Maria Antonietta Vanoni

List of Publications by Year
in descending order

83 papers	2,942 citations	186265 28 h-index	182427 51 g-index
86 all docs	86 docs citations	86 times ranked	2842 citing authors

#	Article	IF	Citations
1	Crystal structure of D-amino acid oxidase: a case of active site mirror-image convergent evolution with flavocytochrome b2.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 7496-7501.	7.1	291
2	Histone demethylation catalysed by LSD1 is a flavin-dependent oxidative process. FEBS Letters, 2005, 579, 2203-2207.	2.8	243
3	Human Histone Demethylase LSD1 Reads the Histone Code. Journal of Biological Chemistry, 2005, 280, 41360-41365.	3.4	223
4	Identifying and Quantitating FAD and FMN in Simple and in Iron-Sulfur-Containing Flavoproteins. , 1999, 131, 9-24.		115
5	Glutamate synthase: a complex iron-sulfur flavoprotein. Cellular and Molecular Life Sciences, 1999, 55, 617-638.	5.4	113
6	Active Site Plasticity ind-Amino Acid Oxidase:Â A Crystallographic Analysisâ€,â€¡. Biochemistry, 1997, 36, 5853-5860.	2.5	89
7	Cross-Talk and Ammonia Channeling between Active Centers in the Unexpected Domain Arrangement of Glutamate Synthase. Structure, 2000, 8, 1299-1308.	3.3	86
8	The Active Conformation of Glutamate Synthase and its Binding to Ferredoxin. Journal of Molecular Biology, 2003, 330, 113-128.	4.2	85
9	Glutamate synthase: a fascinating pathway from L-glutamine to L-glutamate. Cellular and Molecular Life Sciences, 2004, 61, 669-681.	5.4	79
10	Involvement of Serine 96 in the Catalytic Mechanism of Ferredoxin-NADP+ Reductase: Structure-Function Relationship As Studied by Site-Directed Mutagenesis and X-ray Crystallography. Biochemistry, 1995, 34, 8371-8379.	2.5	70
11	Characterization of the flavins and the iron-sulfur centers of glutamate synthase from Azospirillum brasilense by absorption, circular dichroism, and electron paramagnetic resonance spectroscopies. Biochemistry, 1992, 31, 4613-4623.	2.5	69
12	Structural Studies on the Synchronization of Catalytic Centers in Glutamate Synthase. Journal of Biological Chemistry, 2002, 277, 24579-24583.	3.4	68
13	Glutathione reductase: solvent equilibrium and kinetic isotope effects. Biochemistry, 1988, 27, 7091-7096.	2.5	59
14	Structureâ€"function studies on the complex ironâ€"sulfur flavoprotein glutamate synthase: the key enzyme of ammonia assimilation. Photosynthesis Research, 2005, 83, 219-238.	2.9	57
15	Glutathione reductase: comparison of steady-state and rapid reaction primary kinetic isotope effects exhibited by the yeast, spinach, and Escherichia coli enzymes. Biochemistry, 1990, 29, 5790-5796.	2.5	55
16	Structureâ€"function studies on the ironâ€"sulfur flavoenzyme glutamate synthase: an unexpectedly complex self-regulated enzyme. Archives of Biochemistry and Biophysics, 2005, 433, 193-211.	3.0	49
17	Limited Proteolysis and X-ray Crystallography Reveal the Origin of Substrate Specificity and of the Rate-Limiting Product Release during Oxidation ofd-Amino Acids Catalyzed by Mammaliand-Amino Acid Oxidaseâ€,â€¡. Biochemistry, 1997, 36, 5624-5632.	2.5	46
18	Purification of the Aldehyde Oxidase Homolog 1 (AOH1) Protein and Cloning of the AOH1 and Aldehyde Oxidase Homolog 2 (AOH2) Genes. Journal of Biological Chemistry, 2001, 276, 46347-46363.	3.4	43

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19	Properties of the Recombinant Ferredoxin-Dependent Glutamate Synthase ofSynechocystisPCC6803. Comparison with theAzospirillum brasilenseNADPH-Dependent Enzyme and Its Isolated Î± Subunitâ€. Biochemistry, 2002, 41, 8120-8133.	2.5	41
20	Purification and properties of d-amino-acid oxidase, an inducible flavoenzyme from Rhodotorula gracilis. BBA - Proteins and Proteomics, 1987, 914, 136-142.	2.1	37
21	The Recombinant Î± Subunit of Glutamate Synthase:â€‰ Spectroscopic and Catalytic Properties. Biochemistry, 1998, 37, 1828-1838.	2.5	37
22	Cloning and expression in Escherichia coli of the gene encoding Streptomyces PMF PLD, a phospholipase D with high transphosphatidylation activity. Enzyme and Microbial Technology, 2003, 33, 676-688.	3.2	37
23	On the iron-sulfur clusters in the complex redox enzyme dihydropyrimidine dehydrogenase. FEBS Journal, 2000, 267, 3640-3646.	0.2	35
24	Structureâ€"function studies of glutamate synthases: A class of selfâ€regulated ironâ€sulfur flavoenzymes essential for nitrogen assimilation. IUBMB Life, 2008, 60, 287-300.	3.4	35
25	Porcine Recombinant Dihydropyrimidine Dehydrogenase:â€‰ Comparison of the Spectroscopic and Catalytic Properties of the Wild-Type and C671A Mutant Enzymes. Biochemistry, 1998, 37, 17598-17609.	2.5	34
26	Structure of d-amino acid oxidase: new insights from an old enzyme. Current Opinion in Structural Biology, 1997, 7, 804-810.	5.7	30
27	Determination of the Midpoint Potential of the FAD and FMN Flavin Cofactors and of the 3Feâ^'4S Cluster of Glutamate Synthaseâ€. Biochemistry, 2001, 40, 5533-5541.	2.5	30
28	The Subnanometer Resolution Structure of the Glutamate Synthase 1.2-MDa Hexamer by Cryoelectron Microscopy and Its Oligomerization Behavior in Solution. Journal of Biological Chemistry, 2008, 283, 8237-8249.	3.4	30
29	Mechanistic studies on Azospirillum brasilense glutamate synthase. Biochemistry, 1991, 30, 11478-11484.	2.5	29
30	The kinetic mechanism of the reactions catalyzed by the glutamate synthase from Azospirillum brasilense. FEBS Journal, 1991, 202, 181-189.	0.2	29
31	Properties of the Recombinant beta Subunit of Glutamate Synthase. FEBS Journal, 1996, 236, 937-946.	0.2	29
32	Structure-function studies of MICAL, the unusual multidomain flavoenzyme involved in actin cytoskeleton dynamics. Archives of Biochemistry and Biophysics, 2017, 632, 118-141.	3.0	29
33	Reaction of the NAD(P)H:Flavin Oxidoreductase fromEscherichia coliwith NADPH and Riboflavin:Â Identification of Intermediatesâ€. Biochemistry, 1998, 37, 11879-11887.	2.5	28
34	First-Principles Molecular Dynamics Investigation of thed-Amino Acid Oxidative Half-Reaction Catalyzed by the Flavoenzymed-Amino Acid Oxidaseâ€,â€¡. Biochemistry, 2002, 41, 14111-14121.	2.5	28
35	Properties and catalytic activities of MICAL1, the flavoenzyme involved in cytoskeleton dynamics, and modulation by its CH, LIM and C-terminal domains. Archives of Biochemistry and Biophysics, 2016, 593, 24-37.	3.0	28
36	Kinetic and spectroscopic characterization of the putative monooxygenase domain of human MICAL-1. Archives of Biochemistry and Biophysics, 2011, 515, 1-13.	3.0	26

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37	MICAL, the Flavoenzyme Participating in Cytoskeleton Dynamics. International Journal of Molecular Sciences, 2013, 14, 6920-6959.	4.1	26
38	Key Role of the Adenylate Moiety and Integrity of the Adenylate-Binding Site for the NAD⁺/H Binding to Mitochondrial Apoptosis-Inducing Factor. Biochemistry, 2015, 54, 6996-7009.	2.5	26
39	Kinetic isotope effects on the oxidation of reduced nicotinamide adenine dinucleotide phosphate by the flavoprotein methylenetetrahydrofolate reductase. Biochemistry, 1984, 23, 5272-5279.	2.5	24
40	Kinetic and mechanistic characterization of <i>Mycobacteriumâ€ƒtuberculosis</i> glutamylâ€“tRNA synthetase and determination of its oligomeric structure in solution. FEBS Journal, 2009, 276, 1398-1417.	4.7	23
41	d-Amino acid oxidase activity in the yeastRhodotorula gracilis. FEMS Microbiology Letters, 1982, 15, 27-31.	1.8	22
42	Functional properties of recombinant Azospirillum brasilense glutamate synthase, a complex iron-sulfur flavoprotein. FEBS Journal, 2000, 267, 2720-2730.	0.2	22
43	Stereochemistry of reduction of methylenetetrahydrofolate to methyltetrahydrofolate catalyzed by pig liver methylenetetrahydrofolate reductase. Journal of the American Chemical Society, 1990, 112, 3987-3992.	13.7	21
44	Quaternary Structure of Azospirillum brasilense NADPH-dependent Glutamate Synthase in Solution as Revealed by Synchrotron Radiation X-ray Scattering. Journal of Biological Chemistry, 2003, 278, 29933-29939.	3.4	21
45	Glutamate Synthase:â€‰ Identification of the NADPH-Binding Site by Site-Directed Mutagenesis. Biochemistry, 2000, 39, 727-735.	2.5	20
46	The complex folding behavior of HIV-1-protease monomer revealed by optical-tweezer single-molecule experiments and molecular dynamics simulations. Biophysical Chemistry, 2014, 195, 32-42.	2.8	19
47	<scp>l</scp>â€Lactate dehydrogenation in flavocytochrome <i>b</i>₂. FEBS Journal, 2009, 276, 2368-2380.	4.7	18
48	Glutamine Synthetase 1 Increases Autophagy Lysosomal Degradation of Mutant Huntingtin Aggregates in Neurons, Ameliorating Motility in a Drosophila Model for Huntingtonâ€™s Disease. Cells, 2020, 9, 196.	4.1	18
49	Structural studies on the subunits of glutamate synthase from Azospirillum brasilense. BBA - Proteins and Proteomics, 1990, 1039, 374-377.	2.1	17
50	Influence of divalent cations on the catalytic properties and secondary structure of unadenylylated glutamine synthetase from Azospirillum brasilense. BioMetals, 2001, 14, 13-22.	4.1	16
51	Synthesis and biological evaluation of new amino acids structurally related to the antitumor agent acivicin. Il Farmaco, 2003, 58, 683-690.	0.9	16
52	Imine Deaminase Activity and Conformational Stability of UK114, the Mammalian Member of the Rid Protein Family Active in Amino Acid Metabolism. International Journal of Molecular Sciences, 2018, 19, 945.	4.1	16
53	The pH-Dependent Behavior of Catalytic Activities of Azospirillum brasilense Glutamate Synthase and Iodoacetamide Modification of the Enzyme Provide Evidence for a Catalytic Cys-His Ion Pair. Archives of Biochemistry and Biophysics, 1994, 309, 222-230.	3.0	15
54	A Single Tyrosine Hydroxyl Group Almost Entirely Controls the NADPH Specificity of <i>Plasmodium falciparum</i> Ferredoxin-NADP⁺ Reductase. Biochemistry, 2012, 51, 3819-3826.	2.5	15

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55	Glutamate synthase: A complex iron-sulphur flavoprotein. Biochemical Society Transactions, 1996, 24, 95-99.	3.4	14
56	Phenylglyoxal modification of arginines in mammalian D-amino-acid oxidase. FEBS Journal, 1987, 167, 261-267.	0.2	13
57	Rational Redesign of Monoamine Oxidase A into a Dehydrogenase to Probe ROS in Cardiac Aging. ACS Chemical Biology, 2020, 15, 1795-1800.	3.4	12
58	Iron-sulfur flavoenzymes: the added value of making the most ancient redox cofactors and the versatile flavins work together. Open Biology, 2021, 11, 210010.	3.6	12
59	Plasmodium falciparum Ferredoxin-NADP+ Reductase His286 Plays a Dual Role in NADP(H) Binding and Catalysis. Biochemistry, 2009, 48, 9525-9533.	2.5	11
60	The overexpression of the 3â€² terminal region of the CDC25 gene of Saccharomyces cerevisiae causes growth inhibition and alteration of purine nucleotides pools. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1991, 1089, 206-212.	2.4	10
61	The unexpected structural role of glutamate synthase [4Feâ€"4S]+1,+2 clusters as demonstrated by site-directed mutagenesis of conserved C residues at the N-terminus of the enzyme Î² subunit. Archives of Biochemistry and Biophysics, 2005, 436, 355-366.	3.0	10
62	Activation and Coupling of the Glutaminase and Synthase Reaction of Glutamate Synthase Is Mediated by E1013 of the Ferredoxin-Dependent Enzyme, Belonging to Loop 4 of the Synthase Domain. Biochemistry, 2007, 46, 4473-4485.	2.5	10
63	Interdomain Loops and Conformational Changes of Glutamate Synthase as Detected by Limited Proteolysis. FEBS Journal, 1994, 226, 505-515.	0.2	9
64	Role of the His57â^'Glu214 Ionic Couple Located in the Active Site of Mycobacterium tuberculosis FprA,. Biochemistry, 2006, 45, 8712-8720.	2.5	9
65	Energy matters: Mitochondrial proteomics for biomedicine. Proteomics, 2011, 11, 657-674.	2.2	9
66	Does Negative Hyperconjugation Assist Enzymatic Dehydrogenations?. ChemPhysChem, 2007, 8, 1283-1288.	2.1	8
67	Molecular dynamics simulation of the interaction between the complex iron-sulfur flavoprotein glutamate synthase and its substrates. Protein Science, 2008, 13, 2979-2991.	7.6	8
68	Genomic and functional analyses unveil the response to hyphal wall stress in Candida albicans cells lacking Î²(1,3)-glucan remodeling. BMC Genomics, 2016, 17, 482.	2.8	8
69	Cold Denaturation of the HIV-1 Protease Monomer. Biochemistry, 2017, 56, 1029-1032.	2.5	7
70	Human MICAL1: Activation by the small GTPase Rab8 and smallâ€angle Xâ€ray scattering studies on the oligomerization state of MICAL1 and its complex with Rab8. Protein Science, 2019, 28, 150-166.	7.6	7
71	Cryo-EM Structures of AzospirillumÂbrasilense Glutamate Synthase in Its Oligomeric Assemblies. Journal of Molecular Biology, 2019, 431, 4523-4526.	4.2	4
72	The structure of N184K amyloidogenic variant of gelsolin highlights the role of the H-bond network for protein stability and aggregation properties. European Biophysics Journal, 2020, 49, 11-19.	2.2	4

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73	Two novel fish paralogs provide insights into the Rid family of imine deaminases active in pre-empting enamine/imine metabolic damage. Scientific Reports, 2020, 10, 10135.	3.3	4
74	8 Demethylation pathways for histone methyllysine residues. The Enzymes, 2006, 24, 229-242.	1.7	1
75	B35â€¦Glutamine synthetase-1 induces autophagy and neuronal survival in a drosophila model huntingtonâ€™s disease. Journal of Neurology, Neurosurgery and Psychiatry, 2016, 87, A21.2-A21.	1.9	1
76	Using d- and l-Amino Acid Oxidases to Generate the Imino Acid Substrate to Measure the Activity of the Novel Rid (Enamine/Imine Deaminase) Class of Enzymes. Methods in Molecular Biology, 2021, 2280, 199-218.	0.9	1
77	The denatured state of <scp>HIV</scp>â€‑1 protease under native conditions. Proteins: Structure, Function and Bioinformatics, 2022, 90, 96-109.	2.6	1
78	Glutamate synthase from AzospiriUum brasilense: structural and mechanistic studies. , 1994, , 667-674.		1
79	13 Glutamate synthase. , 2012, , 271-296.		1
80	Correction - Kinetic Isotope Effects on the Oxidation of Reduced Nicotinamide Adenine Dinucleotide Phosphate by the Flavoprotein Methylenetetrahydrofolate Reductase. Biochemistry, 1984, 23, 6925-6925.	2.5	0
81	STEREOCHEMISTRY OF REDUCTION OF METHYLENETETRAHYDROFOLATE TO METHYLTETRAHYDROFOLATE CATALYZED BY MAMMALIAN METHYLENETETRAHYDROFOLATE REDUCTASE. , 1991, , 815-818.		0
82	Glutamate synthase: A case-study for in silico drug screening on a complex ironâ€“sulfur flavoenzyme?. Gene, 2015, 564, 233-235.	2.2	0
83	Apis mellifera RidA, a novel member of the canonical YigF/YER057c/UK114 imine deiminase superfamily of enzymes pre-empting metabolic damage. Biochemical and Biophysical Research Communications, 2022, 616, 70-75.	2.1	0