

Brent L Iverson

List of Publications by Year in descending order

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124
papers

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citations

34105

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docs citations

146
times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Using Spectator Ligands to Enhance Nanocrystal-to-Molecule Electron Transfer. <i>Journal of Physical Chemistry Letters</i> , 2022, , 1416-1423.	4.6	4
2	Evaluating the Effect of Dye-Dye Interactions of Xanthene-Based Fluorophores in the Fluorosequencing of Peptides. <i>Bioconjugate Chemistry</i> , 2022, 33, 1156-1165.	3.6	3
3	YESS 2.0, a Tunable Platform for Enzyme Evolution, Yields Highly Active TEV Protease Variants. <i>ACS Synthetic Biology</i> , 2021, 10, 63-71.	3.8	24
4	Prevalent, protective, and convergent IgG recognition of SARS-CoV-2 non-RBD spike epitopes. <i>Science</i> , 2021, 372, 1108-1112.	12.6	210
5	Quantitative Analysis of the Substrate Specificity of Human Rhinovirus 3C Protease and Exploration of Its Substrate Recognition Mechanisms. <i>ACS Chemical Biology</i> , 2020, 15, 63-73.	3.4	14
6	Mechanistic Analysis of Solid-State Colorimetric Switching: Monoalkoxynaphthalene-Naphthalimide Donor-Acceptor Dyads. <i>Journal of the American Chemical Society</i> , 2020, 142, 17630-17643.	13.7	11
7	Rapid Screen for Tyrosine Kinase Inhibitor Resistance Mutations and Substrate Specificity. <i>ACS Chemical Biology</i> , 2019, 14, 1888-1895.	3.4	8
8	Prompting Fab Yeast Surface Display Efficiency by ER Retention and Molecular Chaperon Co-expression. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 362.	4.1	14
9	Profiling Protease Specificity: Combining Yeast ER Sequestration Screening (YESS) with Next Generation Sequencing. <i>ACS Chemical Biology</i> , 2017, 12, 510-518.	3.4	30
10	Characterization of aromatic residue-controlled protein retention in the endoplasmic reticulum of <i>Saccharomyces cerevisiae</i> . <i>Journal of Biological Chemistry</i> , 2017, 292, 20707-20719.	3.4	22
11	Solution- and solid-state photophysical and stimuli-responsive behavior in conjugated monoalkoxynaphthalene-naphthalimide donor-acceptor dyads. <i>Journal of Materials Chemistry C</i> , 2015, 3, 12156-12163.	5.5	33
12	Yeast Endoplasmic Reticulum Sequestration Screening for the Engineering of Proteases from Libraries Expressed in Yeast. <i>Methods in Molecular Biology</i> , 2015, 1319, 81-93.	0.9	14
13	Time-Dependent Solid-State Polymorphism of a Series of Donor-Acceptor Dyads. <i>Crystal Growth and Design</i> , 2014, 14, 290-299.	3.0	15
14	NDI and DAN DNA: Nucleic Acid-Directed Assembly of NDI and DAN. <i>Journal of Organic Chemistry</i> , 2014, 79, 2029-2037.	3.2	37
15	More than Meets the Eye: Conformational Switching of a Stacked Dialkoxynaphthalene-Naphthalenetetracarboxylic diimide (DAN-NDI) Foldamer to an NDI-NDI Fibril Aggregate. <i>Chemistry - A European Journal</i> , 2013, 19, 11598-11602.	3.3	23
16	Threading Polyintercalators with Extremely Slow Dissociation Rates and Extended DNA Binding Sites. <i>Journal of the American Chemical Society</i> , 2013, 135, 12783-12789.	13.7	26
17	Conjugated NDI-Donor Polymers: Exploration of Donor Size and Electrostatic Complementarity. <i>Macromolecules</i> , 2013, 46, 718-726.	4.8	36
18	Commercial proteases: Present and future. <i>FEBS Letters</i> , 2013, 587, 1155-1163.	2.8	194

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19	Engineering of TEV protease variants by yeast ER sequestration screening (YESS) of combinatorial libraries. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7229-7234.	7.1	105
20	Increased Antibody Affinity Confers Broad <i>In Vitro</i> Protection against Escape Mutants of Severe Acute Respiratory Syndrome Coronavirus. Journal of Virology, 2012, 86, 9113-9121.	3.4	24
21	Rethinking the term "epi-stacking". Chemical Science, 2012, 3, 2191.	7.4	1,304
22	Directed Evolution of Highly Selective Proteases by Using a Novel FACS-Based Screen that Capitalizes on the p53 Regulator MDM2. ChemBioChem, 2012, 13, 649-653.	2.6	26
23	Reactions of Brominated Naphthalene Diimide with Bis(tributylstannyl)acetylene: A Simple Approach for Conjugated Polymers and Versatile Coupling Intermediates. Organic Letters, 2012, 14, 2706-2709.	4.6	24
24	Development of reagents and assays for the detection of pathogenic Burkholderia species. Faraday Discussions, 2011, 149, 23-36.	3.2	4
25	A sequence-specific threading tetra-intercalator with an extremely slow dissociation rate constant. Nature Chemistry, 2011, 3, 875-881.	13.6	64
26	Laboratory evolution of glutathione biosynthesis reveals natural compensatory pathways. Nature Chemical Biology, 2011, 7, 101-105.	8.0	43
27	Therapeutic enzyme deimmunization by combinatorial T-cell epitope removal using neutral drift. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 1272-1277.	7.1	114
28	Monoclonal antibodies isolated without screening by analyzing the variable-gene repertoire of plasma cells. Nature Biotechnology, 2010, 28, 965-969.	17.5	299
29	A Systematic Study of Thermochromic Aromatic Donor-Acceptor Materials. Journal of Organic Chemistry, 2010, 75, 7682-7690.	3.2	75
30	Replacing Mn ²⁺ with Co ²⁺ in Human Arginase I Enhances Cytotoxicity toward Arginine Auxotrophic Cancer Cell Lines. ACS Chemical Biology, 2010, 5, 333-342.	3.4	105
31	Engineering next generation proteases. Current Opinion in Biotechnology, 2009, 20, 390-397.	6.6	43
32	Engineering antibody fragments to fold in the absence of disulfide bonds. Protein Science, 2009, 18, 259-267.	7.6	24
33	Construction and flow cytometric screening of targeted enzyme libraries. Nature Protocols, 2009, 4, 893-901.	12.0	24
34	A Pseudocatenane Structure Formed between DNA and A Cyclic Bisintercalator. Journal of the American Chemical Society, 2009, 131, 3499-3508.	13.7	29
35	Proteases That Can Distinguish among Different Post-translational Forms of Tyrosine Engineered Using Multicolor Flow Cytometry. Journal of the American Chemical Society, 2009, 131, 18186-18190.	13.7	14
36	Crystal Structure of the Engineered Neutralizing Antibody M18 Complexed to Domain 4 of the Anthrax Protective Antigen. Journal of Molecular Biology, 2009, 387, 680-693.	4.2	33

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37	An Engineered Protease that Cleaves Specifically after Sulfated Tyrosine. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 7861-7863.	13.8	25
38	Substrate specificity of human kallikreins 1 and 6 determined by phage display. <i>Protein Science</i> , 2008, 17, 664-672.	7.6	34
39	Highly active and selective endopeptidases with programmed substrate specificities. <i>Nature Chemical Biology</i> , 2008, 4, 290-294.	8.0	82
40	E-clonal antibodies: selection of full-length IgG antibodies using bacterial periplasmic display. <i>Nature Protocols</i> , 2008, 3, 1766-1777.	12.0	46
41	Synthetic Antibody Libraries Focused Towards Peptide Ligands. <i>Journal of Molecular Biology</i> , 2008, 378, 622-633.	4.2	60
42	Amyloid-like Behavior in Abiotic, Amphiphilic Foldamers. <i>Journal of the American Chemical Society</i> , 2008, 130, 1517-1524.	13.7	83
43	Substrate Specificity of the <i>Escherichia coli</i> Outer Membrane Protease OmpP. <i>Journal of Bacteriology</i> , 2007, 189, 522-530.	2.2	48
44	APEX 2-hybrid, a quantitative protein-protein interaction assay for antibody discovery and engineering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 8247-8252.	7.1	48
45	Structural Characterization of a Rigidified Threading Bisintercalator. <i>Journal of the American Chemical Society</i> , 2007, 129, 1304-1311.	13.7	22
46	Binding and enrichment of <i>Escherichia coli</i> spheroplasts expressing inner membrane tethered scFv antibodies on surface immobilized antigens. <i>Biotechnology and Bioengineering</i> , 2007, 98, 39-47.	3.3	34
47	Screening of threading bis-intercalators binding to duplex DNA by electrospray ionization tandem mass spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2007, 18, 311-321.	2.8	34
48	Isolation of engineered, full-length antibodies from libraries expressed in <i>Escherichia coli</i> . <i>Nature Biotechnology</i> , 2007, 25, 563-565.	17.5	206
49	Isolation of trans-acting genes that enhance soluble expression of scFv antibodies in the <i>E. coli</i> cytoplasm by lambda phage display. <i>Journal of Immunological Methods</i> , 2007, 321, 164-173.	1.4	7
50	Using Aromatic Donor Acceptor Interactions to Affect Macromolecular Assembly. <i>Macromolecules</i> , 2006, 39, 5601-5603.	4.8	66
51	Tunable Columnar Mesophases Utilizing C ₂ Symmetric Aromatic Donor-Acceptor Complexes. <i>Journal of the American Chemical Society</i> , 2006, 128, 7995-8002.	13.7	109
52	The Evolution of Catalytic Efficiency and Substrate Promiscuity in Human Theta Class 1-1 Glutathione Transferase. <i>Journal of Molecular Biology</i> , 2006, 364, 400-410.	4.2	38
53	Synthesis and DNA binding studies of bis-intercalators with a novel spiro-cyclic linker. <i>Tetrahedron</i> , 2006, 62, 5536-5548.	1.9	17
54	Engineering of recombinant antibody fragments to methamphetamine by anchored periplasmic expression. <i>Journal of Immunological Methods</i> , 2006, 308, 43-52.	1.4	29

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55	Assembly of multimeric phage nanostructures through leucine zipper interactions. <i>Biotechnology and Bioengineering</i> , 2006, 95, 539-545.	3.3	17
56	Self-assembled luminescent CdSe/ZnS quantum dot bioconjugates prepared using engineered poly-histidine terminated proteins. <i>Analytica Chimica Acta</i> , 2005, 534, 63-67.	5.4	96
57	Evolution of highly active enzymes by homology-independent recombination. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 10082-10087.	7.1	54
58	Engineering of protease variants exhibiting high catalytic activity and exquisite substrate selectivity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 6855-6860.	7.1	140
59	Altering the Folding Patterns of Naphthyl Trimers. <i>Journal of the American Chemical Society</i> , 2005, 127, 2637-2640.	13.7	135
60	Why High-error-rate Random Mutagenesis Libraries are Enriched in Functional and Improved Proteins. <i>Journal of Molecular Biology</i> , 2005, 350, 806-816.	4.2	130
61	Anchored periplasmic expression, a versatile technology for the isolation of high-affinity antibodies from <i>Escherichia coli</i> -expressed libraries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 9193-9198.	7.1	200
62	Virus-Based Toolkit for the Directed Synthesis of Magnetic and Semiconducting Nanowires. <i>Science</i> , 2004, 303, 213-217.	12.6	946
63	Bacterial Biosynthesis of Cadmium Sulfide Nanocrystals. <i>Chemistry and Biology</i> , 2004, 11, 1553-1559.	6.0	415
64	A Periplasmic Fluorescent Reporter Protein and its Application in High-throughput Membrane Protein Topology Analysis. <i>Journal of Molecular Biology</i> , 2004, 341, 901-909.	4.2	36
65	NMR Structural Analysis of a Modular Threading Tetraintercalator Bound to DNA. <i>Journal of the American Chemical Society</i> , 2004, 126, 14036-14042.	13.7	44
66	Isolation and expression of recombinant antibody fragments to the biological warfare pathogen <i>Brucella melitensis</i> . <i>Journal of Immunological Methods</i> , 2003, 276, 185-196.	1.4	133
67	Effects of codon usage versus putative 5' mRNA structure on the expression of <i>Fusarium solani</i> cutinase in the <i>Escherichia coli</i> cytoplasm. <i>Protein Expression and Purification</i> , 2003, 27, 134-142.	1.3	94
68	2,4,6-Trinitrotoluene detection using recombinant antibodies. <i>Journal of Environmental Monitoring</i> , 2003, 5, 380.	2.1	40
69	Synthesis and organization of nanoscale III-VI semiconductor materials using evolved peptide specificity and viral capsid assembly. <i>Journal of Materials Chemistry</i> , 2003, 13, 2414-2421.	6.7	174
70	Enhanced crossover SCRATCHY: construction and high-throughput screening of a combinatorial library containing multiple non-homologous crossovers. <i>Nucleic Acids Research</i> , 2003, 31, 126e-126.	14.5	57
71	Viral assembly of oriented quantum dot nanowires. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 6946-6951.	7.1	468
72	Changing DNA Grooves by A 1,4,5,8-Naphthalene Tetracarboxylic Diimide Bis-Intercalator with the Linker ((² -Ala) ³ -Lys) in the Minor Groove. <i>Journal of the American Chemical Society</i> , 2002, 124, 2864-2865.	13.7	33

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73	Aromatic Oligomers that Form Hetero Duplexes in Aqueous Solution. <i>Journal of the American Chemical Society</i> , 2002, 124, 15174-15175.	13.7	224
74	Protection against anthrax toxin by recombinant antibody fragments correlates with antigen affinity. <i>Nature Biotechnology</i> , 2002, 20, 597-601.	17.5	260
75	¹ H NMR Investigation of Solvent Effects in Aromatic Stacking Interactions. <i>Journal of the American Chemical Society</i> , 2001, 123, 7560-7563.	13.7	293
76	Production of Correctly Folded Fab Antibody Fragment in the Cytoplasm of <i>Escherichia coli</i> trxB ⁺ Mutants via the Coexpression of Molecular Chaperones. <i>Protein Expression and Purification</i> , 2001, 23, 338-347.	1.3	172
77	Design, synthesis, and characterization of polyintercalating ligands. <i>Methods in Enzymology</i> , 2001, 340, 556-570.	1.0	9
78	An octakis-intercalating molecule. <i>Bioorganic and Medicinal Chemistry</i> , 2001, 9, 1141-1148.	3.0	17
79	Models of higher-order structure: foldamers and beyond. <i>Current Opinion in Chemical Biology</i> , 2001, 5, 650-653.	6.1	178
80	The synthesis and screening of 1,4,5,8-naphthalenetetracarboxylic diimide-peptide conjugates with antibacterial activity. <i>Bioorganic and Medicinal Chemistry</i> , 2001, 9, 2015-2024.	3.0	10
81	Peptide bis-intercalator binds DNA via threading mode with sequence specific contacts in the major groove. <i>Chemistry and Biology</i> , 2001, 8, 415-425.	6.0	36
82	Isolation of high-affinity ligand-binding proteins by periplasmic expression with cytometric screening (PECS). <i>Nature Biotechnology</i> , 2001, 19, 537-542.	17.5	125
83	Altered sequence specificity identified from a library of DNA-binding small molecules. <i>Chemistry and Biology</i> , 2000, 7, 1-8.	6.0	31
84	High-throughput screening of enzyme libraries. <i>Current Opinion in Biotechnology</i> , 2000, 11, 331-337.	6.6	118
85	An investigation of antibody acyl hydrolysis catalysis using a large set of related haptens. <i>Bioorganic and Medicinal Chemistry</i> , 2000, 8, 413-426.	3.0	8
86	Function-based isolation of novel enzymes from a large library. <i>Nature Biotechnology</i> , 2000, 18, 1071-1074.	17.5	171
87	Flow cytometric screening of cell-based libraries. <i>Journal of Immunological Methods</i> , 2000, 243, 211-227.	1.4	106
88	Synthesis and Conformational Characterization of Tethered, Self-Complexing 1,5-Dialkoxynaphthalene/1,4,5,8-Naphthalenetetracarboxylic Diimide Systems. <i>Journal of the American Chemical Society</i> , 2000, 122, 8898-8909.	13.7	157
89	Noncompetitive Immunoassay of Small Analytes at the Femtomolar Level by Affinity Probe Capillary Electrophoresis: A Direct Analysis of Digoxin Using a Uniform-Labeled scFv Immunoreagent. <i>Analytical Chemistry</i> , 2000, 72, 5779-5786.	6.5	60
90	An Amphiphilic Folding Molecule That Undergoes an Irreversible Conformational Change. <i>Journal of the American Chemical Society</i> , 1999, 121, 2639-2640.	13.7	129

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91	A fertile and dynamic sea. <i>Nature</i> , 1998, 395, 133-133.	27.8	0
92	Sequencing exons 5 to 8 of the p53 gene by MALDI-TOF mass spectrometry. <i>Nature Biotechnology</i> , 1998, 16, 381-384.	17.5	130
93	Anion Selectivity of a Sapphyrin-Modified Silica Gel HPLC Support. <i>Analytical Chemistry</i> , 1998, 70, 2516-2522.	6.5	32
94	A New Class of Polyintercalating Molecules. <i>Journal of the American Chemical Society</i> , 1997, 119, 7202-7210.	13.7	106
95	Betas are brought into the fold. <i>Nature</i> , 1997, 385, 113-115.	27.8	79
96	Display of heterologous proteins on the surface of microorganisms: From the screening of combinatorial libraries to live recombinant vaccines. <i>Nature Biotechnology</i> , 1997, 15, 29-34.	17.5	488
97	Enhanced DNA photocleavage and binding properties of sapphyrin-polyamine conjugates. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1997, 7, 1433-1436.	2.2	18
98	Generation by Electron Transfer of an Emitting State Not Observed by Photoexcitation in a Linked Ru(bpy) ₃ ²⁺ -Methyl Viologen. <i>Journal of the American Chemical Society</i> , 1996, 118, 3656-3660.	13.7	19
99	Sapphyrin ⁺ Oligonucleotide Conjugates. Novel Sequence-Specific DNA Photomodifying Agents with Increased Binding Affinity. <i>Journal of the American Chemical Society</i> , 1996, 118, 12322-12330.	13.7	44
100	Molecular Recognition of a Monoclonal Antibody (AC1106) Cross-Reactive for Derivatives of Ru(bpy) ₃ ²⁺ and Ru(phen) ₃ ²⁺ . <i>Journal of the American Chemical Society</i> , 1996, 118, 3192-3201.	13.7	21
101	The Influence of Hapten Size and Hydrophobicity on the Catalytic Activity of Elicited Polyclonal Antibodies. <i>Journal of the American Chemical Society</i> , 1996, 118, 251-252.	13.7	26
102	Separation of Mono-, Di-, and Triphosphate Nucleotides by Cytosine Substituted, Silica-Bound Sapphyrin Solid Supports. <i>Supramolecular Chemistry</i> , 1996, 8, 45-52.	1.2	19
103	Evolution of Catalytic Activity throughout a Polyclonal Immune Response Elicited by a Transition ⁺ State ⁻ Analog Hapten. <i>Israel Journal of Chemistry</i> , 1996, 36, 215-220.	2.3	4
104	Interaction of Sapphyrin with Phosphorylated Species of Biological Interest. <i>Journal of the American Chemical Society</i> , 1996, 118, 1608-1616.	13.7	91
105	A Quantitative Immunoassay Utilizing <i>Escherichia coli</i> Cells Possessing Surface-Expressed Single Chain Fv Molecules. <i>Biotechnology Progress</i> , 1996, 12, 572-574.	2.6	18
106	Rapid, High-Yield Recovery of a Recombinant Digoxin Binding Single Chain Fv from <i>Escherichia coli</i> . <i>Biotechnology Progress</i> , 1995, 11, 112-114.	2.6	12
107	Synthetic molecules that fold into a pleated secondary structure in solution. <i>Nature</i> , 1995, 375, 303-305.	27.8	522
108	Ribozymes, recognition and evolution. <i>Chemistry and Biology</i> , 1995, 2, 67-70.	6.0	8

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109	Biomedical applications of expanded porphyrins. <i>Journal of Inorganic Biochemistry</i> , 1995, 59, 189.	3.5	1
110	Synthesis of a Sapphyrin-EDTA Conjugate and Preliminary Cleavage Results Using a Supercoiled Plasmid DNA Assay. <i>Journal of Organic Chemistry</i> , 1995, 60, 6616-6620.	3.2	12
111	Polyclonal Antibodies Elicited via Immunization with a Ru(bpy) ₃ ²⁺ -Methyl Viologen Conjugate: Is a Polyclonal Antibody Immune Response Always Heterogeneous?. <i>Journal of the American Chemical Society</i> , 1995, 117, 2673-2674.	13.7	16
112	Polyclonal antibodies and catalysis. <i>Bioorganic and Medicinal Chemistry</i> , 1994, 2, 653-658.	3.0	14
113	Electron-Transfer Reactions of Ruthenium Trisbipyridyl-Viologen Donor-Acceptor Molecules: Comparison of the Distance Dependence of Electron Transfer-Rates in the Normal and Marcus Inverted Regions. <i>Journal of the American Chemical Society</i> , 1994, 116, 4786-4795.	13.7	226
114	Molecular recognition of anionic species by silica gel bound sapphyrin. <i>Journal of the American Chemical Society</i> , 1994, 116, 2663-2664.	13.7	50
115	Phosphate versus Phosphorothioate Haptens for the Production of Catalytic Polyclonal Antibodies. <i>Journal of the American Chemical Society</i> , 1994, 116, 2181-2182.	13.7	14
116	Phosphate recognition by sapphyrin. A new approach to DNA binding. <i>Journal of the American Chemical Society</i> , 1993, 115, 11022-11023.	13.7	62
117	Selective cleavage of trityl protecting groups catalyzed by an antibody. <i>Journal of the American Chemical Society</i> , 1990, 112, 5320-5323.	13.7	40
118	Design and chemical synthesis of a sequence-specific DNA-cleaving protein. <i>Journal of the American Chemical Society</i> , 1988, 110, 7572-7574.	13.7	100
119	Nonenzymatic sequence-specific cleavage of single-stranded DNA to nucleotide resolution. DNA methyl thioether probes. <i>Journal of the American Chemical Society</i> , 1987, 109, 1241-1243.	13.7	34
120	Adenine specific DNA chemical sequencing reaction. <i>Nucleic Acids Research</i> , 1987, 15, 7823-7830.	14.5	118
121	The "pocket" porphyrins: Hemoprotein models with lowered CO affinities. <i>Inorganica Chimica Acta</i> , 1983, 79, 101-102.	2.4	1
122	Dioxygen and carbonyl binding to iron(II) porphyrins: a comparison of the "picket fence" and "pocket" porphyrins. <i>Journal of the American Chemical Society</i> , 1983, 105, 3052-3064.	13.7	225
123	Synthesis and characterization of the "pocket" porphyrins. <i>Journal of the American Chemical Society</i> , 1983, 105, 3038-3052.	13.7	103
124	The "pocket" porphyrin: a hemoprotein model with lowered carbon monoxide affinity. <i>Journal of the American Chemical Society</i> , 1981, 103, 2450-2452.	13.7	57