Jan K Rainey

List of Publications by Year
in descending order

80	2,046	279487 23	264894 42
papers	citations	h-index	g-index

82	82	82	2673
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structural and functional analysis of the Na+/H+ exchanger. Biochemical Journal, 2007, 401, 623-633.	1.7	216
2	The apelin receptor: physiology, pathology, cell signalling, and ligand modulation of a peptide-activated class A GPCR. Biochemistry and Cell Biology, 2014, 92, 431-440.	0.9	157
3	Current strategies for protein production and purification enabling membrane protein structural biology. Biochemistry and Cell Biology, 2016, 94, 507-527.	0.9	96
4	Structural and Functional Characterization of Transmembrane Segment IV of the NHE1 Isoform of the Na+/H+ Exchanger. Journal of Biological Chemistry, 2005, 280, 17863-17872.	1.6	87
5	Structural Insight into G-Protein Coupled Receptor Binding by Apelin. Biochemistry, 2009, 48, 537-548.	1.2	87
6	An interactive triple-helical collagen builder. Bioinformatics, 2004, 20, 2458-2459.	1.8	85
7	Apelinergic System Structure and Function. , 2017, 8, 407-450.		68
8	Fibrous Long Spacing Collagen Ultrastructure Elucidated by Atomic Force Microscopy. Biophysical Journal, 1998, 74, 3211-3216.	0.2	65
9	Preferential apelinâ€13 production by the proprotein convertase PCSK3 is implicated in obesity. FEBS Open Bio, 2013, 3, 328-333.	1.0	64
10	Structural and Functional Characterization of Transmembrane Segment VII of the Na+/H+ Exchanger Isoform 1. Journal of Biological Chemistry, 2006, 281, 29817-29829.	1.6	63
11	A statistically derived parameterization for the collagen triple-helix. Protein Science, 2009, 11, 2748-2754.	3.1	62
12	Improved Helix and Kink Characterization in Membrane Proteins Allows Evaluation of Kink Sequence Predictors. Journal of Chemical Information and Modeling, 2010, 50, 2213-2220.	2.5	59
13	Recombinant Minimalist Spider Wrapping Silk Proteins Capable of Native-Like Fiber Formation. PLoS ONE, 2012, 7, e50227.	1.1	59
14	A study of fibrous long spacing collagen ultrastructure and assembly by atomic force microscopy. Micron, 2001, 32, 341-353.	1.1	47
15	Spider wrapping silk fibre architecture arising from its modular soluble protein precursor. Scientific Reports, 2015, 5, 11502.	1.6	39
16	Headgroup-Dependent Membrane Catalysis of Apelinâ˜'Receptor Interactions Is Likely. Journal of Physical Chemistry B, 2009, 113, 10465-10471.	1.2	35
17	Structural features of the apelin receptor N-terminal tail and first transmembrane segment implicated in ligand binding and receptor trafficking. Biochimica Et Biophysica Acta - Biomembranes, 2013, 1828, 1471-1483.	1.4	34
18	Structural and Functional Characterization of Transmembrane Segment IX of the NHE1 Isoform of the Na+/H+ Exchanger. Journal of Biological Chemistry, 2008, 283, 22018-22030.	1.6	33

#	Article	IF	Citations
19	Hierarchical assembly and the onset of banding in fibrous long spacing collagen revealed by atomic force microscopy. Matrix Biology, 2002, 21, 647-660.	1.5	32
20	Nanoparticle selfâ€assembly by a highly stable recombinant spider wrapping silk protein subunit. FEBS Letters, 2013, 587, 3273-3280.	1.3	32
21	Membrane catalysis of peptideâ€“receptor bindingThis paper is one of a selection of papers published in this special issue entitled â€œCanadian Society of Biochemistry, Molecular & Cellular Biology 52nd Annual Meeting â€” Protein Folding: Principles and Diseasesâ€•and has undergone the Journal's usual peer review process.. Biochemistry and Cell Biology, 2010, 88, 203-210.	0.9	27
22	The predictive accuracy of secondary chemical shifts is more affected by protein secondary structure than solvent environment. Journal of Biomolecular NMR, 2010, 46, 257-270.	1.6	26
23	Bioactivity of the putative apelin proprotein expands the repertoire of apelin receptor ligands. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 1901-1912.	1.1	26
24	Apela exhibits isoform- and headgroup-dependent modulation of micelle binding, peptide conformation and dynamics. Biochimica Et Biophysica Acta - Biomembranes, 2017, 1859, 767-778.	1.4	24
25	NOS1AP Functionally Associates with YAP To Regulate Hippo Signaling. Molecular and Cellular Biology, 2015, 35, 2265-2277.	1.1	23
26	Identification of Wet-Spinning and Post-Spin Stretching Methods Amenable to Recombinant Spider Aciniform Silk. Biomacromolecules, 2016, 17, 2737-2746.	2.6	23
27	Inhibition of Transient Receptor Potential Channel Mucolipin-1 (TRPML1) by Lysosomal Adenosine Involved in Severe Combined Immunodeficiency Diseases. Journal of Biological Chemistry, 2017, 292, 3445-3455.	1.6	23
28	Multifaceted Substrate Capture Scheme of a Rhomboid Protease. Journal of Physical Chemistry B, 2012, 116, 8942-8954.	1.2	22
29	Tyrosine Phosphorylation as a Widespread Regulatory Mechanism in Prokaryotes. Journal of Bacteriology, 2019, 201, .	1.0	22
30	A Novel C-Terminal Region within the Multicargo Type III Secretion Chaperone CesT Contributes to Effector Secretion. Journal of Bacteriology, 2013, 195, 740-756.	1.0	21
31	Optimizing Oriented Planar-Supported Lipid Samples for Solid-State Protein NMR. Biophysical Journal, 2005, 89, 2792-2805.	0.2	20
32	1H, 13C and 15N NMR assignments of the aciniform spidroin (AcSp1) repetitive domain of Argiope trifasciata wrapping silk. Biomolecular NMR Assignments, 2012, 6, 147-151.	0.4	19
33	Reovirus FAST Proteins Drive Pore Formation and Syncytiogenesis Using a Novel Helix-Loop-Helix Fusion-Inducing Lipid Packing Sensor. PLoS Pathogens, 2015, 11, e1004962.	2.1	18
34	Interpretation of biomolecular NMR spin relaxation parametersThis paper is one of a selection of papers published in this special issue entitled â€œCanadian Society of Biochemistry, Molecular & Cellular Biology 52nd Annual Meeting â€” Protein Folding: Principles and Diseasesâ€•and has undergone the Journal's usual peer review process.. Biochemistry and Cell Biology, 2010, 88, 131-142.	0.9	17
35	Tracking Transitions in Spider Wrapping Silk Conformation and Dynamics by ¹⁹F Nuclear Magnetic Resonance Spectroscopy. Biochemistry, 2016, 55, 3048-3059.	1.2	17
36	Differential Contribution of Transmembrane Domains IV, V, VI, and VII to Human Angiotensin II Type 1 Receptor Homomer Formation. Journal of Biological Chemistry, 2017, 292, 3341-3350.	1.6	17

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37	Structural and Mechanical Roles for the C-Terminal Nonrepetitive Domain Become Apparent in Recombinant Spider Aciniform Silk. Biomacromolecules, 2017, 18, 3678-3686.	2.6	17
38	Recombinant Silk Fiber Properties Correlate to Prefibrillar Selfâ€Assembly. Small, 2019, 15, e1805294.	5.2	17
39	Strategies for dealing with conformational sampling in structural calculations of flexible or kinked transmembrane peptidesThis paper is one of a selection of papers published in this Special Issue, entitled CSBMCB â€" Membrane Proteins in Health and Disease.. Biochemistry and Cell Biology, 2006, 84, 918-929.	0.9	16
40	The p10 FAST protein fusion peptide functions as a cystine noose to induce cholesterol-dependent liposome fusion without liposome tubulation. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 408-416.	1.4	14
41	Mixed Fluorotryptophan Substitutions at the Same Residue Expand the Versatility of ¹⁹F Protein NMR Spectroscopy. Chemistry - A European Journal, 2018, 24, 3391-3396.	1.7	14
42	Biophysical characterization of G-protein coupled receptorâ€"peptide ligand bindingThis paper is one of a selection of papers published in a Special Issue entitled CSBMCB 53rd Annual Meeting â€" Membrane Proteins in Health and Disease, and has undergone the Journalâ€™s usual peer review process.. Biochemistry and Cell Biology, 2011, 89, 98-105.	0.9	13
43	Recombinant Pyriform Silk Fiber Mechanics Are Modulated by Wet-Spinning Conditions. ACS Biomaterials Science and Engineering, 2019, 5, 4985-4993.	2.6	13
44	Estimation and measurement of flat or solenoidal coil inductance for radiofrequency NMR coil design. Journal of Magnetic Resonance, 2007, 187, 27-37.	1.2	12
45	Effect of a remote substituent on regioselectivity in oxymercuration of unsymmetrically substituted norbornenes. Tetrahedron Letters, 1999, 40, 7727-7730.	0.7	11
46	Apelin conformational and binding equilibria upon micelle interaction primarily depend on membrane-mimetic headgroup. Scientific Reports, 2017, 7, 15433.	1.6	11
47	Correlating structure, dynamics, and function in transmembrane segment VII of the Na+/H+ exchanger isoform 1. Biochimica Et Biophysica Acta - Biomembranes, 2010, 1798, 94-104.	1.4	9
48	A network map of apelin-mediated signaling. Journal of Cell Communication and Signaling, 2022, 16, 137-143.	1.8	9
49	Small expression tags enhance bacterial expression of the first three transmembrane segments of the apelin receptor. Biochemistry and Cell Biology, 2014, 92, 269-278.	0.9	8
50	Material properties of disulfide-crosslinked hyaluronic acid hydrogels influence prostate cancer cell growth and metabolism. Journal of Materials Chemistry B, 2020, 8, 9718-9733.	2.9	8
51	The network map of Elabela signaling pathway in physiological and pathological conditions. Journal of Cell Communication and Signaling, 2022, 16, 145-154.	1.8	8
52	Statistically Based Reduced Representation of Amino Acid Side Chainsâ€¡. Journal of Chemical Information and Computer Sciences, 2004, 44, 817-830.	2.8	7
53	Pyreneâ€"Apelin Conjugation Modulates Fluorophoreâ€" and Peptideâ€"Micelle Interactions. Journal of Physical Chemistry B, 2017, 121, 4768-4777.	1.2	7
54	Characterizing Aciniform Silk Repetitive Domain Backbone Dynamics and Hydrodynamic Modularity. International Journal of Molecular Sciences, 2016, 17, 1305.	1.8	6

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55	Proapelin is processed extracellularly in a cell line-dependent manner with clear modulation by proprotein convertases. Amino Acids, 2019, 51, 395-405.	1.2	6
56	Antibacterial activities of physiologically stable, self-assembled peptide nanoparticles. Journal of Materials Chemistry B, 2021, 9, 9041-9054.	2.9	6
57	A rotatable flat coil for static solid-state nuclear magnetic resonance spectroscopy. Review of Scientific Instruments, 2005, 76, 086102.	0.6	5
58	Simultaneous Ligand and Receptor Tracking through NMR Spectroscopy Enabled by Distinct 19F Labels. International Journal of Molecular Sciences, 2019, 20, 3658.	1.8	5
59	1H, 15N and 13C backbone resonance assignments of the acidic domain of the human MDMX protein. Biomolecular NMR Assignments, 2022, 16, 171-178.	0.4	5
60	Multi-pin contact drawing enables production of anisotropic collagen fiber substrates for alignment of fibroblasts and monocytes. Colloids and Surfaces B: Biointerfaces, 2022, 215, 112525.	2.5	5
61	Nuclear magnetic resonance studies of CXC chemokine receptor 4 allosteric peptide agonists in solution. Chemical Biology and Drug Design, 2006, 66, 12-21.	1.2	4
62	The effect of perfluorooctadecanoic acid on a model phosphatidylcholineâ€“peptide pulmonary lung surfactant mixture. Journal of Fluorine Chemistry, 2015, 177, 55-61.	0.9	4
63	Characterization of Variant Soft Nanoparticle Structure and Morphology in Solution by NMR Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 7461-7471.	1.5	4
64	Preserved Transmembrane Segment Topology, Structure, and Dynamics in Disparate Micellar Environments. Journal of Physical Chemistry Letters, 2017, 8, 2381-2386.	2.1	4
65	Transmembrane Segment XI of the Na+/H+ Antiporter of S. pombe is a Critical Part of the Ion Translocation Pore. Scientific Reports, 2017, 7, 12793.	1.6	4
66	Structure, amphipathy, and topology of the membrane-proximal helix 8 influence apelin receptor plasma membrane localization. Biochimica Et Biophysica Acta - Biomembranes, 2019, 1861, 183036.	1.4	4
67	Parallel Atomic Force Microscopy and NMR Spectroscopy To Investigate Self-Assembled Proteinâ^'Nucleotide Aggregates. Journal of Physical Chemistry B, 2002, 106, 5553-5560.	1.2	3
68	Preliminary Investigation of the Dissolution Behavior, Cytocompatibility, Effects of Fibrinogen Conformation and Platelet Adhesion for Radiopaque Embolic Particles. Journal of Functional Biomaterials, 2013, 4, 89-113.	1.8	3
69	Concentration-dependent changes to diffusion and chemical shift of internal standard molecules in aqueous and micellar solutions. Journal of Biomolecular NMR, 2018, 71, 79-89.	1.6	3
70	Bicelle composition-dependent modulation of phospholipid dynamics by apelin peptides. Biochemistry and Cell Biology, 2019, 97, 325-332.	0.9	3
71	On-cell nuclear magnetic resonance spectroscopy to probe cell surface interactions. Biochemistry and Cell Biology, 2021, 99, 683-692.	0.9	2
72	<scp>KIT D816V</scp> is dimerizationâ€independent and activates downstream pathways frequently perturbed in mastocytosis. British Journal of Haematology, 2023, 202, 960-970.	1.2	2

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73	The MDMX acidic domain competes with the p53 transactivation domain for MDM2 N-terminal domain binding. Biochimica Et Biophysica Acta - Molecular Cell Research, 2022, 1869, 119319.	1.9	2
74	Roles of Spider Wrapping Silk Protein Domains in Fibre Property. Biophysical Journal, 2015, 108, 484a.	0.2	1
75	Construction with Collagen â€“ Insight through Atomic Force Microscopy. Microscopy and Microanalysis, 2002, 8, 776-777.	0.2	0
76	Statistically Based Reduced Representation of Amino Acid Side Chains.. ChemInform, 2004, 35, no.	0.1	0
77	The Membrane Catalysis Model: Apelin and its Receptor. Biophysical Journal, 2015, 108, 373a.	0.2	0
78	Frontispiece: Mixed Fluorotryptophan Substitutions at the Same Residue Expand the Versatility of ¹⁹F Protein NMR Spectroscopy. Chemistry - A European Journal, 2018, 24, .	1.7	0
79	Biomaterials: Recombinant Silk Fiber Properties Correlate to Prefibrillar Selfâ€Assembly (Small 12/2019). Small, 2019, 15, 1970065.	5.2	0
80	Abstract 417: Structural Characterization of 20 kDa Fragments of Apolipoprotein B100. Arteriosclerosis, Thrombosis, and Vascular Biology, 2014, 34, .	1.1	0