JoAnne Stubbe

List of Publications by Year
in descending order

216 papers	14,797 citations	15495 65 h-index	24232 110 g-index
222 all docs	222 docs citations	222 times ranked	7955 citing authors

#	Article	IF	Citations
1	Protein Radicals in Enzyme Catalysis. Chemical Reviews, 1998, 98, 705-762.	23.0	1,401
2	Radical Initiation in the Class I Ribonucleotide Reductase:â€‰ Long-Range Proton-Coupled Electron Transfer?. Chemical Reviews, 2003, 103, 2167-2202.	23.0	770
3	Cytosolic Monothiol Glutaredoxins Function in Intracellular Iron Sensing and Trafficking via Their Bound Iron-Sulfur Cluster. Cell Metabolism, 2010, 12, 373-385.	7.2	263
4	Proton-coupled electron transfer: the mechanistic underpinning for radical transport and catalysis in biology. Philosophical Transactions of the Royal Society B: Biological Sciences, 2006, 361, 1351-1364.	1.8	262
5	Reconsideration of X, the Diiron Intermediate Formed during Cofactor Assembly inE. coliRibonucleotide Reductase. Journal of the American Chemical Society, 1996, 118, 7551-7557.	6.6	253
6	Reversible, Long-Range Radical Transfer in E. coli Class Ia Ribonucleotide Reductase. Accounts of Chemical Research, 2013, 46, 2524-2535.	7.6	223
7	Bleomycins:â€‰ A Structural Model for Specificity, Binding, and Double Strand Cleavage. Accounts of Chemical Research, 1996, 29, 322-330.	7.6	218
8	PHA synthase activity controls the molecular weight and polydispersity of polyhydroxybutyrate in vivo. Nature Biotechnology, 1997, 15, 63-67.	9.4	196
9	An ENDOR study of the tyrosyl free radical in ribonucleotide reductase from Escherichia coli. Journal of the American Chemical Society, 1989, 111, 8076-8083.	6.6	187
10	The crystal structure of class II ribonucleotide reductase reveals how an allosterically regulated monomer mimics a dimer. Nature Structural Biology, 2002, 9, 293-300.	9.7	187
11	EXAFS Characterization of the Intermediate X Generated During the Assembly of theEscherichia coliRibonucleotide Reductase R2 Diferric Tyrosyl Radical Cofactor. Journal of the American Chemical Society, 1998, 120, 849-860.	6.6	186
12	Class I Ribonucleotide Reductases: Metallocofactor Assembly and Repair In Vitro and In Vivo. Annual Review of Biochemistry, 2011, 80, 733-767.	5.0	183
13	Ribonucleotide reductases: radical enzymes with suicidal tendencies. Chemistry and Biology, 1995, 2, 793-801.	6.2	182
14	Mechanism of Assembly of the Tyrosyl Radical-Diiron(III) Cofactor of E. coli Ribonucleotide Reductase. 2. Kinetics of The Excess Fe2+ Reaction by Optical, EPR, and Moessbauer Spectroscopies. Journal of the American Chemical Society, 1994, 116, 8015-8023.	6.6	179
15	Mechanism of Assembly of the Tyrosyl Radical-Diiron(III) Cofactorof E. coli Ribonucleotide Reductase. 3. Kinetics of the Limiting Fe2+ Reaction by Optical, EPR, and Moessbauer Spectroscopies. Journal of the American Chemical Society, 1994, 116, 8024-8032.	6.6	154
16	Harnessing free radicals: formation and function of the tyrosyl radical in ribonucleotide reductase. Trends in Biochemical Sciences, 1998, 23, 438-443.	3.7	149
17	The Ralstonia eutropha PhaR Protein Couples Synthesis of the PhaP Phasin to the Presence of Polyhydroxybutyrate in Cells and Promotes Polyhydroxybutyrate Production. Journal of Bacteriology, 2002, 184, 59-66.	1.0	148
18	Polyhydroxyalkanoate (PHA) homeostasis: the role of the PHA synthase. Natural Product Reports, 2003, 20, 445.	5.2	143

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19	Class I and III Polyhydroxyalkanoate Synthases from Ralstonia eutropha and Allochromatium vinosum: Characterization and Substrate Specificity Studies. Archives of Biochemistry and Biophysics, 2001, 394, 87-98.	1.4	134
20	Subcellular localization of yeast ribonucleotide reductase regulated by the DNA replication and damage checkpoint pathways. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 6628-6633.	3.3	133
21	NONTEMPLATE-DEPENDENT POLYMERIZATION PROCESSES: Polyhydroxyalkanoate Synthases as a Paradigm. Annual Review of Biochemistry, 2005, 74, 433-480.	5.0	132
22	Structural Basis for Activation of Class Ib Ribonucleotide Reductase. Science, 2010, 329, 1526-1530.	6.0	131
23	Site-Specific Insertion of 3-Aminotyrosine into Subunit Î±2 of <i>E. coli</i> Ribonucleotide Reductase:â€‰ Direct Evidence for Involvement of Y₇₃₀ and Y₇₃₁ in Radical Propagation. Journal of the American Chemical Society, 2007, 129, 15060-15071.	6.6	129
24	Mono-, Di-, Tri-, and Tetra-Substituted Fluorotyrosines:Â New Probes for Enzymes That Use Tyrosyl Radicals in Catalysisâ€. Journal of the American Chemical Society, 2006, 128, 1569-1579.	6.6	126
25	Metallation and mismetallation of iron and manganese proteins in vitro and in vivo: the class I ribonucleotide reductases as a case study. Metallomics, 2012, 4, 1020.	1.0	124
26	New Insight into the Role of the PhaP Phasin of Ralstonia eutropha in Promoting Synthesis of Polyhydroxybutyrate. Journal of Bacteriology, 2001, 183, 2394-2397.	1.0	123
27	High-frequency (139.5 GHz) EPR spectroscopy of the tyrosyl radical in Escherichia coli ribonucleotide reductase. Journal of the American Chemical Society, 1993, 115, 6420-6421.	6.6	121
28	Pre-Steady-State and Steady-State Kinetic Analysis ofE. coliClass I Ribonucleotide Reductase. Biochemistry, 2003, 42, 10071-10083.	1.2	121
29	An Active Dimanganese(III)â^'Tyrosyl Radical Cofactor in <i>Escherichia coli</i> Class Ib Ribonucleotide Reductase. Biochemistry, 2010, 49, 1297-1309.	1.2	121
30	Di-iron-tyrosyl radical ribonucleotide reductases. Current Opinion in Chemical Biology, 2003, 7, 183-188.	2.8	120
31	Mechanistic studies on bleomycin-mediated DNA damage: multiple binding modes can result in double-stranded DNA cleavage. Nucleic Acids Research, 2008, 36, 3781-3790.	6.5	120
32	Ribonucleotide Reductases: Structure, Chemistry, and Metabolism Suggest New Therapeutic Targets. Annual Review of Biochemistry, 2020, 89, 45-75.	5.0	120
33	The Core Structure of X Generated in the Assembly of the Diiron Cluster of Ribonucleotide Reductase:Â17O2and H217O ENDOR. Journal of the American Chemical Society, 1998, 120, 12910-12919.	6.6	119
34	Coenzyme B12-Dependent Ribonucleotide Reductase: Evidence for the Participation of Five Cysteine Residues in Ribonucleotide Reduction. Biochemistry, 1994, 33, 12676-12685.	1.2	117
35	Identification of the Protonated Oxygenic Ligands of Ribonucleotide Reductase Intermediate X by Q-Band1,2H CW and Pulsed ENDOR. Journal of the American Chemical Society, 1997, 119, 9816-9824.	6.6	114
36	pH Rate Profiles of FnY356â^'R2s (n= 2, 3, 4) inEscherichiacoliRibonucleotide Reductase:Â Evidence that Y356Is a Redox-Active Amino Acid along the Radical Propagation Pathway. Journal of the American Chemical Society, 2006, 128, 1562-1568.	6.6	114

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37	Kinetic Studies of Polyhydroxybutyrate Granule Formation in Wautersia eutropha H16 by Transmission Electron Microscopy. Journal of Bacteriology, 2005, 187, 3814-3824.	1.0	111
38	Studies of CoÂ·Bleomycin A2 Green:â€‰ Its Detailed Structural Characterization by NMR and Molecular Modeling and Its Sequence-Specific Interaction with DNA Oligonucleotides. Journal of the American Chemical Society, 1996, 118, 1268-1280.	6.6	108
39	Lipases Provide a New Mechanistic Model for Polyhydroxybutyrate (PHB) Synthases:â€‰ Characterization of the Functional Residues in Chromatium vinosum PHB Synthase. Biochemistry, 2000, 39, 3927-3936.	1.2	106
40	Rapid Freezeâˆ'Quench ENDOR of the Radical X Intermediate ofEscherichia coliRibonucleotide Reductase Using17O2, H217O, and2H2O. Journal of the American Chemical Society, 1996, 118, 281-282.	6.6	105
41	EPR Distance Measurements Support a Model for Long-Range Radical Initiation inE. coliRibonucleotide Reductase. Journal of the American Chemical Society, 2005, 127, 15014-15015.	6.6	102
42	Ralstonia eutropha H16 Encodes Two and Possibly Three Intracellular Poly[d -(âˆ')-3-Hydroxybutyrate] Depolymerase Genes. Journal of Bacteriology, 2003, 185, 3788-3794.	1.0	101
43	N5-Carboxyaminoimidazole Ribonucleotide: Evidence for a New Intermediate and Two New Enzymic Activities in the de Novo Purine Biosynthetic Pathway of Escherichia coli. Biochemistry, 1994, 33, 2269-2278.	1.2	99
44	Enhanced subunit interactions with gemcitabine-5â€²-diphosphate inhibit ribonucleotide reductases. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14324-14329.	3.3	98
45	Incorporation of Fluorotyrosines into Ribonucleotide Reductase Using an Evolved, Polyspecific Aminoacyl-tRNA Synthetase. Journal of the American Chemical Society, 2011, 133, 15942-15945.	6.6	97
46	Mechanism of Assembly of the Dimanganese-Tyrosyl Radical Cofactor of Class Ib Ribonucleotide Reductase: Enzymatic Generation of Superoxide Is Required for Tyrosine Oxidation via a Mn(III)Mn(IV) Intermediate. Journal of the American Chemical Society, 2013, 135, 4027-4039.	6.6	97
47	Modular evolution of the purine biosynthetic pathway. Current Opinion in Chemical Biology, 2000, 4, 567-572.	2.8	93
48	PHA Synthase from Chromatium vinosum:â€‰ Cysteine 149 Is Involved in Covalent Catalysis. Biochemistry, 1999, 38, 826-837.	1.2	92
49	Ribonucleotide reductases: the link between an RNA and a DNA world?. Current Opinion in Structural Biology, 2000, 10, 731-736.	2.6	92
50	Mechanistic Studies on Class I Polyhydroxybutyrate (PHB) Synthase fromRalstonia eutropha:Â Class I and III Synthases Share a Similar Catalytic Mechanismâ€. Biochemistry, 2001, 40, 1011-1019.	1.2	90
51	Structural interconversions modulate activity of <i>Escherichia coli</i> ribonucleotide reductase. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 21046-21051.	3.3	87
52	The evolution of ribonucleotide reduction revisited. Trends in Biochemical Sciences, 2001, 26, 93-99.	3.7	84
53	Site-Specific Replacement of Y356with 3,4-Dihydroxyphenylalanine in the Î²2 Subunit ofE.coliRibonucleotide Reductase. Journal of the American Chemical Society, 2006, 128, 2522-2523.	6.6	84
54	EPR Investigations of the Inactivation of E. coli Ribonucleotide Reductase with 2'-Azido-2'-deoxyuridine 5'-Diphosphate: Evidence for the Involvement of the Thiyl Radical of C225-R1. Journal of the American Chemical Society, 1995, 117, 8908-8916.	6.6	83

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55	Location of the redox-active thiols of ribonucleotide reductase: sequence similarity between the Escherichia coli and Lactobacillus leichmannii enzymes. Biochemistry, 1987, 26, 6905-6909.	1.2	82
56	Structure of a trapped radical transfer pathway within a ribonucleotide reductase holocomplex. Science, 2020, 368, 424-427.	6.0	82
57	Studies on the Catalysis of Carbonâˆ’Cobalt Bond Homolysis by Ribonucleoside Triphosphate Reductase:â€‰ Evidence for Concerted Carbonâˆ’Cobalt Bond Homolysis and Thiyl Radical Formationâ€. Biochemistry, 1999, 38, 1221-1233.	1.2	81
58	Site-Specific Incorporation of 3-Nitrotyrosine as a Probe of p<i>K</i>_a Perturbation of Redox-Active Tyrosines in Ribonucleotide Reductase. Journal of the American Chemical Society, 2010, 132, 8385-8397.	6.6	80
59	Generation of the R2 Subunit of Ribonucleotide Reductase by Intein Chemistry:Â Insertion of 3-Nitrotyrosine at Residue 356 as a Probe of the Radical Initiation Processâ€. Biochemistry, 2003, 42, 14541-14552.	1.2	79
60	Isotope effects on the cleavage of DNA by bleomycin: Mechanism and modulation. Biochemistry, 1993, 32, 2601-2609.	1.2	75
61	<i>Escherichia coli</i> Class Ib Ribonucleotide Reductase Contains a Dimanganese(III)-Tyrosyl Radical Cofactor in Vivo. Biochemistry, 2011, 50, 1672-1681.	1.2	74
62	Detection of a New Substrate-Derived Radical during Inactivation of Ribonucleotide Reductase fromEscherichia coliby Gemcitabine 5â€˜-Diphosphateâ€. Biochemistry, 1998, 37, 6419-6426.	1.2	69
63	Structure of the Catalytic Domain of the Class I Polyhydroxybutyrate Synthase from Cupriavidus necator. Journal of Biological Chemistry, 2016, 291, 25264-25277.	1.6	69
64	X-ray crystal structure of aminoimidazole ribonucleotide synthetase (PurM), from the Escherichia coli purine biosynthetic pathway at 2.5 Ã… resolution. Structure, 1999, 7, 1155-1166.	1.6	68
65	PELDOR Spectroscopy with DOPA-Î²2 and NH₂Y-Î±2s:â€‰ Distance Measurements between Residues Involved in the Radical Propagation Pathway of <i>E. coli</i> Ribonucleotide Reductase. Journal of the American Chemical Society, 2007, 129, 15748-15749.	6.6	68
66	Inactivation of Ribonucleotide Reductase by (E)-2â€˜-Fluoromethylene-2â€˜-deoxycytidine 5â€˜-Diphosphate:Â A Paradigm for Nucleotide Mechanism-Based Inhibitorsâ€. Biochemistry, 1996, 35, 8381-8391.	1.2	67
67	Solution Structure of Co(III)-Bleomycin-OOH Bound to a Phosphoglycolate Lesion Containing Oligonucleotide:â€‰ Implications for Bleomycin-Induced Double-Strand DNA Cleavage. Biochemistry, 2001, 40, 5894-5905.	1.2	67
68	Reactions Catalyzed by 5-Aminoimidazole Ribonucleotide Carboxylases from Escherichia coli and Gallus gallus: A Case for Divergent Catalytic Mechanisms?. Biochemistry, 1994, 33, 11927-11934.	1.2	66
69	[20] Use of rapid kinetics methods to study the assembly of the diferric-tyrosyl radical cofactor of E. coli ribonucleotide reductase. Methods in Enzymology, 1995, 258, 278-303.	0.4	65
70	Growth and Localization of Polyhydroxybutyrate Granules in Ralstonia eutropha. Journal of Bacteriology, 2012, 194, 1092-1099.	1.0	65
71	Hydrogen Bond Network between Amino Acid Radical Intermediates on the Proton-Coupled Electron Transfer Pathway of <i>E. coli</i> Î±2 Ribonucleotide Reductase. Journal of the American Chemical Society, 2015, 137, 289-298.	6.6	65
72	Mechanistic Studies of Semicarbazone Triapine Targeting Human Ribonucleotide Reductase in Vitro and in Mammalian Cells. Journal of Biological Chemistry, 2012, 287, 35768-35778.	1.6	64

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73	Radicals with a controlled lifestyle. Chemical Communications, 2003, , 2511.	2.2	63
74	NrdI, a flavodoxin involved in maintenance of the diferric-tyrosyl radical cofactor in <i>Escherichia coli</i> class Ib ribonucleotide reductase. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 14383-14388.	3.3	63
75	Circular Dichroism and Magnetic Circular Dichroism Studies of the Fully Reduced Binuclear Non-Heme Iron Active Site in the Escherichia coli R2 Subunit of Ribonucleoside Diphosphate Reductase. Journal of the American Chemical Society, 1995, 117, 12664-12678.	6.6	62
76	Analysis of Transient Polyhydroxybutyrate Production in Wautersia eutropha H16 by Quantitative Western Analysis and Transmission Electron Microscopy. Journal of Bacteriology, 2005, 187, 3825-3832.	1.0	62
77	Kinetics of Radical Intermediate Formation and Deoxynucleotide Production in 3-Aminotyrosine-Substituted <i>Escherichia coli</i> Ribonucleotide Reductases. Journal of the American Chemical Society, 2011, 133, 9430-9440.	6.6	62
78	Clofarabine 5â€²-di and -triphosphates inhibit human ribonucleotide reductase by altering the quaternary structure of its large subunit. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9815-9820.	3.3	62
79	Products of the inactivation of ribonucleoside diphosphate reductase from Escherichia coli with 2'-azido-2'-deoxyuridine 5'-diphosphate. Biochemistry, 1987, 26, 3408-3416.	1.2	61
80	Equilibration of Tyrosyl Radicals (Y₃₅₆^{â€¢}, Y₇₃₁^{â€¢},) Tj ETQq0 0 0 rgBT /Overlock Ribonucleotide Reductase. Journal of the American Chemical Society, 2011, 133, 18420-18432.	6.6	61
81	Pulsed ELDOR Spectroscopy Measures the Distance between the Two Tyrosyl Radicals in the R2 Subunit of theE. coliRibonucleotide Reductase. Journal of the American Chemical Society, 2003, 125, 14988-14989.	6.6	60
82	2,3-Difluorotyrosine at Position 356 of Ribonucleotide Reductase R2:â€‰ A Probe of Long-Range Proton-Coupled Electron Transfer. Journal of the American Chemical Society, 2003, 125, 10506-10507.	6.6	60
83	Tangled Up in Knots: Structures of Inactivated Forms of E.Âcoli Class Ia Ribonucleotide Reductase. Structure, 2012, 20, 1374-1383.	1.6	60
84	Bleomycins: new methods will allow reinvestigation of old issues. Current Opinion in Chemical Biology, 2004, 8, 175-181.	2.8	59
85	X-ray Crystal Structure of Glycinamide Ribonucleotide Synthetase fromEscherichia coliâ€,â€¡. Biochemistry, 1998, 37, 15647-15662.	1.2	57
86	Site-specific incorporation of fluorotyrosines into the R2 subunit of E. coli ribonucleotide reductase by expressed protein ligation. Nature Protocols, 2007, 2, 1225-1235.	5.5	56
87	A Hot Oxidant, 3-NO₂Y₁₂₂ Radical, Unmasks Conformational Gating in Ribonucleotide Reductase. Journal of the American Chemical Society, 2010, 132, 15368-15379.	6.6	56
88	Structure of the Nucleotide Radical Formed during Reaction of CDP/TTP with the E441Q-Î±2Î²2 of<i>E. coli</i>Ribonucleotide Reductase. Journal of the American Chemical Society, 2009, 131, 200-211.	6.6	55
89	Function of the Diiron Cluster of <i>Escherichia coli</i> Class Ia Ribonucleotide Reductase in Proton-Coupled Electron Transfer. Journal of the American Chemical Society, 2013, 135, 8585-8593.	6.6	55
90	YfaE, a Ferredoxin Involved in Diferric-Tyrosyl Radical Maintenance in <i>Escherichia coli</i> Ribonucleotide Reductase. Biochemistry, 2007, 46, 11577-11588.	1.2	54

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91	A Systematic Evaluation of the Bleomycin A2 l-Threonine Side Chain:â€‰ Its Role in Preorganization of a Compact Conformation Implicated in Sequence-Selective DNA Cleavage. Journal of the American Chemical Society, 1998, 120, 9139-9148.	6.6	53
92	High-Frequency (140-GHz) Time Domain EPR and ENDOR Spectroscopy:Â The Tyrosyl Radicalâ^'Diiron Cofactor in Ribonucleotide Reductase from Yeast. Journal of the American Chemical Society, 2001, 123, 3569-3576.	6.6	53
93	Photo-ribonucleotide reductase Î²2 by selective cysteine labeling with a radical phototrigger. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 39-43.	3.3	53
94	Three-Dimensional Structure ofN5-Carboxyaminoimidazole Ribonucleotide Synthetase:Â A Member of the ATP Grasp Protein Superfamilyâ€,â€¡. Biochemistry, 1999, 38, 15480-15492.	1.2	52
95	Turning on ribonucleotide reductase by light-initiated amino acid radical generation. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 6882-6887.	3.3	52
96	<i>Bacillus subtilis</i> Class Ib Ribonucleotide Reductase Is a Dimanganese(III)-Tyrosyl Radical Enzyme. Biochemistry, 2011, 50, 5615-5623.	1.2	52
97	Insight into the Mechanism of Inactivation of Ribonucleotide Reductase by Gemcitabine 5â€²-Diphosphate in the Presence or Absence of Reductant. Biochemistry, 2009, 48, 11622-11629.	1.2	51
98	Characterization of a Substrate-Derived Radical Detected during the Inactivation of Ribonucleotide Reductase fromEscherichia coliby 2â€˜-Fluoromethylene-2â€˜-deoxycytidine 5â€˜-Diphosphate. Journal of the American Chemical Society, 1998, 120, 3823-3835.	6.6	50
99	Crystal structure of Escherichia coli PurE, an unusual mutase in the purine biosynthetic pathway. Structure, 1999, 7, 1395-1406.	1.6	50
100	Direct Observation of a Transient Tyrosine Radical Competent for Initiating Turnover in a Photochemical Ribonucleotide Reductase. Journal of the American Chemical Society, 2007, 129, 13828-13830.	6.6	50
101	ENDOR Spectroscopy and DFT Calculations: Evidence for the Hydrogen-Bond Network Within Î±2 in the PCET of E. coli Ribonucleotide Reductase. Journal of the American Chemical Society, 2012, 134, 17661-17670.	6.6	50
102	Genetic Characterization and Role in Virulence of the Ribonucleotide Reductases of Streptococcus sanguinis. Journal of Biological Chemistry, 2014, 289, 6273-6287.	1.6	50
103	Structure of the Nitrogen-Centered Radical Formed during Inactivation ofE. coliRibonucleotide Reductase by 2â€˜-Azido-2â€˜-deoxyuridine-5â€˜-diphosphate:Â Trapping of the 3â€˜-Ketonucleotide. Journal of the American Chemical Society, 2005, 127, 7729-7738.	6.6	49
104	Electron Transfer Reactions of Fluorotyrosyl Radicals. Journal of the American Chemical Society, 2006, 128, 13654-13655.	6.6	49
105	Inorganic pyrophosphate is released from 2'-chloro-2'-deoxyuridine 5'-diphosphate by ribonucleoside diphosphate reductase. Journal of the American Chemical Society, 1980, 102, 2505-2507.	6.6	48
106	Ribonucleotide Reductases. Advances in Enzymology and Related Areas of Molecular Biology, 2006, 63, 349-419.	1.3	48
107	Mechanism of Inactivation of Human Ribonucleotide Reductase with p53R2 by Gemcitabine 5â€²-Diphosphate. Biochemistry, 2009, 48, 11612-11621.	1.2	47
108	Investigation of in Vivo Diferric Tyrosyl Radical Formation in Saccharomyces cerevisiae Rnr2 Protein. Journal of Biological Chemistry, 2011, 286, 41499-41509.	1.6	46

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109	Clofarabine Targets the Large Subunit (Î±) of Human Ribonucleotide Reductase in Live Cells by Assembly into Persistent Hexamers. Chemistry and Biology, 2012, 19, 799-805.	6.2	45
110	Streptococcus sanguinis Class Ib Ribonucleotide Reductase. Journal of Biological Chemistry, 2014, 289, 6259-6272.	1.6	45
111	Allosteric Inhibition of Human Ribonucleotide Reductase by dATP Entails the Stabilization of a Hexamer. Biochemistry, 2016, 55, 373-381.	1.2	45
112	Mechanistic Investigations of Ribonucleotide Reductases. , 1999, , 163-203.		44
113	Photoactive Peptides for Light-Initiated Tyrosyl Radical Generation and Transport into Ribonucleotide Reductase. Journal of the American Chemical Society, 2007, 129, 8500-8509.	6.6	44
114	Generation of a stable, aminotyrosyl radical-induced Î±2Î²2 complex of <i>Escherichia coli</i> class Ia ribonucleotide reductase. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3835-3840.	3.3	44
115	Mechanism of inactivation of Escherichia coli ribonucleotide reductase by 2'-chloro-2'-deoxyuridine 5'-diphosphate: evidence for generation of a 2'-deoxy-3'-ketonucleotide via a net 1,2 hydrogen shift. Biochemistry, 1985, 24, 7214-7221.	1.2	43
116	Evidence for the Direct Transfer of the Carboxylate of N5-Carboxyaminoimidazole Ribonucleotide (N5-CAIR) To Generate 4-Carboxy-5-aminoimidazole Ribonucleotide Catalyzed by Escherichia coli PurE, an N5-CAIR Mutase. Biochemistry, 1999, 38, 3012-3018.	1.2	43
117	Structures of the Yeast Ribonucleotide Reductase Rnr2 and Rnr4 Homodimers,. Biochemistry, 2004, 43, 7736-7742.	1.2	43
118	pH dependence of charge transfer between tryptophan and tyrosine in dipeptides. Biochimica Et Biophysica Acta - Bioenergetics, 2005, 1706, 232-238.	0.5	43
119	Biophysical Characterization of Fluorotyrosine Probes Site-Specifically Incorporated into Enzymes: <i>E. coli</i> Ribonucleotide Reductase As an Example. Journal of the American Chemical Society, 2016, 138, 7951-7964.	6.6	43
120	Definition of the Effect and Role of the Bleomycin A2 Valerate Substituents:â€‰ Preorganization of a Rigid, Compact Conformation Implicated in Sequence-Selective DNA Cleavage. Journal of the American Chemical Society, 1998, 120, 9149-9158.	6.6	42
121	Site-Specific Replacement of a Conserved Tyrosine in Ribonucleotide Reductase with an Aniline Amino Acid:Â A Mechanistic Probe for a Redox-Active Tyrosine. Journal of the American Chemical Society, 2004, 126, 16702-16703.	6.6	41
122	Nuclear localization of the Saccharomyces cerevisiae ribonucleotide reductase small subunit requires a karyopherin and a WD40 repeat protein. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 1422-1427.	3.3	41
123	Deciphering Radical Transport in the Large Subunit of Class I Ribonucleotide Reductase. Journal of the American Chemical Society, 2012, 134, 1172-1180.	6.6	40
124	Conserved electron donor complex Dre2â€“Tah18 is required for ribonucleotide reductase metallocofactor assembly and DNA synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1695-704.	3.3	40
125	Identification of Protonated Oxygenic Ligands of Ribonucleotide Reductase Intermediate X. Journal of the American Chemical Society, 2009, 131, 3370-3376.	6.6	39
126	Radical transfer in E. coli ribonucleotide reductase: a NH₂Y₇₃₁/R₄₁₁A-Î± mutant unmasks a new conformation of the pathway residue 731. Chemical Science, 2016, 7, 2170-2178.	3.7	38

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127	3.3-Ã… resolution cryo-EM structure of human ribonucleotide reductase with substrate and allosteric regulators bound. ELife, 2018, 7, .	2.8	37
128	Choosing the Right Metal: Case Studies of Class I Ribonucleotide Reductases. Journal of Biological Chemistry, 2014, 289, 28104-28111.	1.6	36
129	Conformationally Dynamic Radical Transfer within Ribonucleotide Reductase. Journal of the American Chemical Society, 2017, 139, 16657-16665.	6.6	36
130	Protein Radicals in Enzyme Catalysis. [Chem. Rev. 1998, 98, 705â^'762. Chemical Reviews, 1998, 98, 2661-2662.	23.0	35
131	Forward and Reverse Electron Transfer with the Y356DOPA-Î²2 Heterodimer ofE. coliRibonucleotide Reductase. Journal of the American Chemical Society, 2007, 129, 2226-2227.	6.6	35
132	Purification of Polyhydroxybutyrate Synthase from Its Native Organism, <i>Ralstonia eutropha</i>: Implications for the Initiation and Elongation of Polymer Formation in Vivo. Biochemistry, 2012, 51, 2276-2288.	1.2	35
133	Importance of the Maintenance Pathway in the Regulation of the Activity ofEscherichia coliRibonucleotide Reductaseâ€. Biochemistry, 2008, 47, 3989-3999.	1.2	34
134	Formal Reduction Potentials of Difluorotyrosine and Trifluorotyrosine Protein Residues: Defining the Thermodynamics of Multistep Radical Transfer. Journal of the American Chemical Society, 2017, 139, 2994-3004.	6.6	34
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