Larissa M Podust

List of Publications by Year
in descending order

75 papers	3,879 citations	76326 40 h-index	123424 61 g-index
80 all docs	80 docs citations	80 times ranked	4013 citing authors

#	Article	IF	Citations
1	Diversity of P450 enzymes in the biosynthesis of natural products. Natural Product Reports, 2012, 29, 1251.	10.3	247
2	Binding of Two Flaviolin Substrate Molecules, Oxidative Coupling, and Crystal Structure of Streptomyces coelicolor A3(2) Cytochrome P450 158A2. Journal of Biological Chemistry, 2005, 280, 11599-11607.	3.4	142
3	The Structural Basis for Substrate Anchoring, Active Site Selectivity, and Product Formation by P450 PikC from Streptomyces venezuelae. Journal of Biological Chemistry, 2006, 281, 26289-26297.	3.4	129
4	Mechanism of Inhibition of Proliferating Cell Nuclear Antigen-Dependent DNA Synthesis by the Cyclin-Dependent Kinase Inhibitor p21. Biochemistry, 1995, 34, 8869-8875.	2.5	124
5	The Cytochrome P450 Complement (CYPome) of Streptomyces coelicolor A3(2). Journal of Biological Chemistry, 2002, 277, 24000-24005.	3.4	117
6	Mycobacterium tuberculosis CYP125A1, a steroid C27 monooxygenase that detoxifies intracellularly generated cholestâ€4â€enâ€3â€one. Molecular Microbiology, 2010, 77, 730-742.	2.5	113
7	Structural Characterization of CYP51 from Trypanosoma cruzi and Trypanosoma brucei Bound to the Antifungal Drugs Posaconazole and Fluconazole. PLoS Neglected Tropical Diseases, 2010, 4, e651.	3.0	106
8	Engineering and Analysis of a Self-Sufficient Biosynthetic Cytochrome P450 PikC Fused to the RhFRED Reductase Domain. Journal of the American Chemical Society, 2007, 129, 12940-12941.	13.7	102
9	Enzymatic hydroxylation of an unactivated methylene Câ€“H bond guided by molecular dynamics simulations. Nature Chemistry, 2015, 7, 653-660.	13.6	100
10	Targeting Ergosterol Biosynthesis in Leishmania donovani: Essentiality of Sterol 14alpha-demethylase. PLoS Neglected Tropical Diseases, 2015, 9, e0003588.	3.0	90
11	Biochemical and structural characterization of CYP124: A methyl-branched lipid Ï‰-hydroxylase from Mycobacterium tuberculosis. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20687-20692.	7.1	89
12	Selective oxidation of carbolide Câ€“H bonds by an engineered macrolide P450 mono-oxygenase. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18463-18468.	7.1	86
13	Crystal Structure of the CCAAT Box/Enhancer-binding Protein Î² Activating Transcription Factor-4 Basic Leucine Zipper Heterodimer in the Absence of DNA. Journal of Biological Chemistry, 2001, 276, 505-513.	3.4	83
14	Mycobacterium tuberculosis CYP130. Journal of Biological Chemistry, 2008, 283, 5069-5080.	3.4	83
15	Tirandamycin biosynthesis is mediated by co-dependent oxidative enzymes. Nature Chemistry, 2011, 3, 628-633.	13.6	83
16	Estriol Bound and Ligand-free Structures of Sterol 14Î±-Demethylase. Structure, 2004, 12, 1937-1945.	3.3	78
17	The 1.92-Ã… Structure of Streptomyces coelicolor A3(2) CYP154C1. Journal of Biological Chemistry, 2003, 278, 12214-12221.	3.4	76
18	Identification of Amino Acids in Rat Pregnane X Receptor that Determine Species-Specific Activation. Molecular Pharmacology, 2004, 65, 36-44.	2.3	76

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19	Directing Group-Controlled Regioselectivity in an Enzymatic Câ€“H Bond Oxygenation. Journal of the American Chemical Society, 2014, 136, 4901-4904.	13.7	75
20	Drug Strategies Targeting CYP51 in Neglected Tropical Diseases. Chemical Reviews, 2014, 114, 11242-11271.	47.7	74
21	2.3 Ã... X-ray Structure of the Heme-Bound GAF Domain of Sensory Histidine Kinase DosT of Mycobacterium tuberculosis. Biochemistry, 2008, 47, 12523-12531.	2.5	71
22	Small-Molecule Scaffolds for CYP51 Inhibitors Identified by High-Throughput Screening and Defined by X-Ray Crystallography. Antimicrobial Agents and Chemotherapy, 2007, 51, 3915-3923.	3.2	70
23	Structural control of cytochrome P450-catalyzed ï‰-hydroxylation. Archives of Biochemistry and Biophysics, 2011, 507, 86-94.	3.0	69
24	New Reactions and Products Resulting from Alternative Interactions between the P450 Enzyme and Redox Partners. Journal of the American Chemical Society, 2014, 136, 3640-3646.	13.7	68
25	Substrate recognition sites in 14Î±-sterol demethylase from comparative analysis of amino acid sequences and X-ray structure of Mycobacterium tuberculosis CYP51. Journal of Inorganic Biochemistry, 2001, 87, 227-235.	3.5	65
26	Expansion of Substrate Specificity of Cytochrome P450 2A6 by Random and Site-directed Mutagenesis*. Journal of Biological Chemistry, 2005, 280, 41090-41100.	3.4	65
27	Trypanosoma cruzi CYP51 Inhibitor Derived from a Mycobacterium tuberculosis Screen Hit. PLoS Neglected Tropical Diseases, 2009, 3, e372.	3.0	60
28	X-ray structures of thioredoxin and thioredoxin reductase from Entamoeba histolytica and prevailing hypothesis of the mechanism of Auranofin action. Journal of Structural Biology, 2016, 194, 180-190.	2.8	60
29	Substrate Recognition by the Multifunctional Cytochrome P450 MycG in Mycinamicin Hydroxylation and Epoxidation Reactions. Journal of Biological Chemistry, 2012, 287, 37880-37890.	3.4	58
30	Assembly of DNA polymerase 6 and e holoenzymes depends on the geometry of the DNA template. Nucleic Acids Research, 1994, 22, 2970-2975.	14.5	57
31	A Second FMN Binding Site in Yeast NADPH-Cytochrome P450 Reductase Suggests a Mechanism of Electron Transfer by Diflavin Reductases. Structure, 2006, 14, 51-61.	3.3	57
32	A Nonazole CYP51 Inhibitor Cures Chagasâ€™ Disease in a Mouse Model of Acute Infection. Antimicrobial Agents and Chemotherapy, 2010, 54, 2480-2488.	3.2	56
33	Diverse Inhibitor Chemotypes Targeting Trypanosoma cruzi CYP51. PLoS Neglected Tropical Diseases, 2012, 6, e1736.	3.0	54
34	A highly conserved mycobacterial cholesterol catabolic pathway. Environmental Microbiology, 2013, 15, 2342-2359.	3.8	54
35	DNA polymerase .delta. holoenzyme: action on single-stranded DNA and on double-stranded DNA in the presence of replicative DNA helicases. Biochemistry, 1995, 34, 5003-5010.	2.5	52
36	Comparison of the 1.85 A structure of CYP154A1 from Streptomyces coelicolor A3(2) with the closely related CYP154C1 and CYPs from antibiotic biosynthetic pathways. Protein Science, 2004, 13, 255-268.	7.6	50

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37	Structure of Cytochrome P450 PimD Suggests Epoxidation of the Polyene Macrolide Pimaricin Occurs via a Hydroperoxoferric Intermediate. Chemistry and Biology, 2010, 17, 841-851.	6.0	49
38	Analysis of Transient and Catalytic Desosamine-binding Pockets in Cytochrome P-450 PikC from Streptomyces venezuelae. Journal of Biological Chemistry, 2009, 284, 5723-5730.	3.4	45
39	CYP51 is an essential drug target for the treatment of primary amoebic meningoencephalitis (PAM). PLoS Neglected Tropical Diseases, 2017, 11, e0006104.	3.0	45
40	Folding Requirements Are Different between Sterol 14Î±-Demethylase (CYP51) from Mycobacterium tuberculosis and Human or Fungal Orthologs. Journal of Biological Chemistry, 2001, 276, 28413-28420.	3.4	44
41	Rational Development of 4-Aminopyridyl-Based Inhibitors Targeting Trypanosoma cruzi CYP51 as Anti-Chagas Agents. Journal of Medicinal Chemistry, 2013, 56, 7651-7668.	6.4	43
42	4-Aminopyridyl-Based CYP51 Inhibitors as Anti-Trypanosoma cruzi Drug Leads with Improved Pharmacokinetic Profile and in Vivo Potency. Journal of Medicinal Chemistry, 2014, 57, 6989-7005.	6.4	43
43	The Schistosoma mansoni Cytochrome P450 (CYP3050A1) Is Essential for Worm Survival and Egg Development. PLoS Neglected Tropical Diseases, 2015, 9, e0004279.	3.0	37
44	Phenotypic, chemical and functional characterization of cyclic nucleotide phosphodiesterase 4 (PDE4) as a potential anthelmintic drug target. PLoS Neglected Tropical Diseases, 2017, 11, e0005680.	3.0	36
45	X-ray Structure of 4,4â€²-Dihydroxybenzophenone Mimicking Sterol Substrate in the Active Site of Sterol 14Î±-Demethylase (CYP51). Journal of Biological Chemistry, 2008, 283, 15152-15159.	3.4	34
46	Interaction of Mycobacterium tuberculosis CYP130 with Heterocyclic Arylamines. Journal of Biological Chemistry, 2009, 284, 25211-25219.	3.4	34
47	Chemicalâ€“biological characterization of a cruzain inhibitor reveals a second target and a mammalian off-target. Beilstein Journal of Organic Chemistry, 2013, 9, 15-25.	2.2	34
48	Enzymatic chokepoints and synergistic drug targets in the sterol biosynthesis pathway of Naegleria fowleri. PLoS Pathogens, 2018, 14, e1007245.	4.7	33
49	Reverse type I inhibitor of Mycobacterium tuberculosis CYP125A1. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 332-337.	2.2	27
50	Rapid Chagas Disease Drug Target Discovery Using Directed Evolution in Drug-Sensitive Yeast. ACS Chemical Biology, 2017, 12, 422-434.	3.4	26
51	Design, Synthesis, and Biological Evaluation of New 1-(Aryl-1H-pyrrolyl)(phenyl)methyl-1H-imidazole Derivatives as Antiprotozoal Agents. Journal of Medicinal Chemistry, 2019, 62, 1330-1347.	6.4	26
52	Sterol 14Î±-demethylase activity in Streptomyces coelicolor A3(2) is associated with an unusual member of the CYP51 gene family. Biochemical Journal, 2002, 364, 555-562.	3.7	24
53	4-aminopyridyl-based lead compounds targeting CYP51 prevent spontaneous parasite relapse in a chronic model and improve cardiac pathology in an acute model of Trypanosoma cruzi infection. PLoS Neglected Tropical Diseases, 2017, 11, e0006132.	3.0	24
54	The Antifungal Drug Isavuconazole Is both Amebicidal and Cysticidal against Acanthamoeba castellanii. Antimicrobial Agents and Chemotherapy, 2020, 64, .	3.2	23

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55	Binding Mode and Potency of N-Indolyloxopyridinyl-4-aminopropanyl-Based Inhibitors Targeting Trypanosoma cruzi CYP51. Journal of Medicinal Chemistry, 2014, 57, 10162-10175.	6.4	22
56	Molecular Basis of Iterative Câ€“H Oxidation by TamI, a Multifunctional P450 Monooxygenase from the Tirandamycin Biosynthetic Pathway. ACS Catalysis, 2020, 10, 13445-13454.	11.2	20
57	Solution Conformations and Dynamics of Substrate-Bound Cytochrome P450 MycG. Biochemistry, 2017, 56, 2701-2714.	2.5	19
58	Biological evaluation and structure-activity relationships of imidazole-based compounds as antiprotozoal agents. European Journal of Medicinal Chemistry, 2018, 156, 53-60.	5.5	19
59	R-Configuration of 4-Aminopyridyl-Based Inhibitors of CYP51 Confers Superior Efficacy Against Trypanosoma cruzi. ACS Medicinal Chemistry Letters, 2014, 5, 434-439.	2.8	18
60	Expanding the Binding Envelope of CYP51 Inhibitors Targeting Trypanosoma cruzi with 4â€Aminopyridylâ€Based Sulfonamide Derivatives. ChemBioChem, 2014, 15, 1111-1120.	2.6	18
61	Dynamic visualization of type II peptidyl carrier protein recognition in pyoluteorin biosynthesis. RSC Chemical Biology, 2020, 1, 8-12.	4.1	17
62	Biochemical and Structural Characterization of MycCI, a Versatile P450 Biocatalyst from the Mycinamicin Biosynthetic Pathway. ACS Chemical Biology, 2016, 11, 2642-2654.	3.4	14
63	HMG-CoA Reductase Inhibitors as Drug Leads against Naegleria fowleri. ACS Chemical Neuroscience, 2020, 11, 3089-3096.	3.5	13
64	Identification of Smallâ€Molecule Scaffolds for P450 Inhibitors. Current Protocols in Microbiology, 2010, 16, Unit17.4.	6.5	9
65	Intramolecular Interactions Enhance the Potency of Gallinamide A Analogues against Trypanosoma cruzi. Journal of Medicinal Chemistry, 2022, 65, 4255-4269.	6.4	9
66	FMN Binding Site of Yeast NADPH-Cytochrome P450 Reductase Exposed at the Surface Is Highly Specific. ACS Chemical Biology, 2010, 5, 767-776.	3.4	8
67	Exploring the molecular basis for substrate specificity in homologous macrolide biosynthetic cytochromes P450. Journal of Biological Chemistry, 2019, 294, 15947-15961.	3.4	8
68	Identification of Four Amoebicidal Nontoxic Compounds by a Molecular Docking Screen of Naegleria fowleri Sterol Î”8â†’Î”7-Isomerase and Phenotypic Assays. ACS Infectious Diseases, 2019, 5, 2029-2038.	3.8	6
69	Ligand-Assisted Inhibition in Cytochrome P450 158A2 from Streptomyces coelicolor A3(2),. Biochemistry, 2006, 45, 7493-7500.	2.5	4
70	Homodimerization Counteracts the Detrimental Effect of Nitrogenous Heme Ligands on the Enzymatic Activity of Acanthamoeba castellanii CYP51. Biochemistry, 2022, 61, 1363-1377.	2.5	3
71	Domain-Swap Dimerization ofAcanthamoeba castellaniiCYP51 and a Unique Mechanism of Inactivation by Isavuconazole. Molecular Pharmacology, 2020, 98, 770-780.	2.3	2
72	Short-lived neutral FMN and FAD semiquinones are transient intermediates in cryo-reduced yeast NADPH-cytochrome P450 reductase. Archives of Biochemistry and Biophysics, 2019, 673, 108080.	3.0	0

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73	Comparative Analysis of Bacterial Cytochromes P450 Involved in the Biosynthesis of 16â€•Membered Ring Macrolide Antibiotics. FASEB Journal, 2018, 32, 529.4.	0.5	0
74	Regulatory mechanisms of the cholesterol catabolism repressor KstR in Mycobacterium tuberculosis. FASEB Journal, 2019, 33, 458.2.	0.5	0
75	Mechanistic Insights into Cytochrome P450 Inactivation by Azole Drugs in Acanthamoeba castellanii. FASEB Journal, 2020, 34, 1-1.	0.5	0