

S Ramaswamy

List of Publications by Year in descending order

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122
papers

8,085
citations

50276

46
h-index

60623

81
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144
all docs

144
docs citations

144
times ranked

8202
citing authors

#	ARTICLE	IF	CITATIONS
1	Complete Structure of the 11-Subunit Bovine Mitochondrial Cytochrome bc ₁ Complex. , 1998, 281, 64-71.		1,150
2	Structure of an aromatic-ring-hydroxylating dioxygenase â€“ naphthalene 1,2-dioxygenase. Structure, 1998, 6, 571-586.	3.3	512
3	Crystal Structure of Naphthalene Dioxygenase: Side-on Binding of Dioxygen to Iron. Science, 2003, 299, 1039-1042.	12.6	498
4	Structure of a cephalosporin synthase. Nature, 1998, 394, 805-809.	27.8	344
5	Isolation of an endotoxinâ€™MD-2 complex that produces Toll-like receptor 4-dependent cell activation at picomolar concentrations. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 4186-4191.	7.1	336
6	Rieske business: Structureâ€™function of Rieske non-heme oxygenases. Biochemical and Biophysical Research Communications, 2005, 338, 175-190.	2.1	307
7	Binding of allosteric effectors to ribonucleotide reductase protein R1: reduction of active-site cysteines promotes substrate binding. Structure, 1997, 5, 1077-1092.	3.3	247
8	Non-heme iron-dependent dioxygenases: unravelling catalytic mechanisms for complex enzymatic oxidations. Current Opinion in Chemical Biology, 2008, 12, 134-140.	6.1	200
9	Structures of Horse Liver Alcohol Dehydrogenase Complexed with NAD ⁺ and Substituted Benzyl Alcohols. Biochemistry, 1994, 33, 5230-5237.	2.5	196
10	Redox Signaling in Chloroplasts: Cleavage of Disulfides by an Iron-Sulfur Cluster. Science, 2000, 287, 655-658.	12.6	194
11	The Three-dimensional Structure of Mammalian Ribonucleotide Reductase Protein R2 Reveals a More-accessible Iron-radical Site than Escherichia coli R2. Journal of Molecular Biology, 1996, 262, 706-720.	4.2	151
12	Substrate binding site of naphthalene 1,2-dioxygenase: functional implications of indole binding 1 Edited by D. C. Rees. Journal of Molecular Biology, 2000, 296, 701-712.	4.2	149
13	Yeast Alcohol Dehydrogenase Structure and Catalysis. Biochemistry, 2014, 53, 5791-5803.	2.5	140
14	Structure of betaine aldehyde dehydrogenase at 2.1 Å... resolution. Protein Science, 1998, 7, 2106-2117.	7.6	138
15	Structural basis for substrate specificities of cellular deoxyribonucleoside kinases. Nature Structural Biology, 2001, 8, 616-620.	9.7	118
16	Structural basis for myosin V discrimination between distinct cargoes. EMBO Journal, 2006, 25, 693-700.	7.8	118
17	Structural Insight into the Dioxygenation of Nitroarene Compounds: the Crystal Structure of Nitrobenzene Dioxygenase. Journal of Molecular Biology, 2005, 348, 1139-1151.	4.2	114
18	WD40 Repeat Propellers Define a Ubiquitin-Binding Domain that Regulates Turnover of F Box Proteins. Molecular Cell, 2010, 40, 433-443.	9.7	114

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19	PLUNC Is a Novel Airway Surfactant Protein with Anti-Biofilm Activity. PLoS ONE, 2010, 5, e9098.	2.5	103
20	Structural Basis for Thermophilic Protein Stability: Structures of Thermophilic and Mesophilic Malate Dehydrogenases. Journal of Molecular Biology, 2002, 318, 707-721.	4.2	98
21	Structure of monoubiquitinated PCNA and implications for translesion synthesis and DNA polymerase exchange. Nature Structural and Molecular Biology, 2010, 17, 479-484.	8.2	98
22	Crystal Structure of Arabidopsis thaliana NADPH Dependent Thioredoxin Reductase at 2.5 Å... Resolution. Journal of Molecular Biology, 1996, 264, 1044-1057.	4.2	96
23	Structural Basis for Light Activation of a Chloroplast Enzyme: The Structure of Sorghum NADP-Malate Dehydrogenase in Its Oxidized Form. Biochemistry, 1999, 38, 4319-4326.	2.5	91
24	Substitutions in a Flexible Loop of Horse Liver Alcohol Dehydrogenase Hinder the Conformational Change and Unmask Hydrogen Transfer. Biochemistry, 1999, 38, 13951-13959.	2.5	86
25	Crystal Structure of NAD(P)H:Flavin Oxidoreductase from Escherichia coli. Biochemistry, 1999, 38, 7040-7049.	2.5	86
26	Genome sequencing of herb Tulsi (Ocimum tenuiflorum) unravels key genes behind its strong medicinal properties. BMC Plant Biology, 2015, 15, 212.	3.6	80
27	Characterization of the N-Acetyl-5-neuraminic Acid-binding Site of the Extracytoplasmic Sialic Acid Receptor (SiaP) of Nontypeable Haemophilus influenzae Strain 2019. Journal of Biological Chemistry, 2008, 283, 855-865.	3.4	79
28	Missense mutations that cause Van der Woude syndrome and popliteal pterygium syndrome affect the DNA-binding and transcriptional activation functions of IRF6. Human Molecular Genetics, 2009, 18, 535-545.	2.9	75
29	Structural investigations of the ferredoxin and terminal oxygenase components of the biphenyl 2,3-dioxygenase from Sphingobium yanoikuyae B1. BMC Structural Biology, 2007, 7, 10.	2.3	73
30	The three-dimensional structures of two toxins from snake venom throw light on the anticoagulant and neurotoxic sites of phospholipase A2. Toxicon, 1998, 36, 75-92.	1.6	71
31	The Crystal Structure of Synechocystis Hemoglobin with a Covalent Heme Linkage. Journal of Biological Chemistry, 2004, 279, 16535-16542.	3.4	65
32	Binding of Formamides to Liver Alcohol Dehydrogenase. Biochemistry, 1997, 36, 3522-3527.	2.5	63
33	Flexibility of Liver Alcohol Dehydrogenase in Stereoselective Binding of 3-Butylthiolane 1-Oxides. Biochemistry, 1997, 36, 382-389.	2.5	62
34	Substrate-bound outward-open structure of a Na ⁺ -coupled sialic acid symporter reveals a new Na ⁺ site. Nature Communications, 2018, 9, 1753.	12.8	62
35	X-ray Crystal Structure of Benzoate 1,2-Dioxygenase Reductase from Acinetobacter sp. Strain ADP1. Journal of Molecular Biology, 2002, 318, 261-272.	4.2	57
36	Structural basis of phosphodiesterase 6 inhibition by the C-terminal region of the β -subunit. EMBO Journal, 2009, 28, 3613-3622.	7.8	57

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37	Structural Basis for Regioselectivity and Stereoselectivity of Product Formation by Naphthalene 1,2-Dioxygenase. <i>Journal of Bacteriology</i> , 2006, 188, 6986-6994.	2.2	55
38	Quality of protein crystal structures. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2007, 63, 941-950.	2.5	55
39	Medium- and short-chain dehydrogenase/reductase gene and protein families. <i>Cellular and Molecular Life Sciences</i> , 2008, 65, 3907-3917.	5.4	55
40	Crystal structure of the Nod1 caspase activation and recruitment domain. <i>Biochemical and Biophysical Research Communications</i> , 2007, 353, 1-5.	2.1	52
41	Structures of the multicomponent Rieske non-heme iron toluene 2,3-dioxygenase enzyme system. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2009, 65, 24-33.	2.5	52
42	How does light regulate chloroplast enzymes? Structure-function studies of the ferredoxin/thioredoxin system. <i>Quarterly Reviews of Biophysics</i> , 2000, 33, 67-108.	5.7	51
43	Contributions of Valine-292 in the Nicotinamide Binding Site of Liver Alcohol Dehydrogenase and Dynamics to Catalysis. <i>Biochemistry</i> , 2001, 40, 12686-12694.	2.5	51
44	Structure and Increased Thermostability of <i>Rhodococcus</i> sp. Naphthalene 1,2-Dioxygenase. <i>Journal of Bacteriology</i> , 2005, 187, 7222-7231.	2.2	51
45	The Tiam1 PDZ Domain Couples to Syndecan1 and Promotes Cell-Matrix Adhesion. <i>Journal of Molecular Biology</i> , 2010, 398, 730-746.	4.2	51
46	Participation of Histidine-51 in Catalysis by Horse Liver Alcohol Dehydrogenase. <i>Biochemistry</i> , 2004, 43, 3014-3026.	2.5	50
47	Crystal structure of cod liver class I alcohol dehydrogenase: Substrate pocket and structurally variable segments. <i>Protein Science</i> , 1996, 5, 663-671.	7.6	49
48	Structure and Energetics of Protein-Protein Interactions: The Role of Conformational Heterogeneity in OMTKY3 Binding to Serine Proteases. <i>Journal of Molecular Biology</i> , 2003, 331, 497-508.	4.2	47
49	Determining Rieske cluster reduction potentials. <i>Journal of Biological Inorganic Chemistry</i> , 2008, 13, 1301-1313.	2.6	44
50	Tetrameric NAD-dependent alcohol dehydrogenase. <i>Chemico-Biological Interactions</i> , 2003, 143-144, 239-245.	4.0	41
51	Purification, Characterization, and Crystallization of the Components of the Nitrobenzene and 2-Nitrotoluene Dioxygenase Enzyme Systems. <i>Applied and Environmental Microbiology</i> , 2005, 71, 3806-3814.	3.1	41
52	Atomic-Resolution Structures of Horse Liver Alcohol Dehydrogenase with NAD ⁺ and Fluoroalcohols Define Strained Michaelis Complexes. <i>Biochemistry</i> , 2012, 51, 4035-4048.	2.5	39
53	<i>In vivo</i> crystallography at X-ray free-electron lasers: the next generation of structural biology?. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130497.	4.0	39
54	Crystal structure of sorbitol dehydrogenase. <i>Chemico-Biological Interactions</i> , 2001, 130-132, 351-358.	4.0	38

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55	Bacterial periplasmic sialic acid-binding proteins exhibit a conserved binding site. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2014, 70, 1801-1811.	2.5	38
56	Horse Liver Alcohol Dehydrogenase: Zinc Coordination and Catalysis. <i>Biochemistry</i> , 2017, 56, 3632-3646.	2.5	38
57	The reduction of the Rieske iron-sulfur cluster in naphthalene dioxygenase by X-rays. <i>Journal of Inorganic Biochemistry</i> , 2000, 78, 83-87.	3.5	35
58	Ubiquitin Regulates Caspase Recruitment Domain-mediated Signaling by Nucleotide-binding Oligomerization Domain-containing Proteins NOD1 and NOD2. <i>Journal of Biological Chemistry</i> , 2013, 288, 6890-6902.	3.4	35
59	Mechanistic implications from structures of yeast alcohol dehydrogenase complexed with coenzyme and an alcohol. <i>Archives of Biochemistry and Biophysics</i> , 2016, 591, 35-42.	3.0	35
60	Crystallization and Preliminary Crystallographic Studies of <i>Saccharomyces cerevisiae</i> Alcohol Dehydrogenase I. <i>Journal of Molecular Biology</i> , 1994, 235, 777-779.	4.2	33
61	Purification, characterization, and crystallization of the components of a biphenyl dioxygenase system from <i>Sphingobium yanoikuyae</i> B1. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2007, 34, 311-324.	3.0	31
62	Structure of a Mutant Form of Proliferating Cell Nuclear Antigen That Blocks Translesion DNA Synthesis. <i>Biochemistry</i> , 2008, 47, 13354-13361.	2.5	31
63	Blue protein with red fluorescence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 11513-11518.	7.1	30
64	“Just a spoonful of sugar...” import of sialic acid across bacterial cell membranes. <i>Biophysical Reviews</i> , 2018, 10, 219-227.	3.2	29
65	Structure of a heterogeneous, glycosylated, lipid-bound, <i>in vivo</i> -grown protein crystal at atomic resolution from the viviparous cockroach <i>Diploptera punctata</i> . <i>IUCr</i> , 2016, 3, 282-293.	2.2	28
66	Purification and Crystallization of the Oxygenase Component of Naphthalene Dioxygenase in Native and Selenomethionine-Derivatized Forms. <i>Biochemical and Biophysical Research Communications</i> , 1997, 241, 553-557.	2.1	27
67	One enzyme, many reactions: structural basis for the various reactions catalyzed by naphthalene 1,2-dioxygenase. <i>IUCr</i> , 2017, 4, 648-656.	2.2	27
68	Structure of thioredoxin from <i>Trypanosoma brucei brucei</i> . <i>FEBS Letters</i> , 2003, 554, 301-305.	2.8	25
69	The Sodium Sialic Acid Symporter From <i>Staphylococcus aureus</i> Has Altered Substrate Specificity. <i>Frontiers in Chemistry</i> , 2018, 6, 233.	3.6	24
70	NO binding to naphthalene dioxygenase. <i>Journal of Biological Inorganic Chemistry</i> , 2005, 10, 483-489.	2.6	17
71	Structural and functional studies of ferredoxin and oxygenase components of 3-nitrotoluene dioxygenase from <i>Diaphorobacter</i> sp. strain DS2. <i>PLoS ONE</i> , 2017, 12, e0176398.	2.5	17
72	Crystal Structure of a Complex of NOD1 CARD and Ubiquitin. <i>PLoS ONE</i> , 2014, 9, e104017.	2.5	14

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73	Molecular basis for metabolite channeling in a ring opening enzyme of the phenylacetate degradation pathway. <i>Nature Communications</i> , 2019, 10, 4127.	12.8	14
74	A 2-tyrosyl-L-glutamate Mononuclear Iron Center Forms the Active Site of a <i>Paracoccus</i> Dimethylformamidase. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 16961-16966.	13.8	14
75	The basis for non-canonical ROK family function in the N-acetylmannosamine kinase from the pathogen <i>Staphylococcus aureus</i> . <i>Journal of Biological Chemistry</i> , 2020, 295, 3301-3315.	3.4	13
76	A charged residue at the subunit interface of PCNA promotes trimer formation by destabilizing alternate subunit interactions. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2009, 65, 560-566.	2.5	12
77	Expression, purification and substrate specificities of 3-nitrotoluene dioxygenase from <i>Diaphorobacter</i> sp. strain DS2. <i>Biochemical and Biophysical Research Communications</i> , 2014, 445, 36-42.	2.1	12
78	Cryo-Electron Microscopy Structures of Yeast Alcohol Dehydrogenase. <i>Biochemistry</i> , 2021, 60, 663-677.	2.5	12
79	Purification and properties of Sander cyanin, a blue protein secreted in the mucus of blue forms of walleye, <i>Sander vitreus</i> . <i>Environmental Biology of Fishes</i> , 2008, 82, 51-58.	1.0	11
80	Automation aided optimization of cloning, expression and purification of enzymes of the bacterial sialic acid catabolic and sialylation pathways enzymes for structural studies. <i>Microbial Biotechnology</i> , 2018, 11, 420-428.	4.2	10
81	Identification of multiple isomeric core chitobiose-modified high-mannose and paucimannose N-glycans in the planarian <i>Schmidtea mediterranea</i> . <i>Journal of Biological Chemistry</i> , 2018, 293, 6707-6720.	3.4	9
82	Serotonin is essential for eye regeneration in planaria <i>Schmidtea mediterranea</i> . <i>FEBS Letters</i> , 2019, 593, 3198-3209.	2.8	9
83	Crystallization and preliminary X-ray diffraction analysis of naphthalene dioxygenase from <i>Rhodococcus</i> sp. strain NCIMB 12038. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2002, 58, 2173-2174.	2.5	8
84	Molecular characterization of the interaction of sialic acid with the periplasmic binding protein from <i>Haemophilus ducreyi</i> . <i>Journal of Biological Chemistry</i> , 2018, 293, 20073-20084.	3.4	8
85	Decreased expression of cell adhesion genes in cancer stem-like cells isolated from primary oral squamous cell carcinomas. <i>Tumor Biology</i> , 2018, 40, 101042831878085.	1.8	8
86	Structure and Function of N-Acetylmannosamine Kinases from Pathogenic Bacteria. <i>ACS Omega</i> , 2020, 5, 30923-30936.	3.5	8
87	Crystal structure of N-acetylmannosamine kinase from <i>Fusobacterium nucleatum</i> . <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2017, 73, 356-362.	0.8	8
88	Crystallisation and crystallographic investigations of cod alcohol dehydrogenase class I and class III enzymes. <i>FEBS Letters</i> , 1994, 350, 122-124.	2.8	7
89	Crystallographic investigation of the dependence of calcium and phosphate ions for notexin. <i>FEBS Letters</i> , 1997, 403, 51-56.	2.8	7
90	Purification, crystallization and preliminary X-ray diffraction studies of the three components of the toluene 2,3-dioxygenase enzyme system. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2005, 61, 669-672.	0.7	7

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91	One Atom Makes All the Difference. <i>Science</i> , 2011, 334, 914-915.	12.6	7
92	Molecular Basis for Nucleotide-binding Specificity: Role of the Exocyclic Amino Group α -N ² in Recognition by a Guanylyl-ribonuclease. <i>Journal of Molecular Biology</i> , 2006, 355, 72-84.	4.2	6
93	Structures of Ubiquitin Insertion Mutants Support Site-specific Reflex Response to Insertions Hypothesis. <i>Journal of Molecular Biology</i> , 2006, 359, 390-402.	4.2	6
94	Crystal structures and kinetic analyses of <i>N</i> -acetylmannosamine-6-phosphate 2-epimerases from <i>Fusobacterium nucleatum</i> and <i>Vibrio cholerae</i> . <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2018, 74, 431-440.	0.8	6
95	Multiple isomorphous replacement on merohedral twins: structure determination of deacetoxycephalosporin C synthase. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2001, 57, 1776-1785.	2.5	5
96	Quaternary variations in the structural assembly of <i>N</i> -acetylglucosamine-6-phosphate deacetylase from <i>Pasteurella multocida</i> . <i>Proteins: Structure, Function and Bioinformatics</i> , 2021, 89, 81-93.	2.6	5
97	Alternative binding modes in abortive NADH-alcohol complexes of horse liver alcohol dehydrogenase. <i>Archives of Biochemistry and Biophysics</i> , 2021, 701, 108825.	3.0	5
98	Crystal structures and kinetics of <i>N</i> -acetylneuraminatase lyase from <i>Fusobacterium nucleatum</i> . <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2018, 74, 725-732.	0.8	5
99	A perspective on challenges and opportunities in characterizing oral cancer stem cells. <i>Frontiers in Bioscience - Landmark</i> , 2020, 25, 1011-1021.	3.0	5
100	Crystallographic investigations of alcohol dehydrogenases. , 1994, 71, 269-277.		4
101	Expression and preliminary crystallographic studies of R1E, the large subunit of ribonucleotide reductase from <i>Salmonella typhimurium</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2003, 59, 1081-1083.	2.5	4
102	The New Era of Microcrystallography. <i>Journal of the Indian Institute of Science</i> , 2018, 98, 273-281.	1.9	4
103	The resolution revolution reaches India. <i>Biophysical Reviews</i> , 2019, 11, 513-514.	3.2	4
104	<i>N</i> -acetylmannosamine-6-phosphate 2-epimerase uses a novel substrate-assisted mechanism to catalyze amino sugar epimerization. <i>Journal of Biological Chemistry</i> , 2021, 297, 101113.	3.4	4
105	Dynamics in Alcohol Dehydrogenase Elucidated from Crystallographic Investigations. <i>Advances in Experimental Medicine and Biology</i> , 1999, 463, 275-284.	1.6	4
106	Pseudo-symmetry characterization and refinement of a trigonal crystal form of naphthalene 1,2-dioxygenase. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2000, 56, 313-321.	2.5	3
107	Comparison of CryoEM and X-ray structures of dimethylformamidase. <i>Progress in Biophysics and Molecular Biology</i> , 2021, 160, 66-78.	2.9	3
108	Crystallizations of Novel Forms of Alcohol Dehydrogenase. <i>Advances in Experimental Medicine and Biology</i> , 1995, 372, 365-371.	1.6	3

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109	Uncompetitive Inhibitors of Alcohol Dehydrogenases. <i>Advances in Experimental Medicine and Biology</i> , 1999, 463, 295-303.	1.6	3
110	Structure of recombinantly expressed cockroach Lili-Mip protein in glycosylated and deglycosylated forms. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2022, 1866, 130064.	2.4	3
111	First international workshops on Provocative Questions (PQ) in cancer research, October–November 2014, New Delhi, Bengaluru, and Thiruvananthapuram, India. <i>Journal of Cancer Policy</i> , 2015, 6, 33-36.	1.4	2
112	Structure and Function of Betaine Aldehyde Dehydrogenase. <i>Advances in Experimental Medicine and Biology</i> , 1999, 463, 39-44.	1.6	2
113	Phenylalanine stacking enhances the red fluorescence of biliverdin IX α on UV excitation in sandercyanin fluorescent protein. <i>FEBS Letters</i> , 2022, 596, 796-805.	2.8	2
114	Crystal and molecular structures of propanediamine complexed with L- and DL-glutamic acid: effect of chirality on propanediamine. <i>Acta Crystallographica Section B: Structural Science</i> , 1992, 48, 488-492.	1.8	1
115	The crystal structure of nitrobenzene 1,2-dioxygenase. <i>Journal of Inorganic Biochemistry</i> , 2003, 96, 132.	3.5	1
116	Structural and functional characterization of CMP-N-acetylneuraminase from <i>Vibrio cholerae</i> . <i>Acta Crystallographica Section D: Structural Biology</i> , 2019, 75, 564-577.	2.3	1
117	Crystal and molecular structure of sym-homospermidine monohydrate. <i>Indian Journal of Biochemistry and Biophysics</i> , 1991, 28, 504-12.	0.0	1
118	Missense mutations that cause Van der Woude syndrome and popliteal pterygium syndrome affect the DNA-binding and transcriptional activation functions of IRF6. <i>Human Molecular Genetics</i> , 2009, 18, 1544-1544.	2.9	0
119	Glycomic and glycotranscriptomic profiling of mucin-type O-glycans in planarian <i>Schmidtea mediterranea</i> . <i>Glycobiology</i> , 2021, . .	2.5	0
120	A Tyrosinate Mononuclear Iron Center Forms the Active Site of a <i>Paracoccus</i> Dimethylformamidase. <i>Angewandte Chemie</i> , 2020, 132, 17109-17114.	2.0	0
121	Crystal structure of cadaverine dihydrochloride monohydrate. <i>Indian Journal of Biochemistry and Biophysics</i> , 1992, 29, 402-6.	0.0	0
122	Modulation of biliverdin dynamics and spectral properties by Sandercyanin. <i>RSC Advances</i> , 2022, 12, 20296-20304.	3.6	0