

# Shyamalava Mazumdar

## List of Publications by Year in descending order

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112  
papers

3,469  
citations

218677

26  
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149698

56  
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119  
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119  
docs citations

119  
times ranked

4147  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spectroscopic and electrochemical studies of the pH-Induced transition in the CuA centre from <i>Thermus thermophilus</i> . <i>Inorganica Chimica Acta</i> , 2022, 533, 120749.	2.4	1
2	Controlled Uptake of an Iridium Complex inside Engineered apo-Ferritin Nanocages: Study of Structure and Catalysis**. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	8
3	Artificial metalloenzymes based on protein assembly. <i>Coordination Chemistry Reviews</i> , 2022, 469, 214593.	18.8	9
4	Unveiling the urease like intrinsic catalytic activities of two dinuclear nickel complexes towards the <i>in situ</i> syntheses of aminocyanopyridines. <i>Dalton Transactions</i> , 2021, 50, 4848-4858.	3.3	7
5	Identification of a copper ion recognition peptide sequence in the subunit II of cytochrome c oxidase: a combined theoretical and experimental study. <i>Journal of Biological Inorganic Chemistry</i> , 2021, 26, 411-425.	2.6	4
6	Covalent conjugation of single-walled carbon nanotube with CYP101 mutant for direct electrocatalysis. <i>Analytical Biochemistry</i> , 2021, 626, 114204.	2.4	4
7	Transition metal complexes as promoters of direct electron transfer from gold electrodes to cytochrome c. <i>Journal of Chemical Sciences</i> , 2021, 133, 1.	1.5	1
8	Kinesin associated protein, DmKAP, binding harnesses the C-terminal ends of the <i>Drosophila</i> kinesin-2 stalk heterodimer. <i>Biochemical and Biophysical Research Communications</i> , 2020, 522, 506-511.	2.1	6
9	The structural dynamics of the kinesin-2 stalk heterodimer and its biological relevance. <i>Biochemical and Biophysical Research Communications</i> , 2019, 518, 171-177.	2.1	3
10	Substitution of iron with cobalt in the prosthetic group of bacterial cytochrome P450: Effects on the stability and structure of the protein. <i>Inorganica Chimica Acta</i> , 2019, 487, 398-404.	2.4	5
11	The role of surface O-vacancies in the photocatalytic oxidation of Methylene Blue by Zn-doped TiO <sub>2</sub> : A Mechanistic approach. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2017, 345, 36-53.	3.9	55
12	Ultrafast dynamics of hemin aggregates. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 26862-26869.	2.8	8
13	Mono-nuclear copper complexes mimicking the intermediates for the binuclear copper center of the subunit II of cytochrome oxidase: a peptide based approach. <i>Dalton Transactions</i> , 2016, 45, 17624-17632.	3.3	5
14	The protein inhibitor of nNOS (PIN/DLC1/LC8) binding does not inhibit the NADPH-dependent heme reduction in nNOS, a key step in NO synthesis. <i>Biochemical and Biophysical Research Communications</i> , 2016, 472, 189-193.	2.1	1
15	A molecular Fe-complex as a catalyst probe for in-gel visual detection of proteins via signal amplification. <i>Chemical Communications</i> , 2015, 51, 15257-15260.	4.1	4
16	Role of substituents on the reactivity and product selectivity in reactions of naphthalene derivatives catalyzed by the orphan thermostable cytochrome P450, CYP175A1. <i>Bioorganic Chemistry</i> , 2015, 62, 94-105.	4.1	5
17	Regioselective Oxygenation of Polyunsaturated Fatty Acids by the Thermostable P450 from <i>Thermus thermophilus</i> HB27. <i>Current Biotechnology</i> , 2015, 4, 345-356.	0.4	2
18	Thermodynamic Effects of the Alteration of the Axial Ligand on the Unfolding of Thermostable Cytochrome <i>c</i> . <i>Biochemistry</i> , 2013, 52, 1373-1384.	2.5	16

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19	Mechanism of Copper Incorporation in Subunit II of Cytochrome <i>c</i> Oxidase from <i>Thermus thermophilus</i> : Identification of Intermediate Species. <i>Biochemistry</i> , 2013, 52, 4620-4635.	2.5	6
20	Electrospray Ionization Mass Spectrometry: A Technique to Access the Information beyond the Molecular Weight of the Analyte. <i>International Journal of Analytical Chemistry</i> , 2012, 2012, 1-40.	1.0	377
21	Selective Deletion of the Internal Lysine Residue from the Peptide Sequence by Collisional Activation. <i>Journal of the American Society for Mass Spectrometry</i> , 2012, 23, 1967-1980.	2.8	4
22	Oxygenation of Monoenoic Fatty Acids by CYP175A1, an Orphan Cytochrome P450 from <i>Thermus thermophilus</i> HB27. <i>Biochemistry</i> , 2012, 51, 7880-7890.	2.5	14
23	Role of the Surface-Exposed Leucine 155 in the Metal Ion Binding Loop of the CuA Domain of Cytochrome <i>c</i> Oxidase from <i>Thermus thermophilus</i> on the Function and Stability of the Protein. <i>Biochemistry</i> , 2012, 51, 2443-2452.	2.5	7
24	Sequence Specific Association of Tryptic Peptides with Multiwalled Carbon Nanotubes: Effect of Localization of Hydrophobic Residues. <i>Biomacromolecules</i> , 2012, 13, 1410-1419.	5.4	15
25	Biochemical and Molecular Dynamic Simulation Analysis of a Weak Coiled Coil Association between Kinesin-II Stalks. <i>PLoS ONE</i> , 2012, 7, e45981.	2.5	10
26	Structural Design of the Active Site for Covalent Attachment of the Heme to the Protein Matrix: Studies on a Thermostable Cytochrome P450. <i>Biochemistry</i> , 2011, 50, 1042-1052.	2.5	5
27	Conjugation of cytochrome <i>c</i> with hydrogen titanate nanotubes: novel conformational state with implications for apoptosis. <i>Nanotechnology</i> , 2011, 22, 415705.	2.6	18
28	Evidence of Molecular Fragmentation inside the Charged Droplets Produced by Electrospray Process. <i>Journal of the American Society for Mass Spectrometry</i> , 2011, 22, 1707-17.	2.8	32
29	Direct electrochemistry of dinuclear CuA fragment from cytochrome <i>c</i> oxidase of <i>Thermus thermophilus</i> at surfactant modified glassy carbon electrode. <i>Electrochimica Acta</i> , 2010, 55, 4174-4179.	5.2	28
30	Non-covalent dimers of the lysine containing protonated peptide ions in gaseous state: electrospray ionization mass spectrometric study. <i>Journal of Mass Spectrometry</i> , 2010, 45, 1212-1219.	1.6	17
31	Modification of the heme active site to increase the peroxidase activity of thermophilic cytochrome P450: A rational approach. <i>Journal of Inorganic Biochemistry</i> , 2010, 104, 1185-1194.	3.5	30
32	Covalent linkage of CYP101 with the electrode enhances the electrocatalytic activity of the enzyme: Vectorial electron transport from the electrode. <i>Inorganica Chimica Acta</i> , 2010, 363, 2804-2811.	2.4	11
33	Effects of salts on the charge-state distribution and the structural basis of the most-intense charge-state of the gaseous protein ions produced by electrospray ionization. <i>International Journal of Mass Spectrometry</i> , 2010, 289, 84-91.	1.5	13
34	Thermodynamic basis of the thermostability of CYP175A1 from <i>Thermus thermophilus</i> . <i>International Journal of Biological Macromolecules</i> , 2010, 46, 412-418.	7.5	22
35	Tuning the substrate specificity by engineering the active site of cytochrome P450cam: A rational approach. <i>Dalton Transactions</i> , 2010, 39, 3115.	3.3	18
36	Succinylation of cytochrome <i>c</i> investigated by electrospray ionization mass spectrometry: Reactive lysine residues. <i>International Journal of Mass Spectrometry</i> , 2009, 281, 55-62.	1.5	8

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37	Reversible inactivation of cytochrome P450 by alkaline earth metal ions: Auxiliary metal ion induced conformation change and formation of inactive P420 species in CYP101. <i>Journal of Inorganic Biochemistry</i> , 2008, 102, 1312-1321.	3.5	16
38	Roles of two surface residues near the access channel in the substrate recognition by cytochrome P450cam. <i>Biophysical Chemistry</i> , 2008, 135, 1-6.	2.8	20
39	Engineering of <i>Thermus thermophilus</i> Cytochrome <i>c</i> <sub>552</sub> : Thermally Tolerant Artificial Peroxidase*. <i>ChemBioChem</i> , 2008, 9, 2954-2957.	2.6	16
40	Protein encapsulation into mesoporous silica hosts. <i>Microporous and Mesoporous Materials</i> , 2008, 109, 535-541.	4.4	30
41	Effect of Polar Solvents on the Optical Properties of Water-Dispersible Thiol-Capped Cobalt Nanoparticles. <i>Langmuir</i> , 2008, 24, 3439-3445.	3.5	22
42	Conformational Dynamics Coupled to Protonation Equilibrium at the Cu <sub>A</sub> Site of <i>Thermus thermophilus</i> : Insights into the Origin of Thermostability. <i>Biochemistry</i> , 2008, 47, 1309-1318.	2.5	10
43	Inhibition of bacterial oxidases by formamide and analogs. <i>Biological Chemistry</i> , 2008, 389, 599-607.	2.5	1
44	Thermostability of Proteins: Role of Metal Binding and pH on the Stability of the Dinuclear Cu <sub>A</sub> Site of <i>Thermus thermophilus</i> . <i>Biophysical Journal</i> , 2007, 93, 2845-2851.	0.5	16
45	Effect of alcohols on binding of camphor to cytochrome P450cam: Spectroscopic and stopped flow transient kinetic studies. <i>Archives of Biochemistry and Biophysics</i> , 2006, 455, 154-162.	3.0	10
46	Role of Threonine 101 on the Stability of the Heme Active Site of Cytochrome P450cam: Multiwavelength Circular Dichroism Studies. <i>Biochemistry</i> , 2006, 45, 12715-12722.	2.5	20
47	Direct correlation of the crystal structure of proteins with the maximum positive and negative charge states of gaseous protein ions produced by electrospray ionization. <i>Journal of the American Society for Mass Spectrometry</i> , 2005, 16, 1409-1421.	2.8	38
48	Structure and Redox Properties of the Haem Centre in the C357M Mutant of Cytochrome P450cam. <i>ChemBioChem</i> , 2005, 6, 1204-1211.	2.6	10
49	Role of substrate on the conformational stability of the heme active site of cytochrome P450cam: effect of temperature and low concentrations of denaturants. <i>Journal of Biological Inorganic Chemistry</i> , 2004, 9, 477-488.	2.6	17
50	A simple formalism on dynamics of proteins on potential energy landscapes. <i>Protein Science</i> , 2004, 13, 487-493.	7.6	1
51	Effect of redox potential of the heme on the peroxidase activity of cytochrome b562. <i>Biophysical Chemistry</i> , 2003, 105, 263-268.	2.8	16
52	An NMR and circular dichroism study of the interaction of thiocyanate with human and cross-linked hemoglobin: identification of Lys-1±-99 as a possible dissociation linked binding site. <i>Biophysical Chemistry</i> , 2003, 106, 233-240.	2.8	3
53	Stabilization of Partially Folded States of Cytochrome C in Aqueous Surfactant: Effects of Ionic and Hydrophobic Interactions. <i>Biochemistry</i> , 2003, 42, 14606-14613.	2.5	68
54	Reaction of hydrogen peroxide and peroxidase activity in carboxymethylated cytochrome c: spectroscopic and kinetic studies. <i>BBA - Proteins and Proteomics</i> , 2002, 1596, 63-75.	2.1	39

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55	NMR studies on interaction of lauryl maltoside with cytochrome c oxidase: a model for surfactant interaction with the membrane protein. <i>Journal of Inorganic Biochemistry</i> , 2002, 91, 116-124.	3.5	17
56	Interaction of sodium dodecyl sulfate with human native and cross-linked hemoglobins: a transient kinetic study. <i>Biophysical Chemistry</i> , 2002, 98, 267-273.	2.8	34
57	Direct Observation of Release of Cytochrome c from Lipid-Encapsulated Protein by Peroxide and Superoxide: A Possible Mechanism for Drug-Induced Apoptosis. <i>Biochemical and Biophysical Research Communications</i> , 2001, 286, 311-314.	2.1	4
58	Steady-State and Time-Resolved Fluorescence Studies on Wild Type and Mutant <i>Chromatium vinosum</i> High Potential Iron Proteins: Holo- and Apo-Forms. <i>Biophysical Journal</i> , 2001, 81, 2320-2330.	0.5	10
59	pH-Induced Conformational Transition in the Soluble CuA Domain of <i>Paracoccus denitrificans</i> Cytochrome Oxidase. <i>Biochemistry</i> , 2001, 40, 6180-6189.	2.5	13
60	INTERACTION OF SURFACTANTS WITH BIOMOLECULES AND MIMICS**To Professor Samaresh Mitra on the occasion of his 60th birthday.. , 2001, , 73-128.		0
61	Direct electrochemistry of heme proteins: effect of electrode surface modification by neutral surfactants. <i>Bioelectrochemistry</i> , 2001, 53, 17-24.	4.6	82
62	Redox-linked conformational changes in bovine heart cytochromec oxidase: Picosecond time-resolved fluorescence studies of cyanide complex. <i>Biopolymers</i> , 2000, 57, 316-322.	2.4	10
63	Effect of Adriamycin on the boundary lipid structure of cytochrome c oxidase: pico-second time-resolved fluorescence depolarization studies. <i>Biophysical Chemistry</i> , 2000, 86, 15-28.	2.8	13
64	Binding of camphor to <i>Pseudomonas putida</i> cytochrome P450cam: steady-state and picosecond time-resolved fluorescence studies. <i>FEBS Letters</i> , 2000, 477, 157-160.	2.8	23
65	Structural and Conformational Stability of Horseradish Peroxidase: Effect of Temperature and pH. <i>Biochemistry</i> , 2000, 39, 263-270.	2.5	288
66	Direct electrochemical oxidation of horseradish peroxidase: cyclic voltammetric and spectroelectrochemical studies. <i>New Journal of Chemistry</i> , 1999, 23, 137-139.	2.8	14
67	J- and H-Aggregates of Porphyrin~Surfactant Complexes: Time-Resolved Fluorescence and Other Spectroscopic Studies. <i>Journal of Physical Chemistry B</i> , 1998, 102, 1528-1538.	2.6	753
68	Characterization of a partially unfolded structure of cytochrome c induced by sodium dodecyl sulphate and the kinetics of its refolding. <i>FEBS Journal</i> , 1998, 254, 662-670.	0.2	84
69	J- and H-Aggregates of Porphyrins with Surfactants: Fluorescence, Stopped Flow and Electron Microscopy Studies. <i>Journal of Porphyrins and Phthalocyanines</i> , 1998, 02, 369-376.	0.8	69
70	Unfolding pathway of cytochromec oxidase induced by ionic surfactants: Circular dichroism and picosecond time-resolved fluorescence studies. <i>Journal of Chemical Sciences</i> , 1998, 110, 479-490.	1.5	2
71	Steady-State and Picosecond-Time-Resolved Fluorensence Studies on the Recombinant Heme Domain of <i>Bacillus megaterium</i> Cytochrome P-450. <i>FEBS Journal</i> , 1997, 244, 361-370.	0.2	15
72	Dielectric relaxation study of glycine and valine in water mixture using picosecond time domain reflectometry. <i>Indian Journal of Biochemistry and Biophysics</i> , 1997, 34, 385-90.	0.0	2

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73	Spectroscopic and Mechanistic Studies of Type-1 and Type-2 Copper Sites in <i>Pseudomonas aeruginosa</i> Azurin As Obtained by Addition of External Ligands to Mutant His46Gly. <i>Biochemistry</i> , 1996, 35, 1397-1407.	2.5	60
74	Protein-surfactant interaction: Selective unfolding in hemeproteins. <i>Journal of Chemical Sciences</i> , 1996, 108, 313-313.	1.5	0
75	Ion-ion mutual neutralization of $N_2^+$ with $F\hat{a}^-$ and other fluorine-containing negative ions. <i>Chemical Physics Letters</i> , 1995, 237, 448-455.	2.6	5
76	Fluorescence Dynamics of Noncovalently Linked Porphyrin Dimers, and Aggregates. <i>The Journal of Physical Chemistry</i> , 1995, 99, 17192-17197.	2.9	216
77	Conformational Substates of Apoprotein of Horseradish Peroxidase in Aqueous Solution: A Fluorescence Dynamics Study. <i>The Journal of Physical Chemistry</i> , 1995, 99, 13283-13290.	2.9	28
78	Dynamics of Porphyrin Molecules in Micelles. Picosecond Time-Resolved Fluorescence Anisotropy Studies. <i>The Journal of Physical Chemistry</i> , 1995, 99, 10708-10715.	2.9	89
79	pH-Induced Conformational Perturbation in Horseradish Peroxidase. <i>FEBS Journal</i> , 1995, 227, 823-828.	0.2	3
80	pH-Induced Conformational Perturbation in Horseradish Peroxidase. Picosecond Tryptophan Fluorescence Studies on Native and Cyanide-Modified Enzymes. <i>FEBS Journal</i> , 1995, 227, 823-828.	0.2	45
81	Time-resolved fluorescence study of the single tryptophan in thiocyanate and azide derivatives of horseradish peroxidase: Implication for pH-induced conformational change in the heme cavity. <i>Journal of Chemical Sciences</i> , 1995, 107, 505-518.	1.5	1
82	Heme CD as a probe for monitoring local structural changes in hemeproteins: Alkaline transition in hemeproteins. <i>Journal of Chemical Sciences</i> , 1995, 107, 497-503.	1.5	4
83	Conformational change due to reduction of cytochrome-c oxidase in lauryl maltoside: picosecond time-resolved tryptophan fluorescence studies on the native and heat modified enzyme. <i>BBA - Proteins and Proteomics</i> , 1994, 1209, 227-237.	2.1	14
84	The introduction of a negative charge into the hydrophobic patch of <i>Pseudomonas aeruginosa</i> azurin affects the electron self-exchange rate and the electrochemistry. <i>FEBS Journal</i> , 1994, 222, 583-588.	0.2	47
85	Adenosine triphosphate synthesis using an electrochemically-driven proton pump. <i>Journal of the Chemical Society Chemical Communications</i> , 1994, , 807.	2.0	2
86	Micelle-induced release of heme-NO from nitric oxide complex of myoglobin. <i>Journal of Chemical Sciences</i> , 1994, 106, 763-763.	1.5	0
87	Picosecond fluorescence decay of tryptophan in bovine cytochrome-c oxidase. <i>Journal of Chemical Sciences</i> , 1994, 106, 766-766.	1.5	0
88	Time-resolved study of tryptophan fluorescence in vesicle reconstituted cytochrome oxidase. <i>FEBS Letters</i> , 1993, 336, 211-214.	2.8	11
89	Micelle-induced release of haem-NO from nitric oxide complex of myoglobin. <i>Journal of the Chemical Society Chemical Communications</i> , 1993, .	2.0	13
90	Binding of cyanide and thiocyanate to manganese reconstituted myoglobin and formation of peroxide compound: optical spectral, multinuclear NMR, and kinetic studies. <i>Inorganic Chemistry</i> , 1993, 32, 5362-5367.	4.0	25

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91	Biomimetic chemistry of hemes inside aqueous micelles. , 1993, , 115-145.		7
92	Octaethylporphyrinate haem complexes encapsulated inside aqueous detergent micelles: a spectroscopic study. Journal of the Chemical Society Dalton Transactions, 1991, , 2091.	1.1	6
93	Stability and characterization of iron(III) and iron(II) heme peptides encapsulated in aqueous detergent micelles: proton NMR and UV-visible spectroscopic studies. Inorganic Chemistry, 1991, 30, 700-705.	4.0	28
94	Aggregation in five-coordinate high-spin natural hemins: determination of solution structure by proton NMR. The Journal of Physical Chemistry, 1990, 94, 561-566.	2.9	10
95	Effects of zinc substitution on the electron superconductor $Nd_{1.85}Ce_{0.15}CuO_4$ . Physical Review B, 1990, 41, 4797-4800.	3.2	18
96	Proton and carbon-13 NMR studies on the structure of micelles encapsulating hemes in aqueous sodium dodecyl sulfate solutions. The Journal of Physical Chemistry, 1990, 94, 5947-5953.	2.9	34
97	Notes. Proton nuclear magnetic resonance and optical spectra of six-co-ordinated high-spin ( $S=2$ ) bis(tetrahydrofuran)(3,7,12,17-tetramethyl-8,13-divinylporphyrin-2,18-dipropionato)iron(II) encapsulated in aqueous detergent micelles. Journal of the Chemical Society Dalton Transactions, 1990, , 2633.	1.1	6
98	Low-spin iron(III) porphyrins encapsulated in aqueous detergent micelles: proton- and nitrogen-15 nuclear magnetic resonance studies. Journal of the Chemical Society Dalton Transactions, 1990, , 1057.	1.1	6
99	On the quantal identification of low-lying electronic states of $CO_2^+$ . Journal of Physics B: Atomic, Molecular and Optical Physics, 1989, 22, L385-L389.	1.5	15
100	Experimental predictions for the normal state of electron-doped high-temperature superconductors. Physica C: Superconductivity and Its Applications, 1989, 161, 423-430.	1.2	2
101	How are $S_2^+$ ions formed in electron collisions with linear $Si_3C_4S$ ? Rapid Communications in Mass Spectrometry, 1989, 3, 24-26.	1.5	14
102	Proton NMR and optical spectra and magnetic properties of four-coordinated intermediate-spin, five-coordinated high-spin, and six-coordinated low-spin iron(II) hemes encapsulated in aqueous detergent micelles: model for hemoproteins. Inorganic Chemistry, 1989, 28, 3243-3248.	4.0	28
103	Notes. Electronic spectral study of the aqua $\rightleftharpoons$ hydroxo equilibrium of model iron(III) haems encapsulated in aqueous detergent micelles. Journal of the Chemical Society Dalton Transactions, 1989, , 1003.	1.1	9
104	The $CS_2$ dication. International Journal of Mass Spectrometry and Ion Processes, 1988, 86, 351-355.	1.8	10
105	Electronic structure of synthetic iron(III) porphyrins in pyridine and pyridine-water solutions: A proton magnetic resonance study. Inorganica Chimica Acta, 1988, 148, 17-20.	2.4	8
106	Six-coordinated high-spin models for ferric hemoproteins: NMR and ESR study of the diaquo(protoporphyrinato IX)iron(III) cation and aquohydroxo(protoporphyrinato IX)iron(III) intercalated in aqueous detergent micelles. Inorganic Chemistry, 1988, 27, 2541-2543.	4.0	51
107	Formation of doubly charged $Co^{2+}$ ions: a combined experimental and theoretical study. Journal of Physics B: Atomic, Molecular and Optical Physics, 1988, 21, 2815-2826.	1.5	36
108	Proton nuclear magnetic resonance studies on haemin chloride in pyridine-water solution. Journal of the Chemical Society Dalton Transactions, 1988, , 2797-2802.	1.1	1

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109	Excited states of $XH_2^+$ (X=C, N, O, S) ions: a combined experimental and theoretical study. Journal of Physics B: Atomic, Molecular and Optical Physics, 1988, 21, 2571-2584.	1.5	34
110	Valence Bond Theory of Organic Charge-Transfer Salts. Molecular Crystals and Liquid Crystals, 1979, 52, 93-102.	0.8	16
111	Chapter 10. Oxidation of Unnatural Substrates by Engineered Cytochrome P450cam. , 0, , 330-365.		0
112	Controlled Uptake of an Iridium Complex inside Engineered apo- $\alpha$ -Ferritin Nanocages: Study of Structure and Catalysis**. Angewandte Chemie, 0, , .	2.0	1