Stephen Y K Seah

List of Publications by Citations

31 papers	746 citations	19 h-index	27 g-index
31 ext. papers	824 ext. citations	4.2 avg, IF	3.91 L-index

#	Paper	IF	Citations
31	Functional characterization of an aminotransferase required for pyoverdine siderophore biosynthesis in Pseudomonas aeruginosa PAO1. *Journal of Bacteriology*, **2004**, 186, 5596-602	3.5	54
30	Characterization of a phosphotriesterase-like lactonase from Sulfolobus solfataricus and its immobilization for disruption of quorum sensing. *Applied and Environmental Microbiology*, **2011**, 77, 1181-6	4.8	46
29	Comparative specificities of two evolutionarily divergent hydrolases involved in microbial degradation of polychlorinated biphenyls. *Journal of Bacteriology*, **2001**, 183, 1511-6	3.5	46
28	Heterologous expression, purification, and characterization of an l-ornithine N(5)-hydroxylase involved in pyoverdine siderophore biosynthesis in Pseudomonas aeruginosa. *Journal of Bacteriology*, **2006**, 188, 7205-10	3.5	41
27	Kinetic and structural insight into the mechanism of BphD, a C-C bond hydrolase from the biphenyl degradation pathway. *Biochemistry*, **2006**, 45, 11071-86	3.2	40
26	Characterization of an aldolase-dehydrogenase complex that exhibits substrate channeling in the polychlorinated biphenyls degradation pathway. *Biochemistry*, **2009**, 48, 6551-8	3.2	35
25	Comparison of two metal-dependent pyruvate aldolases related by convergent evolution: substrate specificity, kinetic mechanism, and substrate channeling. *Biochemistry*, **2010**, 49, 3774-82	3.2	34
24	Purification and biochemical characterization of a pyruvate-specific class II aldolase, HpaI. *Biochemistry*, **2005**, 44, 9447-55	3.2	34
23	Rational design of stereoselectivity in the class II pyruvate aldolase BphI. *Journal of the American Chemical Society*, **2012**, 134, 507-13	16.4	33
22	Characterization of a C-C bond hydrolase from Sphingomonas wittichii RW1 with novel specificities towards polychlorinated biphenyl metabolites. *Journal of Bacteriology*, **2007**, 189, 4038-45	3.5	33
21	The tautomeric half-reaction of BphD, a C-C bond hydrolase. Kinetic and structural evidence supporting a key role for histidine 265 of the catalytic triad. *Journal of Biological Chemistry*, **2007**, 282, 19894-904	5.4	33
20	Secretoglobin 1A1 and 1A1A differentially regulate neutrophil reactive oxygen species production, phagocytosis and extracellular trap formation. *PLoS ONE*, **2014**, 9, e96217	3.7	31
19	Single amino acid substitution in Bacillus sphaericus phenylalanine dehydrogenase dramatically increases its discrimination between phenylalanine and tyrosine substrates. *Biochemistry*, **2002**, 41, 11390-7	3.2	29
18	Characterization of an aldolase-dehydrogenase complex from the cholesterol degradation pathway of Mycobacterium tuberculosis. *Biochemistry*, **2013**, 52, 3502-11	3.2	27
17	Structural and kinetic characterization of 4-hydroxy-4-methyl-2-oxoglutarate/4-carboxy-4-hydroxy-2-oxoadipate aldolase, a protocatechuate degradation enzyme evolutionarily convergent with the HpaI and DmpG pyruvate aldolases. *Journal of Biological Chemistry*, **2010**, 285, 36208-15	5.4	27
16	Probing the molecular basis of substrate specificity, stereospecificity, and catalysis in the class II pyruvate aldolase, BphI. *Biochemistry*, **2011**, 50, 3559-69	3.2	24
15	Crystal structure of reaction intermediates in pyruvate class II aldolase: substrate cleavage, enolate stabilization, and substrate specificity. *Journal of Biological Chemistry*, **2012**, 287, 36208-21	5.4	22

List of Publications

14	Investigating the molecular determinants for substrate channeling in BphI-BphJ, an aldolase-dehydrogenase complex from the polychlorinated biphenyls degradation pathway. *Biochemistry*, **2011**, 50, 8407-16	3.2	22
13	Characterization of novel acyl coenzyme A dehydrogenases involved in bacterial steroid degradation. *Journal of Bacteriology*, **2015**, 197, 1360-7	3.5	19
12	Characterization of an Aldolase Involved in Cholesterol Side Chain Degradation in Mycobacterium tuberculosis. *Journal of Bacteriology*, **2018**, 200,	3.5	19
11	Protein-protein interactions and substrate channeling in orthologous and chimeric aldolase-dehydrogenase complexes. *Biochemistry*, **2012**, 51, 1942-52	3.2	16
10	Kinetic analysis of phenylalanine dehydrogenase mutants designed for aliphatic amino acid dehydrogenase activity with guidance from homology-based modelling. *FEBS Journal*, **2003**, 270, 4628-34		14
9	Substrate specificity, substrate channeling, and allostery in BphJ: an acylating aldehyde dehydrogenase associated with the pyruvate aldolase BphI. *Biochemistry*, **2012**, 51, 4558-67	3.2	12
8	Structural and Kinetic Characterization of the 4-Carboxy-2-hydroxymuconate Hydratase from the Gallate and Protocatechuate 4,5-Cleavage Pathways of Pseudomonas putida KT2440. *Journal of Biological Chemistry*, **2016**, 291, 7669-86	5.4	12
7	The steroid side-chain-cleaving aldolase Ltp2-ChsH2 is a thiolase superfamily member with a radically repurposed active site. *Journal of Biological Chemistry*, **2019**, 294, 11934-11943	5.4	11
6	The role of a conserved histidine residue in a pyruvate-specific Class II aldolase. *FEBS Letters*, **2008**, 582, 3385-8	3.8	10
5	Determination of the metal ion dependence and substrate specificity of a hydratase involved in the degradation pathway of biphenyl/chlorobiphenyl. *FEBS Journal*, **2005**, 272, 966-74	5.7	8
4	Biochemical and structural analysis of RraA proteins to decipher their relationships with 4-hydroxy-4-methyl-2-oxoglutarate/4-carboxy-4-hydroxy-2-oxoadipate aldolases. *Biochemistry*, **2014**, 53, 542-53	3.2	6
3	Rational approaches for engineering novel functionalities in carbon-carbon bond forming enzymes. *Computational and Structural Biotechnology Journal*, **2012**, 2, e201209003	6.8	5
2	A Key Glycine in Bacterial Steroid-Degrading Acyl-CoA Dehydrogenases Allows Flavin-Ring Repositioning and Modulates Substrate Side Chain Specificity. *Biochemistry*, **2020**, 59, 4081-4092	3.2	2
1	Investigation into the Mode of Phosphate Activation in the 4-Hydroxy-4-Methyl-2-Oxoglutarate/4-Carboxy-4-Hydroxy-2-Oxoadipate Aldolase from Pseudomonas putida F1. *PLoS ONE*, **2016**, 11, e0164556	3.7	1