Lance C Seefeldt

List of Publications by Year
in descending order

197 papers	18,933 citations	14644 66 h-index	16164 124 g-index
207 all docs	207 docs citations	207 times ranked	12743 citing authors

#	Article	IF	Citations
1	Tailoring electron transfer pathway for photocatalytic N₂-to-NH₃ reduction in a CdS quantum dots-nitrogenase system. Sustainable Energy and Fuels, 2022, 6, 2256-2263.	2.5	6
2	A conformational role for NifW in the maturation of molybdenum nitrogenase P-cluster. Chemical Science, 2022, 13, 3489-3500.	3.7	7
3	The One-Electron Reduced Active-Site FeFe-Cofactor of Fe-Nitrogenase Contains a Hydride Bound to a Formally Oxidized Metal-Ion Core. Inorganic Chemistry, 2022, 61, 5459-5464.	1.9	12
4	Dissecting Electronic-Structural Transitions in the Nitrogenase MoFe Protein P-Cluster during Reduction. Journal of the American Chemical Society, 2022, 144, 5708-5712.	6.6	7
5	<scp>AnfO</scp> controls fidelity of nitrogenase <scp>FeFe</scp> protein maturation by preventing misincorporation of <scp>FeV</scp>â€cofactor. Molecular Microbiology, 2022, 117, 1080-1088.	1.2	6
6	The Kinetics of Electron Transfer from CdS Nanorods to the MoFe Protein of Nitrogenase. Journal of Physical Chemistry C, 2022, 126, 8425-8435.	1.5	7
7	A colorimetric method to measure in vitro nitrogenase functionality for engineering nitrogen fixation. Scientific Reports, 2022, 12, .	1.6	6
8	Photosynthetic biohybrid coculture for tandem and tunable CO ₂ and N ₂ fixation. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	14
9	Revealing a role for the G subunit in mediating interactions between the nitrogenase component proteins. Journal of Inorganic Biochemistry, 2021, 214, 111273.	1.5	13
10	The electronic structure of FeV-cofactor in vanadium-dependent nitrogenase. Chemical Science, 2021, 12, 6913-6922.	3.7	17
11	Grand challenges in the nitrogen cycle. Chemical Society Reviews, 2021, 50, 3640-3646.	18.7	64
12	Comment on â€œStructural evidence for a dynamic metallocofactor during N ₂ reduction by Mo-nitrogenaseâ€: Science, 2021, 371, .	6.0	29
13	Mechanical coupling in the nitrogenase complex. PLoS Computational Biology, 2021, 17, e1008719.	1.5	8
14	Between a Rock and a Living Place: Natural Selection of Elements and the Search for Life in the Universe. , 2021, 53, .		1
15	Exploring the Role of the Central Carbide of the Nitrogenase Active-Site FeMo-cofactor through Targeted ¹³C Labeling and ENDOR Spectroscopy. Journal of the American Chemical Society, 2021, 143, 9183-9190.	6.6	13
16	Specificity of NifEN and VnfEN for the Assembly of Nitrogenase Active Site Cofactors in Azotobacter vinelandii. MBio, 2021, 12, e0156821.	1.8	18
17	The flexible N-terminus of BchL autoinhibits activity through interaction with its [4Fe-4S] cluster and released upon ATP binding. Journal of Biological Chemistry, 2021, 296, 100107.	1.6	4
18	CO as a substrate and inhibitor of H+ reduction for the Mo-, V-, and Fe-nitrogenase isozymes. Journal of Inorganic Biochemistry, 2020, 213, 111278.	1.5	18

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19	Excitation-Rate Determines Product Stoichiometry in Photochemical Ammonia Production by CdS Quantum Dot-Nitrogenase MoFe Protein Complexes. ACS Catalysis, 2020, 10, 11147-11152.	5.5	23
20	Defining Intermediates of Nitrogenase MoFe Protein during N₂ Reduction under Photochemical Electron Delivery from CdS Quantum Dots. Journal of the American Chemical Society, 2020, 142, 14324-14330.	6.6	32
21	Electron Redistribution within the Nitrogenase Active Site FeMo-Cofactor During Reductive Elimination of H₂ to Achieve Nâ‰¡N Triple-Bond Activation. Journal of the American Chemical Society, 2020, 142, 21679-21690.	6.6	32
22	An Experimentally Evaluated Thermodynamic Approach to Estimate Growth of Photoheterotrophic Purple Non-sulfur Bacteria. Frontiers in Microbiology, 2020, 11, 540378.	1.5	2
23	Reduction of Substrates by Nitrogenases. Chemical Reviews, 2020, 120, 5082-5106.	23.0	234
24	Mo-, V-, and Fe-Nitrogenases Use a Universal Eight-Electron Reductive-Elimination Mechanism To Achieve N₂ Reduction. Biochemistry, 2019, 58, 3293-3301.	1.2	99
25	Phototrophic N2 and CO2 Fixation Using a Rhodopseudomonas palustris-H2 Mediated Electrochemical System With Infrared Photons. Frontiers in Microbiology, 2019, 10, 1817.	1.5	25
26	An Efficient Viologen-Based Electron Donor to Nitrogenase. Biochemistry, 2019, 58, 4590-4595.	1.2	17
27	Spectroscopic Description of the E₁ State of Mo Nitrogenase Based on Mo and Fe X-ray Absorption and MÃ¶ssbauer Studies. Inorganic Chemistry, 2019, 58, 12365-12376.	1.9	38
28	Time-Resolved EPR Study of H₂ Reductive Elimination from the Photoexcited Nitrogenase Janus E₄(4H) Intermediate. Journal of Physical Chemistry B, 2019, 123, 8823-8828.	1.2	12
29	Establishing a Thermodynamic Landscape for the Active Site of Mo-Dependent Nitrogenase. Journal of the American Chemical Society, 2019, 141, 17150-17157.	6.6	36
30	High-Resolution ENDOR Spectroscopy Combined with Quantum Chemical Calculations Reveals the Structure of Nitrogenase Janus Intermediate E₄(4H). Journal of the American Chemical Society, 2019, 141, 11984-11996.	6.6	58
31	The NifZ accessory protein has an equivalent function in maturation of both nitrogenase MoFe protein P-clusters. Journal of Biological Chemistry, 2019, 294, 6204-6213.	1.6	26
32	Electrochemical Dinitrogen Reduction to Ammonia by Mo₂N: Catalysis or Decomposition?. ACS Energy Letters, 2019, 4, 1053-1054.	8.8	114
33	A Voltammetric Study of Nitrogenase Catalysis Using Electron Transfer Mediators. ACS Catalysis, 2019, 9, 1366-1372.	5.5	38
34	The ammonium transporter AmtB and thePIIsignal transduction protein GlnZ are required to inhibit DraG inAzospirillumÂbrasilense. FEBS Journal, 2019, 286, 1214-1229.	2.2	10
35	(Invited) Electrocatalytic N2 Reduction to NH3 Using the Enzyme Nitrogenase. ECS Meeting Abstracts, 2019, , .	0.0	0
36	Electron Transfer to Nitrogenase in Different Genomic and Metabolic Backgrounds. Journal of Bacteriology, 2018, 200, .	1.0	85

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37	Structural characterization of the nitrogenase molybdenum-iron protein with the substrate acetylene trapped near the active site. Journal of Inorganic Biochemistry, 2018, 180, 129-134.	1.5	21
38	Mechanism of N₂ Reduction Catalyzed by Fe-Nitrogenase Involves Reductive Elimination of H₂. Biochemistry, 2018, 57, 701-710.	1.2	80
39	A pathway for biological methane production using bacterial iron-only nitrogenase. Nature Microbiology, 2018, 3, 281-286.	5.9	131
40	Cluster-Dependent Charge-Transfer Dynamics in Ironâ€“Sulfur Proteins. Biochemistry, 2018, 57, 978-990.	1.2	11
41	Structural characterization of the P1+ intermediate state of the P-cluster of nitrogenase. Journal of Biological Chemistry, 2018, 293, 9629-9635.	1.6	44
42	Exploring the alternatives of biological nitrogen fixation. Metallomics, 2018, 10, 523-538.	1.0	125
43	Hydride Conformers of the Nitrogenase FeMo-cofactor Two-Electron Reduced State E₂(2H), Assigned Using Cryogenic Intra Electron Paramagnetic Resonance Cavity Photolysis. Inorganic Chemistry, 2018, 57, 6847-6852.	1.9	29
44	Electrocatalytic CO2 reduction catalyzed by nitrogenase MoFe and FeFe proteins. Bioelectrochemistry, 2018, 120, 104-109.	2.4	41
45	Application of affinity purification methods for analysis of the nitrogenase system from Azotobacter vinelandii. Methods in Enzymology, 2018, 613, 231-255.	0.4	13
46	Critical computational analysis illuminates the reductive-elimination mechanism that activates nitrogenase for N ₂ reduction. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E10521-E10530.	3.3	100
47	Kinetic Understanding of N₂ Reduction versus H₂ Evolution at the E₄(4H) Janus State in the Three Nitrogenases. Biochemistry, 2018, 57, 5706-5714.	1.2	44
48	Control of electron transfer in nitrogenase. Current Opinion in Chemical Biology, 2018, 47, 54-59.	2.8	43
49	Beyond fossil fuelâ€“driven nitrogen transformations. Science, 2018, 360, .	6.0	1,379
50	A new era for electron bifurcation. Current Opinion in Chemical Biology, 2018, 47, 32-38.	2.8	54
51	Sequential and differential interaction of assembly factors during nitrogenase MoFe protein maturation. Journal of Biological Chemistry, 2018, 293, 9812-9823.	1.6	34
52	Energy Transduction in Nitrogenase. Accounts of Chemical Research, 2018, 51, 2179-2186.	7.6	101
53	Photoinduced Reductive Elimination of H₂ from the Nitrogenase Dihydride (Janus) State Involves a FeMo-cofactor-H₂ Intermediate. Inorganic Chemistry, 2017, 56, 2233-2240.	1.9	42
54	Unraveling the interactions of the physiological reductant flavodoxin with the different conformations of the Fe protein in the nitrogenase cycle. Journal of Biological Chemistry, 2017, 292, 15661-15669.	1.6	21

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55	Mechanism of Nitrogenase H₂ Formation by Metal-Hydride Protonation Probed by Mediated Electrocatalysis and H/D Isotope Effects. Journal of the American Chemical Society, 2017, 139, 13518-13524.	6.6	51
56	The Electron Bifurcating FixABCX Protein Complex from <i>Azotobacter vinelandii</i>: Generation of Low-Potential Reducing Equivalents for Nitrogenase Catalysis. Biochemistry, 2017, 56, 4177-4190.	1.2	140
57	Defining Electron Bifurcation in the Electron-Transferring Flavoprotein Family. Journal of Bacteriology, 2017, 199, .	1.0	78
58	Infrared spectroscopy of the nitrogenase MoFe protein under electrochemical control: potential-triggered CO binding. Chemical Science, 2017, 8, 1500-1505.	3.7	38
59	Light-driven dinitrogen reduction catalyzed by a CdS:nitrogenase MoFe protein biohybrid. Science, 2016, 352, 448-450.	6.0	676
60	Negative cooperativity in the nitrogenase Fe protein electron delivery cycle. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5783-E5791.	3.3	42
61	Exploring Electron/Proton Transfer and Conformational Changes in the Nitrogenase MoFe Protein and FeMoâ€cofactor Through Cryoreduction/EPR Measurements. Israel Journal of Chemistry, 2016, 56, 841-851.	1.0	13
62	CO₂ Reduction Catalyzed by Nitrogenase: Pathways to Formate, Carbon Monoxide, and Methane. Inorganic Chemistry, 2016, 55, 8321-8330.	1.9	47
63	Light-driven carbon dioxide reduction to methane by nitrogenase in a photosynthetic bacterium. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10163-10167.	3.3	74
64	Reductive Elimination of H₂ Activates Nitrogenase to Reduce the Nâ‰¡N Triple Bond: Characterization of the E₄(4H) Janus Intermediate in Wild-Type Enzyme. Journal of the American Chemical Society, 2016, 138, 10674-10683.	6.6	131
65	Nitrogenase bioelectrocatalysis: heterogeneous ammonia and hydrogen production by MoFe protein. Energy and Environmental Science, 2016, 9, 2550-2554.	15.6	187
66	Evidence That the P_i Release Event Is the Rate-Limiting Step in the Nitrogenase Catalytic Cycle. Biochemistry, 2016, 55, 3625-3635.	1.2	95
67	Reversible Photoinduced Reductive Elimination of H₂ from the Nitrogenase Dihydride State, the E₄(4H) Janus Intermediate. Journal of the American Chemical Society, 2016, 138, 1320-1327.	6.6	60
68	CHAPTER 8. Nitrogenase Mechanism: Electron and Proton Accumulation and N2 Reduction. 2-Oxoglutarate-Dependent Oxygenases, 2016, , 274-296.	0.8	2
69	Techno-economic feasibility and life cycle assessment of dairy effluent to renewable diesel via hydrothermal liquefaction. Bioresource Technology, 2015, 196, 431-440.	4.8	45
70	Identification of a Key Catalytic Intermediate Demonstrates That Nitrogenase Is Activated by the Reversible Exchange of N₂ for H₂. Journal of the American Chemical Society, 2015, 137, 3610-3615.	6.6	99
71	Fe Protein-Independent Substrate Reduction by Nitrogenase MoFe Protein Variants. Biochemistry, 2015, 54, 2456-2462.	1.2	38
72	Oleaginous yeast platform for producing biofuels via co-solvent hydrothermal liquefaction. Biotechnology for Biofuels, 2015, 8, 167.	6.2	52

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73	Mechanism of Nitrogen Fixation by Nitrogenase: The Next Stage. Chemical Reviews, 2014, 114, 4041-4062.	23.0	1,379
74	Improving energetics of triacylglyceride extraction from wet oleaginous microbes. Bioresource Technology, 2014, 167, 416-424.	4.8	19
75	Nitrite and Hydroxylamine as Nitrogenase Substrates: Mechanistic Implications for the Pathway of N2 Reduction. Journal of the American Chemical Society, 2014, 136, 12776-12783.	6.6	33
76	A Confirmation of the Quench-Cryoannealing Relaxation Protocol for Identifying Reduction States of Freeze-Trapped Nitrogenase Intermediates. Inorganic Chemistry, 2014, 53, 3688-3693.	1.9	40
77	Substrate Channel in Nitrogenase Revealed by a Molecular Dynamics Approach. Biochemistry, 2014, 53, 2278-2285.	1.2	28
78	Two-step process for production of biodiesel blends from oleaginous yeast and microalgae. Fuel, 2014, 137, 269-276.	3.4	22
79	Nitrogenase: A Draft Mechanism. Accounts of Chemical Research, 2013, 46, 587-595.	7.6	328
80	Biodiesel from Microalgae, Yeast, and Bacteria: Engine Performance and Exhaust Emissions. Energy & Fuels, 2013, 27, 220-228.	2.5	121
81	Frontiers, Opportunities, and Challenges in Biochemical and Chemical Catalysis of CO₂ Fixation. Chemical Reviews, 2013, 113, 6621-6658.	23.0	1,786
82	Nitrogenase reduction of carbon-containing compounds. Biochimica Et Biophysica Acta - Bioenergetics, 2013, 1827, 1102-1111.	0.5	91
83	Understanding precision nitrogen stress to optimize the growth and lipid content tradeoff in oleaginous green microalgae. Bioresource Technology, 2013, 131, 188-194.	4.8	178
84	On reversible H ₂ loss upon N ₂ binding to FeMo-cofactor of nitrogenase. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16327-16332.	3.3	98
85	The Nitrogenase Regulatory Enzyme Dinitrogenase Reductase ADP-Ribosyltransferase (DraT) Is Activated by Direct Interaction with the Signal Transduction Protein GlnB. Journal of Bacteriology, 2013, 195, 279-286.	1.0	17
86	Electron transfer precedes ATP hydrolysis during nitrogenase catalysis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16414-16419.	3.3	94
87	Carbon dioxide reduction to methane and coupling with acetylene to form propylene catalyzed by remodeled nitrogenase. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19644-19648.	3.3	103
88	Differences in Substrate Specificities of Five Bacterial Wax Ester Synthases. Applied and Environmental Microbiology, 2012, 78, 5734-5745.	1.4	70
89	Unification of reaction pathway and kinetic scheme for N ₂ reduction catalyzed by nitrogenase. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5583-5587.	3.3	59
90	Temperature Invariance of the Nitrogenase Electron Transfer Mechanism. Biochemistry, 2012, 51, 8391-8398.	1.2	12

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91	Electron transfer in nitrogenase catalysis. Current Opinion in Chemical Biology, 2012, 16, 19-25.	2.8	105
92	EXAFS and NRVS Reveal a Conformational Distortion of the FeMo-cofactor in the MoFe Nitrogenase Propargyl Alcohol Complex. Journal of Inorganic Biochemistry, 2012, 112, 85-92.	1.5	50
93	Electron Transfer within Nitrogenase: Evidence for a Deficit-Spending Mechanism. Biochemistry, 2011, 50, 9255-9263.	1.2	117
94	Characterization of a Fatty Acyl-CoA Reductase from <i>Marinobacter aquaeolei</i> VT8: A Bacterial Enzyme Catalyzing the Reduction of Fatty Acyl-CoA to Fatty Alcohol. Biochemistry, 2011, 50, 10550-10558.	1.2	102
95	Electron Paramagnetic Resonance Spectroscopy. Methods in Molecular Biology, 2011, 766, 191-205.	0.4	7
96	Mechanism of Mo-Dependent Nitrogenase. Methods in Molecular Biology, 2011, 766, 9-29.	0.4	37
97	⁵⁷Fe ENDOR Spectroscopy and â€˜Electron Inventoryâ€™ Analysis of the Nitrogenase E₄Intermediate Suggest the Metal-Ion Core of FeMo-Cofactor Cycles Through Only One Redox Couple. Journal of the American Chemical Society, 2011, 133, 17329-17340.	6.6	75
98	ENDOR/HYSCORE Studies of the Common Intermediate Trapped during Nitrogenase Reduction of N₂H₂, CH₃N₂H, and N₂H₄Support an Alternating Reaction Pathway for N₂Reduction. Journal of the American Chemical Society, 2011, 133, 11655-11664.	6.6	83
99	Steric Control of the Hiâ€CO MoFe Nitrogenase Complex Revealed by Stoppedâ€Flow Infrared Spectroscopy. Angewandte Chemie - International Edition, 2011, 50, 272-275.	7.2	25
100	Biodiesel production by simultaneous extraction and conversion of total lipids from microalgae, cyanobacteria, and wild mixed-cultures. Bioresource Technology, 2011, 102, 2724-2730.	4.8	387
101	Molybdenum Nitrogenase Catalyzes the Reduction and Coupling of CO to Form Hydrocarbons*. Journal of Biological Chemistry, 2011, 286, 19417-19421.	1.6	99
102	Insights into substrate binding at FeMo-cofactor in nitrogenase from the structure of an Î±-70Ile MoFe protein variant. Journal of Inorganic Biochemistry, 2010, 104, 385-389.	1.5	67
103	Is Mo Involved in Hydride Binding by the Four-Electron Reduced (E₄) Intermediate of the Nitrogenase MoFe Protein?. Journal of the American Chemical Society, 2010, 132, 2526-2527.	6.6	79
104	Conformational Gating of Electron Transfer from the Nitrogenase Fe Protein to MoFe Protein. Journal of the American Chemical Society, 2010, 132, 6894-6895.	6.6	61
105	Uncoupling Nitrogenase: Catalytic Reduction of Hydrazine to Ammonia by a MoFe Protein in the Absence of Fe Protein-ATP. Journal of the American Chemical Society, 2010, 132, 13197-13199.	6.6	65
106	A substrate channel in the nitrogenase MoFe protein. Journal of Biological Inorganic Chemistry, 2009, 14, 1015-1022.	1.1	36
107	Trapping an Intermediate of Dinitrogen (N₂) Reduction on Nitrogenase. Biochemistry, 2009, 48, 9094-9102.	1.2	66
108	An Updated Kinetic Study of the Enzyme Lactase for the Biochemistry Laboratory. Journal of Chemical Education, 2009, 86, 1271.	1.1	4

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109	Mechanism of Mo-Dependent Nitrogenase. Annual Review of Biochemistry, 2009, 78, 701-722.	5.0	561
110	Climbing Nitrogenase: Toward a Mechanism of Enzymatic Nitrogen Fixation. Accounts of Chemical Research, 2009, 42, 609-619.	7.6	336
111	Purification, Characterization, and Potential Bacterial Wax Production Role of an NADPH-Dependent Fatty Aldehyde Reductase from <i>Marinobacter aquaeolei</i> VT8. Applied and Environmental Microbiology, 2009, 75, 2758-2764.	1.4	57
112	Crystal Structure of the L Protein of <i>Rhodobacter sphaeroides</i> Light-Independent Protochlorophyllide Reductase with MgADP Bound: A Homologue of the Nitrogenase Fe Protein. Biochemistry, 2008, 47, 13004-13015.	1.2	66
113	Synthesis of Biodiesel from Mixed Feedstocks and Longer Chain Alcohols Using an Acid-Catalyzed Method. Energy & Fuels, 2008, 22, 4223-4228.	2.5	56
114	Connecting nitrogenase intermediates with the kinetic scheme for N2 reduction by a relaxation protocol and identification of the N2 binding state. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1451-1455.	3.3	113
115	Diazene (HNNH) Is a Substrate for Nitrogenase:Â Insights into the Pathway of N2Reductionâ€. Biochemistry, 2007, 46, 6784-6794.	1.2	106
116	Testing if the Interstitial Atom, X, of the Nitrogenase Molybdenumâˆ’Iron Cofactor Is N or C:â€‰ENDOR, ESEEM, and DFT Studies of the <i>S</i> = ³/₂ Resting State in Multiple Environments. Inorganic Chemistry, 2007, 46, 11437-11449.	1.9	89
117	Probing the MgATP-Bound Conformation of the Nitrogenase Fe Protein by Solution Small-Angle X-ray Scattering. Biochemistry, 2007, 46, 14058-14066.	1.2	12
118	Alkyne substrate interaction within the nitrogenase MoFe protein. Journal of Inorganic Biochemistry, 2007, 101, 1642-1648.	1.5	50
119	Breaking the N2 triple bond: insights into the nitrogenase mechanism. Dalton Transactions, 2006, , 2277.	1.6	131
120	Insights into the role of nucleotide-dependent conformational change in nitrogenase catalysis: Structural characterization of the nitrogenase Fe protein Leu127 deletion variant with bound MgATP. Journal of Inorganic Biochemistry, 2006, 100, 1041-1052.	1.5	23
121	The Role of Metal Clusters and MgATP in Nitrogenase Catalysis. Advances in Enzymology and Related Areas of Molecular Biology, 2006, 67, 299-374.	1.3	8
122	A methyldiazene (HNNCH3)-derived species bound to the nitrogenase active-site FeMo cofactor: Implications for mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 17113-17118.	3.3	84
123	The Interstitial Atom of the Nitrogenase FeMo-Cofactor:Â ENDOR and ESEEM Evidence That it is Not a Nitrogen. Journal of the American Chemical Society, 2005, 127, 12804-12805.	6.6	78
124	Trapping H-Bound to the Nitrogenase FeMo-Cofactor Active Site during H2Evolution:Â Characterization by ENDOR Spectroscopy. Journal of the American Chemical Society, 2005, 127, 6231-6241.	6.6	196
125	Substrate Interactions with the Nitrogenase Active Site. Accounts of Chemical Research, 2005, 38, 208-214.	7.6	199
126	Intermediates Trapped during Nitrogenase Reduction of Nâ‹®N, CH3âˆ’NNH, and H2Nâˆ’NH2. Journal of the American Chemical Society, 2005, 127, 14960-14961.	6.6	122

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127	Trapping a Hydrazine Reduction Intermediate on the Nitrogenase Active Site. Biochemistry, 2005, 44, 8030-8037.	1.2	96
128	Substrate Interaction at an Iron-Sulfur Face of the FeMo-cofactor during Nitrogenase Catalysis. Journal of Biological Chemistry, 2004, 279, 53621-53624.	1.6	137
129	The Mechanism of Mo-Dependent Nitrogenase: Thermodynamics and Kinetics. , 2004, , 97-140.		4
130	Localization of a Catalytic Intermediate Bound to the FeMo-cofactor of Nitrogenase. Journal of Biological Chemistry, 2004, 279, 34770-34775.	1.6	63
131	Structural and biochemical implications of single amino acid substitutions in the nucleotide-dependent switch regions of the nitrogenase Fe protein from Azotobacter vinelandii. Journal of Biological Inorganic Chemistry, 2004, 9, 1028-1033.	1.1	16
132	Substrate Interactions with Nitrogenase:â€‰ Fe versus Mo. Biochemistry, 2004, 43, 1401-1409.	1.2	183
133	An Organometallic Intermediate during Alkyne Reduction by Nitrogenase. Journal of the American Chemical Society, 2004, 126, 9563-9569.	6.6	116
134	A Conformational Mimic of the MgATP-Bound â€œOn Stateâ€•of the Nitrogenase Iron Protein,. Biochemistry, 2004, 43, 1787-1797.	1.2	33
135	Strategies for the Functional Analysis of the Azotobacter Vinelandii MoFe Protein and its Active Site FeMo-Cofactor. , 2004, , 141-159.		0
136	Elucidating thermodynamic parameters for electron transfer proteins using isothermal titration calorimetry: application to the nitrogenase Fe protein. Journal of Biological Inorganic Chemistry, 2003, 8, 560-566.	1.1	7
137	Localization of a Substrate Binding Site on the FeMo-Cofactor in Nitrogenase:Â Trapping Propargyl Alcohol with an Î±-70-Substituted MoFe Proteinâ€. Biochemistry, 2003, 42, 9102-9109.	1.2	93
138	The Interstitial Atom of the Nitrogenase FeMo-Cofactor:Â ENDOR and ESEEM Show It Is Not an Exchangeable Nitrogen. Journal of the American Chemical Society, 2003, 125, 5604-5605.	6.6	107
139	Nitrogen Fixation: The Mechanism of the Mo-Dependent Nitrogenase. Critical Reviews in Biochemistry and Molecular Biology, 2003, 38, 351-384.	2.3	234
140	Use of Short-Chain Alkynes to Locate the Nitrogenase Catalytic Site. , 2002, , 137-154.		2
141	MECHANISTICFEATURES OF THEMO-CONTAININGNITROGENASE. Annual Review of Plant Biology, 2001, 52, 269-295.	14.2	136
142	MgATP-Bound and Nucleotide-Free Structures of a Nitrogenase Protein Complex between the Leu 127Î"-Fe-Protein and the MoFe-Proteinâ€,â€¡. Biochemistry, 2001, 40, 641-650.	1.2	85
143	Stereospecificity of Acetylene Reduction Catalyzed by Nitrogenase. Journal of the American Chemical Society, 2001, 123, 1822-1827.	6.6	35
144	Interaction of Acetylene and Cyanide with the Resting State of Nitrogenase Î±-96-Substituted MoFe Proteins. Biochemistry, 2001, 40, 13816-13825.	1.2	45

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145	Use of Stopped-Flow Spectrophotometry to Establish Midpoint Potentials for Redox Proteins. Analytical Biochemistry, 2000, 287, 118-125.	1.1	24
146	The role of the MoFe protein ÃŽÂ±-125Phe and ÃŽÂ²-125Phe residues in Azotobacter vinelandii MoFe proteinÃ¢Â€Â“Fe protein interaction. Journal of Inorganic Biochemistry, 2000, 80, 195-204.	1.5	11
147	Competitive Substrate and Inhibitor Interactions at the Physiologically Relevant Active Site of Nitrogenase. Journal of Biological Chemistry, 2000, 275, 36104-36107.	1.6	58
148	Hydrolysis of Nucleoside Triphosphates Other than ATP by Nitrogenase. Journal of Biological Chemistry, 2000, 275, 6214-6219.	1.6	21
149	Isolation and Characterization of an Acetylene-resistant Nitrogenase. Journal of Biological Chemistry, 2000, 275, 11459-11464.	1.6	69
150	Modulating the Midpoint Potential of the [4Fe-4S] Cluster of the Nitrogenase Fe Protein,. Biochemistry, 2000, 39, 641-648.	1.2	37
151	Nitrogenase Reduction of Carbon Disulfide:Â Freeze-Quench EPR and ENDOR Evidence for Three Sequential Intermediates with Cluster-Bound Carbon Moietiesâ€. Biochemistry, 2000, 39, 1114-1119.	1.2	40
152	Construction and Characterization of a Heterodimeric Iron Protein:Â Defining Roles for Adenosine Triphosphate in Nitrogenase Catalysisâ€. Biochemistry, 2000, 39, 7221-7228.	1.2	10
153	Insights into Nucleotide Signal Transduction in Nitrogenase:â€‰ Structure of an Iron Protein with MgADP Bound,. Biochemistry, 2000, 39, 14745-14752.	1.2	105
154	Roles for Nucleotides in Nitrogenase Catalysis. , 2000, , 19-22.		3
155	Evidence That MgATP Accelerates Primary Electron Transfer in aClostridium pasteurianum Fe Protein-Azotobacter vinelandii MoFe Protein Nitrogenase Tight Complex. Journal of Biological Chemistry, 1999, 274, 17593-17598.	1.6	20
156	Thermodynamics of nucleotide interactions with the Azotobacter vinelandii nitrogenase iron protein. BBA - Proteins and Proteomics, 1999, 1429, 411-421.	2.1	21
157	Spectroscopic Evidence for Changes in the Redox State of the Nitrogenase P-Cluster during Turnoverâ€. Biochemistry, 1999, 38, 5779-5785.	1.2	71
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