

Pã©ter Vã;rnai

List of Publications by Year in descending order

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92
papers

7,316
citations

66343

42
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83
g-index

96
all docs

96
docs citations

96
times ranked

8834
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluorescence imaging detection of nanodomain redox signaling events at organellar contacts. STAR Protocols, 2022, 3, 101119.	1.2	3
2	Hypothalamic Nesfatin-1 Resistance May Underlie the Development of Type 2 Diabetes Mellitus in Maternally Undernourished Non-obese Rats. Frontiers in Neuroscience, 2022, 16, 828571.	2.8	2
3	Computational drug repurposing against SARS-CoV-2 reveals plasma membrane cholesterol depletion as key factor of antiviral drug activity. PLoS Computational Biology, 2022, 18, e1010021.	3.2	8
4	The Evidence REVEAL Study: Exploring the Use of Real-World Evidence and Complex Clinical Trial Design by the European Pharmaceutical Industry. Clinical Pharmacology and Therapeutics, 2021, 110, 1180-1189.	4.7	13
5	A general method for quantifying ligand binding to unmodified receptors using Gaussia luciferase. Journal of Biological Chemistry, 2021, 296, 100366.	3.4	8
6	Oxidative bursts of single mitochondria mediate retrograde signaling toward the ER. Molecular Cell, 2021, 81, 3866-3876.e2.	9.7	41
7	Palmitoylation targets the calcineurin phosphatase to the phosphatidylinositol 4-kinase complex at the plasma membrane. Nature Communications, 2021, 12, 6064.	12.8	18
8	A 10-year impact assessment of the Efficacy and Mechanism Evaluation (EME) programme: an independent mixed-method evaluation study. Efficacy and Mechanism Evaluation, 2021, 8, 1-106.	0.7	0
9	Colocalized neurotransmitters in the hindbrain cooperate in adaptation to chronic hypernatremia. Brain Structure and Function, 2020, 225, 969-984.	2.3	1
10	ORP3 phosphorylation regulates phosphatidylinositol 4-phosphate and Ca ²⁺ dynamics at PM-ER contact sites. Journal of Cell Science, 2020, 133, .	2.0	32
11	IL-2 receptors preassemble and signal in the ER/Golgi causing resistance to antiproliferative anti-IL-2R α therapies. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21120-21130.	7.1	22
12	Development of Nonspecific BRET-Based Biosensors to Monitor Plasma Membrane Inositol Lipids in Living Cells. Methods in Molecular Biology, 2019, 1949, 23-34.	0.9	5
13	Heterologous phosphorylation-induced formation of a stability lock permits regulation of inactive receptors by β -arrestins. Journal of Biological Chemistry, 2018, 293, 876-892.	3.4	45
14	MICU1 Interacts with the D-Ring of the MCU Pore to Control Its Ca ²⁺ Flux and Sensitivity to Ru360. Molecular Cell, 2018, 72, 778-785.e3.	9.7	92
15	Quantifying lipid changes in various membrane compartments using lipid binding protein domains. Cell Calcium, 2017, 64, 72-82.	2.4	61
16	Angiotensin type 1A receptor regulates β -arrestin binding of the β -adrenergic receptor via heterodimerization. Molecular and Cellular Endocrinology, 2017, 442, 113-124.	3.2	22
17	MSTO 1 is a cytoplasmic pro-mitochondrial fusion protein, whose mutation induces myopathy and ataxia in humans. EMBO Molecular Medicine, 2017, 9, 967-984.	6.9	53
18	Plasma membrane phosphatidylinositol 4-phosphate and 4,5-bisphosphate determine the distribution and function of K-Ras4B but not H-Ras proteins. Journal of Biological Chemistry, 2017, 292, 18862-18877.	3.4	25

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19	Redox Nanodomains Are Induced by and Control Calcium Signaling at the ER-Mitochondrial Interface. <i>Molecular Cell</i> , 2016, 63, 240-248.	9.7	228
20	Lenz-Majewski mutations in <i>PTDSS1</i> affect phosphatidylinositol 4-phosphate metabolism at ER-PM and ER-Golgi junctions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 4314-4319.	7.1	87
21	Making sense of big data in health research: Towards an EU action plan. <i>Genome Medicine</i> , 2016, 8, 71.	8.2	190
22	BRET-monitoring of the dynamic changes of inositol lipid pools in living cells reveals a PKC-dependent PtdIns4P increase upon EGF and M3 receptor activation. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2016, 1861, 177-187.	2.4	44
23	Trans-mitochondrial coordination of cristae at regulated membrane junctions. <i>Nature Communications</i> , 2015, 6, 6259.	12.8	143
24	Investigation of the Fate of Type I Angiotensin Receptor after Biased Activation. <i>Molecular Pharmacology</i> , 2015, 87, 972-981.	2.3	26
25	Mutation in the V2 vasopressin receptor gene, <i>AVPR2</i> , causes nephrogenic syndrome of inappropriate diuresis. <i>Kidney International</i> , 2015, 88, 1070-1078.	5.2	47
26	Motifs of <i>VDAC2</i> required for mitochondrial Bak import and tBid-induced apoptosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E5590-9.	7.1	63
27	Measurement of Inositol 1,4,5-Trisphosphate in Living Cells Using an Improved Set of Resonance Energy Transfer-Based Biosensors. <i>PLoS ONE</i> , 2015, 10, e0125601.	2.5	19
28	Characterization of the Inherited I130N Substitution in V2 Vasopressin Receptor Revealed a Gain-of-Function Mutation Leading to NSIAD. <i>FASEB Journal</i> , 2015, 29, 809.8.	0.5	0
29	Monitoring the Dynamic Change of Inositol Lipid Pools upon EGFR and M3R Activation in Live Cells. <i>FASEB Journal</i> , 2015, 29, 715.1.	0.5	0
30	Improved Methodical Approach for Quantitative BRET Analysis of G Protein Coupled Receptor Dimerization. <i>PLoS ONE</i> , 2014, 9, e109503.	2.5	32
31	Distribution and Apoptotic Function of Outer Membrane Proteins Depend on Mitochondrial Fusion. <i>Molecular Cell</i> , 2014, 54, 870-878.	9.7	48
32	Back to the future with the AGP "Ca ²⁺ flux capacitor. <i>Annals of Botany</i> , 2014, 114, 1069-1085.	2.9	77
33	Periplasmic arabinogalactan glycoproteins act as a calcium capacitor that regulates plant growth and development. <i>New Phytologist</i> , 2013, 197, 58-64.	7.3	168
34	The Effect of Phosphatidylinositol 4,5-bisphosphate Depletion on the Internalization of G Protein-coupled Receptors. <i>FASEB Journal</i> , 2013, 27, 1050.2.	0.5	0
35	Acute depletion of plasma membrane Phosphatidylinositol 4,5-bisphosphate impairs specific steps in G protein-coupled receptor endocytosis. <i>Journal of Cell Science</i> , 2012, 125, 2185-97.	2.0	44
36	Acute depletion of plasma membrane phosphatidylinositol 4,5-bisphosphate impairs specific steps in endocytosis of the G-protein-coupled receptor. <i>Journal of Cell Science</i> , 2012, 125, 3013-3013.	2.0	13

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37	Mapping of the Localization of Type 1 Angiotensin Receptor in Membrane Microdomains Using Bioluminescence Resonance Energy Transfer-based Sensors. <i>Journal of Biological Chemistry</i> , 2012, 287, 9090-9099.	3.4	21
38	Study of the Compartmentalization of Type 1 Angiotensin Receptor Using Bioluminescence Resonance Energy Transfer-based Sensors. <i>FASEB Journal</i> , 2012, 26, 1b174.	0.5	0
39	Cytosine, the double helix and DNA self-assembly. <i>Journal of Molecular Recognition</i> , 2011, 24, 137-138.	2.1	8
40	Demonstration of Angiotensin II-induced Ras Activation in the trans-Golgi Network and Endoplasmic Reticulum Using Bioluminescence Resonance Energy Transfer-based Biosensors. <i>Journal of Biological Chemistry</i> , 2011, 286, 5319-5327.	3.4	7
41	Functional interactions within the angiotensin AT1 receptor oligomers –the role of the conserved DRY motif. <i>FASEB Journal</i> , 2011, 25, 1b406.	0.5	0
42	Activation of STIM1-Orai1 involves an intramolecular switching mechanism. <i>FASEB Journal</i> , 2011, 25, 956.1.	0.5	0
43	Detection of angiotensin II-induced Ras activation in the trans-Golgi network and the endoplasmic reticulum using BRET-based biosensors. <i>FASEB Journal</i> , 2011, 25, 1b131.	0.5	0
44	Reconciling the lock-and-key and dynamic views of canonical serine protease inhibitor action. <i>FEBS Letters</i> , 2010, 584, 203-206.	2.8	20
45	Helical Chirality: a Link between Local Interactions and Global Topology in DNA. <i>PLoS ONE</i> , 2010, 5, e9326.	2.5	34
46	Plant O-Hydroxyproline Arabinogalactans Are Composed of Repeating Trigalactosyl Subunits with Short Bifurcated Side Chains. <i>Journal of Biological Chemistry</i> , 2010, 285, 24575-24583.	3.4	98
47	Acute manipulation of Golgi phosphoinositides to assess their importance in cellular trafficking and signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 8225-8230.	7.1	146
48	Differential stability of DNA crossovers in solution mediated by divalent cations. <i>Nucleic Acids Research</i> , 2010, 38, 4163-4172.	14.5	47
49	Paracrine Transactivation of the CB1 Cannabinoid Receptor by AT1 Angiotensin and Other Gq/11 Protein-coupled Receptors. <i>Journal of Biological Chemistry</i> , 2009, 284, 16914-16921.	3.4	53
50	Dependence of STIM1/Orai1-mediated Calcium Entry on Plasma Membrane Phosphoinositides. <i>Journal of Biological Chemistry</i> , 2009, 284, 21027-21035.	3.4	128
51	Molecular simulation of conformational transitions in biomolecules using a combination of structure-based potential and empirical valence bond theory. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 10694.	2.8	10
52	A G-Rich Sequence within the <i>c-kit</i> Oncogene Promoter Forms a Parallel G-Quadruplex Having Asymmetric G-Tetrad Dynamics. <i>Journal of the American Chemical Society</i> , 2009, 131, 13399-13409.	13.7	195
53	Visualization of Cellular Phosphoinositide Pools with GFP-Fused Protein-Domains. <i>Current Protocols in Cell Biology</i> , 2009, 42, Unit 24.4.	2.3	70
54	STIM and Orai: the long-awaited constituents of store-operated calcium entry. <i>Trends in Pharmacological Sciences</i> , 2009, 30, 118-128.	8.7	167

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55	Determination of the Free Energy Landscape of $\hat{\text{I}}\pm$ -Synuclein Using Spin Label Nuclear Magnetic Resonance Measurements. <i>Journal of the American Chemical Society</i> , 2009, 131, 18314-18326.	13.7	187
56	Determination of the Transition State Ensemble for the Folding of Ubiquitin from a Combination of $\hat{\text{I}}\pm$ and $\hat{\text{I}}^-$ Analyses. <i>Journal of Molecular Biology</i> , 2008, 377, 575-588.	4.2	15
57	Live cell imaging of phosphoinositides with expressed inositide binding protein domains. <i>Methods</i> , 2008, 46, 167-176.	3.8	43
58	Maintenance of Hormone-sensitive Phosphoinositide Pools in the Plasma Membrane Requires Phosphatidylinositol 4-Kinase III \pm . <i>Molecular Biology of the Cell</i> , 2008, 19, 711-721.	2.1	174
59	Visualization and Manipulation of Plasma Membrane-Endoplasmic Reticulum Contact Sites Indicates the Presence of Additional Molecular Components within the STIM1-Orai1 Complex. <i>Journal of Biological Chemistry</i> , 2007, 282, 29678-29690.	3.4	228
60	Visualization and manipulation of phosphoinositide dynamics in live cells using engineered protein domains. <i>Pflugers Archiv European Journal of Physiology</i> , 2007, 455, 69-82.	2.8	44
61	Rapidly inducible changes in phosphatidylinositol 4,5-bisphosphate levels influence multiple regulatory functions of the lipid in intact living cells. <i>Journal of Cell Biology</i> , 2006, 175, 377-382.	5.2	316
62	Live cell imaging of phosphoinositide dynamics with fluorescent protein domains. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2006, 1761, 957-967.	2.4	128
63	Modeling DNA Deformation. , 2006, , 169-210.		2
64	Targeted expression of the inositol 1,4,5-triphosphate receptor (IP3R) ligand-binding domain releases Ca ²⁺ via endogenous IP3R channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 7859-7864.	7.1	41
65	A Plasma Membrane Pool of Phosphatidylinositol 4-Phosphate Is Generated by Phosphatidylinositol 4-Kinase Type-III Alpha: Studies with the PH Domains of the Oxysterol Binding Protein and FAPP1. <i>Molecular Biology of the Cell</i> , 2005, 16, 1282-1295.	2.1	241
66	Selective cellular effects of overexpressed pleckstrin-homology domains that recognize PtdIns(3,4,5)P ₃ suggest their interaction with protein binding partners. <i>Journal of Cell Science</i> , 2005, 118, 4879-4888.	2.0	133
67	Molecular Dynamics Simulations of the 136 Unique Tetranucleotide Sequences of DNA Oligonucleotides. II: Sequence Context Effects on the Dynamical Structures of the 10 Unique Dinucleotide Steps. <i>Biophysical Journal</i> , 2005, 89, 3721-3740.	0.5	216
68	DNA and its counterions: a molecular dynamics study. <i>Nucleic Acids Research</i> , 2004, 32, 4269-4280.	14.5	220
69	Opening Mechanism of G $\hat{\text{A}}$ -T/U Pairs in DNA and RNA Duplexes: A Combined Study of Imino Proton Exchange and Molecular Dynamics Simulation. <i>Journal of the American Chemical Society</i> , 2004, 126, 14659-14667.	13.7	65
70	Molecular Dynamics Simulations of the 136 Unique Tetranucleotide Sequences of DNA Oligonucleotides. I. Research Design and Results on d(CpG) Steps. <i>Biophysical Journal</i> , 2004, 87, 3799-3813.	0.5	245
71	Base pair opening within B-DNA: free energy pathways for GC and AT pairs from umbrella sampling simulations. <i>Nucleic Acids Research</i> , 2003, 31, 1434-1443.	14.5	153
72	Inositol Lipid Binding and Membrane Localization of Isolated Pleckstrin Homology (PH) Domains. <i>Journal of Biological Chemistry</i> , 2002, 277, 27412-27422.	3.4	111

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73	alpha/gamma Transitions in the B-DNA backbone. <i>Nucleic Acids Research</i> , 2002, 30, 5398-5406.	14.5	116
74	Base Flipping in DNA: Pathways and Energetics Studied with Molecular Dynamic Simulations. <i>Journal of the American Chemical Society</i> , 2002, 124, 7272-7273.	13.7	84
75	Ab Initio QM/MM Dynamics Simulation of the Tetrahedral Intermediate of Serine Proteases: Insights into the Active Site Hydrogen-Bonding Network. <i>Journal of the American Chemical Society</i> , 2002, 124, 14780-14788.	13.7	81
76	Molecular dynamics simulations of the acyl-enzyme and the tetrahedral intermediate in the deacylation step of serine proteases. <i>Proteins: Structure, Function and Bioinformatics</i> , 2002, 47, 357-369.	2.6	23
77	Quantum mechanical/molecular mechanical study of three stationary points along the deacylation step of the catalytic mechanism of elastase. <i>Theoretical Chemistry Accounts</i> , 2001, 106, 146-151.	1.4	13
78	A density functional study of the interconversion of carbonyls and alcohols in solution: Comparison of reaction mechanisms involving NADPH, histidine, and tyrosine. <i>International Journal of Quantum Chemistry</i> , 2001, 84, 276-281.	2.0	3
79	Energetic and Conformational Aspects of A:T Base-Pair Opening within the DNA Double Helix. <i>ChemPhysChem</i> , 2001, 2, 673-677.	2.1	42
80	Monitoring Agonist-induced Phospholipase C Activation in Live Cells by Fluorescence Resonance Energy Transfer. <i>Journal of Biological Chemistry</i> , 2001, 276, 15337-15344.	3.4	225
81	How accurately can we image inositol lipids in living cells?. <i>Trends in Pharmacological Sciences</i> , 2000, 21, 238-241.	8.7	142
82	Computer Simulation Studies of the Catalytic Mechanism of Human Aldose Reductase. <i>Journal of the American Chemical Society</i> , 2000, 122, 3849-3860.	13.7	57
83	Quantum mechanical study of the hydride shift step in the xylose isomerase catalytic reaction with the fragment self-consistent field method. <i>International Journal of Quantum Chemistry</i> , 1999, 75, 215-222.	2.0	12
84	Modelling the catalytic reaction in human aldose reductase. , 1999, 37, 218-227.		40
85	Phosphatidylinositol 3-Kinase-dependent Membrane Association of the Bruton's Tyrosine Kinase Pleckstrin Homology Domain Visualized in Single Living Cells. <i>Journal of Biological Chemistry</i> , 1999, 274, 10983-10989.	3.4	259
86	Visualization of Phosphoinositides That Bind Pleckstrin Homology Domains: Calcium- and Agonist-induced Dynamic Changes and Relationship to Myo-[3H]inositol-labeled Phosphoinositide Pools. <i>Journal of Cell Biology</i> , 1998, 143, 501-510.	5.2	765
87	Signaling events activated by angiotensin II receptors: What goes before and after the calcium signals. <i>Endocrine Research</i> , 1998, 24, 335-344.	1.2	27
88	Regioselectivity in cycloaddition reaction between phosphaacetylene and diazomethane: Anab initio study. <i>Journal of Computational Chemistry</i> , 1997, 18, 609-616.	3.3	19
89	Theoretical Investigations on the Retro-Ene Rearrangement of Propargyl Ethers. <i>Journal of Organic Chemistry</i> , 1996, 61, 5831-5836.	3.2	16
90	Loss of hydrogen fluoride from C ₂ H ₂ F ₃ O ⁺ . A theoretical study of a reaction mechanism. <i>Chemical Physics Letters</i> , 1995, 233, 340-346.	2.6	8

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91	About the aromaticity of five-membered heterocycles. Computational and Theoretical Chemistry, 1995, 358, 55-61.	1.5	91
92	Organophosphorus compounds. Part 93. Aromaticity of thia- and selenaphospholes: a photoelectron spectroscopic and quantum chemical study. Journal of the Chemical Society Perkin Transactions II, 1995, , 315-318.	0.9	23