Nick E Le Brun

List of Publications by Year
in descending order

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120 papers	4,718 citations	87401 40 h-index	139680 61 g-index
124 all docs	124 docs citations	124 times ranked	3842 citing authors

#	Article	IF	Citations
1	Ironâ€“sulfur clusters as inhibitors and catalysts of viral replication. Nature Chemistry, 2022, 14, 253-266.	6.6	23
2	The Di-Iron Protein YtfE Is a Nitric Oxide-Generating Nitrite Reductase Involved in the Management of Nitrosative Stress. Journal of the American Chemical Society, 2022, 144, 7129-7145.	6.6	8
3	Second Coordination Sphere Effects on the Mechanistic Pathways for Dioxygen Activation by a Ferritin: Involvement of a Tyr Radical and the Identification of a Cation Binding Site. ChemBioChem, 2022, 23, .	1.3	12
4	Insights into methionine S-methylation in diverse organisms. Nature Communications, 2022, 13, .	5.8	9
5	Mechanistic insights into the key marine dimethylsulfoniopropionate synthesis enzyme DsyB/DSYB. , 2022, 1, 114-130.		5
6	Electron Transfer from Haem to the Diâ€Iron Ferroxidase Centre in Bacterioferritin. Angewandte Chemie, 2021, 133, 8457-8460.	1.6	1
7	Electron Transfer from Haem to the Diâ€Iron Ferroxidase Centre in Bacterioferritin. Angewandte Chemie - International Edition, 2021, 60, 8376-8379.	7.2	9
8	Iron Oxidation in Escherichia coli Bacterioferritin Ferroxidase Centre, a Site Designed to React Rapidly with H 2 O 2 but Slowly with O 2. Angewandte Chemie, 2021, 133, 8442-8450.	1.6	0
9	Iron Oxidation in <i>Escherichia coli</i> Bacterioferritin Ferroxidase Centre, a Site Designed to React Rapidly with H₂O₂ but Slowly with O₂. Angewandte Chemie - International Edition, 2021, 60, 8361-8369.	7.2	15
10	Biological iron-sulfur clusters: Mechanistic insights from mass spectrometry. Coordination Chemistry Reviews, 2021, 448, 214171.	9.5	10
11	Native Mass Spectrometry of Iron-Sulfur Proteins. Methods in Molecular Biology, 2021, 2353, 231-258.	0.4	7
12	Sensing mechanisms of ironâ€“sulfur cluster regulatory proteins elucidated using native mass spectrometry. Dalton Transactions, 2021, 50, 7887-7897.	1.6	10
13	Key carboxylate residues for iron transit through the prokaryotic ferritin SynFtn. Microbiology (United Kingdom), 2021, 167, .	0.7	2
14	Bacterial iron detoxification at the molecular level. Journal of Biological Chemistry, 2020, 295, 17602-17623.	1.6	63
15	Electron and Proton Transfers Modulate DNA Binding by the Transcription Regulator RsrR. Journal of the American Chemical Society, 2020, 142, 5104-5116.	6.6	11
16	Routes of iron entry into, and exit from, the catalytic ferroxidase sites of the prokaryotic ferritin SynFtn. Dalton Transactions, 2020, 49, 1545-1554.	1.6	10
17	Interaction of the Streptomyces Wbl protein WhiD with the principal sigma factor ÏƒHrdB depends on the WhiD [4Fe-4S] cluster. Journal of Biological Chemistry, 2020, 295, 9752-9765.	1.6	10
18	nosX is essential for whole-cell N2O reduction in Paracoccus denitrificans but not for assembly of copper centres of nitrous oxide reductase. Microbiology (United Kingdom), 2020, 166, 909-917.	0.7	4

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19	Generation of 34S-substituted protein-bound [4Fe-4S] clusters using 34S-L-cysteine. Biology Methods and Protocols, 2019, 4, bpy015.	1.0	10
20	NosL is a dedicated copper chaperone for assembly of the Cu_Zcenter of nitrous oxide reductase. Chemical Science, 2019, 10, 4985-4993.	3.7	24
21	Mass Spectrometric Identification of [4Feâ€“4S](NO)_{<i>x</i>} Intermediates of Nitric Oxide Sensing by Regulatory Ironâ€“Sulfur Cluster Proteins. Chemistry - A European Journal, 2019, 25, 3675-3684.	1.7	24
22	Crystal Structure of the Transcription Regulator RsrR Reveals a [2Feâ€“2S] Cluster Coordinated by Cys, Glu, and His Residues. Journal of the American Chemical Society, 2019, 141, 2367-2375.	6.6	18
23	Reaction of O ₂ with a diiron protein generates a mixed-valent Fe ²⁺ /Fe ³⁺ center and peroxide. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2058-2067.	3.3	22
24	Mass spectrometric studies of Cu(I)-binding to the N-terminal domains of B. subtilis CopA and influence of bacillithiol. Journal of Inorganic Biochemistry, 2019, 190, 24-30.	1.5	7
25	Mechanisms of iron- and O2-sensing by the [4Fe-4S] cluster of the global iron regulator RirA. ELife, 2019, 8, .	2.8	27
26	Redox-Sensing Ironâ€“Sulfur Cluster Regulators. Antioxidants and Redox Signaling, 2018, 29, 1809-1829.	2.5	32
27	The N-terminal domains of Bacillus subtilis CopA do not form a stable complex in the absence of their inter-domain linker. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2018, 1866, 275-282.	1.1	5
28	Mass spectrometric detection of iron nitrosyls, sulfide oxidation and mycothiolation during nitrosylation of the NO sensor [4Feâ€“4S] NsrR. Chemical Communications, 2018, 54, 5992-5995.	2.2	28
29	Electron transfer ferredoxins with unusual cluster binding motifs support secondary metabolism in many bacteria. Chemical Science, 2018, 9, 7948-7957.	3.7	29
30	<scp>NBP</scp>35 interacts with <scp>DRE</scp>2 in the maturation of cytosolic ironâ€sulphur proteins in <i>Arabidopsis thaliana</i>. Plant Journal, 2017, 89, 590-600.	2.8	31
31	Kinetic analysis of copper transfer from a chaperone to its target protein mediated by complex formation. Chemical Communications, 2017, 53, 1397-1400.	2.2	12
32	Crystal structures of the NO sensor NsrR reveal how its iron-sulfur cluster modulates DNA binding. Nature Communications, 2017, 8, 15052.	5.8	59
33	Cmr is a redox-responsive regulator of DosR that contributes to M. tuberculosis virulence. Nucleic Acids Research, 2017, 45, 6600-6612.	6.5	22
34	Mass spectrometric identification of intermediates in the O ₂ -driven [4Fe-4S] to [2Fe-2S] cluster conversion in FNR. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E3215-E3223.	3.3	46
35	Diversity of Fe 2+ entry and oxidation in ferritins. Current Opinion in Chemical Biology, 2017, 37, 122-128.	2.8	31
36	Sensing iron availability <i>via</i> the fragile [4Feâ€“4S] cluster of the bacterial transcriptional repressor RirA. Chemical Science, 2017, 8, 8451-8463.	3.7	27

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37	Tyr25, Tyr58 and Trp133 ofEscherichia colibacterioferritin transfer electrons between iron in the central cavity and the ferroxidase centre. Metallomics, 2017, 9, 1421-1428.	1.0	17
38	Redox-sensing iron-sulfur cluster regulators. Antioxidants and Redox Signaling, 2017, , .	2.5	1
39	Structure of a Wbl protein and implications for NO sensing by M. tuberculosis. Nature Communications, 2017, 8, 2280.	5.8	38
40	13. Reactivity of iron-sulfur clusters with nitric oxide. , 2017, , 387-438.		1
41	The Molecular Bases of the Dual Regulation of Bacterial Iron Sulfur Cluster Biogenesis by CyaY and IscX. Frontiers in Molecular Biosciences, 2017, 4, 97.	1.6	25
42	Ironâ€“Sulfur Cluster-based Sensors. 2-Oxoglutarate-Dependent Oxygenases, 2017, , 136-178.	0.8	0
43	Biochemical properties of Paracoccus denitrificans FnrP: reactions with molecular oxygen and nitric oxide. Journal of Biological Inorganic Chemistry, 2016, 21, 71-82.	1.1	22
44	Nitrosylation of Nitricâ€Oxideâ€Sensing Regulatory Proteins Containing [4Feâ€4S] Clusters Gives Rise to Multiple Ironâ€“Nitrosyl Complexes. Angewandte Chemie, 2016, 128, 14795-14799.	1.6	4
45	Differentiated, Promoter-specific Response of [4Fe-4S] NsrR DNA Binding to Reaction with Nitric Oxide. Journal of Biological Chemistry, 2016, 291, 8663-8672.	1.6	32
46	Mass spectrometry of <i>B. subtilis</i> CopZ: Cu(<scp>i</scp>)-binding and interactions with bacillithiol. Metallomics, 2016, 8, 709-719.	1.0	25
47	Nitrosylation of Nitricâ€Oxideâ€Sensing Regulatory Proteins Containing [4Feâ€4S] Clusters Gives Rise to Multiple Ironâ€“Nitrosyl Complexes. Angewandte Chemie - International Edition, 2016, 55, 14575-14579.	7.2	33
48	Characterization of a putative NsrR homologue in Streptomyces venezuelae reveals a new member of the Rrf2 superfamily. Scientific Reports, 2016, 6, 31597.	1.6	30
49	Ferritins: furnishing proteins with iron. Journal of Biological Inorganic Chemistry, 2016, 21, 13-28.	1.1	87
50	Three Aromatic Residues are Required for Electron Transfer during Iron Mineralization in Bacterioferritin. Angewandte Chemie - International Edition, 2015, 54, 14763-14767.	7.2	24
51	Three Aromatic Residues are Required for Electron Transfer during Iron Mineralization in Bacterioferritin. Angewandte Chemie, 2015, 127, 14976-14980.	1.6	14
52	PerR controls oxidative stress defence and aerotolerance but not motility-associated phenotypes of Campylobacter jejuni. Microbiology (United Kingdom), 2015, 161, 1524-1536.	0.7	26
53	The B-type Channel Is a Major Route for Iron Entry into the Ferroxidase Center and Central Cavity of Bacterioferritin. Journal of Biological Chemistry, 2015, 290, 3732-3739.	1.6	24
54	NsrR from Streptomyces coelicolor Is a Nitric Oxide-sensing [4Fe-4S] Cluster Protein with a Specialized Regulatory Function. Journal of Biological Chemistry, 2015, 290, 12689-12704.	1.6	77

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55	Three Pseudomonas putida FNR Family Proteins with Different Sensitivities to O2. Journal of Biological Chemistry, 2015, 290, 16812-16823.	1.6	19
56	A Diatom Ferritin Optimized for Iron Oxidation but Not Iron Storage. Journal of Biological Chemistry, 2015, 290, 28416-28427.	1.6	31
57	Influence of association state and DNA binding on the O2-reactivity of [4Fe-4S] fumarate and nitrate reduction (FNR) regulator. Biochemical Journal, 2014, 463, 83-92.	1.7	19
58	Mechanisms of iron mineralization in ferritins: one size does not fit all. Journal of Biological Inorganic Chemistry, 2014, 19, 775-785.	1.1	67
59	Ironâ€"Sulfur Clusters as Biological Sensors: The Chemistry of Reactions with Molecular Oxygen and Nitric Oxide. Accounts of Chemical Research, 2014, 47, 3196-3205.	7.6	156
60	Techniques for the Production, Isolation, and Analysis of Ironâ€"Sulfur Proteins. Methods in Molecular Biology, 2014, 1122, 33-48.	0.4	26
61	Mechanism of Ferrous Iron Binding and Oxidation by Ferritin from a Pennate Diatom. Journal of Biological Chemistry, 2013, 288, 14917-14925.	1.6	53
62	Mechanism of [4Fe-4S](Cys)4 Cluster Nitrosylation Is Conserved among NO-responsive Regulators. Journal of Biological Chemistry, 2013, 288, 11492-11502.	1.6	59
63	Fe-haem bound to <i>Escherichia coli</i> bacterioferritin accelerates iron core formation by an electron transfer mechanism. Biochemical Journal, 2012, 444, 553-560.	1.7	22
64	Reversible cycling between cysteine persulfide-ligated [2Fe-2S] and cysteine-ligated [4Fe-4S] clusters in the FNR regulatory protein. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15734-15739.	3.3	110
65	CopAb, the second N-terminal soluble domain of Bacillus subtilis CopA, dominates the Cu(i)-binding properties of CopAab. Dalton Transactions, 2012, 41, 5939.	1.6	8
66	Bacterial Ironâ€"Sulfur Regulatory Proteins As Biological Sensor-Switches. Antioxidants and Redox Signaling, 2012, 17, 1215-1231.	2.5	71
67	Cu(I)â€•and protonâ€binding properties of the first Nâ€terminal soluble domain of <i>Bacillusâ€ƒsubtilis</i> CopA. FEBS Journal, 2012, 279, 285-298.	2.2	10
68	Ironâ€"sulfur cluster sensor-regulators. Current Opinion in Chemical Biology, 2012, 16, 35-44.	2.8	87
69	Mechanistic Insight into the Nitrosylation of the [4Feâˆ'4S] Cluster of WhiB-like Proteins. Journal of the American Chemical Society, 2011, 133, 1112-1121.	6.6	124
70	Heme binding to the second, lowerâ€affinity site of the global iron regulator Irr from <i>Rhizobiumâ€ƒleguminosarum</i> promotes oligomerization. FEBS Journal, 2011, 278, 2011-2021.	2.2	13
71	A New Role for Heme, Facilitating Release of Iron from the Bacterioferritin Iron Biomineral. Journal of Biological Chemistry, 2011, 286, 3473-3483.	1.6	61
72	<i>Mycobacterium tuberculosis</i> WhiB1 is an essential DNA-binding protein with a nitric oxide-sensitive ironâ€"sulfur cluster. Biochemical Journal, 2010, 432, 417-427.	1.7	114

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73	Heme-responsive DNA Binding by the Global Iron Regulator Irr from Rhizobium leguminosarum. Journal of Biological Chemistry, 2010, 285, 16023-16031.	1.6	44
74	The dddP gene of Roseovarius nubinhibens encodes a novel lyase that cleaves dimethylsulfoniopropionate into acrylate plus dimethyl sulfide. Microbiology (United Kingdom), 2010, 156, 1900-1906.	0.7	49
75	Iron core mineralisation in prokaryotic ferritins. Biochimica Et Biophysica Acta - General Subjects, 2010, 1800, 732-744.	1.1	97
76	There's NO stopping NsrR, a global regulator of the bacterial NO stress response. Trends in Microbiology, 2010, 18, 149-156.	3.5	111
77	Crystal Structure and Biophysical Properties of Bacillus subtilis BdbD. Journal of Biological Chemistry, 2009, 284, 23719-23733.	1.6	37
78	Structural and Mechanistic Studies of a Stabilized Subunit Dimer Variant of Escherichia coli Bacterioferritin Identify Residues Required for Core Formation. Journal of Biological Chemistry, 2009, 284, 18873-18881.	1.6	23
79	The O ₂ sensitivity of the transcription factor FNR is controlled by Ser24 modulating the kinetics of [4Fe-4S] to [2Fe-2S] conversion. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4659-4664.	3.3	75
80	Structure and Functional Properties of Bacillus subtilis Endospore Biogenesis Factor StoA. Journal of Biological Chemistry, 2009, 284, 10056-10066.	1.6	14
81	Characterization of [4Fe-4S]-Containing and Cluster-Free Forms of <i>Streptomyces</i> WhiD. Biochemistry, 2009, 48, 12252-12264.	1.2	73
82	Monitoring the Iron Status of the Ferroxidase Center of <i>Escherichia coli</i> Bacterioferritin Using Fluorescence Spectroscopy. Biochemistry, 2009, 48, 9031-9039.	1.2	27
83	Structural Basis for Iron Mineralization by Bacterioferritin. Journal of the American Chemical Society, 2009, 131, 6808-6813.	6.6	82
84	The N-terminal soluble domains of Bacillus subtilis CopA exhibit a high affinity and capacity for Cu(<scp>i</scp>) ions. Dalton Transactions, 2009, , 688-696.	1.6	16
85	A Tetranuclear Cu(I) Cluster in the Metallochaperone Protein CopZ. Biochemistry, 2009, 48, 9324-9326.	1.2	31
86	Mechanistic insights into Cu(I) cluster transfer between the chaperone CopZ and its cognate Cu(I)-transporting P-type ATPase, CopA. Biochemical Journal, 2009, 424, 347-356.	1.7	30
87	Distinct characteristics of Ag+ and Cd2+ binding to CopZ from Bacillus subtilis. Journal of Biological Inorganic Chemistry, 2008, 13, 1011-1023.	1.1	18
88	Reactions of Nitric Oxide and Oxygen with the Regulator of Fumarate and Nitrate Reduction, a Global Transcriptional Regulator, during Anaerobic Growth of Escherichia coli. Methods in Enzymology, 2008, 437, 191-209.	0.4	39
89	Structure and Cu(I)-binding properties of the N-terminal soluble domains of <i>Bacillus subtilis</i> CopA. Biochemical Journal, 2008, 411, 571-579.	1.7	34
90	Influence of the Environment on the [4Feâˆ'4S]²⁺ to [2Feâˆ'2S]²⁺ Cluster Switch in the Transcriptional Regulator FNR. Journal of the American Chemical Society, 2008, 130, 1749-1758.	6.6	63

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91	The Active-Site Cysteinyls and Hydrophobic Cavity Residues of ResA Are Important for Cytochrome<i>c</i>Maturation in<i>Bacillus subtilis</i>. Journal of Bacteriology, 2008, 190, 4697-4705.	1.0	13
92	Effects of substitutions in the CXXC active-site motif of the extracytoplasmic thioredoxin ResA. Biochemical Journal, 2008, 414, 81-91.	1.7	36
93	Signal perception by FNR: the role of the ironâ€"sulfur cluster1. Biochemical Society Transactions, 2008, 36, 1144-1148.	1.6	31
94	High Cu(I) and low proton affinities of the CXXC motif of <i>Bacillus subtilis</i> CopZ. Biochemical Journal, 2008, 413, 459-465.	1.7	55
95	The Transcriptional Repressor Protein NsrR Senses Nitric Oxide Directly via a [2Fe-2S] Cluster. PLoS ONE, 2008, 3, e3623.	1.1	121
96	RsmA Is an Anti-sigma Factor That Modulates Its Activity through a [2Fe-2S] Cluster Cofactor. Journal of Biological Chemistry, 2007, 282, 31812-31820.	1.6	32
97	Superoxide-mediated amplification of the oxygen-induced switch from [4Fe-4S] to [2Fe-2S] clusters in the transcriptional regulator FNR. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2092-2097.	3.3	114
98	Atx1-like chaperones and their cognate P-type ATPases: copper-binding and transfer. BioMetals, 2007, 20, 275-289.	1.8	51
99	Molecular Basis for Specificity of the Extracytoplasmic Thioredoxin ResA. Journal of Biological Chemistry, 2006, 281, 35467-35477.	1.6	35
100	Detection of Sulfide Release from the Oxygen-sensing [4Fe-4S] Cluster of FNR. Journal of Biological Chemistry, 2006, 281, 18909-18913.	1.6	58
101	Formation of protein-coated iron minerals. Dalton Transactions, 2005, , 3597.	1.6	98
102	Structural Basis of Redox-coupled Protein Substrate Selection by the Cytochrome c Biosynthesis Protein ResA. Journal of Biological Chemistry, 2004, 279, 23654-23660.	1.6	56
103	Effect of phosphate on bacterioferritin-catalysed iron(II) oxidation. Journal of Biological Inorganic Chemistry, 2004, 9, 161-170.	1.1	39
104	Protein-Template-Driven Formation of Polynuclear Iron Speciesâ€. Journal of the American Chemical Society, 2004, 126, 496-504.	6.6	23
105	CopZ fromBacillus subtilisinteracts in vivo with a copper exporting CPx-type ATPase CopA. FEMS Microbiology Letters, 2003, 220, 105-112.	0.7	91
106	Core Formation in Escherichia coli Bacterioferritin Requires a Functional Ferroxidase Center. Biochemistry, 2003, 42, 14047-14056.	1.2	62
107	Bacillus subtilis ResA Is a Thiol-Disulfide Oxidoreductase involved in Cytochrome c Synthesis. Journal of Biological Chemistry, 2003, 278, 17852-17858.	1.6	74
108	Copper-mediated dimerization of CopZ, a predicted copper chaperone from Bacillus subtilis. Biochemical Journal, 2002, 368, 729-739.	1.7	56

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109	Iron Detoxification Properties of Escherichia coliBacterioferritin. Journal of Biological Chemistry, 2002, 277, 37064-37069.	1.6	74
110	Studies of copper(ii)-binding to bacterioferritin and its effect on iron(ii) oxidationBased on the presentation given at Dalton Discussion No. 4, 10â€“13th January 2002, Kloster Banz, Germany.. Dalton Transactions RSC, 2002, , 811-818.	2.3	13
111	Genes required for cytochrome c synthesis inBacillus subtilis. Molecular Microbiology, 2002, 36, 638-650.	1.2	85
112	The Iron Oxidation and Hydrolysis Chemistry ofEscherichia coliBacterioferritinâ€. Biochemistry, 2000, 39, 4915-4923.	1.2	104
113	Studies of the Cytochrome Subunits of Menaquinone:Cytochromec Reductase (bc Complex) of Bacillus subtilis. Journal of Biological Chemistry, 1998, 273, 8860-8866.	1.6	65
114	Spectroscopic Studies of Cobalt(II) Binding to Escherichia coli Bacterioferritin. Journal of Biological Chemistry, 1997, 272, 422-429.	1.6	26
115	Charge compensated binding of divalent metals to bacterioferritin: H+release associated with cobalt(II) and zinc(II) binding at dinuclear metal sites. FEBS Letters, 1996, 397, 159-163.	1.3	33
116	MCD, EPR and NMR spectroscopic studies of rabbit hemopexin and its heme binding domain. BBA - Proteins and Proteomics, 1995, 1253, 215-223.	2.1	13
117	Site-directed Replacement of the Coaxial Heme Ligands of Bacterioferritin Generates Heme-free Variants. Journal of Biological Chemistry, 1995, 270, 23268-23274.	1.6	84
118	Magnetic circular dichroism spectroscopy of the iron cores of ferritin and bacterioferritin. Molecular Physics, 1995, 85, 1061-1068.	0.8	10
119	Kinetic and structural characterization of an intermediate in the biomineralization of bacterioferritin. FEBS Letters, 1993, 333, 197-202.	1.3	80
120	An EPR investigation of non-haem iron sites inEscherichia colibacterioferritin and their interaction with phosphate. FEBS Letters, 1993, 323, 261-266.	1.3	29