. Chemistry and Physics of Lipids, 2010, 163, 765-770.	3.2	12
69	Applications of neutron and X-ray scattering to the study of biologically relevant model membranes. Chemistry and Physics of Lipids, 2010, 163, 460-479.	3.2	195
70	Structure and water permeability of fully hydrated diphytanoylPC. Chemistry and Physics of Lipids, 2010, 163, 630-637.	3.2	89
71	Small-Angle Scattering from Homogenous and Heterogeneous Lipid Bilayers. Behavior Research Methods, 2010, , 201-235.	4.0	17
72	Bax Pore Formation: From Activation to Oligomerization. Biophysical Journal, 2010, 98, 464a.	0.5	0

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73	Cholesterol in Bilayers with PUFA Chains: Doping with DMPC or POPC Results in Sterol Reorientation and Membrane-Domain Formation. Biochemistry, 2010, 49, 7485-7493.	2.5	109
74	Structure and Water Permeability of Fully Hydrated Diphytanoylpc. Biophysical Journal, 2010, 98, 282a.	0.5	0
75	Formation mechanism of self-assembled unilamellar vesiclesSpecial issue on Neutron Scattering in Canada. Canadian Journal of Physics, 2010, 88, 735-740.	1.1	6
76	What determines the thickness of a biological membrane. General Physiology and Biophysics, 2009, 28, 117-125.	0.9	47
77	Spontaneously Formed Unilamellar Vesicles. Methods in Enzymology, 2009, 465, 3-20.	1.0	33
78	The structural variety of DNA-DPPC-divalent metal cation aggregates: SAXD and SANS study. European Physical Journal: Special Topics, 2009, 167, 191-197.	2.6	5
79	Asymmetric Distribution of Cholesterol in Unilamellar Vesicles of Monounsaturated Phospholipids. Langmuir, 2009, 25, 13522-13527.	3.5	28
80	Chain Conformation of a New Class of PEG-Based Thermoresponsive Polymer Brushes Grafted on Silicon as Determined by Neutron Reflectometry. Langmuir, 2009, 25, 10271-10278.	3.5	79
81	Alamethicin in lipid bilayers: Combined use of X-ray scattering and MD simulations. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 1387-1397.	2.6	99
82	Areas of Monounsaturated Diacylphosphatidylcholines. Biophysical Journal, 2009, 97, 1926-1932.	0.5	94
83	The Functional Significance of Lipid Diversity: Orientation of Cholesterol in Bilayers Is Determined by Lipid Species. Journal of the American Chemical Society, 2009, 131, 16358-16359.	13.7	51
84	Neutron and X-ray scattering for biophysics and biotechnology: examples of self-assembled lipid systems. Soft Matter, 2009, 5, 2694.	2.7	25
85	The influence of curvature on membrane domains. European Biophysics Journal, 2008, 37, 665-671.	2.2	20
86	Structural changes in dipalmitoylphosphatidylcholine bilayer promoted by Ca2+ ions: a small-angle neutron scattering study. Chemistry and Physics of Lipids, 2008, 155, 80-89.	3.2	85
87	Effect of Cations on the Structure of Bilayers Formed by Lipopolysaccharides Isolated from Pseudomonas aeruginosa PAO1. Journal of Physical Chemistry B, 2008, 112, 8057-8062.	2.6	82
88	Temperature Dependence of Structure, Bending Rigidity, and Bilayer Interactions of Dioleoylphosphatidylcholine Bilayers. Biophysical Journal, 2008, 94, 117-124.	0.5	307
89	The Effect of Cholesterol on Short- and Long-Chain Monounsaturated Lipid Bilayers as Determined by Molecular Dynamics Simulations and X-Ray Scattering. Biophysical Journal, 2008, 95, 2792-2805.	0.5	148
90	Lipid Bilayer Structure Determined by the Simultaneous Analysis of Neutron and X-Ray Scattering Data. Biophysical Journal, 2008, 95, 2356-2367.	0.5	518

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91	Structure from substrate supported lipid bilayers (Review). Biointerphases, 2008, 3, FB55-FB63.	1.6	18
92	Hydrophobic thickness, lipid surface area and polar region hydration in monounsaturated diacylphosphatidylcholine bilayers: SANS study of effects of cholesterol and Î²-sitosterol in unilamellar vesicles. Biochimica Et Biophysica Acta - Biomembranes, 2008, 1778, 2627-2632.	2.6	34
93	Adapting a triple-axis spectrometer for small angle neutron scattering measurements. Review of Scientific Instruments, 2008, 79, 095102.	1.3	6
94	Curvature Effect on the Structure of Phospholipid Bilayers. Langmuir, 2007, 23, 1292-1299.	3.5	124
95	Neutron Diffraction Study ofPseudomonasaeruginosaLipopolysaccharide Bilayers. Journal of Physical Chemistry B, 2007, 111, 2477-2483.	2.6	48
96	The study of liposomes, lamellae and membranes using neutrons and X-rays. Current Opinion in Colloid and Interface Science, 2007, 12, 17-22.	7.4	41
97	Scattering from laterally heterogeneous vesicles. II. The form factor. Journal of Applied Crystallography, 2007, 40, 513-525.	4.5	25
98	Scattering from laterally heterogeneous vesicles. III. Reconciling past and present work. Journal of Applied Crystallography, 2007, 40, 771-772.	4.5	7
99	Influence of cholesterol on the bilayer properties of monounsaturated phosphatidylcholine unilamellar vesicles. European Physical Journal E, 2007, 23, 247-254.	1.6	87
100	Small-Angle Neutron Scattering to Detect Rafts and Lipid Domains. Methods in Molecular Biology, 2007, 398, 231-244.	0.9	27
101	Swelling of phospholipids by monovalent salt. Journal of Lipid Research, 2006, 47, 302-309.	4.2	140
102	Simulation-Based Methods for Interpreting X-Ray Data from Lipid Bilayers. Biophysical Journal, 2006, 90, 2796-2807.	0.5	219
103	Closer Look at Structure of Fully Hydrated Fluid Phase DPPC Bilayers. Biophysical Journal, 2006, 90, L83-L85.	0.5	165
104	Scattering from laterally heterogeneous vesicles. I. Model-independent analysis. Journal of Applied Crystallography, 2006, 39, 791-796.	4.5	21
105	Influence of N-dodecyl-N,N-dimethylamine N-oxide on the activity of sarcoplasmic reticulum Ca2+-transporting ATPase reconstituted into diacylphosphatidylcholine vesicles: Effects of bilayer physical parameters. Biophysical Chemistry, 2006, 119, 69-77.	2.8	51
106	Structure of Fully Hydrated Fluid Phase Lipid Bilayers with Monounsaturated Chains. Journal of Membrane Biology, 2006, 208, 193-202.	2.1	715
107	Anomalous swelling of lipid bilayer stacks is caused by softening of the bending modulus. Physical Review E, 2005, 71, 041904.	2.1	94
108	Structure of Fully Hydrated Fluid Phase DMPC and DLPC Lipid Bilayers Using X-Ray Scattering from Oriented Multilamellar Arrays and from Unilamellar Vesicles. Biophysical Journal, 2005, 88, 2626-2637.	0.5	531

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109	Determination of bilayer thickness and lipid surface area in unilamellar dimyristoylphosphatidylcholine vesicles from small-angle neutron scattering curves: a comparison of evaluation methods. European Biophysics Journal, 2004, 33, 328-334.	2.2	151
110	Bilayer thickness in unilamellar phosphatidylcholine vesicles: small-angle neutron scattering using contrast variation. Physica B: Condensed Matter, 2004, 350, E639-E642.	2.7	13
111	Models to analyze small-angle neutron scattering from unilamellar lipid vesicles. Physical Review E, 2004, 69, 051903.	2.1	77
112	Small-angle neutron scattering study of the lipid bilayer thickness in unilamellar dioleoylphosphatidylcholine vesicles prepared by the cholate dilution method: n-decane effect. Biochimica Et Biophysica Acta - Biomembranes, 2003, 1611, 31-34.	2.6	24
113	Bilayer thickness and lipid interface area in unilamellar extruded 1,2-diacylphosphatidylcholine liposomes: a small-angle neutron scattering study. Biochimica Et Biophysica Acta - Biomembranes, 2001, 1512, 40-52.	2.6	174
114	Small-angle neutron scattering study of the n-decane effect on the bilayer thickness in extruded unilamellar dioleoylphosphatidylcholine liposomes. Biophysical Chemistry, 2000, 88, 165-170.	2.8	24
115	Neutron Diffraction Study of Pseudomonas aeruginosa Lipopolysaccharide Bilayers. , 0, , .		7
116	Cations Do Not Alter the Membrane Structure of POPCâ€"A Lipid With an Intermediate Area. Frontiers in Molecular Biosciences, 0, 9, .	3.5	1