John E Baenziger

List of Publications by Year in descending order

63 papers	2,220 citations	172457 29 h-index	233421 45 g-index
65 all docs	65 docs citations	65 times ranked	1492 citing authors

#	Article	IF	Citations
1	Effect of Membrane Lipid Composition on the Conformational Equilibria of the Nicotinic Acetylcholine Receptor. Journal of Biological Chemistry, 2000, 275, 777-784.	3.4	134
2	Lipid-Protein Interactions at the Nicotinic Acetylcholine Receptor. Journal of Biological Chemistry, 2002, 277, 201-208.	3.4	108
3	Gating of Pentameric Ligand-Gated Ion Channels: Structural Insights and Ambiguities. Structure, 2013, 21, 1271-1283.	3.3	101
4	A Lipid-dependent Uncoupled Conformation of the Acetylcholine Receptor. Journal of Biological Chemistry, 2009, 284, 17819-17825.	3.4	100
5	A distinct mechanism for activating uncoupled nicotinic acetylcholine receptors. Nature Chemical Biology, 2013, 9, 701-707.	8.0	89
6	Fourier Transform Infrared and Hydrogen/Deuterium Exchange Reveal an Exchange-resistant Core of Î± -Helical Peptide Hydrogens in the Nicotinic Acetylcholine Receptor. Journal of Biological Chemistry, 1995, 270, 29129-29137.	3.4	76
7	Fourier transform infrared difference spectroscopy of the nicotinic acetylcholine receptor: evidence for specific protein structural changes upon desensitization. Biochemistry, 1993, 32, 5448-5454.	2.5	72
8	Secondary Structure Analysis of Individual Transmembrane Segments of the Nicotinic Acetylcholine Receptor by Circular Dichroism and Fourier Transform Infrared Spectroscopy. Journal of Biological Chemistry, 1998, 273, 771-777.	3.4	72
9	3D structure and allosteric modulation of the transmembrane domain of pentameric ligand-gated ion channels. Neuropharmacology, 2011, 60, 116-125.	4.1	66
10	Incorporation of the nicotinic acetylcholine receptor into planar multilamellar films: characterization by fluorescence and Fourier transform infrared difference spectroscopy. Biophysical Journal, 1992, 61, 983-992.	0.5	64
11	Thermal stabilization of a single-chain Fv antibody fragment by introduction of a disulphide bond. FEBS Letters, 1995, 377, 135-139.	2.8	64
12	Nicotinic acetylcholine receptorâ€“lipid interactions: Mechanistic insight and biological function. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 1806-1817.	2.6	63
13	Anionic Lipids Allosterically Modulate Multiple Nicotinic Acetylcholine Receptor Conformational Equilibria. Journal of Biological Chemistry, 2009, 284, 33841-33849.	3.4	54
14	Phosphatidic Acid and Phosphatidylserine Have Distinct Structural and Functional Interactions with the Nicotinic Acetylcholine Receptor. Journal of Biological Chemistry, 2004, 279, 14967-14974.	3.4	53
15	Structure of both the ligand- and lipid-dependent channel-inactive states of the nicotinic acetylcholine receptor probed by FTIR spectroscopy and hydrogen exchange. Biochemistry, 1995, 34, 15142-15149.	2.5	52
16	Secondary Structure of the Nicotinic Acetylcholine Receptor:Implications for Structural Models of a Ligand-Gated Ion Channel. Biochemistry, 1994, 33, 7709-7717.	2.5	49
17	A rapid method for assessing lipid:protein and detergent:protein ratios in membrane-protein crystallization. Acta Crystallographica Section D: Biological Crystallography, 2003, 59, 77-83.	2.5	47
18	Structural Effects of Neutral and Anionic Lipids on the Nicotinic Acetylcholine Receptor. Journal of Biological Chemistry, 1996, 271, 24590-24597.	3.4	46

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19	Average structural and motional properties of a diunsaturated acyl chain in a lipid bilayer: effects of two cis-unsaturated double bonds. Biochemistry, 1991, 30, 894-903.	2.5	43
20	A lipid site shapes the agonist response of a pentameric ligand-gated ion channel. Nature Chemical Biology, 2019, 15, 1156-1164.	8.0	43
21	Desensitization of the Nicotinic Acetylcholine Receptor Mainly Involves a Structural Change in Solvent-Accessible Regions of the Polypeptide Backboneâ€. Biochemistry, 1997, 36, 3617-3624.	2.5	39
22	Lipid Composition Alters Drug Action at the Nicotinic Acetylcholine Receptor. Molecular Pharmacology, 2008, 73, 880-890.	2.3	39
23	Molecular motions and dynamics of a diunsaturated acyl chain in a lipid bilayer: implications for the role of polyunsaturation in biological membranes. Biochemistry, 1992, 31, 3377-3385.	2.5	38
24	Intramembrane Aromatic Interactions Influence the Lipid Sensitivities of Pentameric Ligand-gated Ion Channels. Journal of Biological Chemistry, 2015, 290, 2496-2507.	3.4	38
25	Ion channels as lipid sensors: from structures to mechanisms. Nature Chemical Biology, 2020, 16, 1331-1342.	8.0	38
26	The role of the M4 lipid-sensor in the folding, trafficking, and allosteric modulation of nicotinic acetylcholine receptors. Neuropharmacology, 2015, 96, 157-168.	4.1	35
27	Structural Sensitivity of a Prokaryotic Pentameric Ligand-gated Ion Channel to Its Membrane Environment. Journal of Biological Chemistry, 2013, 288, 11294-11303.	3.4	34
28	Structure of the Pore-forming Transmembrane Domain of a Ligand-gated Ion Channel. Journal of Biological Chemistry, 2001, 276, 23726-23732.	3.4	33
29	Secondary Structure of the Exchange-Resistant Core from the Nicotinic Acetylcholine Receptor Probed Directly by Infrared Spectroscopy and Hydrogen/Deuterium Exchangeâ€. Biochemistry, 1998, 37, 14815-14822.	2.5	31
30	Internal Dynamics of the Nicotinic Acetylcholine Receptor in Reconstituted Membranes. Biochemistry, 1999, 38, 4905-4911.	2.5	29
31	Role of the Fourth Transmembrane Î± Helix in the Allosteric Modulation of Pentameric Ligand-Gated Ion Channels. Structure, 2015, 23, 1655-1664.	3.3	29
32	Heterogeneity in the sn-1 carbon chain of platelet-activating factor glycerophospholipids determines pro- or anti-apoptotic signaling in primary neurons. Journal of Lipid Research, 2008, 49, 2250-2258.	4.2	28
33	Structural characterization of the osmosensor ProP. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 1108-1115.	2.6	25
34	The M4 Transmembrane Î±-Helix Contributes Differently to Both the Maturation and Function of Two Prokaryotic Pentameric Ligand-gated Ion Channels. Journal of Biological Chemistry, 2015, 290, 25118-25128.	3.4	25
35	The Role of Cholesterol in the Activation of Nicotinic Acetylcholine Receptors. Current Topics in Membranes, 2017, 80, 95-137.	0.9	25
36	Role of Glycosylation and Membrane Environment in Nicotinic Acetylcholine Receptor Stability. Biophysical Journal, 2005, 88, 1755-1764.	0.5	24

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37	Structural basis for the modulation of pentameric ligand-gated ion channel function by lipids. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183304.	2.6	24
38	A Structure-Based Approach to Nicotinic Receptor Pharmacology. Molecular Pharmacology, 1999, 55, 348-355.	2.3	24
39	Biosynthesis and characterization of a series of deuterated cis,cis-octadeca-6,9-dienoic acids. Chemistry and Physics of Lipids, 1990, 54, 17-23.	3.2	21
40	A Conformational Intermediate between the Resting and Desensitized States of the Nicotinic Acetylcholine Receptor. Journal of Biological Chemistry, 2001, 276, 4796-4803.	3.4	21
41	Dissecting the Chemistry of Nicotinic Receptor-Ligand Interactions with Infrared Difference Spectroscopy. Journal of Biological Chemistry, 2002, 277, 10420-10426.	3.4	20
42	Expression, Purification, and Structural Characterization of CfrA, a Putative Iron Transporter from Campylobacter jejuni. Journal of Bacteriology, 2008, 190, 5650-5662.	2.2	20
43	An allosteric link connecting the lipid-protein interface to the gating of the nicotinic acetylcholine receptor. Scientific Reports, 2018, 8, 3898.	3.3	19
44	Molecular mechanisms of acetylcholine receptorâ€“lipid interactions: from model membranes to human biology. Biophysical Reviews, 2013, 5, 1-9.	3.2	16
45	Pentameric ligand-gated ion channels exhibit distinct transmembrane domain archetypes for folding/expression and function. Scientific Reports, 2017, 7, 450.	3.3	16
46	The selective enhancement and subsequent subtraction of atmospheric water vapour contributions from Fourier transform infrared spectra of proteins. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 1996, 52, 1347-1356.	3.9	15
47	Cations Mediate Interactions between the Nicotinic Acetylcholine Receptor and Anionic Lipids. Biophysical Journal, 2010, 98, 989-998.	0.5	15
48	Direct measurement of deuterium-deuterium dipolar coupling and analysis of the ordering of a specifically deuterated diunsaturated lipid. Journal of the American Chemical Society, 1988, 110, 8229-8231.	13.7	14
49	Phospholipase C Activity Affinity Purifies with the Torpedo Nicotinic Acetylcholine Receptor. Journal of Biological Chemistry, 2010, 285, 10337-10343.	3.4	13
50	Biosynthesis of a specifically deuterated diunsaturated fatty acid (18:2.DELTA.6,9) for deuterium NMR membrane studies. Biochemistry, 1987, 26, 8405-8410.	2.5	12
51	The Net Orientation of Nicotinic Receptor Transmembrane Î±-Helices in the Resting and Desensitized States. Biophysical Journal, 2006, 91, 705-714.	0.5	11
52	Probing the structure of the uncoupled nicotinic acetylcholine receptor. Biochimica Et Biophysica Acta - Biomembranes, 2017, 1859, 146-154.	2.6	11
53	The functional role of the Î±M4 transmembrane helix in the muscle nicotinic acetylcholine receptor probed through mutagenesis and coevolutionary analyses. Journal of Biological Chemistry, 2020, 295, 11056-11067.	3.4	8
54	Structural characterization and agonist binding to human Î±4Î²2 nicotinic receptors. Biochemical and Biophysical Research Communications, 2011, 407, 456-460.	2.1	7

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55	Functional characterization of two prokaryotic pentameric ligand-gated ion channel chimeras â€“ role of the GLIC transmembrane domain in proton sensing. Biochimica Et Biophysica Acta - Biomembranes, 2017, 1859, 218-227.	2.6	7
56	Recent Insight into Lipid Binding and Lipid Modulation of Pentameric Ligand-Gated Ion Channels. Biomolecules, 2022, 12, 814.	4.0	7
57	Preparation of reconstituted acetylcholine receptor membranes suitable for AFM imaging of lipidâ€“protein interactions. Chemistry and Physics of Lipids, 2010, 163, 117-126.	3.2	6
58	Anesthetic-induced structural changes in the nicotinic acetylcholine receptor. Toxicology Letters, 1998, 100-101, 179-183.	0.8	4
59	Effects of Lipids on the Structure and Function of GLIC and ELIC. Biophysical Journal, 2013, 104, 219a.	0.5	1
60	IUPAB 2021 Symposium 13: ion channels and membrane transporters. Biophysical Reviews, 2021, 13, 871-873.	3.2	1
61	Distinct functional roles for the M4 Î±-helix from each homologous subunit in the heteropentameric ligand-gated ion channel nAChR. Journal of Biological Chemistry, 2022, 298, 102104.	3.4	1
62	Biophysics in Canada. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2017, 1865, 1479-1482.	2.3	0
63	Membrane Receptorâ€“Ligand Interactions Probed by Attenuated Total Reflectance Infrared Difference Spectroscopy. , 2005, , 325-352.		0