

Philip D Kiser

List of Publications by Year in descending order

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57
papers

2,474
citations

218677

26
h-index

206112

48
g-index

60
all docs

60
docs citations

60
times ranked

2395
citing authors

#	ARTICLE	IF	CITATIONS
1	Chemistry of the Retinoid (Visual) Cycle. <i>Chemical Reviews</i> , 2014, 114, 194-232.	47.7	285
2	Key enzymes of the retinoid (visual) cycle in vertebrate retina. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2012, 1821, 137-151.	2.4	141
3	Crystal structure of native RPE65, the retinoid isomerase of the visual cycle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 17325-17330.	7.1	140
4	Structural basis of carotenoid cleavage: From bacteria to mammals. <i>Archives of Biochemistry and Biophysics</i> , 2013, 539, 203-213.	3.0	119
5	The biochemical and structural basis for trans-to-cis isomerization of retinoids in the chemistry of vision. <i>Trends in Biochemical Sciences</i> , 2010, 35, 400-410.	7.5	105
6	Restoration of visual function in adult mice with an inherited retinal disease via adenine base editing. <i>Nature Biomedical Engineering</i> , 2021, 5, 169-178.	22.5	90
7	Metabolic Basis of Visual Cycle Inhibition by Retinoid and Nonretinoid Compounds in the Vertebrate Retina. <i>Journal of Biological Chemistry</i> , 2008, 283, 9543-9554.	3.4	85
8	Retinoids and Retinal Diseases. <i>Annual Review of Vision Science</i> , 2016, 2, 197-234.	4.4	85
9	Catalytic mechanism of a retinoid isomerase essential for vertebrate vision. <i>Nature Chemical Biology</i> , 2015, 11, 409-415.	8.0	66
10	Targeting G protein-coupled receptor signaling at the G protein level with a selective nanobody inhibitor. <i>Nature Communications</i> , 2018, 9, 1996.	12.8	65
11	Characterization of the Role of β -Carotene 9,10-Dioxygenase in Macular Pigment Metabolism. <i>Journal of Biological Chemistry</i> , 2015, 290, 24844-24857.	3.4	59
12	Molecular pharmacodynamics of emixustat in protection against retinal degeneration. <i>Journal of Clinical Investigation</i> , 2015, 125, 2781-2794.	8.2	59
13	Structure of RPE65 isomerase in a lipidic matrix reveals roles for phospholipids and iron in catalysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, E2747-56.	7.1	58
14	Importance of Membrane Structural Integrity for RPE65 Retinoid Isomerization Activity. <i>Journal of Biological Chemistry</i> , 2010, 285, 9667-9682.	3.4	57
15	Membrane-binding and enzymatic properties of RPE65. <i>Progress in Retinal and Eye Research</i> , 2010, 29, 428-442.	15.5	55
16	The Biochemical Basis of Vitamin A Production from the Asymmetric Carotenoid β -Cryptoxanthin. <i>ACS Chemical Biology</i> , 2018, 13, 2121-2129.	3.4	52
17	Shedding new light on the generation of the visual chromophore. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 19629-19638.	7.1	51
18	LRAT-specific domain facilitates vitamin A metabolism by domain swapping in HRASLS3. <i>Nature Chemical Biology</i> , 2015, 11, 26-32.	8.0	49

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19	Utilization of Dioxygen by Carotenoid Cleavage Oxygenases. <i>Journal of Biological Chemistry</i> , 2015, 290, 30212-30223.	3.4	48
20	Ligand Binding Induces Conformational Changes in Human Cellular Retinol-binding Protein 1 (CRBP1) Revealed by Atomic Resolution Crystal Structures. <i>Journal of Biological Chemistry</i> , 2016, 291, 8528-8540.	3.4	41
21	Eyes on systems pharmacology. <i>Pharmacological Research</i> , 2016, 114, 39-41.	7.1	39
22	Retinal pigment epithelium 65ÅkDa protein (RPE65): An update. <i>Progress in Retinal and Eye Research</i> , 2022, 88, 101013.	15.5	36
23	Synergistically acting agonists and antagonists of G proteinâ€coupled receptors prevent photoreceptor cell degeneration. <i>Science Signaling</i> , 2016, 9, ra74.	3.6	33
24	Photic generation of 11-cis-retinal in bovine retinal pigment epithelium. <i>Journal of Biological Chemistry</i> , 2019, 294, 19137-19154.	3.4	33
25	Genetic Basis of De Novo Appearance of Carotenoid Ornamentation in Bare Parts of Canaries. <i>Molecular Biology and Evolution</i> , 2020, 37, 1317-1328.	8.9	30
26	Structural and mechanistic aspects of carotenoid cleavage dioxygenases (CCDs). <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2020, 1865, 158590.	2.4	29
27	Photocyclic behavior of rhodopsin induced by an atypical isomerization mechanism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E2608-E2615.	7.1	28
28	Retinoid isomerase inhibitors impair but do not block mammalian cone photoreceptor function. <i>Journal of General Physiology</i> , 2018, 150, 571-590.	1.9	28
29	Analysis of Carotenoid Isomerase Activity in a Prototypical Carotenoid Cleavage Enzyme, Apocarotenoid Oxygenase (ACO). <i>Journal of Biological Chemistry</i> , 2014, 289, 12286-12299.	3.4	27
30	The Biochemical Basis of Vitamin A₃ Production in Arthropod Vision. <i>ACS Chemical Biology</i> , 2016, 11, 1049-1057.	3.4	27
31	Pathways and disease-causing alterations in visual chromophore production for vertebrate vision. <i>Journal of Biological Chemistry</i> , 2021, 296, 100072.	3.4	27
32	Insights into the pathogenesis of dominant retinitis pigmentosa associated with a D477G mutation in RPE65. <i>Human Molecular Genetics</i> , 2018, 27, 2225-2243.	2.9	26
33	Key Residues for Catalytic Function and Metal Coordination in a Carotenoid Cleavage Dioxygenase. <i>Journal of Biological Chemistry</i> , 2016, 291, 19401-19412.	3.4	25
34	The human mitochondrial enzyme BCO2 exhibits catalytic activity toward carotenoids and apocarotenoids. <i>Journal of Biological Chemistry</i> , 2020, 295, 15553-15565.	3.4	25
35	Structure and Spectroscopy of Alkene-Cleaving Dioxygenases Containing an Atypically Coordinated Non-Heme Iron Center. <i>Biochemistry</i> , 2017, 56, 2836-2852.	2.5	23
36	Nano-scale resolution of native retinal rod disk membranes reveals differences in lipid composition. <i>Journal of Cell Biology</i> , 2021, 220, .	5.2	23

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37	Conditional deletion of <i>Des1</i> in the mouse retina does not impair the visual cycle in cones. <i>FASEB Journal</i> , 2019, 33, 5782-5792.	0.5	22
38	Involvement of Endoplasmic Reticulum Stress in TULP1 Induced Retinal Degeneration. <i>PLoS ONE</i> , 2016, 11, e0151806.	2.5	22
39	Inhibition of the histone demethylase, KDM5B, directly induces re-expression of tumor suppressor protein HEXIM1 in cancer cells. <i>Breast Cancer Research</i> , 2019, 21, 138.	5.0	20
40	A Combination of G Protein-Coupled Receptor Modulators Protects Photoreceptors from Degeneration. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2018, 364, 207-220.	2.5	20
41	Rational Tuning of Visual Cycle Modulator Pharmacodynamics. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2017, 362, 131-145.	2.5	19
42	Structural biology of 11- <i>cis</i> -retinaldehyde production in the classical visual cycle. <i>Biochemical Journal</i> , 2018, 475, 3171-3188.	3.7	18
43	Abnormal Cannabidiol Modulates Vitamin A Metabolism by Acting as a Competitive Inhibitor of CRBP1. <i>ACS Chemical Biology</i> , 2019, 14, 434-448.	3.4	18
44	Structural basis for carotenoid cleavage by an archaeal carotenoid dioxygenase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 19914-19925.	7.1	17
45	The Structural and Biochemical Basis of Apocarotenoid Processing by β -Carotene Oxygenase-2. <i>ACS Chemical Biology</i> , 2021, 16, 480-490.	3.4	17
46	Enzyme That Makes You Cry—Crystal Structure of Lachrymatory Factor Synthase from <i>Allium cepa</i> . <i>ACS Chemical Biology</i> , 2017, 12, 2296-2304.	3.4	16
47	Purification, crystallization and structure determination of native GroEL from <i>Escherichia coli</i> lacking bound potassium ions. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2007, 63, 457-461.	0.7	15
48	Rational Alteration of Pharmacokinetics of Chiral Fluorinated and Deuterated Derivatives of Emixustat for Retinal Therapy. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 8287-8302.	6.4	12
49	Structure of 3-mercaptopropionic acid dioxygenase with a substrate analog reveals bidentate substrate binding at the iron center. <i>Journal of Biological Chemistry</i> , 2021, 296, 100492.	3.4	12
50	Structural evidence for visual arrestin priming via complexation of phosphoinositols. <i>Structure</i> , 2022, 30, 263-277.e5.	3.3	12
51	Identification and Characterization of Novel Inhibitors of Mammalian Aspartyl Aminopeptidase. <i>Molecular Pharmacology</i> , 2014, 86, 231-242.	2.3	11
52	Preparation and characterization of metal-substituted carotenoid cleavage oxygenases. <i>Journal of Biological Inorganic Chemistry</i> , 2018, 23, 887-901.	2.6	10
53	An inducible Cre mouse for studying roles of the RPE in retinal physiology and disease. <i>JCI Insight</i> , 2021, 6, .	5.0	10
54	Reappraisal of dioxygen binding in NOV1 crystal structures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E6027-E6028.	7.1	9

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55	Function of mammalian M-cones depends on the level of CRALBP in M μ ller cells. <i>Journal of General Physiology</i> , 2021, 153, .	1.9	9
56	Evidence for distinct rate-limiting steps in the cleavage of alkenes by carotenoid cleavage dioxygenases. <i>Journal of Biological Chemistry</i> , 2019, 294, 10596-10606.	3.4	6
57	A large animal model of <i>RDH5</i> -associated retinopathy recapitulates important features of the human phenotype. <i>Human Molecular Genetics</i> , 2022, 31, 1263-1277.	2.9	4