

Giovanni Gadda

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

119
papers

2,727
citations

31
h-index

46
g-index

125
ext. papers

3,034
ext. citations

5
avg, IF

5.51
L-index

#	Paper	IF	Citations
119	Discovery of a new flavin N5-adduct in a tyrosine to phenylalanine variant of d-Arginine dehydrogenase. <i>Archives of Biochemistry and Biophysics</i> , 2021 , 715, 109100	4.1	0
118	Flavins 2021 , 1-5		
117	Rapid subcellular calcium responses and dynamics by calcium sensor G-CatchER. <i>iScience</i> , 2021 , 24, 102139	3.9	4
116	Flavoprotein Oxidases 2021 , 225-244		0
115	A Single-Point Mutation in d-Arginine Dehydrogenase Unlocks a Transient Conformational State Resulting in Altered Cofactor Reactivity. <i>Biochemistry</i> , 2021 , 60, 711-724	3.2	4
114	Ionic Atmosphere Effect on the Absorption Spectrum of a Flavoprotein: A Reminder to Consider Solution Ions. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 8384-8396	6.4	1
113	Tuning Protein Dynamics to Sense Rapid Endoplasmic-Reticulum Calcium Dynamics. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 23289-23298	16.4	0
112	Tuning Protein Dynamics to Sense Rapid Endoplasmic-Reticulum Calcium Dynamics. <i>Angewandte Chemie</i> , 2021 , 133, 23477	3.6	0
111	Kinetic and Bioinformatic Characterization of d-2-Hydroxyglutarate Dehydrogenase from PAO1. <i>Biochemistry</i> , 2020 , 59, 4833-4844	3.2	0
110	Choline oxidases. <i>The Enzymes</i> , 2020 , 47, 137-166	2.3	4
109	Kinetic solvent viscosity effects reveal a protein isomerization in the reductive half-reaction of <i>Neurospora crassa</i> class II nitronate monooxygenase. <i>Archives of Biochemistry and Biophysics</i> , 2020 , 695, 108625	4.1	2
108	A Metastable Photoinduced Protein-Flavin Adduct in Choline Oxidase, an Enzyme Not Involved in Light-Dependent Processes. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 3936-3943	3.4	4
107	Kinetic Investigation of a Presumed Nitronate Monooxygenase from <i>Pseudomonas aeruginosa</i> PAO1 Establishes a New Class of NAD(P)H:Quinone Reductases. <i>Biochemistry</i> , 2019 , 58, 2594-2607	3.2	2
106	Fluorescence Properties of Flavin Semiquinone Radicals in Nitronate Monooxygenase. <i>ChemBioChem</i> , 2019 , 20, 1646-1652	3.8	13
105	Characterization of conserved active site residues in class I nitronate monooxygenase. <i>Archives of Biochemistry and Biophysics</i> , 2019 , 672, 108058	4.1	5
104	On the use of noncompetitive kinetic isotope effects to investigate flavoenzyme mechanism. <i>Methods in Enzymology</i> , 2019 , 620, 115-143	1.7	1
103	Steric hindrance controls pyridine nucleotide specificity of a flavin-dependent NADH:quinone oxidoreductase. <i>Protein Science</i> , 2019 , 28, 167-175	6.3	4

102	Mechanistic studies of formate oxidase from <i>Aspergillus oryzae</i> : A novel member of the glucose-Methanol-choline oxidoreductase enzyme superfamily that oxidizes carbon acids. <i>Archives of Biochemistry and Biophysics</i> , 2018 , 643, 24-31	4.1	11
101	Stepwise Hydrogen Atom and Proton Transfers in Dioxygen Reduction by Aryl-Alcohol Oxidase. <i>Biochemistry</i> , 2018 , 57, 1790-1797	3.2	9
100	Crystal structure of yeast nitronate monooxygenase from <i>Cyberlindnera saturnus</i> . <i>Proteins: Structure, Function and Bioinformatics</i> , 2018 , 86, 599-605	4.2	7
99	Same Substrate, Many Reactions: Oxygen Activation in Flavoenzymes. <i>Chemical Reviews</i> , 2018 , 118, 17423-17691	3.7	185
98	Kinetic Characterization of PA1225 from <i>Pseudomonas aeruginosa</i> PAO1 Reveals a New NADPH:Quinone Reductase. <i>Biochemistry</i> , 2018 , 57, 3050-3058	3.2	5
97	Kinetic Solvent Viscosity Effects as Probes for Studying the Mechanisms of Enzyme Action. <i>Biochemistry</i> , 2018 , 57, 3445-3453	3.2	29
96	Structural determinants for substrate specificity of flavoenzymes oxidizing d-amino acids. <i>Archives of Biochemistry and Biophysics</i> , 2018 , 660, 87-96	4.1	5
95	Photoirradiation Generates an Ultrastable 8-Formyl FAD Semiquinone Radical with Unusual Properties in Formate Oxidase. <i>Biochemistry</i> , 2018 , 57, 5818-5826	3.2	11
94	Preclinical Development of a Nontoxic Oral Formulation of Monoethanolamine, a Lipid Precursor, for Prostate Cancer Treatment. <i>Clinical Cancer Research</i> , 2017 , 23, 3781-3793	12.9	4
93	Importance of Loop L1 Dynamics for Substrate Capture and Catalysis in <i>Pseudomonas aeruginosa</i> d-Arginine Dehydrogenase. <i>Biochemistry</i> , 2017 , 56, 2477-2487	3.2	13
92	Amine oxidation by d-arginine dehydrogenase in <i>Pseudomonas aeruginosa</i> . <i>Archives of Biochemistry and Biophysics</i> , 2017 , 632, 192-201	4.1	6
91	Evidence for proton tunneling and a transient covalent flavin-substrate adduct in choline oxidase S101A. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2017 , 1865, 1470-1478	4	3
90	Substitutions of S101 decrease proton and hydride transfers in the oxidation of betaine aldehyde by choline oxidase. <i>Archives of Biochemistry and Biophysics</i> , 2017 , 634, 76-82	4.1	3
89	A Reversible, Charge-Induced Intramolecular C4a-S-Cysteiny-Flavin in Choline Oxidase Variant S101C. <i>Biochemistry</i> , 2017 , 56, 6677-6690	3.2	6
88	Enzyme-Mediated Conversion of Flavin Adenine Dinucleotide (FAD) to 8-Formyl FAD in Formate Oxidase Results in a Modified Cofactor with Enhanced Catalytic Properties. <i>Biochemistry</i> , 2017 , 56, 3800-3807	3.3	21
87	Functional Annotation of a Presumed Nitronate Monooxygenase Reveals a New Class of NADH:Quinone Reductases. <i>Journal of Biological Chemistry</i> , 2016 , 291, 21160-21170	5.4	14
86	In vitro heme biotransformation by the HupZ enzyme from Group A streptococcus. <i>BioMetals</i> , 2016 , 29, 593-609	3.4	9
85	Role of F357 as an Oxygen Gate in the Oxidative Half-Reaction of Choline Oxidase. <i>Biochemistry</i> , 2016 , 55, 1473-84	3.2	8

84	Conserved Hydration Sites in Pin1 Reveal a Distinctive Water Recognition Motif in Proteins. <i>Journal of Chemical Information and Modeling</i> , 2016 , 56, 139-47	6.1	4
83	Solvent-Slaved Motions in the Hydride Tunneling Reaction Catalyzed by Human Glycolate Oxidase. <i>ACS Catalysis</i> , 2016 , 6, 2113-2120	13.1	8
82	<i>Pseudomonas aeruginosa</i> LysR PA4203 regulator NmoR acts as a repressor of the PA4202 nmoA gene, encoding a nitronate monooxygenase. <i>Journal of Bacteriology</i> , 2015 , 197, 1026-39	3.5	6
81	Identification of the catalytic base for alcohol activation in choline oxidase. <i>Biochemistry</i> , 2015 , 54, 413-23	12	14
80	Importance of glutamate 87 and the substrate lysine for the reaction catalyzed by D-arginine dehydrogenase. <i>Archives of Biochemistry and Biophysics</i> , 2015 , 568, 56-63	4.1	5
79	Structure of choline oxidase in complex with the reaction product glycine betaine. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2014 , 70, 405-13		26
78	Alcohol oxidation by flavoenzymes. <i>Biomolecular Concepts</i> , 2014 , 5, 299-318	3.7	32
77	Mechanistic and computational studies of the reductive half-reaction of tyrosine to phenylalanine active site variants of D-arginine dehydrogenase. <i>Biochemistry</i> , 2014 , 53, 6574-83	3.2	10
76	The combined structural and kinetic characterization of a bacterial nitronate monooxygenase from <i>Pseudomonas aeruginosa</i> PAO1 establishes NMO class I and II. <i>Journal of Biological Chemistry</i> , 2014 , 289, 23764-75	5.4	30
75	Human choline dehydrogenase: medical promises and biochemical challenges. <i>Archives of Biochemistry and Biophysics</i> , 2013 , 537, 243-52	4.1	26
74	Pathway of glycine betaine biosynthesis in <i>Aspergillus fumigatus</i> . <i>Eukaryotic Cell</i> , 2013 , 12, 853-63		27
73	Kinetics of heme transfer by the Shr NEAT domains of Group A Streptococcus. <i>Archives of Biochemistry and Biophysics</i> , 2013 , 538, 71-9	4.1	16
72	Relative timing of hydrogen and proton transfers in the reaction of flavin oxidation catalyzed by choline oxidase. <i>Biochemistry</i> , 2013 , 52, 1221-6	3.2	19
71	Solvent isotope and viscosity effects on the steady-state kinetics of the flavoprotein nitroalkane oxidase. <i>FEBS Letters</i> , 2013 , 587, 2785-9	3.8	14
70	Evidence for a transient peroxy-nitro acid in the reaction catalyzed by nitronate monooxygenase with propionate 3-nitronate. <i>Biochemistry</i> , 2013 , 52, 2694-704	3.2	23
69	The COMBREX project: design, methodology, and initial results. <i>PLoS Biology</i> , 2013 , 11, e1001638	9.7	47
68	The biochemistry of the metabolic poison propionate 3-nitronate and its conjugate acid, 3-nitropropionate. <i>IUBMB Life</i> , 2013 , 65, 759-68	4.7	47
67	Design and Application of a Class of Sensors to Monitor Ca ²⁺ Dynamics in High Ca ²⁺ Concentration Cellular Compartments. <i>Biophysical Journal</i> , 2012 , 102, 312a	2.9	

66	A novel activity for fungal nitronate monooxygenase: detoxification of the metabolic inhibitor propionate-3-nitronate. <i>Archives of Biochemistry and Biophysics</i> , 2012 , 521, 84-9	4.1	14
65	Oxygen activation in flavoprotein oxidases: the importance of being positive. <i>Biochemistry</i> , 2012 , 51, 2662-9	3.2	91
64	Guidelines for the Functional Analysis of Engineered and Mutant Enzymes 2011 , 1-13		
63	Importance of a serine proximal to the C(4a) and N(5) flavin atoms for hydride transfer in choline oxidase. <i>Biochemistry</i> , 2011 , 50, 770-9	3.2	14
62	Stabilization of an intermediate in the oxidative half-reaction of human liver glycolate oxidase. <i>Biochemistry</i> , 2011 , 50, 1-3	3.2	25
61	Atomic-resolution structure of an N5 flavin adduct in D-arginine dehydrogenase. <i>Biochemistry</i> , 2011 , 50, 6292-4	3.2	10
60	Insights on the mechanism of amine oxidation catalyzed by D-arginine dehydrogenase through pH and kinetic isotope effects. <i>Journal of the American Chemical Society</i> , 2011 , 133, 18957-65	16.4	15
59	Design and application of a class of sensors to monitor Ca ²⁺ dynamics in high Ca ²⁺ concentration cellular compartments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 16265-70	11.5	82
58	Role of asparagine 510 in the relative timing of substrate bond cleavages in the reaction catalyzed by choline oxidase. <i>Biochemistry</i> , 2010 , 49, 2483-90	3.2	19
57	Role of valine 464 in the flavin oxidation reaction catalyzed by choline oxidase. <i>Biochemistry</i> , 2010 , 49, 2952-61	3.2	31
56	Steady-state kinetic mechanism and reductive half-reaction of D-arginine dehydrogenase from <i>Pseudomonas aeruginosa</i> . <i>Biochemistry</i> , 2010 , 49, 9542-50	3.2	21
55	Nitronate monooxygenase, a model for anionic flavin semiquinone intermediates in oxidative catalysis. <i>Archives of Biochemistry and Biophysics</i> , 2010 , 493, 53-61	4.1	55
54	Rescuing of the hydride transfer reaction in the Glu312Asp variant of choline oxidase by a substrate analogue. <i>Archives of Biochemistry and Biophysics</i> , 2010 , 499, 1-5	4.1	9
53	Structural and kinetic studies on the Ser101Ala variant of choline oxidase: catalysis by compromise. <i>Archives of Biochemistry and Biophysics</i> , 2010 , 501, 207-13	4.1	19
52	Conformational changes and substrate recognition in <i>Pseudomonas aeruginosa</i> D-arginine dehydrogenase. <i>Biochemistry</i> , 2010 , 49, 8535-45	3.2	23
51	Involvement of ionizable groups in catalysis of human liver glycolate oxidase. <i>Journal of Biological Chemistry</i> , 2009 , 284, 31214-22	5.4	11
50	Contribution of flavin covalent linkage with histidine 99 to the reaction catalyzed by choline oxidase. <i>Journal of Biological Chemistry</i> , 2009 , 284, 16990-16997	5.4	20
49	The chemistry of escapin: identification and quantification of the components in the complex mixture generated by an L-amino acid oxidase in the defensive secretion of the sea snail <i>Aplysia californica</i> . <i>Chemistry - A European Journal</i> , 2009 , 15, 1597-603	4.8	28

48	Kinetic evidence for an anion binding pocket in the active site of nitronate monooxygenase. <i>Bioorganic Chemistry</i> , 2009 , 37, 167-72	5.1	7
47	Inflated kinetic isotope effects in the branched mechanism of <i>Neurospora crassa</i> 2-nitropropane dioxygenase. <i>Biochemistry</i> , 2009 , 48, 2403-10	3.2	10
46	Designing protease sensors for real-time imaging of trypsin activation in pancreatic cancer cells. <i>Biochemistry</i> , 2009 , 48, 3519-26	3.2	26
45	Crystallographic, spectroscopic, and computational analysis of a flavin C4a-oxygen adduct in choline oxidase. <i>Biochemistry</i> , 2009 , 48, 720-8	3.2	53
44	The cluster of hydrophobic residues controls the entrance to the active site of choline oxidase. <i>Biochemistry</i> , 2009 , 48, 9599-605	3.2	24
43	A pH switch affects the steady-state kinetic mechanism of pyranose 2-oxidase from <i>Trametes ochracea</i> . <i>Archives of Biochemistry and Biophysics</i> , 2009 , 483, 10-5	4.1	7
42	Effect of a conservative mutation of an active site residue involved in substrate binding on the hydride tunneling reaction catalyzed by choline oxidase. <i>Archives of Biochemistry and Biophysics</i> , 2009 , 489, 10-4	4.1	19
41	Substitution of an active site valine uncovers a kinetically slow equilibrium between competent and incompetent forms of choline oxidase. <i>Biochemistry</i> , 2008 , 47, 13850-61	3.2	16
40	Hydride transfer made easy in the reaction of alcohol oxidation catalyzed by flavin-dependent oxidases. <i>Biochemistry</i> , 2008 , 47, 13745-53	3.2	65
39	Oxidation of alkyl nitronates catalyzed by 2-nitropropane dioxygenase from <i>Hansenula mrakii</i> . <i>Archives of Biochemistry and Biophysics</i> , 2008 , 473, 61-8	4.1	16
38	Role of Glu312 in binding and positioning of the substrate for the hydride transfer reaction in choline oxidase. <i>Biochemistry</i> , 2008 , 47, 243-56	3.2	74
37	On the role of histidine 351 in the reaction of alcohol oxidation catalyzed by choline oxidase. <i>Biochemistry</i> , 2008 , 47, 6762-9	3.2	32
36	The nonoxidative conversion of nitroethane to ethylnitronate in <i>Neurospora crassa</i> 2-nitropropane dioxygenase is catalyzed by histidine 196. <i>Biochemistry</i> , 2008 , 47, 9136-44	3.2	14
35	Effect of salt and pH on the reductive half-reaction of <i>Mycobacterium tuberculosis</i> FprA with NADPH. <i>Biochemistry</i> , 2008 , 47, 3418-25	3.2	4
34	An internal equilibrium preorganizes the enzyme-substrate complex for hydride tunneling in choline oxidase. <i>Biochemistry</i> , 2007 , 46, 6402-8	3.2	33
33	Developing sensors for real-time measurement of high Ca ²⁺ concentrations. <i>Biochemistry</i> , 2007 , 46, 12275-88	3.2	39
32	Mala s 12 is a major allergen in patients with atopic eczema and has sequence similarities to the GMC oxidoreductase family. <i>Allergy: European Journal of Allergy and Clinical Immunology</i> , 2007 , 62, 695-703	7.3	16
31	Trapping choline oxidase in a nonfunctional conformation by freezing at low pH. <i>Proteins: Structure, Function and Bioinformatics</i> , 2007 , 66, 611-20	4.2	9

30	Mechanistic studies of choline oxidase with betaine aldehyde and its isosteric analogue 3,3-dimethylbutyraldehyde. <i>Biochemistry</i> , 2006 , 45, 1979-86	3.2	44
29	Probing the chemical steps of nitroalkane oxidation catalyzed by 2-nitropropane dioxygenase with solvent viscosity, pH, and substrate kinetic isotope effects. <i>Biochemistry</i> , 2006 , 45, 13889-98	3.2	18
28	Effects of reversing the protein positive charge in the proximity of the flavin N(1) locus of choline oxidase. <i>Biochemistry</i> , 2006 , 45, 3437-47	3.2	43
27	On the contribution of the positively charged headgroup of choline to substrate binding and catalysis in the reaction catalyzed by choline oxidase. <i>Archives of Biochemistry and Biophysics</i> , 2006 , 451, 182-7	4.1	26
26	On the catalytic role of the conserved active site residue His466 of choline oxidase. <i>Biochemistry</i> , 2005 , 44, 893-904	3.2	74
25	Oxygen- and temperature-dependent kinetic isotope effects in choline oxidase: correlating reversible hydride transfer with environmentally enhanced tunneling. <i>Journal of the American Chemical Society</i> , 2005 , 127, 17954-61	16.4	48
24	On the catalytic mechanism of choline oxidase. <i>Journal of the American Chemical Society</i> , 2005 , 127, 2067-74	7.4	103
23	Involvement of a flavosemiquinone in the enzymatic oxidation of nitroalkanes catalyzed by 2-nitropropane dioxygenase. <i>Journal of Biological Chemistry</i> , 2005 , 280, 5195-204	5.4	39
22	Cloning, sequence analysis, and purification of choline oxidase from <i>Arthrobacter globiformis</i> : a bacterial enzyme involved in osmotic stress tolerance. <i>Archives of Biochemistry and Biophysics</i> , 2004 , 421, 149-58	4.1	61
21	The trimethylammonium headgroup of choline is a major determinant for substrate binding and specificity in choline oxidase. <i>Archives of Biochemistry and Biophysics</i> , 2004 , 430, 264-73	4.1	39
20	Cloning, expression, and purification of choline dehydrogenase from the moderate halophile <i>Halomonas elongata</i> . <i>Applied and Environmental Microbiology</i> , 2003 , 69, 2126-32	4.8	40
19	Kinetic mechanism of choline oxidase from <i>Arthrobacter globiformis</i> . <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2003 , 1646, 112-8	4	40
18	pH and deuterium kinetic isotope effects studies on the oxidation of choline to betaine-aldehyde catalyzed by choline oxidase. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2003 , 1650, 4-9	4	35
17	Spectroscopic and kinetic properties of recombinant choline oxidase from <i>Arthrobacter globiformis</i> . <i>Biochemistry</i> , 2003 , 42, 15179-88	3.2	47
16	Cloning of nitroalkane oxidase from <i>Fusarium oxysporum</i> identifies a new member of the acyl-CoA dehydrogenase superfamily. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002 , 99, 2702-7	11.5	33
15	Evidence for an essential arginine in the flavoprotein nitroalkane oxidase. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2001 , 16, 157-63		3
14	Identification of a cysteine residue in the active site of nitroalkane oxidase by modification with N-ethylmaleimide. <i>Journal of Biological Chemistry</i> , 2000 , 275, 31891-5	5.4	12
13	Use of pH and kinetic isotope effects to dissect the effects of substrate size on binding and catalysis by nitroalkane oxidase. <i>Archives of Biochemistry and Biophysics</i> , 2000 , 382, 138-44	4.1	29

12	Iso-mechanism of nitroalkane oxidase: 1. Inhibition studies and activation by imidazole. <i>Biochemistry</i> , 2000 , 39, 1400-5	3.2	20
11	Identification of an essential tyrosine residue in nitroalkane oxidase by modification with tetranitromethane. <i>Biochemistry</i> , 2000 , 39, 1162-8	3.2	12
10	Mechanism of nitroalkane oxidase: 2. pH and kinetic isotope effects. <i>Biochemistry</i> , 2000 , 39, 1406-10	3.2	26
9	Characterization of 2-oxo-3-pentynoate as an active-site-directed inactivator of flavoprotein oxidases: identification of active-site peptides in tryptophan 2-monoxygenase. <i>Biochemistry</i> , 1999 , 38, 5822-8	3.2	8
8	Substrate specificity of a nitroalkane-oxidizing enzyme. <i>Archives of Biochemistry and Biophysics</i> , 1999 , 363, 309-13	4.1	37
7	Biochemical and physical characterization of the active FAD-containing form of nitroalkane oxidase from <i>Fusarium oxysporum</i> . <i>Biochemistry</i> , 1998 , 37, 6154-64	3.2	45
6	Identification of the naturally occurring flavin of nitroalkane oxidase from <i>Fusarium oxysporum</i> as a 5-nitrobutyl-FAD and conversion of the enzyme to the active FAD-containing form. <i>Journal of Biological Chemistry</i> , 1997 , 272, 5563-70	5.4	50
5	Identification of Native Flavin Adducts from <i>Fusarium oxysporum</i> Using Accurate Mass Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry. <i>Analytical Chemistry</i> , 1997 , 69, 2862-2865	7.8	13
4	Characterization of cholesterol oxidase from <i>Streptomyces hygroscopicus</i> and <i>Brevibacterium sterolicum</i> . <i>FEBS Journal</i> , 1997 , 250, 369-76		62
3	Reactivity of histidyl residues in D-amino acid oxidase from <i>Rhodotorula gracilis</i> . <i>FEBS Letters</i> , 1995 , 363, 307-10	3.8	2
2	Identification of Lys116 as the target of N-ethylmaleimide inactivation of ferredoxin:NADP ⁺ oxidoreductase. <i>FEBS Journal</i> , 1991 , 198, 21-4		14
1	Flavin Coenzymes ² , 1-10		