Michael H Hecht

List of Publications by Year
in descending order

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63
papers

3,898
citations

117453
34
h-index

128067
60
g-index

63
all docs

63
docs citations

63
times ranked

3658
citing authors

#	Article	IF	Citations
1	Stability of Protein Structure during Nanocarrier Encapsulation: Insights on Solvent Effects from Simulations and Spectroscopic Analysis. ACS Nano, 2020, 14, 16962-16972.	7.3	1
2	Design of a Fe₄S₄ cluster into the core of a <i>deÂnovo</i> fourâ€helix bundle. Biotechnology and Applied Biochemistry, 2020, 67, 574-585.	1.4	6
3	A Completely <i>De Novo</i> ATPase from Combinatorial Protein Design. Journal of the American Chemical Society, 2020, 142, 15230-15234.	6.6	9
4	Harnessing synthetic biology to enhance heterologous protein expression. Protein Science, 2020, 29, 1698-1706.	3.1	4
5	Hyperstable <i>De Novo</i> Protein with a Dimeric Bisecting Topology. ACS Synthetic Biology, 2020, 9, 254-259.	1.9	10
6	A Strategy for Combinatorial Cavity Design in De Novo Proteins. Life, 2020, 10, 9.	1.1	14
7	Unevolved De Novo Proteins Have Innate Tendencies to Bind Transition Metals. Life, 2019, 9, 8.	1.1	8
8	Self-Assembling Supramolecular Nanostructures Constructed from <i>de Novo</i> Extender Protein Nanobuilding Blocks. ACS Synthetic Biology, 2018, 7, 1381-1394.	1.9	23
9	Artificial Gene Amplification in Escherichia coli Reveals Numerous Determinants for Resistance to Metal Toxicity. Journal of Molecular Evolution, 2018, 86, 103-110.	0.8	13
10	A de novo enzyme catalyzes a life-sustaining reaction in Escherichia coli. Nature Chemical Biology, 2018, 14, 253-255.	3.9	47
11	Are natural proteins special? Can we do that?. Current Opinion in Structural Biology, 2018, 48, 124-132.	2.6	15
12	A Non-natural Protein Rescues Cells Deleted for a Key Enzyme in Central Metabolism. ACS Synthetic Biology, 2017, 6, 694-700.	1.9	23
13	A de novo protein confers copper resistance in E scherichia coli. Protein Science, 2016, 25, 1249-1259.	3.1	24
14	A protein constructed de novo enables cell growth by altering gene regulation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2400-2405.	3.3	35
15	De Novo Proteins with Life-Sustaining Functions Are Structurally Dynamic. Journal of Molecular Biology, 2016, 428, 399-411.	2.0	28
16	Self-Assembling Nano-Architectures Created from a Protein Nano-Building Block Using an Intermolecularly Folded Dimeric <i>de Novo</i> Protein. Journal of the American Chemical Society, 2015, 137, 11285-11293.	6.6	94
17	Divergent evolution of a bifunctional <i>de novo</i> protein. Protein Science, 2015, 24, 246-252.	3.1	21
18	Structureâ€Activity Relationships for a Series of Compounds that Inhibit Aggregation of the Alzheimer's Peptide, A<i>Î²</i>42. Chemical Biology and Drug Design, 2014, 84, 505-512.	1.5	18

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19	A Novel Inhibitor of Amyloid Î² (AÎ²) Peptide Aggregation. Journal of Biological Chemistry, 2012, 287, 38992-39000.	1.6	93
20	Directed evolution of the peroxidase activity of a de novo-designed protein. Protein Engineering, Design and Selection, 2012, 25, 445-452.	1.0	31
21	Domain-Swapped Dimeric Structure of a Stable and Functional <i>De Novo</i> Four-Helix Bundle Protein, WA20. Journal of Physical Chemistry B, 2012, 116, 6789-6797.	1.2	31
22	Proteins from an Unevolved Library of de novo Designed Sequences Bind a Range of Small Molecules. ACS Synthetic Biology, 2012, 1, 130-138.	1.9	25
23	Binding of small molecules to cavity forming mutants of a <i>de novo</i> designed protein. Protein Science, 2011, 20, 702-711.	3.1	9
24	Novel proteins: from fold to function. Current Opinion in Chemical Biology, 2011, 15, 421-426.	2.8	58
25	De Novo Designed Proteins from a Library of Artificial Sequences Function in Escherichia Coli and Enable Cell Growth. PLoS ONE, 2011, 6, e15364.	1.1	96
26	Small Molecule Microarrays Enable the Discovery of Compounds That Bind the Alzheimerâ€™s AÎ² Peptide and Reduce its Cytotoxicity. Journal of the American Chemical Society, 2010, 132, 17015-17022.	6.6	80
27	Cofactor binding and enzymatic activity in an unevolved superfamily of <i>de novo</i> designed 4â€helix bundle proteins. Protein Science, 2009, 18, 1388-1400.	3.1	71
28	Knowledge-based Protein Design. , 2009, , .		0
29	Structure and dynamics of de novo proteins from a designed superfamily of 4â€helix bundles. Protein Science, 2008, 17, 821-832.	3.1	48
30	Mutations Enhance the Aggregation Propensity of the Alzheimerâ€™s AÎ² Peptide. Journal of Molecular Biology, 2008, 377, 565-574.	2.0	53
31	Protein Design by Binary Patterning of Polar and Nonpolar Amino Acids. , 2007, 352, 155-166.		15
32	Peroxidase activity of de novo heme proteins immobilized on electrodes. Journal of Inorganic Biochemistry, 2007, 101, 1820-1826.	1.5	52
33	NMR assignment of S836: a de novo protein from a designed superfamily. Biomolecular NMR Assignments, 2007, 1, 213-215.	0.4	2
34	A High-Throughput Screen for Compounds That Inhibit Aggregation of the Alzheimerâ€™s Peptide. ACS Chemical Biology, 2006, 1, 461-469.	1.6	158
35	<i>De novo</i> Proteins From Binary-Patterned Combinatorial Libraries. , 2006, 340, 53-70.		21
36	Electrochemical and ligand binding studies of a de novo heme protein. Biophysical Chemistry, 2006, 123, 102-112.	1.5	20

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37	Combinatorial Approaches to Probe the Sequence Determinants of Protein Aggregation and Amyloidogenicity. Protein and Peptide Letters, 2006, 13, 279-286.	0.4	14
38	Generic hydrophobic residues are sufficient to promote aggregation of the Alzheimer's Abeta42 peptide. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15824-15829.	3.3	163
39	An intein-based genetic selection allows the construction of a high-quality library of binary patterned de novo protein sequences. Protein Engineering, Design and Selection, 2005, 18, 201-207.	1.0	25
40	Sequence Determinants of Enhanced Amyloidogenicity of Alzheimer AÎ²42 Peptide Relative to AÎ²40. Journal of Biological Chemistry, 2005, 280, 35069-35076.	1.6	109
41	Nanografting De Novo Proteins onto Gold Surfaces. Langmuir, 2005, 21, 9103-9109.	1.6	72
42	Enzyme-like proteins from an unselected library of designed amino acid sequences. Protein Engineering, Design and Selection, 2004, 17, 67-75.	1.0	77
43	De novo proteins from designed combinatorial libraries. Protein Science, 2004, 13, 1711-1723.	3.1	237
44	1H, 13C and 15N resonance assignments of S-824, a de novo four-helix bundle from a designed combinatorial library. Journal of Biomolecular NMR, 2003, 27, 395-396.	1.6	5
45	Midpoint reduction potentials and heme binding stoichiometries of de novo proteins from designed combinatorial libraries. Biophysical Chemistry, 2003, 105, 231-239.	1.5	50
46	Stably folded de novo proteins from a designed combinatorial library. Protein Science, 2003, 12, 92-102.	3.1	101
47	Solution structure of a de novo protein from a designed combinatorial library. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13270-13273.	3.3	107
48	Rationally designed mutations convert de novo amyloid-like fibrils into monomeric Â-sheet proteins. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 2760-2765.	3.3	163
49	Template-Directed Assembly of ade NovoDesigned Protein. Journal of the American Chemical Society, 2002, 124, 6846-6848.	6.6	103
50	Mutations that Reduce Aggregation of the Alzheimer's AÎ²42 Peptide: an Unbiased Search for the Sequence Determinants of AÎ² Amyloidogenesis. Journal of Molecular Biology, 2002, 319, 1279-1290.	2.0	216
51	Carbon Monoxide Binding by de Novo Heme Proteins Derived from Designed Combinatorial Libraries. Journal of the American Chemical Society, 2001, 123, 2109-2115.	6.6	48
52	De Novo Proteins from Combinatorial Libraries. Chemical Reviews, 2001, 101, 3191-3204.	23.0	106
53	Nature disfavors sequences of alternating polar and non-polar amino acids: implications for amyloidogenesis 1 1Edited by F. E. Cohen. Journal of Molecular Biology, 2000, 296, 961-968.	2.0	163
54	Cooperative Thermal Denaturation of Proteins Designed by Binary Patterning of Polar and Nonpolar Amino Acids. Biochemistry, 2000, 39, 4603-4607.	1.2	65

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55	Peroxidase Activity in Heme Proteins Derived from a Designed Combinatorial Library. Journal of the American Chemical Society, 2000, 122, 7612-7613.	6.6	83
56	Screening Combinatorial Libraries of de Novo Proteins by Hydrogenâˆ'Deuterium Exchange and Electrospray Mass Spectrometry. Journal of the American Chemical Society, 1999, 121, 9509-9513.	6.6	34
57	Protein Design: The Choice of de Novo Sequences. Journal of Biological Chemistry, 1997, 272, 2031-2034.	1.6	97
58	A Protein Designed by Binary Patterning of Polar and Nonpolar Amino Acids Displays Native-like Properties. Journal of the American Chemical Society, 1997, 119, 5302-5306.	6.6	74
59	Detecting native-like properties in combinatorial libraries of de novo proteins. Folding & Design, 1997, 2, 89-92.	4.5	40
60	De novo heme proteins from designed combinatorial libraries. Protein Science, 1997, 6, 2512-2524.	3.1	93
61	Binary patterning of polar and nonpolar amino acids in the sequences and structures of native proteins. Protein Science, 1995, 4, 2032-2039.	3.1	123
62	The fourâ€helix bundle: what determines a fold?. FASEB Journal, 1995, 9, 1013-1022.	0.2	112
63	Recombinant Proteins Can Be Isolated from E. coli Cells by Repeated Cycles of Freezing and Thawing. Nature Biotechnology, 1994, 12, 1357-1360.	9.4	162