

Charles A Brearley

List of Publications by Year in descending order

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72
papers

4,573
citations

101543

36
h-index

102487

66
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73
all docs

73
docs citations

73
times ranked

5200
citing authors

#	ARTICLE	IF	CITATIONS
1	Structure of a cereal purple acid phytase provides new insights to phytate degradation in plants. <i>Plant Communications</i> , 2022, 3, 100305.	7.7	5
2	Insights to the Structural Basis for the Stereospecificity of the Escherichia coli Phytase, AppA. <i>International Journal of Molecular Sciences</i> , 2022, 23, 6346.	4.1	4
3	Allosteric Site on SHIP2 Identified Through Fluorescent Ligand Screening and Crystallography: A Potential New Target for Intervention. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 3813-3826.	6.4	5
4	Improved sensitivity, accuracy and prediction provided by a high-performance liquid chromatography screen for the isolation of phytase-harboring organisms from environmental samples. <i>Microbial Biotechnology</i> , 2021, 14, 1409-1421.	4.2	4
5	Regioisomeric Family of Novel Fluorescent Substrates for SHIP2. <i>ACS Medicinal Chemistry Letters</i> , 2020, 11, 309-315.	2.8	1
6	Snapshots during the catalytic cycle of a histidine acid phytase reveal an induced-fit structural mechanism. <i>Journal of Biological Chemistry</i> , 2020, 295, 17724-17737.	3.4	6
7	Both <i>d</i> - and <i>l</i> -Glucose Polyphosphates Mimic <i>d</i> -myo-Inositol 1,4,5-Trisphosphate: New Synthetic Agonists and Partial Agonists at the Ins(1,4,5)P ₃ Receptor. <i>Journal of Medicinal Chemistry</i> , 2020, 63, 5442-5457.	6.4	8
8	An ATP-responsive metabolic cassette comprised of inositol tris/tetrakisphosphate kinase 1 (ITPK1) and inositol pentakisphosphate 2-kinase (IPK1) buffers diphosphoinositol phosphate levels. <i>Biochemical Journal</i> , 2020, 477, 2621-2638.	3.7	40
9	Bacteria are important dimethylsulfoniopropionate producers in coastal sediments. <i>Nature Microbiology</i> , 2019, 4, 1815-1825.	13.3	67
10	Effect of phytase on intestinal phytate breakdown, plasma inositol concentrations, and glucose transporter type 4 abundance in muscle membranes of weanling pigs ¹ . <i>Journal of Animal Science</i> , 2019, 97, 3907-3919.	0.5	21
11	Quantum Blue Reduces the Severity of Woody Breast Myopathy via Modulation of Oxygen Homeostasis-Related Genes in Broiler Chickens. <i>Frontiers in Physiology</i> , 2019, 10, 1251.	2.8	32
12	Lab-scale preparation and QC of phytase assay substrate from rice bran. <i>Analytical Biochemistry</i> , 2019, 578, 7-12.	2.4	12
13	Manipulation of plasma myo-inositol in broiler chickens: effect on growth performance, dietary energy, nutrient availability, and hepatic function. <i>Poultry Science</i> , 2019, 98, 260-268.	3.4	14
14	Organic phosphorus in the terrestrial environment: a perspective on the state of the art and future priorities. <i>Plant and Soil</i> , 2018, 427, 191-208.	3.7	145
15	Simple synthesis of ³² P-labelled inositol hexakisphosphates for study of phosphate transformations. <i>Plant and Soil</i> , 2018, 427, 149-161.	3.7	8
16	A Fluorescent Probe Identifies Active Site Ligands of Inositol Pentakisphosphate 2-Kinase. <i>Journal of Medicinal Chemistry</i> , 2018, 61, 8838-8846.	6.4	6
17	Arabidopsis inositol phosphate kinases <i>IPK</i> 1 and <i>ITPK</i> 1 constitute a metabolic pathway in maintaining phosphate homeostasis. <i>Plant Journal</i> , 2018, 95, 613-630.	5.7	79
18	Exogenous phytase and xylanase exhibit opposing effects on real-time gizzard pH in broiler chickens. <i>British Poultry Science</i> , 2018, 59, 568-578.	1.7	21

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19	Assessment of iron bioavailability from different bread making processes using an in vitro intestinal cell model. <i>Food Chemistry</i> , 2017, 228, 91-98.	8.2	35
20	The crystal structure of mammalian inositol 1,3,4,5,6-pentakisphosphate 2-kinase reveals a new zinc-binding site and key features for protein function. <i>Journal of Biological Chemistry</i> , 2017, 292, 10534-10548.	3.4	8
21	Land use influences phosphatase gene microdiversity in soils. <i>Environmental Microbiology</i> , 2017, 19, 2740-2753.	3.8	115
22	Cephalosporinases associated with outer membrane vesicles released by <i>Bacteroides</i> spp. protect gut pathogens and commensals against β -lactam antibiotics. <i>Journal of Antimicrobial Chemotherapy</i> , 2015, 70, 701-709.	3.0	93
23	A Bacterial Homolog of a Eukaryotic Inositol Phosphate Signaling Enzyme Mediates Cross-kingdom Dialog in the Mammalian Gut. <i>Cell Reports</i> , 2014, 6, 646-656.	6.4	88
24	Conformational Changes in Inositol 1,3,4,5,6-Pentakisphosphate 2-Kinase upon Substrate Binding. <i>Journal of Biological Chemistry</i> , 2012, 287, 29237-29249.	3.4	13
25	Effects of <i>fou8/fry1</i> Mutation on Sulfur Metabolism: Is Decreased Internal Sulfate the Trigger of Sulfate Starvation Response?. <i>PLoS ONE</i> , 2012, 7, e39425.	2.5	57
26	Synthesis of inositol phosphate ligands of plant hormone "receptor complexes: pathways of inositol hexakisphosphate turnover. <i>Biochemical Journal</i> , 2012, 444, 601-609.	3.7	12
27	Expression, purification, crystallization and preliminary X-ray diffraction analysis of the apo form of InsP52-K from <i>Arabidopsis thaliana</i> . <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2012, 68, 701-704.	0.7	2
28	Evidence for a SAL1-PAP Chloroplast Retrograde Pathway That Functions in Drought and High Light Signaling in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2011, 23, 3992-4012.	6.6	473
29	A defective ABC transporter of the MRP family, responsible for the bean <i>lpa1</i> mutation, affects the regulation of the phytic acid pathway, reduces seed inositol and alters ABA sensitivity. <i>New Phytologist</i> , 2011, 191, 70-83.	7.3	100
30	A Single <i>Streptomyces</i> Symbiont Makes Multiple Antifungals to Support the Fungus Farming Ant <i>Acromyrmex octospinosus</i> . <i>PLoS ONE</i> , 2011, 6, e22028.	2.5	164
31	Crystallization and preliminary X-ray diffraction analysis of inositol 1,3,4,5,6-pentakisphosphate kinase from <i>Arabidopsis thaliana</i> . <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2010, 66, 102-106.	0.7	4
32	Intrinsic GTPase activity of a bacterial twin-arginine translocation proofreading chaperone induced by domain swapping. <i>FEBS Journal</i> , 2010, 277, 511-525.	4.7	19
33	Molecular dissection of bacterial acrylate catabolism " unexpected links with dimethylsulfoniopropionate catabolism and dimethyl sulfide production. <i>Environmental Microbiology</i> , 2010, 12, 327-343.	3.8	116
34	Jasmonate and Phytochrome A Signaling in <i>Arabidopsis</i> Wound and Shade Responses Are Integrated through JAZ1 Stability. <i>Plant Cell</i> , 2010, 22, 1143-1160.	6.6	211
35	Inositol 1,3,4,5,6-pentakisphosphate 2-kinase is a distant IPK member with a singular inositide binding site for axial 2-OH recognition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 9608-9613.	7.1	46
36	The <i>Arabidopsis</i> ATP-binding Cassette Protein AtMRP5/AtABCC5 Is a High Affinity Inositol Hexakisphosphate Transporter Involved in Guard Cell Signaling and Phytate Storage. <i>Journal of Biological Chemistry</i> , 2009, 284, 33614-33622.	3.4	177

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37	A role for inositol hexakisphosphate in the maintenance of basal resistance to plant pathogens. <i>Plant Journal</i> , 2008, 56, 638-652.	5.7	140
38	Molecular genetic analysis of a dimethylsulfoniopropionate lyase that liberates the climate-changing gas dimethylsulfide in several marine α -proteobacteria and <i>Rhodobacter sphaeroides</i> . <i>Environmental Microbiology</i> , 2008, 10, 757-767.	3.8	156
39	Characterization of <i>Arabidopsis mur3</i> mutations that result in constitutive activation of defence in petioles, but not leaves. <i>Plant Journal</i> , 2008, 56, 691-703.	5.7	40
40	A <i>Solanum tuberosum</i> inositol phosphate kinase (StITPK1) displaying inositol phosphate-inositol phosphate and inositol phosphate-ADP phosphotransferase activities. <i>FEBS Letters</i> , 2008, 582, 1731-1737.	2.8	19
41	Sorting out PtdIns(4,5)P ₂ and clathrin-coated vesicles in plants. <i>Biochemical Journal</i> , 2008, 415, e1-e3.	3.7	2
42	A lysine accumulation phenotype of <i>ScIpk2</i> mutant yeast is rescued by <i>Solanum tuberosum</i> inositol phosphate multikinase. <i>Biochemical Journal</i> , 2007, 403, 381-389.	3.7	11
43	<i>Arabidopsis thaliana</i> inositol 1,3,4-trisphosphate 5/6-kinase 4 (AtITPK4) is an outlier to a family of ATP-grasp fold proteins from <i>Arabidopsis</i> . <i>FEBS Letters</i> , 2007, 581, 4165-4171.	2.8	49
44	Characterization of an <i>Arabidopsis</i> inositol 1,3,4,5,6-pentakisphosphate 2-kinase (AtIPK1). <i>Biochemical Journal</i> , 2006, 394, 95-103.	3.7	57
45	Characterization of myo-inositol hexakisphosphate deposits from larval <i>Echinococcus granulosus</i> . <i>FEBS Journal</i> , 2006, 273, 3192-3203.	4.7	34
46	A major role for P2X ₁ receptors in the early collagen-evoked intracellular Ca ²⁺ responses of human platelets. <i>Thrombosis and Haemostasis</i> , 2005, 94, 37-40.	3.4	29
47	<i>Arabidopsis</i> AtDGK7, the Smallest Member of Plant Diacylglycerol Kinases (DGKs), Displays Unique Biochemical Features and Saturates at Low Substrate Concentration. <i>Journal of Biological Chemistry</i> , 2005, 280, 34888-34899.	3.4	69
48	At5PTase13 Modulates Cotyledon Vein Development through Regulating Auxin Homeostasis. <i>Plant Physiology</i> , 2005, 139, 1677-1691.	4.8	50
49	A Role of <i>Arabidopsis</i> Inositol Polyphosphate Kinase, AtIPK2, in Pollen Germination and Root Growth. <i>Plant Physiology</i> , 2005, 137, 94-103.	4.8	49
50	Recurrent-Neural-Network-Based Adaptive-Backstepping Control for Induction Servomotors. <i>IEEE Transactions on Industrial Electronics</i> , 2005, 52, 1677-1684.	7.9	85
51	AtDGK2, a Novel Diacylglycerol Kinase from <i>Arabidopsis thaliana</i> , Phosphorylates 1-Stearoyl-2-arachidonoyl-sn-glycerol and 1,2-Dioleoyl-sn-glycerol and Exhibits Cold-inducible Gene Expression. <i>Journal of Biological Chemistry</i> , 2004, 279, 8230-8241.	3.4	78
52	<i>Arabidopsis</i> Inositol Polyphosphate 6- β -Kinase Is a Nuclear Protein That Complements a Yeast Mutant Lacking a Functional ArgR-Mcm1 Transcription Complex. <i>Plant Cell</i> , 2003, 15, 449-463.	6.6	80
53	Inositol hexakisphosphate mobilizes an endomembrane store of calcium in guard cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 10091-10095.	7.1	249
54	Enhanced Transcription of the <i>Arabidopsis</i> Disease Resistance Genes RPW8.1 and RPW8.2 via a Salicylic Acid-Dependent Amplification Circuit Is Required for Hypersensitive Cell Death. <i>Plant Cell</i> , 2003, 15, 33-45.	6.6	222

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55	An Arabidopsis inositol phospholipid kinase strongly expressed in procambial cells: Synthesis of PtdIns(4,5)P ₂ and PtdIns(3,4,5)P ₃ in insect cells by 5-phosphorylation of precursors. <i>Plant Journal</i> , 2001, 26, 561-571.	5.7	59
56	Metabolic Relations of Inositol 3,4,5,6-Tetrakisphosphate Revealed by Cell Permeabilization. Identification of Inositol 3,4,5,6-Tetrakisphosphate 1-Kinase and Inositol 3,4,5,6-Tetrakisphosphate Phosphatase Activities in Mesophyll Cells. <i>Plant Physiology</i> , 2000, 122, 1209-1216.	4.8	28
57	Inositol hexakisphosphate is a physiological signal regulating the K ⁺ -inward rectifying conductance in guard cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000, 97, 8687-8692.	7.1	187
58	A Plant 126-kDa Phosphatidylinositol 4-Kinase with a Novel Repeat Structure. <i>Journal of Biological Chemistry</i> , 1999, 274, 5738-5745.	3.4	67
59	PiUS (Pi uptake stimulator) is an inositol hexakisphosphate kinase. <i>FEBS Letters</i> , 1999, 461, 169-172.	2.8	83
60	Reduced inositol content and altered morphology in transgenic potato plants inhibited for 1D-myo-inositol 3-phosphate synthase. <i>Plant Journal</i> , 1998, 16, 403-410.	5.7	76
61	Phosphatidylinositol 3,5-bisphosphate defines a novel PI 3-kinase pathway in resting mouse fibroblasts. <i>Biochemical Journal</i> , 1997, 323, 597-601.	3.7	134
62	Metabolic evidence for PtdIns(4,5)P ₂ -directed phospholipase C in permeabilized plant protoplasts. <i>Biochemical Journal</i> , 1997, 324, 123-131.	3.7	29
63	Inositol phosphates in the duckweed <i>Spirodela polyrhiza</i> L. <i>Biochemical Journal</i> , 1996, 314, 215-225.	3.7	51
64	Inositol phosphates in barley (<i>Hordeum vulgare</i> L.) aleurone tissue are stereochemically similar to the products of breakdown of InsP ₆ <i>in vitro</i> by wheat-bran phytase. <i>Biochemical Journal</i> , 1996, 318, 279-286.	3.7	53
65	Metabolic evidence for the order of addition of individual phosphate esters in the myo-inositol moiety of inositol hexakisphosphate in the duckweed <i>Spirodela polyrhiza</i> L. <i>Biochemical Journal</i> , 1996, 314, 227-233.	3.7	97
66	Metabolism of 3- and 4-phosphorylated phosphatidylinositols in stomatal guard cells of <i>Commelina communis</i> L.. <i>Plant Journal</i> , 1995, 8, 425-433.	5.7	34
67	Phosphoinositides in Barley (<i>Hordeum vulgare</i> L.) Aleurone Tissue. <i>Plant Physiology</i> , 1994, 104, 1381-1384.	4.8	11
68	Nonmonotonic trends in electrolyte-induced injury to rapidly cooled erythrocytes. <i>Cryobiology</i> , 1992, 29, 175-182.	0.7	1
69	Membrane specificity of non-monotonic trends in cation-mediated injury to rapidly frozen phospholipid vesicles. <i>Chemistry and Physics of Lipids</i> , 1991, 59, 183-187.	3.2	3
70	A comparative study of the cryopreservation of human erythrocytes, ghosts and liposomes. <i>Biochemical Society Transactions</i> , 1988, 16, 354-354.	3.4	2
71	Gibberellin modulation of phosphatidyl-choline turnover in wheat aleurone tissue. <i>Planta</i> , 1987, 172, 502-507.	3.2	14
72	Inhibition of membrane damage due to phospholipase activity during fractionation of wheat aleurone tissue. <i>Phytochemistry</i> , 1987, 26, 1903-1908.	2.9	8