Donald Hilvert

List of Publications by Year
in descending order

229	16,226	69	114
papers	citations	h-index	g-index
		14124	24511
254	254	254	11783
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Whi3 mnemon association with endoplasmic reticulum membranes confines the memory of deceptive courtship to the yeast mother cell. Current Biology, 2022, 32, 963-974.e7.	1.8	7
2	Structure and Function of the Î²-Asp-Arg Polymerase Cyanophycin Synthetase 2. ACS Chemical Biology, 2022, 17, 670-679.	1.6	11
3	Protein Cages: From Fundamentals to Advanced Applications. Chemical Reviews, 2022, 122, 9145-9197.	23.0	54
4	The road to fully programmable protein catalysis. Nature, 2022, 606, 49-58.	13.7	126
5	A cryptic third active site in cyanophycin synthetase creates primers for polymerization. Nature Communications, 2022, 13, .	5.8	12
6	Trapping Transient Protein Species by Genetic Code Expansion. ChemBioChem, 2021, 22, 92-99.	1.3	7
7	Efficient Lewis acid catalysis of an abiological reaction in a de novo protein scaffold. Nature Chemistry, 2021, 13, 231-235.	6.6	46
8	Biosynthetic Functionalization of Nonribosomal Peptides. Journal of the American Chemical Society, 2021, 143, 2736-2740.	6.6	13
9	Cell-Specific Delivery Using an Engineered Protein Nanocage. ACS Chemical Biology, 2021, 16, 838-843.	1.6	16
10	The OP Protein Cage: A Versatile Molecular Delivery Platform. Chimia, 2021, 75, 323.	0.3	6
11	Evolution of the Chemical Step in Enzyme Catalysis. ACS Catalysis, 2021, 11, 6726-6732.	5.5	14
12	Analysis of electrostatic coupling throughout the laboratory evolution of a designed retroaldolase. Protein Science, 2021, 30, 1617-1627.	3.1	5
13	Noncanonical Heme Ligands Steer Carbene Transfer Reactivity in an Artificial Metalloenzyme**. Angewandte Chemie, 2021, 133, 15190-15195.	1.6	3
14	Noncanonical Heme Ligands Steer Carbene Transfer Reactivity in an Artificial Metalloenzyme**. Angewandte Chemie - International Edition, 2021, 60, 15063-15068.	7.2	18
15	Evolution of a virus-like architecture and packaging mechanism in a repurposed bacterial protein. Science, 2021, 372, 1220-1224.	6.0	53
16	Structures and function of the amino acid polymerase cyanophycin synthetase. Nature Chemical Biology, 2021, 17, 1101-1110.	3.9	24
17	Evolution of dynamical networks enhances catalysis in a designer enzyme. Nature Chemistry, 2021, 13, 1017-1022.	6.6	60
18	De novo peptide grafting to a self-assembling nanocapsule yields a hepatocyte growth factor receptor agonist. IScience, 2021, 24, 103302.	1.9	9

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19	Selfâ€Assembly of Proteinaceous Shells around Positively Charged Gold Nanomaterials Enhances Colloidal Stability in Highâ€Ionicâ€Strength Buffers. ChemBioChem, 2020, 21, 74-79.	1.3	11
20	How directed evolution reshapes the energy landscape in an enzyme to boost catalysis. Science, 2020, 370, 1442-1446.	6.0	101
21	Tight and specific lanthanide binding in a de novo TIM barrel with a large internal cavity designed by symmetric domain fusion. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30362-30369.	3.3	31
22	Enhancing promiscuous chemistries of a Schiff-base forming enzyme by divergent evolution. Methods in Enzymology, 2020, 644, 95-120.	0.4	2
23	An evolution-based model for designing chorismate mutase enzymes. Science, 2020, 369, 440-445.	6.0	195
24	Two-tier supramolecular encapsulation of small molecules in a protein cage. Nature Communications, 2020, 11, 5410.	5.8	42
25	Engineered Artificial Carboligases Facilitate Regioselective Preparation of Enantioenriched Aldol Adducts. Journal of the American Chemical Society, 2020, 142, 10250-10254.	6.6	15
26	Contribution of Oxyanion Stabilization to Kemp Eliminase Efficiency. ACS Catalysis, 2020, 10, 4460-4464.	5.5	16
27	Syntheses of Cyanophycin Segments for Investigations of Cell-Penetration. Synthesis, 2019, 51, 31-39.	1.2	10
28	Emergence of a Negative Activation Heat Capacity during Evolution of a Designed Enzyme. Journal of the American Chemical Society, 2019, 141, 11745-11748.	6.6	42
29	Expanding the mass range for UVPD-based native top-down mass spectrometry. Chemical Science, 2019, 10, 7163-7171.	3.7	29
30	A computational method for design of connected catalytic networks in proteins. Protein Science, 2019, 28, 2036-2041.	3.1	28
31	Reprogramming Nonribosomal Peptide Synthesis by Surgical Mutation. Synlett, 2019, 30, 2123-2130.	1.0	7
32	Ultrahigh-throughput screening enables efficient single-round oxidase remodelling. Nature Catalysis, 2019, 2, 740-747.	16.1	74
33	Virus-Inspired Function in Engineered Protein Cages. Journal of the American Chemical Society, 2019, 141, 9432-9443.	6.6	46
34	Cytoplasmic glycoengineering enables biosynthesis of nanoscale glycoprotein assemblies. Nature Communications, 2019, 10, 5403.	5.8	36
35	Directed Evolution of Protein Catalysts. Annual Review of Biochemistry, 2018, 87, 131-157.	5.0	330
36	Stereodivergent Evolution of Artificial Enzymes for the Michael Reaction. Angewandte Chemie, 2018, 130, 5386-5389.	1.6	6

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37	Stereodivergent Evolution of Artificial Enzymes for the Michael Reaction. Angewandte Chemie - International Edition, 2018, 57, 5288-5291.	7.2	34
38	Speeding up enzyme discovery and engineering with ultrahigh-throughput methods. Current Opinion in Structural Biology, 2018, 48, 149-156.	2.6	103
39	Modular Protein Cages for Size-Selective RNA Packaging in Vivo. Journal of the American Chemical Society, 2018, 140, 566-569.	6.6	37
40	Substrate Sorting by a Supercharged Nanoreactor. Journal of the American Chemical Society, 2018, 140, 860-863.	6.6	48
41	Diversification of Protein Cage Structure Using Circularly Permuted Subunits. Journal of the American Chemical Society, 2018, 140, 558-561.	6.6	32
42	A Noncanonical Proximal Heme Ligand Affords an Efficient Peroxidase in a Globin Fold. Journal of the American Chemical Society, 2018, 140, 1535-1543.	6.6	79
43	Tailoring lumazine synthase assemblies for bionanotechnology. Chemical Society Reviews, 2018, 47, 3543-3557.	18.7	92
44	Nonribosomal biosynthesis of backbone-modified peptides. Nature Chemistry, 2018, 10, 282-287.	6.6	92
45	Evolution of a highly active and enantiospecific metalloenzyme from short peptides. Science, 2018, 362, 1285-1288.	6.0	116
46	Engineered Metalloenzymes with Nonâ€Canonical Coordination Environments. Chemistry - A European Journal, 2018, 24, 11821-11830.	1.7	33
47	Cell Penetration, Herbicidal Activity, and <i>inâ€vivo</i>â€Toxicity of Oligoâ€Arginine Derivatives and of Novel Guanidiniumâ€Rich Compounds Derived from the Biopolymer Cyanophycin. Helvetica Chimica Acta, 2018, 101, e1800112.	1.0	17
48	Capture and characterization of a reactive haemâ€"carbenoid complex in an artificial metalloenzyme. Nature Catalysis, 2018, 1, 578-584.	16.1	93
49	Laboratory evolution of virus-like nucleocapsids from nonviral protein cages. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5432-5437.	3.3	61
50	Frontispiece: Engineered Metalloenzymes with Nonâ€Canonical Coordination Environments. Chemistry - A European Journal, 2018, 24, .	1.7	0
51	Rational Engineering of a Designed Protein Cage for siRNA Delivery. Journal of the American Chemical Society, 2018, 140, 10439-10442.	6.6	86
52	Enzyme Encapsulation in an Engineered Lumazine Synthase Protein Cage. Methods in Molecular Biology, 2018, 1798, 39-55.	0.4	13
53	TOP-DOWN AND BOTTOM-UP APPROACHES FOR ELUCIDATING THE ORIGINS OF ENZYME EFFICIENCY. , 2018, , .		0
54	Chemoselective Henry Condensations Catalyzed by Artificial Carboligases. Chemistry - A European Journal, 2017, 23, 6001-6003.	1.7	21

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55	Structure and assembly of scalable porous protein cages. Nature Communications, 2017, 8, 14663.	5.8	102
56	Irreversible Cysteineâ€Selective Protein Labeling Employing Modular Electrophilic Tetrafluoroethylation Reagents. Chemistry - A European Journal, 2017, 23, 6490-6494.	1.7	37
57	The C-terminal peptide of Aquifex aeolicus riboflavin synthase directs encapsulation of native and foreign guests by a cage-forming lumazine synthase. Journal of Biological Chemistry, 2017, 292, 10321-10327.	1.6	20
58	Synthesis and characterization of catalytically active thiazolium gold(<scp>i</scp>)-carbenes. Chemical Communications, 2017, 53, 7585-7587.	2.2	6
59	Enantiocomplementary Synthesis of Î³-Nitroketones Using Designed and Evolved Carboligases. Journal of the American Chemical Society, 2017, 139, 103-106.	6.6	37
60	Efficient laboratory evolution of computationally designed enzymes with low starting activities using fluorescence-activated droplet sorting. Protein Engineering, Design and Selection, 2017, 30, 531-531.	1.0	4
61	Highâ€Mass <scp>MALDI</scp>â€‹<scp>MS</scp> Analysis for the Investigation of Protein Encapsulation within an Engineered Capsid Forming Protein. Helvetica Chimica Acta, 2017, 100, e1700166.	1.0	3
62	Surface-Engineered Cationic Nanocrystals Stable in Biological Buffers and High Ionic Strength Solutions. Chemistry of Materials, 2017, 29, 9416-9428.	3.2	31
63	Enzyme Encapsulation by a Ferritin Cage. Angewandte Chemie, 2017, 129, 15129-15132.	1.6	72
64	Enzyme Encapsulation by a Ferritin Cage. Angewandte Chemie - International Edition, 2017, 56, 14933-14936.	7.2	89
65	Optimization of Enzyme Mechanism along the Evolutionary Trajectory of a Computationally Designed (Retro-)Aldolase. Journal of the American Chemical Society, 2017, 139, 12541-12549.	6.6	45
66	Emergence of a catalytic tetrad during evolution of a highly active artificial aldolase. Nature Chemistry, 2017, 9, 50-56.	6.6	248
67	Evaluation of the Ser-His Dipeptide, a Putative Catalyst of Amide and Ester Hydrolysis. Organic Letters, 2016, 18, 3518-3521.	2.4	21
68	Chiral recognition in amyloid fiber growth. Journal of Peptide Science, 2016, 22, 290-304.	0.8	25
69	Quantitative Beladung eines ProteinkÃfigs mit aktiven Enzymen. Angewandte Chemie, 2016, 128, 1555-1558.	1.6	14
70	DNA Nanoparticles for Improved Protein Synthesis In Vitro. Angewandte Chemie - International Edition, 2016, 55, 3120-3123.	7.2	19
71	Fast Knoevenagel Condensations Catalyzed by an Artificial Schiff-Base-Forming Enzyme. Journal of the American Chemical Society, 2016, 138, 6972-6974.	6.6	83
72	DNA Nanoparticles for Improved Protein Synthesis In Vitro. Angewandte Chemie, 2016, 128, 3172-3175.	1.6	8

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73	Self-Assembly of Proteinaceous Multishell Structures Mediated by a Supercharged Protein. Journal of Physical Chemistry B, 2016, 120, 6089-6095.	1.2	22
74	Enzyme-mediated polymerization inside engineered protein cages. Chemical Communications, 2016, 52, 10423-10426.	2.2	30
75	Bottom-up Construction of a Primordial Carboxysome Mimic. Journal of the American Chemical Society, 2016, 138, 10072-10075.	6.6	73
76	A Chemically Programmed Proximal Ligand Enhances the Catalytic Properties of a Heme Enzyme. Journal of the American Chemical Society, 2016, 138, 11344-11352.	6.6	64
77	Efficient laboratory evolution of computationally designed enzymes with low starting activities using fluorescence-activated droplet sorting. Protein Engineering, Design and Selection, 2016, 29, 355-366.	1.0	58
78	Upregulation of an Artificial Zymogen by Proteolysis. Angewandte Chemie - International Edition, 2016, 55, 11587-11590.	7.2	29
79	Upregulation of an Artificial Zymogen by Proteolysis. Angewandte Chemie, 2016, 128, 11759-11762.	1.6	7
80	Quantitative Packaging of Active Enzymes into a Protein Cage. Angewandte Chemie - International Edition, 2016, 55, 1531-1534.	7.2	110
81	Construction of Matryoshkaâ€Type Structures from Supercharged Protein Nanocages. Angewandte Chemie - International Edition, 2015, 54, 937-940.	7.2	60
82	A Subdomain Swap Strategy for Reengineering Nonribosomal Peptides. Chemistry and Biology, 2015, 22, 640-648.	6.2	90
83	Diffusion-Limited Cargo Loading of an Engineered Protein Container. Journal of the American Chemical Society, 2015, 137, 16121-16132.	6.6	62
84	Substitution of Proline32 by Î±-Methylproline Preorganizes Î²2-Microglobulin for Oligomerization but Not for Aggregation into Amyloids. Journal of the American Chemical Society, 2015, 137, 2524-2535.	6.6	17
85	Comparative Laboratory Evolution of Ordered and Disordered Enzymes. Journal of Biological Chemistry, 2015, 290, 9310-9320.	1.6	12
86	A Promiscuous Deâ€…Novo Retroâ€Aldolase Catalyzes Asymmetric Michael Additions via Schiff Base Intermediates. Angewandte Chemie - International Edition, 2015, 54, 5609-5612.	7.2	53
87	Kinetic Consequences of Introducing a Proximal Selenocysteine Ligand into Cytochrome P450cam. Biochemistry, 2015, 54, 6692-6703.	1.2	14
88	Harnessing selenocysteine reactivity for oxidative protein folding. Chemical Science, 2015, 6, 322-325.	3.7	50
89	Impact of scaffold rigidity on the design and evolution of an artificial Diels-Alderase. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8013-8018.	3.3	111
90	Electrostatic transition state stabilization rather than reactant destabilization provides the chemical basis for efficient chorismate mutase catalysis. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17516-17521.	3.3	31

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91	Active Site Plasticity of a Computationally Designed Retroâ€Aldolase Enzyme. ChemCatChem, 2014, 6, 1043-1050.	1.8	23
92	Building Proficient Enzymes with Foldamer Prostheses. Angewandte Chemie - International Edition, 2014, 53, 6978-6981.	7.2	54
93	Exploration of Alternate Catalytic Mechanisms and Optimization Strategies for Retroaldolase Design. Journal of Molecular Biology, 2014, 426, 256-271.	2.0	33
94	Reprogramming Nonribosomal Peptide Synthetases for â€œClickableâ€•Amino Acids. Angewandte Chemie, 2014, 126, 10269-10272.	1.6	20
95	Natural and synthetic selenoproteins. Current Opinion in Chemical Biology, 2014, 22, 27-34.	2.8	80
96	Reprogramming Nonribosomal Peptide Synthetases for â€œClickableâ€•Amino Acids. Angewandte Chemie - International Edition, 2014, 53, 10105-10108.	7.2	102
97	Affinity maturation of a computationally designed binding protein affords a functional but disordered polypeptide. Journal of Structural Biology, 2014, 185, 168-177.	1.3	10
98	Precision is essential for efficient catalysis in an evolved Kemp eliminase. Nature, 2013, 503, 418-421.	13.7	281
99	De novo enzymes by computational design. Current Opinion in Chemical Biology, 2013, 17, 221-228.	2.8	221
100	Evolution of a designed retro-aldolase leads to complete active site remodeling. Nature Chemical Biology, 2013, 9, 494-498.	3.9	220
101	A Genetically Encodable Ligand for Transfer Hydrogenation. European Journal of Organic Chemistry, 2013, 2013, 3427-3431.	1.2	17
102	Design of Protein Catalysts. Annual Review of Biochemistry, 2013, 82, 447-470.	5.0	174
103	Protein Conformational Disorder and Enzyme Catalysis. Topics in Current Chemistry, 2013, 337, 41-67.	4.0	47
104	Directed Evolution of a Model Primordial Enzyme Provides Insights into the Development of the Genetic Code. PLoS Genetics, 2013, 9, e1003187.	1.5	27
105	<i>cisâ€trans</i> Peptideâ€Bond Isomerization in <i>Î±</i>â€Methylproline Derivatives. Helvetica Chimica Acta, 2012, 95, 2411-2420.	1.0	9
106	Iterative approach to computational enzyme design. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 3790-3795.	3.3	291
107	A novel genetic selection system for PLP-dependent threonine aldolases. Tetrahedron, 2012, 68, 7549-7557.	1.0	17
108	Harnessing Protein Symmetry for Enzyme Design. ACS Catalysis, 2012, 2, 982-985.	5.5	14

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109	Structural Analyses of Covalent Enzymeâ€“Substrate Analog Complexes Reveal Strengths and Limitations of De Novo Enzyme Design. Journal of Molecular Biology, 2012, 415, 615-625.	2.0	54
110	Computational Design of Catalytic Dyads and Oxyanion Holes for Ester Hydrolysis. Journal of the American Chemical Society, 2012, 134, 16197-16206.	6.6	138
111	Robust design and optimization of retroaldol enzymes. Protein Science, 2012, 21, 717-726.	3.1	137
112	Efficient in Vitro Encapsulation of Protein Cargo by an Engineered Protein Container. Journal of the American Chemical Society, 2012, 134, 909-911.	6.6	109
113	Strategic Use of Nonâ€Native Diselenide Bridges to Steer Oxidative Protein Folding. Angewandte Chemie - International Edition, 2012, 51, 5585-5588.	7.2	89
114	An N-Terminal Protein Degradation Tag Enables Robust Selection of Highly Active Enzymes. Biochemistry, 2011, 50, 8594-8602.	1.2	20
115	An artificial metalloenzyme for olefin metathesis. Chemical Communications, 2011, 47, 12068.	2.2	143
116	Tailor-Made Peptide Synthetases. Chemistry and Biology, 2011, 18, 1206-1207.	6.2	4
117	Selenoglutathioneâ€Mediated Rescue of Kinetically Trapped Intermediates in Oxidative Protein Folding. Israel Journal of Chemistry, 2011, 51, 953-959.	1.0	25
118	Directed Evolution of a Protein Container. Science, 2011, 331, 589-592.	6.0	280
119	Photolyaseâ€like Repair of Psoralenâ€Crosslinked Nucleic Acids. Angewandte Chemie - International Edition, 2011, 50, 9483-9486.	7.2	11
120	Modulating PNA/DNA Hybridization by Light. Angewandte Chemie - International Edition, 2010, 49, 9998-10001.	7.2	55
121	Diselenides as universal oxidative folding catalysts of diverse proteins. Journal of Biotechnology, 2010, 150, 481-489.	1.9	43
122	Biocatalysts by evolution. Current Opinion in Biotechnology, 2010, 21, 753-759.	3.3	120
123	Design, selection, and characterization of a split chorismate mutase. Protein Science, 2010, 19, 1000-1010.	3.1	19
124	Computational Design of an Enzyme Catalyst for a Stereoselective Bimolecular Diels-Alder Reaction. Science, 2010, 329, 309-313.	6.0	776
125	Small-Molecule Diselenides Catalyze Oxidative Protein Folding <i>in Vivo</i>. ACS Chemical Biology, 2010, 5, 177-182.	1.6	28
126	Consensus Protein Design without Phylogenetic Bias. Journal of Molecular Biology, 2010, 399, 541-546.	2.0	73

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127	An aspartate and a water molecule mediate efficient acid-base catalysis in a tailored antibody pocket. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18539-18544.	3.3	23
128	Probing the role of the proximal heme ligand in cytochrome P450cam by recombinant incorporation of selenocysteine. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5481-5486.	3.3	68
129	A Rationally Designed Aldolase Foldamer. Angewandte Chemie - International Edition, 2009, 48, 922-925.	7.2	150
130	Selenoglutaredoxin as a Glutathione Peroxidase Mimic. ChemBioChem, 2008, 9, 1623-1631.	1.3	48
131	Synthesis of Î²-hydroxy-Î±-amino acids with a reengineered alanine racemase. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 5987-5990.	1.0	26
132	Protein Design by Directed Evolution. Annual Review of Biophysics, 2008, 37, 153-173.	4.5	344
133	Switching Antibody Specificity through Minimal Mutation. Journal of Molecular Biology, 2008, 377, 993-1001.	2.0	5
134	Kinetics and Thermodynamics of Ligand Binding to a Molten Globular Enzyme and Its Native Counterpart. Journal of Molecular Biology, 2008, 382, 971-977.	2.0	67
135	The Putative Dielsâ"Alderase Macrophomate Synthase is an Efficient Aldolase. Journal of the American Chemical Society, 2008, 130, 7798-7799.	6.6	70
136	Catalysis of Oxidative Protein Folding by Small-Molecule Diselenides. Biochemistry, 2008, 47, 6985-6987.	1.2	68
137	Relative Tolerance of an Enzymatic Molten Globule and Its Thermostable Counterpart to Point Mutation. Biochemistry, 2008, 47, 13489-13496.	1.2	30
138	De Novo Computational Design of Retro-Aldol Enzymes. Science, 2008, 319, 1387-1391.	6.0	1,031
139	Closely related antibody receptors exploit fundamentally different strategies for steroid recognition. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11725-11730.	3.3	8
140	Conformational Isomerism Can Limit Antibody Catalysis. Journal of Biological Chemistry, 2008, 283, 16554-16560.	1.6	12
141	On the relationship between folding and chemical landscapes in enzyme catalysis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 13877-13882.	3.3	82
142	Metabolic engineering of a genetic selection system with tunable stringency. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 13907-13912.	3.3	16
143	Reinvestigation of a Selenopeptide with Purportedly High Glutathione Peroxidase Activity. Journal of Biological Chemistry, 2007, 282, 30518-30522.	1.6	16
144	Stereoselective Reactions with Catalytic Antibodies. Topics in Stereochemistry, 2007, , 83-135.	2.0	7

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145	Bifunctional Catalysis of Proton Transfer at an Antibody Active Site. Journal of the American Chemical Society, 2007, 129, 460-461.	6.6	21
146	Selenoglutathione:â€‰ Efficient Oxidative Protein Folding by a Diselenide. Biochemistry, 2007, 46, 5382-5390.	1.2	136
147	Minimalist Active-Site Redesign: Teaching Old Enzymes New Tricks. Angewandte Chemie - International Edition, 2007, 46, 3212-3236.	7.2	244
148	Enhancing Activity and Controlling Stereoselectivity in a Designed PLP-Dependent Aldolase. Angewandte Chemie - International Edition, 2007, 46, 4468-4470.	7.2	39
149	A simple selection strategy for evolving highly efficient enzymes. Nature Biotechnology, 2007, 25, 1145-1147.	9.4	59
150	Synthesis and application of an azobenzene amino acid as a light-switchable turn element in polypeptides. Nature Protocols, 2007, 2, 161-167.	5.5	31
151	Structure and dynamics of a molten globular enzyme. Nature Structural and Molecular Biology, 2007, 14, 1202-1206.	3.6	102
152	Novel Enzymes Through Design and Evolution. Advances in Enzymology and Related Areas of Molecular Biology, 2007, 75, 241-294.	1.3	14
153	A Monofunctional and Thermostable Prephenate Dehydratase from the Archaeon Methanocaldococcus jannaschii. Biochemistry, 2006, 45, 14101-14110.	1.2	20
154	A Simple Tagging System for Protein Encapsulation. Journal of the American Chemical Society, 2006, 128, 4516-4517.	6.6	145
155	Mimicking Enzymes with Antibodies. , 2006, , 89-107.		1
156	Relative tolerance of mesostable and thermostable protein homologs to extensive mutation. Proteins: Structure, Function and Bioinformatics, 2006, 66, 500-506.	1.5	57
157	Toward bifunctional antibody catalysis. Bioorganic and Medicinal Chemistry, 2006, 14, 6189-6196.	1.4	19
158	Tunnel plasticity and quaternary structural integrity of a pentameric protein ring. Protein Science, 2006, 15, 1106-1114.	3.1	10
159	A Photoswitchable Miniprotein Based on the Sequence of Avian Pancreatic Polypeptide. Angewandte Chemie - International Edition, 2006, 45, 6297-6300.	7.2	36
160	Stereoselectivity and Expanded Substrate Scope of an Engineered PLP-Dependent Aldolase. Angewandte Chemie - International Edition, 2006, 45, 6824-6826.	7.2	32
161	Critical Analysis of Antibody Catalysis. , 2005, , 30-71.		0
162	Simultaneous optimization of enzyme activity and quaternary structure by directed evolution. Protein Science, 2005, 14, 2103-2114.	3.1	12

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163	A Photoinducible Î²-Hairpin. Journal of the American Chemical Society, 2005, 127, 2929-2936.	6.6	126
164	Characterization of the secreted chorismate mutase from the pathogen Mycobacterium tuberculosis. FEBS Journal, 2005, 272, 375-389.	2.2	68
165	An Active Enzyme Constructed from a 9-Amino Acid Alphabet. Journal of Biological Chemistry, 2005, 280, 37742-37746.	1.6	96
166	Structural origins of efficient proton abstraction from carbon by a catalytic antibody. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 4984-4989.	3.3	51
167	Mechanistic Insights into the Isochorismate Pyruvate Lyase Activity of the Catalytically Promiscuous PchB from Combinatorial Mutagenesis and Selection. Journal of Biological Chemistry, 2005, 280, 32827-32834.	1.6	54
168	Positional Ordering of Reacting Groups Contributes Significantly to the Efficiency of Proton Transfer at an Antibody Active Site. Journal of the American Chemical Society, 2005, 127, 1307-1312.	6.6	38
169	Use of Molecular Dynamics in the Design and Structure Determination of a Photoinducible Î²-Hairpin. Journal of the American Chemical Society, 2005, 127, 4935-4942.	6.6	29
170	An enzymatic molten globule: Efficient coupling of folding and catalysis. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 12860-12864.	3.3	128
171	Deciphering enzymes. Genetic selection as a probe of structure and mechanism. FEBS Journal, 2004, 271, 1630-1637.	0.2	14
172	Immunological Optimization of a Generic Hydrophobic Pocket for High Affinity Hapten Binding and Diels-Alder Activity. ChemBioChem, 2004, 5, 460-466.	1.3	8
173	Nonspecific Medium Effects versus Specific Group Positioning in the Antibody and Albumin Catalysis of the Base-Promoted Ring-Opening Reactions of Benzisoxazoles. Journal of the American Chemical Society, 2004, 126, 8197-8205.	6.6	66
174	New Enzymes from Combinatorial Library Modules. Methods in Enzymology, 2004, 388, 91-102.	0.4	7
175	Convergent protein synthesis. Current Opinion in Structural Biology, 2003, 13, 589-594.	2.6	26
176	Promiscuity in Antibody Catalysis: Esterolytic Activity of the Decarboxylase 21D8. Helvetica Chimica Acta, 2003, 86, 1167-1174.	1.0	14
177	Incorporation of Selenomethionine into Proteins through Selenohomocysteine-Mediated Ligation. Angewandte Chemie, 2003, 115, 2377-2379.	1.6	17
178	Incorporation of Selenomethionine into Proteins through Selenohomocysteine-Mediated Ligation. Angewandte Chemie - International Edition, 2003, 42, 2275-2277.	7.2	45
179	Charge Optimization Increases the Potency and Selectivity of a Chorismate Mutase Inhibitor. Journal of the American Chemical Society, 2003, 125, 5598-5599.	6.6	30
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