Dennis J Stuehr

List of Publications by Citations

229 papers	15,717 citations	68 h-index	118 g-index
235 ext. papers	16,698 ext. citations	6 avg, IF	6.4 L-index

#	Paper	IF	Citations
229	Function of mitochondrial Stat3 in cellular respiration. *Science*, **2009**, 323, 793-7	33.3	702
228	Mammalian nitric oxide synthases. *Biochimica Et Biophysica Acta - Bioenergetics*, **1999**, 1411, 217-30	4.6	694
227	Structure of nitric oxide synthase oxygenase dimer with pterin and substrate. *Science*, **1998**, 279, 2121-6	33.3	624
226	Structure-function aspects in the nitric oxide synthases. *Annual Review of Pharmacology and Toxicology*, **1997**, 37, 339-59	17.9	434
225	Inhibition of macrophage and endothelial cell nitric oxide synthase by diphenyleneiodonium and its analogs. *FASEB Journal*, **1991**, 5, 98-103	0.9	415
224	Update on mechanism and catalytic regulation in the NO synthases. *Journal of Biological Chemistry*, **2004**, 279, 36167-70	5.4	383
223	The structure of nitric oxide synthase oxygenase domain and inhibitor complexes. *Science*, **1997**, 278, 425-31	33.3	321
222	Oxygen reduction by nitric-oxide synthases. *Journal of Biological Chemistry*, **2001**, 276, 14533-6	5.4	312
221	Alterations of cellular bioenergetics in pulmonary artery endothelial cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 1342-7	11.5	284
220	Macrophage and endothelial cell nitric oxide synthesis: cell-type selective inhibition by NG-aminoarginine, NG-nitroarginine and NG-methylarginine. *Biochemical and Biophysical Research Communications*, **1990**, 170, 96-103	3.4	253
219	Structural basis for isozyme-specific regulation of electron transfer in nitric-oxide synthase. *Journal of Biological Chemistry*, **2004**, 279, 37918-27	5.4	226
218	Multiple cytokines are required to induce hepatocyte nitric oxide production and inhibit total protein synthesis. *Annals of Surgery*, **1990**, 212, 462-9; discussion 470-1	7.8	216
217	Nitrosation of amines by stimulated macrophages. *Carcinogenesis*, **1987**, 8, 955-8	4.6	212
216	Nitric oxide and nitric oxide-generating compounds inhibit hepatocyte protein synthesis. *FASEB Journal*, **1991**, 5, 2085-92	0.9	198
215	Arginine conversion to nitroxide by tetrahydrobiopterin-free neuronal nitric-oxide synthase. Implications for mechanism. *Journal of Biological Chemistry*, **2000**, 275, 33554-61	5.4	188
214	Protein tyrosine nitration in the mitochondria from diabetic mouse heart. Implications to dysfunctional mitochondria in diabetes. *Journal of Biological Chemistry*, **2003**, 278, 33972-7	5.4	186
213	FAD and GSH participate in macrophage synthesis of nitric oxide. *Biochemical and Biophysical Research Communications*, **1990**, 168, 558-65	3.4	170

212	Substrate specificity of NO synthases: detailed comparison of L-arginine, homo-L-arginine, their N omega-hydroxy derivatives, and N omega-hydroxynor-L-arginine. *Biochemistry*, **1998**, 37, 10453-60	3.2	169
211	Tetrahydrobiopterin radical enzymology. *Chemical Reviews*, **2003**, 103, 2365-83	68.1	162
210	Novel mechanism of activation of NADPH oxidase 5. calcium sensitization via phosphorylation. *Journal of Biological Chemistry*, **2007**, 282, 6494-507	5.4	160
209	Anchored plasticity opens doors for selective inhibitor design in nitric oxide synthase. *Nature Chemical Biology*, **2008**, 4, 700-7	11.7	156
208	Occurrence, structure, and evolution of nitric oxide synthase-like proteins in the plant kingdom. *Science Signaling*, **2016**, 9, re2	8.8	155
207	Neuronal nitric oxide synthase self-inactivates by forming a ferrous-nitrosyl complex during aerobic catalysis. *Journal of Biological Chemistry*, **1995**, 270, 22997-3006	5.4	152
206	Domain swapping in inducible nitric-oxide synthase. Electron transfer occurs between flavin and heme groups located on adjacent subunits in the dimer. *Journal of Biological Chemistry*, **1998**, 273, 18950-8	5.4	150
205	Comparative functioning of dihydro- and tetrahydropterins in supporting electron transfer, catalysis, and subunit dimerization in inducible nitric oxide synthase. *Biochemistry*, **1998**, 37, 298-310	3.2	149
204	Characterization of the inducible nitric oxide synthase oxygenase domain identifies a 49 amino acid segment required for subunit dimerization and tetrahydrobiopterin interaction. *Biochemistry*, **1997**, 36, 10609-19	3.2	147
203	Direct evidence for nitric oxide production by a nitric-oxide synthase-like protein from Bacillus subtilis. *Journal of Biological Chemistry*, **2002**, 277, 16167-71	5.4	144
202	Intracellular assembly of inducible NO synthase is limited by nitric oxide-mediated changes in heme insertion and availability. *Journal of Biological Chemistry*, **1996**, 271, 5414-21	5.4	144
201	Rapid and selective oxygen-regulated protein tyrosine denitration and nitration in mitochondria. *Journal of Biological Chemistry*, **2004**, 279, 27257-62	5.4	142
200	Dynamics of protein nitration in cells and mitochondria. *American Journal of Physiology - Heart and Circulatory Physiology*, **2004**, 286, H30-8	5.2	134
199	Structures of the N(omega)-hydroxy-L-arginine complex of inducible nitric oxide synthase oxygenase dimer with active and inactive pterins. *Biochemistry*, **2000**, 39, 4608-21	3.2	132
198	Irreversible inactivation of macrophage and brain nitric oxide synthase by L-NG-methylarginine requires NADPH-dependent hydroxylation. *Journal of Medicinal Chemistry*, **1993**, 36, 491-6	8.3	124
197	Characterization of the reductase domain of rat neuronal nitric oxide synthase generated in the methylotrophic yeast Pichia pastoris. Calmodulin response is complete within the reductase domain itself. *Journal of Biological Chemistry*, **1996**, 271, 20594-602	5.4	123
196	Synthesis of nitrogen oxides from L-arginine by macrophage cytosol: requirement for inducible and constitutive components. *Biochemical and Biophysical Research Communications*, **1989**, 161, 420-6	3.4	123
195	Cloning, expression, and characterization of a nitric oxide synthase protein from Deinococcus radiodurans. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 107-12	11.5	118

194	Bacterial nitric-oxide synthases operate without a dedicated redox partner. *Journal of Biological Chemistry*, **2008**, 283, 13140-7	5.4	116
193	Stopped-flow analysis of CO and NO binding to inducible nitric oxide synthase. *Biochemistry*, **1998**, 37, 3777-86	3.2	116
192	The ferrous-dioxy complex of neuronal nitric oxide synthase. Divergent effects of L-arginine and tetrahydrobiopterin on its stability. *Journal of Biological Chemistry*, **1997**, 272, 17349-53	5.4	115
191	Enzymes of the L-arginine to nitric oxide pathway. *Journal of Nutrition*, **2004**, 134, 2748S-2751S; discussion 2765S-2767S	4.1	115
190	Structure of a nitric oxide synthase heme protein from Bacillus subtilis. *Biochemistry*, **2002**, 41, 11071-9	3.2	114
189	Interaction between caveolin-1 and the reductase domain of endothelial nitric-oxide synthase. Consequences for catalysis. *Journal of Biological Chemistry*, **1998**, 273, 22267-71	5.4	114
188	Rapid kinetic studies link tetrahydrobiopterin radical formation to heme-dioxy reduction and arginine hydroxylation in inducible nitric-oxide synthase. *Journal of Biological Chemistry*, **2001**, 276, 315-9	5.4	108
187	Nitric oxide binding to the heme of neuronal nitric-oxide synthase links its activity to changes in oxygen tension. *Journal of Biological Chemistry*, **1996**, 271, 32515-8	5.4	106
186	Tetrahydrobiopterin binding to macrophage inducible nitric oxide synthase: heme spin shift and dimer stabilization by the potent pterin antagonist 4-amino-tetrahydrobiopterin. *Biochemistry*, **1997**, 36, 8422-7	3.2	105
185	Comparative Effects of Substrates and Pterin Cofactor on the Heme Midpoint Potential in Inducible and Neuronal Nitric Oxide Synthases. *Journal of the American Chemical Society*, **1998**, 120, 9460-9465	16.4	103
184	Distinct dimer interaction and regulation in nitric-oxide synthase types I, II, and III. *Journal of Biological Chemistry*, **2002**, 277, 31020-30	5.4	101
183	Structural and mechanistic aspects of flavoproteins: electron transfer through the nitric oxide synthase flavoprotein domain. *FEBS Journal*, **2009**, 276, 3959-74	5.7	100
182	Abnormalities in nitric oxide and its derivatives in lung cancer. *American Journal of Respiratory and Critical Care Medicine*, **2005**, 172, 597-605	10.2	94
181	N-terminal domain swapping and metal ion binding in nitric oxide synthase dimerization. *EMBO Journal*, **1999**, 18, 6271-81	13	94
180	Differences in three kinetic parameters underpin the unique catalytic profiles of nitric-oxide synthases I, II, and III. *Journal of Biological Chemistry*, **2001**, 276, 48887-98	5.4	93
179	GAPDH regulates cellular heme insertion into inducible nitric oxide synthase. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 18004-9	11.5	92
178	Calmodulin activates intersubunit electron transfer in the neuronal nitric-oxide synthase dimer. *Journal of Biological Chemistry*, **2001**, 276, 23349-56	5.4	92
177	Neuronal nitric-oxide synthase mutant (Ser-1412 --> Asp) demonstrates surprising connections between heme reduction, NO complex formation, and catalysis. *Journal of Biological Chemistry*, **2001**, 276, 1244-52	5.4	89

176	High-level expression of mouse inducible nitric oxide synthase in Escherichia coli requires coexpression with calmodulin. *Biochemical and Biophysical Research Communications*, **1996**, 222, 439-44	3.4	89
175	Evidence that light modulates protein nitration in rat retina. *Molecular and Cellular Proteomics*, **2002**, 1, 293-303	7.6	87
174	Electron transfer, oxygen binding, and nitric oxide feedback inhibition in endothelial nitric-oxide synthase. *Journal of Biological Chemistry*, **2000**, 275, 17349-57	5.4	85
173	Mechanistic studies with potent and selective inducible nitric-oxide synthase dimerization inhibitors. *Journal of Biological Chemistry*, **2002**, 277, 295-302	5.4	81
172	Interactions between substrate analogues and heme ligands in nitric oxide synthase. *Biochemistry*, **1997**, 36, 4595-606	3.2	80
171	A tetrahydrobiopterin radical forms and then becomes reduced during Nomega-hydroxyarginine oxidation by nitric-oxide synthase. *Journal of Biological Chemistry*, **2003**, 278, 46668-73	5.4	78
170	Identification of nitric oxide synthase as a thiolate-ligated heme protein using magnetic circular dichroism spectroscopy. Comparison with cytochrome P-450-CAM and chloroperoxidase. *Journal of Biological Chemistry*, **1995**, 270, 19943-8	5.4	77
169	Heme iron reduction and catalysis by a nitric oxide synthase heterodimer containing one reductase and two oxygenase domains. *Journal of Biological Chemistry*, **1996**, 271, 7309-12	5.4	77
168	A kinetic simulation model that describes catalysis and regulation in nitric-oxide synthase. *Journal of Biological Chemistry*, **2001**, 276, 1233-43	5.4	76
167	Antifungal imidazoles block assembly of inducible NO synthase into an active dimer. *Journal of Biological Chemistry*, **1999**, 274, 930-8	5.4	74
166	Peracid oxidation of an N-hydroxyguanidine compound: a chemical model for the oxidation of N omega-hydroxyl-L-arginine by nitric oxide synthase. *Journal of Medicinal Chemistry*, **1993**, 36, 2666-70	8.3	73
165	Mutagenesis of acidic residues in the oxygenase domain of inducible nitric-oxide synthase identifies a glutamate involved in arginine binding. *Biochemistry*, **1997**, 36, 5097-103	3.2	72
164	Role of reductase domain cluster 1 acidic residues in neuronal nitric-oxide synthase. Characterization of the FMN-FREE enzyme. *Journal of Biological Chemistry*, **1999**, 274, 22313-20	5.4	72
163	Generation of nitroxyl by heme protein-mediated peroxidation of hydroxylamine but not N-hydroxy-L-arginine. *Free Radical Biology and Medicine*, **2008**, 45, 578-84	7.8	69
162	NO synthase isozymes have distinct substrate binding sites. *Biochemistry*, **1997**, 36, 12660-5	3.2	68
161	Bacterial flavodoxins support nitric oxide production by Bacillus subtilis nitric-oxide synthase. *Journal of Biological Chemistry*, **2007**, 282, 2196-202	5.4	68
160	Analysis of neuronal NO synthase under single-turnover conditions: conversion of Nomega-hydroxyarginine to nitric oxide and citrulline. *Biochemistry*, **1997**, 36, 10811-6	3.2	67
159	Analysis of substrate-induced electronic, catalytic, and structural changes in inducible NO synthase. *Biochemistry*, **1996**, 35, 5883-92	3.2	67

158	Luminescent ruthenium(II)- and rhenium(I)-diimine wires bind nitric oxide synthase. *Journal of the American Chemical Society*, **2005**, 127, 5169-73	16.4	65
157	Formation and reactions of the heme-dioxygen intermediate in the first and second steps of nitric oxide synthesis as studied by stopped-flow spectroscopy under single-turnover conditions. *Biochemistry*, **2000**, 39, 2332-9	3.2	65
156	Regulation of inducible nitric oxide synthase by self-generated NO. *Biochemistry*, **2001**, 40, 6876-81	3.2	65
155	Substrate binding and calmodulin binding to endothelial nitric oxide synthase coregulate its enzymatic activity. *Nitric Oxide - Biology and Chemistry*, **1997**, 1, 74-87	5	64
154	Nitric oxide synthase enzymology in the 20 years after the Nobel Prize. *British Journal of Pharmacology*, **2019**, 176, 177-188	8.6	64
153	Inducible nitric oxide synthase: role of the N-terminal beta-hairpin hook and pterin-binding segment in dimerization and tetrahydrobiopterin interaction. *EMBO Journal*, **1999**, 18, 6260-70	13	61
152	Heme distortion modulated by ligand-protein interactions in inducible nitric-oxide synthase. *Journal of Biological Chemistry*, **2004**, 279, 26489-99	5.4	60
151	Catalytic reduction of a tetrahydrobiopterin radical within nitric-oxide synthase. *Journal of Biological Chemistry*, **2008**, 283, 11734-42	5.4	59
150	Protection of extraribosomal RPL13a by GAPDH and dysregulation by S-nitrosylation. *Molecular Cell*, **2012**, 47, 656-63	17.6	58
149	A connecting hinge represses the activity of endothelial nitric oxide synthase. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 9254-9	11.5	55
148	A DNA microarray study of nitric oxide-induced genes in mouse hepatocytes: implications for hepatic heme oxygenase-1 expression in ischemia/reperfusion. *Nitric Oxide - Biology and Chemistry*, **2002**, 7, 165-86	5	55
147	Neuronal nitric-oxide synthase interaction with calmodulin-troponin C chimeras. *Journal of Biological Chemistry*, **1998**, 273, 5451-4	5.4	55
146	A bipartite interaction between Hsp70 and CHIP regulates ubiquitination of chaperoned client proteins. *Structure*, **2015**, 23, 472-482	5.2	54
145	N-Aryl NPhydroxyguanidines, a new class of NO-donors after selective oxidation by nitric oxide synthases: structure-activity relationship. *Journal of Medicinal Chemistry*, **2002**, 45, 944-54	8.3	54
144	Tryptophan 409 controls the activity of neuronal nitric-oxide synthase by regulating nitric oxide feedback inhibition. *Journal of Biological Chemistry*, **1999**, 274, 26907-11	5.4	54
143	Glyceraldehyde-3-phosphate dehydrogenase is a chaperone that allocates labile heme in cells. *Journal of Biological Chemistry*, **2018**, 293, 14557-14568	5.4	53
142	Picosecond photoreduction of inducible nitric oxide synthase by rhenium(I)-diimine wires. *Journal of the American Chemical Society*, **2005**, 127, 15907-15	16.4	52
141	Surface charge interactions of the FMN module govern catalysis by nitric-oxide synthase. *Journal of Biological Chemistry*, **2006**, 281, 36819-27	5.4	51

140	Mutational analysis of the tetrahydrobiopterin-binding site in inducible nitric-oxide synthase. *Journal of Biological Chemistry*, **1999**, 274, 24100-12	5.4	51
139	Tetrahydrobiopterin in nitric oxide synthase. *IUBMB Life*, **2013**, 65, 358-65	4.7	50
138	Structure of tetrahydrobiopterin tunes its electron transfer to the heme-dioxy intermediate in nitric oxide synthase. *Biochemistry*, **2003**, 42, 1969-77	3.2	50
137	Superoxide generation mediated by 8-nitroguanosine, a highly redox-active nucleic acid derivative. *Biochemical and Biophysical Research Communications*, **2003**, 311, 300-6	3.4	50
136	Reconstitution of the second step in NO synthesis using the isolated oxygenase and reductase domains of macrophage NO synthase. *Biochemistry*, **1995**, 34, 11316-20	3.2	50
135	A conserved Val to Ile switch near the heme pocket of animal and bacterial nitric-oxide synthases helps determine their distinct catalytic profiles. *Journal of Biological Chemistry*, **2004**, 279, 19018-25	5.4	49
134	Regulation of FMN subdomain interactions and function in neuronal nitric oxide synthase. *Biochemistry*, **2009**, 48, 3864-76	3.2	48
133	The ferrous dioxygen complex of the oxygenase domain of neuronal nitric-oxide synthase. *Journal of Biological Chemistry*, **2000**, 275, 3201-5	5.4	48
132	Nitric oxide-generated P420 nitric oxide synthase: characterization and roles for tetrahydrobiopterin and substrate in protecting against or reversing the P420 conversion. *Biochemistry*, **1999**, 38, 1912-20	3.2	48
131	A conserved flavin-shielding residue regulates NO synthase electron transfer and nicotinamide coenzyme specificity. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 13516-21	11.5	47
130	Hsp90 interacts with inducible NO synthase client protein in its heme-free state and then drives heme insertion by an ATP-dependent process. *FASEB Journal*, **2011**, 25, 2049-60	0.9	46
129	Substrate- and isoform-specific dioxygen complexes of nitric oxide synthase. *Journal of the American Chemical Society*, **2007**, 129, 6943-51	16.4	46
128	Tyrosine nitration impairs mammalian aldolase A activity. *Molecular and Cellular Proteomics*, **2004**, 3, 548-57	7.6	46
127	Soluble guanylyl cyclase requires heat shock protein 90 for heme insertion during maturation of the NO-active enzyme. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 12998-3003	11.5	45
126	Heme binding properties of glyceraldehyde-3-phosphate dehydrogenase. *Biochemistry*, **2012**, 51, 8514-29	3.2	45
125	Differences in a conformational equilibrium distinguish catalysis by the endothelial and neuronal nitric-oxide synthase flavoproteins. *Journal of Biological Chemistry*, **2008**, 283, 19603-15	5.4	45
124	Molecular basis for hyperactivity in tryptophan 409 mutants of neuronal NO synthase. *Journal of Biological Chemistry*, **2000**, 275, 17434-9	5.4	45
123	Nitric oxide and heat shock protein 90 activate soluble guanylate cyclase by driving rapid change in its subunit interactions and heme content. *Journal of Biological Chemistry*, **2014**, 289, 15259-71	5.4	44

122	The FAD-shielding residue Phe1395 regulates neuronal nitric-oxide synthase catalysis by controlling NADP+ affinity and a conformational equilibrium within the flavoprotein domain. *Journal of Biological Chemistry*, **2004**, 279, 35412-25	5.4	44
121	Recognition of alpha-amino acids bearing various C=NOH functions by nitric oxide synthase and arginase involves very different structural determinants. *Biochemistry*, **2000**, 39, 8208-18	3.2	44
120	Regulation of the properties of the heme-NO complexes in nitric-oxide synthase by hydrogen bonding to the proximal cysteine. *Journal of Biological Chemistry*, **2001**, 276, 38280-8	5.4	42
119	Stabilization and characterization of a heme-oxy reaction intermediate in inducible nitric-oxide synthase. *Journal of Biological Chemistry*, **2008**, 283, 33498-507	5.4	40
118	The three nitric-oxide synthases differ in their kinetics of tetrahydrobiopterin radical formation, heme-dioxy reduction, and arginine hydroxylation. *Journal of Biological Chemistry*, **2005**, 280, 8929-35	5.4	40
117	EPR spectroscopic characterization of neuronal NO synthase. *Biochemistry*, **1996**, 35, 2804-10	3.2	39
116	A conserved tryptophan in nitric oxide synthase regulates heme-dioxy reduction by tetrahydrobiopterin. *Biochemistry*, **2001**, 40, 12819-25	3.2	38
115	Surface charges and regulation of FMN to heme electron transfer in nitric-oxide synthase. *Journal of Biological Chemistry*, **2010**, 285, 27232-27240	5.4	37
114	Chimeras of nitric-oxide synthase types I and III establish fundamental correlates between heme reduction, heme-NO complex formation, and catalytic activity. *Journal of Biological Chemistry*, **2001**, 276, 23246-52	5.4	36
113	Soluble guanylate cyclase as an alternative target for bronchodilator therapy in asthma. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E2355-62	11.5	36
112	C-terminal tail residue Arg1400 enables NADPH to regulate electron transfer in neuronal nitric-oxide synthase. *Journal of Biological Chemistry*, **2005**, 280, 39208-19	5.4	35
111	Single-molecule spectroscopy reveals how calmodulin activates NO synthase by controlling its conformational fluctuation dynamics. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 11835-40	11.5	34
110	Exploring the redox reactions between heme and tetrahydrobiopterin in the nitric oxide synthases. *Dalton Transactions*, **2005**, 3427-35	4.3	34
109	Nitric oxide blocks cellular heme insertion into a broad range of heme proteins. *Free Radical Biology and Medicine*, **2010**, 48, 1548-58	7.8	33
108	Resonance Raman study of Bacillus subtilis NO synthase-like protein: similarities and differences with mammalian NO synthases. *Biochemistry*, **2006**, 45, 1480-9	3.2	33
107	Cotransplantation with myeloid-derived suppressor cells protects cell transplants: a crucial role of inducible nitric oxide synthase. *Transplantation*, **2014**, 97, 740-7	1.8	31
106	Tyk2 tyrosine kinase expression is required for the maintenance of mitochondrial respiration in primary pro-B lymphocytes. *Molecular and Cellular Biology*, **2006**, 26, 8562-71	4.8	31
105	A proximal tryptophan in NO synthase controls activity by a novel mechanism. *Journal of Inorganic Biochemistry*, **2001**, 83, 301-8	4.2	31

104	Control of nitric oxide synthase dimer assembly by a heme-NO-dependent mechanism. *Biochemistry* , **2002**, 41, 4618-25	3.2	31
103	Structures of tetrahydrobiopterin binding-site mutants of inducible nitric oxide synthase oxygenase dimer and implicated roles of Trp457. *Biochemistry*, **2001**, 40, 12826-32	3.2	31
102	Glucose-modulated tyrosine nitration in beta cells: targets and consequences. *Archives of Biochemistry and Biophysics*, **2009**, 484, 221-31	4.1	30
101	Versatile regulation of neuronal nitric oxide synthase by specific regions of its C-terminal tail. *Biochemistry*, **2007**, 46, 14418-28	3.2	30
100	Why do nitric oxide synthases use tetrahydrobiopterin?. *Journal of Inorganic Biochemistry*, **2002**, 91, 618-24	4.1	30
99	Spectroscopic characterization of five- and six-coordinate ferrous-NO heme complexes. Evidence for heme Fe-proximal cysteinate bond cleavage in the ferrous-NO adducts of the Trp-409Tyr/Phe proximal environment mutants of neuronal nitric oxide synthase. *Biochemistry*, **2003**, 42, 2475-84	3.2	30
98	Phosphorylation inactivation of endothelial nitric oxide synthesis in pulmonary arterial hypertension. *American Journal of Physiology - Lung Cellular and Molecular Physiology*, **2016**, 310, L1199-205	5.8	29
97	A conserved tryptophan 457 modulates the kinetics and extent of N-hydroxy-L-arginine oxidation by inducible nitric-oxide synthase. *Journal of Biological Chemistry*, **2002**, 277, 12830-7	5.4	29
96	Hsp90 chaperones hemoglobin maturation in erythroid and nonerythroid cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E1117-E1126	11.5	27
95	A bridging interaction allows calmodulin to activate NO synthase through a bi-modal mechanism. *Journal of Biological Chemistry*, **2010**, 285, 25941-9	5.4	27
94	Activation of peroxynitrite by inducible nitric-oxide synthase: a direct source of nitrative stress. *Journal of Biological Chemistry*, **2007**, 282, 14101-12	5.4	27
93	Hydrogen sulfide and nitric oxide metabolites in the blood of free-ranging brown bears and their potential roles in hibernation. *Free Radical Biology and Medicine*, **2014**, 73, 349-57	7.8	26
92	Regulation of the monomer-dimer equilibrium in inducible nitric-oxide synthase by nitric oxide. *Journal of Biological Chemistry*, **2006**, 281, 8197-204	5.4	26
91	Purification and properties of nitric oxide synthases. *Methods in Enzymology*, **1996**, 268, 324-33	1.7	25
90	Ascorbate attenuates pulmonary emphysema by inhibiting tobacco smoke and Rtp801-triggered lung protein modification and proteolysis. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E4208-17	11.5	25
89	14-3-3 in Thoracic Aortic Aneurysms: Identification of a Novel Autoantigen in Large Vessel Vasculitis. *Arthritis and Rheumatology*, **2015**, 67, 1913-21	9.5	24
88	Role of arginine guanidinium moiety in nitric-oxide synthase mechanism of oxygen activation. *Journal of Biological Chemistry*, **2010**, 285, 7233-45	5.4	24
87	Neutralizing a surface charge on the FMN subdomain increases the activity of neuronal nitric-oxide synthase by enhancing the oxygen reactivity of the enzyme heme-nitric oxide complex. *Journal of Biological Chemistry*, **2009**, 284, 19237-47	5.4	23

86	Control of electron transfer and catalysis in neuronal nitric-oxide synthase (nNOS) by a hinge connecting its FMN and FAD-NADPH domains. *Journal of Biological Chemistry*, **2012**, 287, 30105-16	5.4	23
85	Characterization of the proximal ligand in the P420 form of inducible nitric oxide synthase. *Journal of the American Chemical Society*, **2009**, 131, 12186-92	16.4	22
84	Metabolic activation of the antitumor drug 5-(Aziridin-1-yl)-2,4-dinitrobenzamide (CB1954) by NO synthases. *Chemical Research in Toxicology*, **2008**, 21, 836-43	4	22
83	Oxidations of N(omega)-hydroxyarginine analogues and various N-hydroxyguanidines by NO synthase II: key role of tetrahydrobiopterin in the reaction mechanism and substrate selectivity. *Chemical Research in Toxicology*, **2001**, 14, 202-10	4	22
82	Reactivity of the flavin semiquinone of nitric oxide synthase in the oxygenation of arginine to NG-hydroxyarginine, the first step of nitric oxide synthesis. *Biochemical and Biophysical Research Communications*, **1998**, 250, 36-42	3.4	22
81	Mechanism of inducible nitric-oxide synthase dimerization inhibition by novel pyrimidine imidazoles. *Journal of Biological Chemistry*, **2013**, 288, 19685-97	5.4	21
80	Thioredoxin-1 regulates cellular heme insertion by controlling S-nitrosation of glyceraldehyde-3-phosphate dehydrogenase. *Journal of Biological Chemistry*, **2012**, 287, 16179-86	5.4	21
79	A tryptophan that modulates tetrahydrobiopterin-dependent electron transfer in nitric oxide synthase regulates enzyme catalysis by additional mechanisms. *Biochemistry*, **2005**, 44, 4676-90	3.2	21
78	Visualizing inducible nitric-oxide synthase in living cells with a heme-binding fluorescent inhibitor. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 10117-22	11.5	21
77	Synthesis and evaluation of new sulfur-containing L-arginine-derived inhibitors of nitric oxide synthase. *Journal of Medicinal Chemistry*, **1999**, 42, 1842-8	8.3	21
76	Synthesis of the L-arginine congener L-Indospicine and evaluation of its interaction with nitric oxide synthase. *Bioorganic and Medicinal Chemistry Letters*, **1996**, 6, 111-114	2.9	21
75	GAPDH delivers heme to soluble guanylyl cyclase. *Journal of Biological Chemistry*, **2020**, 295, 8145-8154	5.4	20
74	Fast ferrous heme-NO oxidation in nitric oxide synthases. *FEBS Journal*, **2009**, 276, 4505-14	5.7	20
73	Role of Asp1393 in catalysis, flavin reduction, NADP(H) binding, FAD thermodynamics, and regulation of the nNOS flavoprotein. *Biochemistry*, **2006**, 45, 12596-609	3.2	20
72	Distinct influence of N-terminal elements on neuronal nitric-oxide synthase structure and catalysis. *Journal of Biological Chemistry*, **2003**, 278, 37122-31	5.4	20
71	Novel insights in mammalian catalase heme maturation: effect of NO and thioredoxin-1. *Free Radical Biology and Medicine*, **2015**, 82, 105-13	7.8	19
70	Influence of heme-thiolate in shaping the catalytic properties of a bacterial nitric-oxide synthase. *Journal of Biological Chemistry*, **2011**, 286, 39224-35	5.4	19
69	How does a valine residue that modulates heme-NO binding kinetics in inducible NO synthase regulate enzyme catalysis?. *Journal of Inorganic Biochemistry*, **2010**, 104, 349-56	4.2	19

68	Excretory/secretory products from plerocercoids of Spirometra erinacei reduce iNOS and chemokine mRNA levels in peritoneal macrophages stimulated with cytokines and/or LPS. *Parasite Immunology*, **1997**, 19, 325-32	2.2	19
67	Dynamic regulation of the inducible nitric-oxide synthase by NO: comparison with the endothelial isoform. *Journal of Biological Chemistry*, **2004**, 279, 4358-65	5.4	19
66	Heat Shock Protein 90 Associates with the Per-Arnt-Sim Domain of Heme-free Soluble Guanylate Cyclase: IMplications for Enzyme Maturation. *Journal of Biological Chemistry*, **2015**, 290, 21615-28	5.4	18
65	Distinct conformational behaviors of four mammalian dual-flavin reductases (cytochrome P450 reductase, methionine synthase reductase, neuronal nitric oxide synthase, endothelial nitric oxide synthase) determine their unique catalytic profiles. *FEBS Journal*, **2014**, 281, 5325-40	5.7	18
64	Regulation of sGC via hsp90, Cellular Heme, sGC Agonists, and NO: New Pathways and Clinical Perspectives. *Antioxidants and Redox Signaling*, **2017**, 26, 182-190	8.4	17
63	A pivotal role for tryptophan 447 in enzymatic coupling of human endothelial nitric oxide synthase (eNOS): effects on tetrahydrobiopterin-dependent catalysis and eNOS dimerization. *Journal of Biological Chemistry*, **2013**, 288, 29836-45	5.4	17
62	A kinetic model linking protein conformational motions, interflavin electron transfer and electron flux through a dual-flavin enzyme-simulating the reductase activity of the endothelial and neuronal nitric oxide synthase flavoprotein domains. *FEBS Journal*, **2011**, 278, 4055-69	5.7	17
61	Glucose-mediated tyrosine nitration in adipocytes: targets and consequences. *Free Radical Biology and Medicine*, **2009**, 46, 884-92	7.8	17
60	A conserved aspartate (Asp-1393) regulates NADPH reduction of neuronal nitric-oxide synthase: implications for catalysis. *Journal of Biological Chemistry*, **2004**, 279, 18323-33	5.4	17
59	Nitric oxide from the inducible nitric oxide synthase (iNOS) increases the expression of cytochrome P450 2E1 in iNOS-null hepatocytes in the absence of inflammatory stimuli. *Archives of Biochemistry and Biophysics*, **2001**, 390, 287-94	4.1	17
58	Inhibitory effects of a series of 7-substituted-indazoles toward nitric oxide synthases: particular potency of 1H-indazole-7-carbonitrile. *Bioorganic and Medicinal Chemistry*, **2008**, 16, 5962-73	3.4	16
57	Radical reactions of nitric oxide synthases. *Biochemical Society Symposia*, **2004**, 39-49		16
56	Relationship between the structure of guanidines and N-hydroxyguanidines, their binding to inducible nitric oxide synthase (iNOS) and their iNOS-catalysed oxidation to NO. *FEBS Journal*, **2005**, 272, 3172-83	5.7	15
55	Mechanism and regulation of ferrous heme-nitric oxide (NO) oxidation in NO synthases. *Journal of Biological Chemistry*, **2019**, 294, 7904-7916	5.4	14
54	Charge-pairing interactions control the conformational setpoint and motions of the FMN domain in neuronal nitric oxide synthase. *Biochemical Journal*, **2013**, 450, 607-17	3.8	14
53	Thermodynamic characterization of five key kinetic parameters that define neuronal nitric oxide synthase catalysis. *FEBS Journal*, **2013**, 280, 4439-53	5.7	14
52	Lys842 in neuronal nitric-oxide synthase enables the autoinhibitory insert to antagonize calmodulin binding, increase FMN shielding, and suppress interflavin electron transfer. *Journal of Biological Chemistry*, **2010**, 285, 3064-75	5.4	14
51	Distal Val346Ile mutation in inducible NO synthase promotes substrate-dependent NO confinement. *Biochemistry*, **2007**, 46, 13533-40	3.2	14

50	Control of electron transfer in neuronal nitric oxide synthase by calmodulin, substrate, substrate analogs, and nitric oxide. *Advances in Pharmacology*, **1995**, 34, 207-13	5.7	14
49	Mutants of Cytochrome P450 Reductase Lacking Either Gly-141 or Gly-143 Destabilize Its FMN Semiquinone. *Journal of Biological Chemistry*, **2016**, 291, 14639-61	5.4	13
48	Catalytic intermediates of inducible nitric-oxide synthase stabilized by the W188H mutation. *Journal of Biological Chemistry*, **2013**, 288, 6095-106	5.4	13
47	Maturation, inactivation, and recovery mechanisms of soluble guanylyl cyclase. *Journal of Biological Chemistry*, **2021**, 296, 100336	5.4	13
46	Phosphorylation Controls Endothelial Nitric-oxide Synthase by Regulating Its Conformational Dynamics. *Journal of Biological Chemistry*, **2016**, 291, 23047-23057	5.4	12
45	Characterization of the 1st and 2nd EF-hands of NADPH oxidase 5 by fluorescence, isothermal titration calorimetry, and circular dichroism. *Chemistry Central Journal*, **2012**, 6, 29		12
44	Nitric oxide generated by corneas in corneal storage media. *Cornea*, **2002**, 21, 410-4	3.1	12
43	Conformational States and kinetics of the calcium binding domain of NADPH oxidase 5. *The Open Biochemistry Journal*, **2010**, 4, 59-67	0.9	12
42	Tyrosine nitration on calmodulin enhances calcium-dependent association and activation of nitric-oxide synthase. *Journal of Biological Chemistry*, **2020**, 295, 2203-2211	5.4	12
41	Differential effects of alkyl- and arylguanidines on the stability and reactivity of inducible NOS heme-dioxygen complexes. *Biochemistry*, **2006**, 45, 3988-99	3.2	11
40	The exchanged EF-hands in calmodulin and troponin C chimeras impair the Ca□+-induced hydrophobicity and alter the interaction with Orai1: a spectroscopic, thermodynamic and kinetic study. *BMC Biochemistry*, **2015**, 16, 6	4.8	10
39	Heat shock protein 90 regulates soluble guanylyl cyclase maturation by a dual mechanism. *Journal of Biological Chemistry*, **2019**, 294, 12880-12891	5.4	10
38	NO synthase isoforms specifically modify peroxynitrite reactivity. *FEBS Journal*, **2010**, 277, 3963-73	5.7	10
37	Reactivity of the heme-dioxygen complex of the inducible nitric oxide synthase in the presence of alternative substrates. *FEBS Journal*, **2006**, 273, 180-91	5.7	10
36	Inhibition of nitric oxide synthesis in corneas in storage media. *Experimental Eye Research*, **2004**, 78, 891-4	3.7	10
35	Superoxide-promoted oxidation reactions of aniline and N-methylaniline in dimethyl sulfoxide. *Journal of Organic Chemistry*, **1985**, 50, 694-696	4.2	10
34	Myoglobin maturation is driven by the hsp90 chaperone machinery and by soluble guanylyl cyclase. *FASEB Journal*, **2019**, 33, 9885-9896	0.9	9
33	Tetrahydrobiopterin redox cycling in nitric oxide synthase: evidence supports a through-heme electron delivery. *FEBS Journal*, **2016**, 283, 4491-4501	5.7	9

32	Arg375 tunes tetrahydrobiopterin functions and modulates catalysis by inducible nitric oxide synthase. *Journal of Inorganic Biochemistry*, **2012**, 108, 203-15	4.2	9
31	Mesohaem substitution reveals how haem electronic properties can influence the kinetic and catalytic parameters of neuronal NO synthase. *Biochemical Journal*, **2011**, 433, 163-74	3.8	9
30	BYK191023 (2-[2-(4-methoxy-pyridin-2-yl)-ethyl]-3h-imidazo[4,5-b]pyridine) is an NADPH- and time-dependent irreversible inhibitor of inducible nitric-oxide synthase. *Molecular Pharmacology*, **2008**, 73, 1244-53	4.3	9
29	Specific O-GlcNAc modification at Ser-615 modulates eNOS function. *Redox Biology*, **2020**, 36, 101625	11.3	9
28	Unbiased proteomics identifies plasminogen activator inhibitor-1 as a negative regulator of endothelial nitric oxide synthase. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 9497-9507	11.5	9
27	Characterization of Drosophila nitric oxide synthase: a biochemical study. *Biochemical and Biophysical Research Communications*, **2003**, 306, 590-7	3.4	8
26	Nitric oxide synthase: use of stopped-flow spectroscopy and rapid-quench methods in single-turnover conditions to examine formation and reactions of heme-O2 intermediate in early catalysis. *Methods in Enzymology*, **2002**, 354, 320-38	1.7	8
25	A cross-domain charge interaction governs the activity of NO synthase. *Journal of Biological Chemistry*, **2018**, 293, 4545-4554	5.4	7
24	Spectroscopic, catalytic and binding properties of Bacillus subtilis NO synthase-like protein: comparison with other bacterial and mammalian NO synthases. *Journal of Inorganic Biochemistry*, **2012**, 106, 164-71	4.2	7
23	Soluble Guanylate Cyclase Agonists Induce Bronchodilation in Human Small Airways. *American Journal of Respiratory Cell and Molecular Biology*, **2020**, 62, 43-48	5.7	7
22	Ascorbate in aqueous humor augments nitric oxide production by macrophages. *Journal of Immunology*, **2013**, 190, 556-64	5.3	6
21	Oxygenase domain of Drosophila melanogaster nitric oxide synthase: unique kinetic parameters enable a more efficient NO release. *Biochemistry*, **2007**, 46, 11857-64	3.2	6
20	Dynamic regulation of NADPH oxidase 5 by intracellular heme levels and cellular chaperones. *Redox Biology*, **2020**, 36, 101656	11.3	6
19	Engineering nitric oxide synthase chimeras to function as NO dioxygenases. *Journal of Inorganic Biochemistry*, **2016**, 158, 122-130	4.2	6
18	Restricting the conformational freedom of the neuronal nitric-oxide synthase flavoprotein domain reveals impact on electron transfer and catalysis. *Journal of Biological Chemistry*, **2017**, 292, 6753-6764	5.4	5
17	An inherent dysfunction in soluble guanylyl cyclase is present in the airway of severe asthmatics and is associated with aberrant redox enzyme expression and compromised NO-cGMP signaling. *Redox Biology*, **2021**, 39, 101832	11.3	5
16	Dissecting structural and electronic effects in inducible nitric oxide synthase. *Biochemical Journal*, **2015**, 467, 153-65	3.8	4
15	Immunohistochemical detection and Western blot analysis of nitrated protein in stored human corneal epithelium. *Experimental Eye Research*, **2005**, 80, 509-14	3.7	4

14	An ab initio study of an oxidative mechanism that forms nitric oxide from theN-hydroxyguanidinium ion. *Structural Chemistry*, **1993**, 4, 143-147	1.8	4
13	NO rapidly mobilizes cellular heme to trigger assembly of its own receptor.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119,	11.5	4
12	Inactivation of soluble guanylyl cyclase in living cells proceeds without loss of haem and involves heterodimer dissociation as a common step. *British Journal of Pharmacology*, **2021**,	8.6	4
11	Endothelial nitric oxide synthase oxygenase on lipid nanodiscs: A nano-assembly reflecting native-like function of eNOS. *Biochemical and Biophysical Research Communications*, **2017**, 493, 1438-1442	3.4	3
10	Indoleamine dioxygenase and tryptophan dioxygenase activities are regulated through GAPDH- and Hsp90-dependent control of their heme levels.. *Free Radical Biology and Medicine*, **2022**, 180, 179-190	7.8	3
9	GAPDH is involved in the heme-maturation of myoglobin and hemoglobin.. *FASEB Journal*, **2022**, 36, e22099	5.9	3
8	Disease-specific platelet signaling defects in idiopathic pulmonary arterial hypertension. *American Journal of Physiology - Lung Cellular and Molecular Physiology*, **2021**, 320, L739-L749	5.8	3
7	Metal binding and conformational studies of the calcium binding domain of NADPH oxidase 5 reveal its similarity and difference to calmodulin. *Journal of Biomolecular Structure and Dynamics*, **2020**, 38, 2352-2368	3.6	2
6	Role of substrate functional groups in binding to nitric oxide synthase. *Biochemical and Biophysical Research Communications*, **2009**, 382, 21-5	3.4	1
5	Hsp90 and Its Role in Heme-Maturation of Client Proteins: Implications for Human Diseases. *Heat Shock Proteins*, **2019**, 251-268	0.2	1
4	Nitric oxide and heme-NO stimulate superoxide production by NADPH oxidase 5. *Free Radical Biology and Medicine*, **2021**, 172, 252-263	7.8	1
3	Conformational states and fluctuations in endothelial nitric oxide synthase under calmodulin regulation. *Biophysical Journal*, **2021**, 120, 5196-5206	2.9	0
2	Calcium | Calcium Signaling: NO Synthase **2021**, 602-608		
1	Nitric oxide alters hyaluronan deposition by airway smooth muscle cells. *PLoS ONE*, **2018**, 13, e0200074	3.7	