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List of Publications by Year
in descending order

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123 papers	4,714 citations	76326 40 h-index	114465 63 g-index
133 all docs	133 docs citations	133 times ranked	4788 citing authors

#	Article	IF	Citations
1	A Thiolase of Mycobacterium tuberculosis Is Required for Virulence and Production of Androstenedione and Androstadienedione from Cholesterol. Infection and Immunity, 2010, 78, 275-282.	2.2	178
2	Inhibition of Matrix Metalloproteinase 14 (MMP-14)-mediated Cancer Cell Migration. Journal of Biological Chemistry, 2011, 286, 33167-33177.	3.4	169
3	Pathogen roid rage: Cholesterol utilization byMycobacterium tuberculosis. Critical Reviews in Biochemistry and Molecular Biology, 2014, 49, 269-293.	5.2	129
4	Role of the hemopexin domain of matrix metalloproteinases in cell migration. Journal of Cellular Physiology, 2008, 217, 643-651.	4.1	127
5	Role of Matrix Metalloproteinase-9 Dimers in Cell Migration. Journal of Biological Chemistry, 2010, 285, 35944-35956.	3.4	123
6	Segmental motion in catalysis: investigation of a hydrogen bond critical for loop closure in the reaction of triosephosphate isomerase. Biochemistry, 1992, 31, 8488-8494.	2.5	118
7	Sub-atomic Resolution Crystal Structure of Cholesterol Oxidase: What Atomic Resolution Crystallography Reveals about Enzyme Mechanism and the Role of the FAD Cofactor in Redox Activity. Journal of Molecular Biology, 2003, 326, 1635-1650.	4.2	118
8	Crystal Structure Determination of Cholesterol Oxidase fromStreptomycesand Structural Characterization of Key Active Site Mutantsâ€,â€¡. Biochemistry, 1999, 38, 4277-4286.	2.5	115
9	Small-Molecule Anticancer Compounds Selectively Target the Hemopexin Domain of Matrix Metalloproteinase-9. Cancer Research, 2011, 71, 4977-4988.	0.9	112
10	Segmental movement: definition of the structural requirements for loop closure in catalysis by triosephosphate isomerase. Biochemistry, 1992, 31, 8482-8487.	2.5	111
11	Mediation of sperm-egg fusion: evidence that mouse egg Î±6Î²1 integrin is the receptor for sperm fertilinÎ². Chemistry and Biology, 1999, 6, 1-10.	6.0	109
12	Synthesis of Copolymers by Alternating ROMP (AROMP). Journal of the American Chemical Society, 2009, 131, 3444-3445.	13.7	108
13	Antibacterial Studies of Cationic Polymers with Alternating, Random, and Uniform Backbones. ACS Chemical Biology, 2011, 6, 590-599.	3.4	103
14	Cholesterol Metabolism Increases the Metabolic Pool of Propionate in Mycobacterium tuberculosis. Biochemistry, 2009, 48, 3819-3821.	2.5	96
15	Rv1106c from Mycobacterium tuberculosis Is a 3Î²-Hydroxysteroid Dehydrogenase. Biochemistry, 2007, 46, 9058-9067.	2.5	90
16	Pathway Profiling in Mycobacterium tuberculosis. Journal of Biological Chemistry, 2011, 286, 43668-43678.	3.4	89
17	Hit Generation in TB Drug Discovery: From Genome to Granuloma. Chemical Reviews, 2018, 118, 1887-1916.	47.7	80
18	Dynamic Requirements for a Functional Protein Hinge. Journal of Molecular Biology, 2007, 368, 131-149.	4.2	77

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19	Selective cancer targeting with prodrugs activated by histone deacetylases and a tumour-associated protease. Nature Communications, 2013, 4, 2735.	12.8	76
20	The Binding and Release of Oxygen and Hydrogen Peroxide Are Directed by a Hydrophobic Tunnel in Cholesterol Oxidase. Biochemistry, 2008, 47, 5368-5377.	2.5	74
21	Cholesterol oxidase: physiological functions. FEBS Journal, 2009, 276, 6844-6856.	4.7	73
22	Cholesterol Oxidase Senses Subtle Changes in Lipid Bilayer Structureâ€. Biochemistry, 2004, 43, 827-836.	2.5	71
23	Scope of the Ring-Opening Metathesis Polymerization (ROMP) Reaction of 1-Substituted Cyclobutenes. Journal of the American Chemical Society, 2010, 132, 10513-10520.	13.7	70
24	Crystal structures of .alpha.-lytic protease complexes with irreversibly bound phosphonate esters. Biochemistry, 1991, 30, 2263-2272.	2.5	65
25	Amino Acid-Bearing ROMP Polymers with a Stereoregular Backbone. Journal of the American Chemical Society, 2006, 128, 4578-4579.	13.7	63
26	Synthesis of phosphonic acid derivatives by oxidative activation of phosphinate esters. Journal of Organic Chemistry, 1988, 53, 4500-4503.	3.2	62
27	Precision Synthesis of Alternating Copolymers via Ring-Opening Polymerization of 1-Substituted Cyclobutenes. Accounts of Chemical Research, 2016, 49, 408-417.	15.6	62
28	Shrinking the FadE Proteome of Mycobacterium tuberculosis: Insights into Cholesterol Metabolism through Identification of an Î± ₂ Î² ₂ Heterotetrameric Acyl Coenzyme A Dehydrogenase Family. Journal of Bacteriology, 2013, 195, 4331-4341.	2.2	59
29	Peptidic phosphonylating agents as irreversible inhibitors of serine proteases and models of the tetrahedral intermediates. Biochemistry, 1991, 30, 2255-2263.	2.5	58
30	Cholesterol Oxidases:Â A Study of Nature's Approach to Protein Design. Accounts of Chemical Research, 2003, 36, 713-722.	15.6	58
31	Evaluation of the Role of His447in the Reaction Catalyzed by Cholesterol Oxidaseâ€. Biochemistry, 1998, 37, 17990-18000.	2.5	54
32	Global Gene Expression Analysis Reveals a Role for the Î±1 Integrin in Renal Pathogenesis. Journal of Biological Chemistry, 2001, 276, 34182-34188.	3.4	53
33	Mycobacterium tuberculosis Utilizes a Unique Heterotetrameric Structure for Dehydrogenation of the Cholesterol Side Chain. Biochemistry, 2013, 52, 2895-2904.	2.5	51
34	A Distinct MaoC-like Enoyl-CoA Hydratase Architecture Mediates Cholesterol Catabolism in Mycobacterium tuberculosis. ACS Chemical Biology, 2014, 9, 2632-2645.	3.4	47
35	Isomerization, But Not Oxidation, Is Suppressed by a Single Point Mutation, E361Q, in the Reaction Catalyzed by Cholesterol Oxidase. Journal of the American Chemical Society, 1997, 119, 855-862.	13.7	46
36	Entropy Effects on Protein Hinges:Â The Reaction Catalyzed by Triosephosphate Isomeraseâ€. Biochemistry, 2004, 43, 11436-11445.	2.5	46

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37	Unraveling Cholesterol Catabolism in Mycobacterium tuberculosis: ChsE4-ChsE5 Î±₂Î²₂ Acyl-CoA Dehydrogenase Initiates Î²-Oxidation of 3-Oxo-cholest-4-en-26-oyl CoA. ACS Infectious Diseases, 2015, 1, 110-125.	3.8	46
38	Cholesterol Is Not an Essential Source of Nutrition for Mycobacterium tuberculosis during Infection. Journal of Bacteriology, 2011, 193, 1473-1476.	2.2	43
39	The Presence of a Hydrogen Bond between Asparagine 485 and the Ï€ System of FAD Modulates the Redox Potential in the Reaction Catalyzed by Cholesterol Oxidase,. Biochemistry, 2001, 40, 13779-13787.	2.5	42
40	Fucosylated Molecules Competitively Interfere with Cholera Toxin Binding to Host Cells. ACS Infectious Diseases, 2018, 4, 758-770.	3.8	42
41	Understanding Protein Lids:Â Kinetic Analysis of Active Hinge Mutants in Triosephosphate Isomeraseâ€. Biochemistry, 1999, 38, 11474-11481.	2.5	40
42	Assessment of the Role of an Î© Loop of Cholesterol Oxidase:â€‰ A Truncated Loop Mutant Has Altered Substrate Specificityâ€. Biochemistry, 1998, 37, 5770-5778.	2.5	39
43	Understanding protein lids: structural analysis of active hinge mutants in triosephosphate isomerase. Protein Engineering, Design and Selection, 2004, 17, 375-382.	2.1	38
44	FadA5 a Thiolase from Mycobacterium tuberculosis : A Steroid-Binding Pocket Reveals the Potential for Drug Development against Tuberculosis. Structure, 2015, 23, 21-33.	3.3	38
45	Fucose, Mannose, and Î²-N-Acetylglucosamine Glycopolymers Initiate the Mouse Sperm Acrosome Reaction through Convergent Signaling Pathways. ACS Chemical Biology, 2014, 9, 468-475.	3.4	37
46	Surface molecular recognition. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 12870-12871.	7.1	36
47	A Facile Synthetic Method to Prepare Fluorescently Labeled ROMP Polymers. Organic Letters, 2004, 6, 3253-3255.	4.6	35
48	Cyclic Alternating Ring-Opening Metathesis Polymerization (CAROMP). Rapid Access to Functionalized Cyclic Polymers. Organic Letters, 2010, 12, 3729-3731.	4.6	35
49	Investigation of Membrane Disruption in the Reaction Catalyzed by Cholesterol Oxidaseâ€. Biochemistry, 1997, 36, 6133-6140.	2.5	34
50	A Bicyclo[4.2.0]octene-Derived Monomer Provides Completely Linear Alternating Copolymers via Alternating Ring-Opening Metathesis Polymerization (AROMP). Macromolecules, 2014, 47, 6572-6579.	4.8	34
51	The importance of hinge sequence for loop function and catalytic activity in the reaction catalyzed by triosephosphate isomerase 1 1Edited by P. E. Wright. Journal of Molecular Biology, 2001, 307, 1103-1112.	4.2	33
52	Increased Polymer Length of Oligopeptide-Substituted Polynorbornenes with LiCl. Journal of Organic Chemistry, 2003, 68, 2020-2023.	3.2	33
53	Romping the cellular landscape: linear scaffolds for molecular recognition. Current Opinion in Structural Biology, 2006, 16, 544-550.	5.7	33
54	The importance of Glu361 position in the reaction catalyzed by cholesterol oxidase. Bioorganic and Medicinal Chemistry Letters, 1998, 8, 2663-2668.	2.2	32

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55	Sub-Ã...ngstrom resolution enzyme X-ray structures: is seeing believing?. Current Opinion in Structural Biology, 2003, 13, 709-715.	5.7	32
56	Targeting the Hemopexin-like Domain of Latent Matrix Metalloproteinase-9 (proMMP-9) with a Small Molecule Inhibitor Prevents the Formation of Focal Adhesion Junctions. ACS Chemical Biology, 2017, 12, 2788-2803.	3.4	32
57	Determination of the amino acid requirements for a protein hinge in triosephosphate isomerase. Protein Science, 1998, 7, 1495-1505.	7.6	31
58	ECD peptides inhibit in vitro fertilization in mice. Bioorganic and Medicinal Chemistry Letters, 1997, 7, 1053-1058.	2.2	29
59	Alternating Ring-Opening Metathesis Polymerization Copolymers Containing Charge-Transfer Units. ACS Macro Letters, 2013, 2, 749-752.	4.8	29
60	The Isomerization Catalyzed by Brevibacterium sterolicum Cholesterol Oxidase Proceeds Stereospecifically with One Base. Biochemical and Biophysical Research Communications, 1995, 206, 688-693.	2.1	27
61	Use of the Parallax-Quench Method to Determine the Position of the Active-Site Loop of Cholesterol Oxidase in Lipid Bilayers. Biochemistry, 2000, 39, 13383-13389.	2.5	27
62	Off-Resonance TROSY (R1Ïâ^'R1) for Quantitation of Fast Exchange Processes in Large Proteins. Journal of the American Chemical Society, 2003, 125, 12064-12065.	13.7	27
63	Î²₁ Integrin Is an Adhesion Protein for Sperm Binding to Eggs. ACS Chemical Biology, 2009, 4, 357-366.	3.4	27
64	Development of a High-Throughput Three-Dimensional Invasion Assay for Anti-Cancer Drug Discovery. PLoS ONE, 2013, 8, e82811.	2.5	27
65	Ru-Catalyzed Isomerization Provides Access to Alternating Copolymers via Ring-Opening Metathesis Polymerization. Macromolecules, 2015, 48, 4793-4800.	4.8	27
66	Alternating Ring-Opening Metathesis Polymerization Provides Easy Access to Functional and Fully Degradable Polymers. Macromolecules, 2020, 53, 5857-5868.	4.8	27
67	A C6-Flavin Adduct Is the Major Product of Irreversible Inactivation of Cholesterol Oxidase by 2Î±,3Î±-Cyclopropano-5Î±-cholestan-3Î²-ol. Journal of the American Chemical Society, 2000, 122, 35-39.	13.7	26
68	Distortion of flavin geometry is linked to ligand binding in cholesterol oxidase. Protein Science, 2007, 16, 2647-2656.	7.6	26
69	Alternating Ring-Opening Metathesis Polymerization (AROMP) of Hydrophobic and Hydrophilic Monomers Provides Oligomers with Side-Chain Sequence Control. Macromolecules, 2018, 51, 3932-3940.	4.8	24
70	Characterization of fertilinÎ²-disintegrin binding specificity in spermâ€“egg adhesion. Bioorganic and Medicinal Chemistry, 2000, 8, 723-729.	3.0	23
71	Updating and curating metabolic pathways of TB. Tuberculosis, 2013, 93, 47-59.	1.9	23
72	Synthesis and Preclinical Evaluation of a Highly Improved Anticancer Prodrug Activated by Histone Deacetylases and Cathepsin L. Theranostics, 2016, 6, 808-816.	10.0	22

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73	Comparison of FertilinÎ²-Peptide-Substituted Polymers and Liposomes as Inhibitors of In Vitro Fertilization. ChemBioChem, 2003, 4, 1229-1231.	2.6	20
74	Inhibition of the M. tuberculosis 3Î²-hydroxysteroid dehydrogenase by azasteroids. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 2216-2219.	2.2	20
75	Phospholipase D2 loss results in increased blood pressure via inhibition of the endothelial nitric oxide synthase pathway. Scientific Reports, 2017, 7, 9112.	3.3	19
76	Construction of a catalytically inactive cholesterol oxidase mutant: investigation of the interplay between active site-residues glutamate 361 and histidine 447. Archives of Biochemistry and Biophysics, 2002, 402, 235-242.	3.0	18
77	Multivalent FertilinÎ² Oligopeptides: The Dependence of Fertilization Inhibition on Length and Density. Chemistry and Biology, 2006, 13, 251-259.	6.0	18
78	Catabolism of the Cholesterol Side Chain in Mycobacterium tuberculosis Is Controlled by a Redox-Sensitive Thiol Switch. ACS Infectious Diseases, 2017, 3, 666-675.	3.8	16
79	Post-translational Succinylation of Mycobacterium tuberculosis Enoyl-CoA Hydratase EchA19 Slows Catalytic Hydration of Cholesterol Catabolite 3-Oxo-chol-4,22-diene-24-oyl-CoA. ACS Infectious Diseases, 2020, 6, 2214-2224.	3.8	15
80	A hydrogen-bonding network is important for oxidation and isomerization in the reaction catalyzed by cholesterol oxidase. Acta Crystallographica Section D: Biological Crystallography, 2009, 65, 1222-1231.	2.5	14
81	Polymeric ADAM Protein Mimics Interrogate Mammalian Spermâ€“Egg Binding. ChemBioChem, 2009, 10, 929-937.	2.6	12
82	Î±-Methyl Acyl CoA Racemase Provides Mycobacterium tuberculosis Catabolic Access to Cholesterol Esters. Biochemistry, 2015, 54, 5669-5672.	2.5	12
83	Access to Bicyclo[4.2.0]octene Monomers To Explore the Scope of Alternating Ring-Opening Metathesis Polymerization. Journal of Organic Chemistry, 2018, 83, 2892-2897.	3.2	12
84	More than cholesterol catabolism: regulatory vulnerabilities in Mycobacterium tuberculosis. Current Opinion in Chemical Biology, 2018, 44, 39-46.	6.1	12
85	Mycobacterium tuberculosis Exploits a Heterohexameric Enoyl-CoA Hydratase Retro-Aldolase Complex for Cholesterol Catabolism. Biochemistry, 2019, 58, 4224-4235.	2.5	12
86	Mce3R Stress-Resistance Pathway Is Vulnerable to Small-Molecule Targeting That Improves Tuberculosis Drug Activities. ACS Infectious Diseases, 2019, 5, 1239-1251.	3.8	12
87	Peptides corresponding to the epidermal growth factor-like domain of mouse fertilin: Synthesis and biological activity. , 1998, 47, 299-307.		11
88	Increased Expression ofBrevibacterium sterolicumCholesterol Oxidase inEscherichia coliby Genetic Modification. Protein Expression and Purification, 1998, 12, 347-352.	1.3	11
89	Fucose-Galactose Polymers Inhibit Cholera Toxin Binding to Fucosylated Structures and Galactose-Dependent Intoxication of Human Enteroids. ACS Infectious Diseases, 2020, 6, 1192-1203.	3.8	11
90	Dimyristoylated Peptides Incorporated into Liposomes Are Polyvalent Fertilin Î² Mimics. Organic Letters, 2001, 3, 3333-3335.	4.6	10

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91	Dissection of a Flavoenzyme Active Site: The Reaction Catalyzed by Cholesterol Oxidase. Antioxidants and Redox Signaling, 2001, 3, 839-846.	5.4	10
92	Cyclic acetals as cleavable linkers for affinity capture. Organic and Biomolecular Chemistry, 2015, 13, 8445-8452.	2.8	10
93	IpdE1-IpdE2 Is a Heterotetrameric Acyl Coenzyme A Dehydrogenase That Is Widely Distributed in Steroid-Degrading Bacteria. Biochemistry, 2020, 59, 1113-1123.	2.5	10
94	Reductive Power Generated by Mycobacterium leprae Through Cholesterol Oxidation Contributes to Lipid and ATP Synthesis. Frontiers in Cellular and Infection Microbiology, 2021, 11, 709972.	3.9	10
95	Regioselectivity and kinetics of hydride transfer in substituted 1-benzyl-3-quinolinecarboxamide redox reactions. Journal of Organic Chemistry, 1987, 52, 4454-4459.	3.2	9
96	FertilinÎ² peptidic liposomes inhibit fertilization by steric blockage. Bioorganic and Medicinal Chemistry Letters, 2004, 14, 1381-1384.	2.2	9
97	A GMC Oxidoreductase Homologue Is Required for Acetylation of Glycopeptidolipid in Mycobacterium smegmatis. Biochemistry, 2014, 53, 611-613.	2.5	9
98	Diacyltransferase Activity and Chain Length Specificity ofMycobacterium tuberculosisPapA5 in the Synthesis of Alkyl Î²-Diol Lipids. Biochemistry, 2015, 54, 5457-5468.	2.5	9
99	Incorporation of Large Cycloalkene Rings into Alternating Copolymers Allows Control of Glass Transition and Hydrophobicity. ACS Macro Letters, 2018, 7, 1068-1072.	4.8	9
100	The pursuit of mechanism of action: uncovering drug complexity in TB drug discovery. RSC Chemical Biology, 2021, 2, 423-440.	4.1	9
101	Attempted De Novo design, synthesis, and evaluation of a ligand for the allosteric site of phosphofructokinase. Journal of Organic Chemistry, 1991, 56, 7179-7183.	3.2	7
102	Library screening studies to investigate substrate specificity in the reaction catalyzed by cholesterol oxidase. Protein Engineering, Design and Selection, 2004, 17, 341-348.	2.1	7
103	Enzymatic Î²-Oxidation of the Cholesterol Side Chain in Mycobacterium tuberculosis Bifurcates Stereospecifically at Hydration of 3-Oxo-cholest-4,22-dien-24-oyl-CoA. ACS Infectious Diseases, 2021, 7, 1739-1751.	3.8	7
104	Antifungal Tradecraft by Cholesterol Oxidase. Chemistry and Biology, 2007, 14, 238-241.	6.0	6
105	Designing convergent chemistry curricula. Nature Chemical Biology, 2016, 12, 382-386.	8.0	6
106	Mapping Peptide Thiol Accessibility in Membranes Using a Quaternary Ammonium Isotope-Coded Mass Tag (ICMT). Bioconjugate Chemistry, 2013, 24, 1235-1247.	3.6	5
107	Sugars Require Rigid Multivalent Displays for Activation of Mouse Sperm Acrosomal Exocytosis. Biochemistry, 2017, 56, 2779-2786.	2.5	5
108	4,5-Cyclopropanocholestan-3Î²-ol Substrates for Cholesterol Oxidase and Their1H NMR Assignments. Journal of Organic Chemistry, 1997, 62, 5893-5897.	3.2	4

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109	Cationic amphiphilic alternating copolymers with tunable morphology. Polymer Chemistry, 2020, 11, 5424-5430.	3.9	4
110	Use of an Isotope-Coded Mass Tag (ICMT) Method To Determine the Orientation of Cholesterol Oxidase on Model Membranes. Biochemistry, 2018, 57, 5370-5378.	2.5	3
111	Structural analysis of fertilinÎ² cyclic peptide mimics that are ligands for Î±₆Î²₁ integrin. Chemical Biology and Drug Design, 2002, 59, 45-54.	1.1	2
112	Glycopolymer induction of mouse sperm acrosomal exocytosis shows highly cooperative self-antagonism. Biochemical and Biophysical Research Communications, 2016, 474, 435-440.	2.1	2
113	Targeting Multiple Binding Sites on Cholera Toxin B with Glycomimetic Polymers Promotes the Formation of Proteinâ€“Polymer Aggregates. Biomacromolecules, 2020, 21, 4878-4887.	5.4	2
114	Substituent Effects Provide Access to Tetrasubstituted Ring-Opening Olefin Metathesis of Bicyclo[4.2.0]oct-6-enes. ACS Organic & Inorganic Au, 2021, 1, 29-36.	4.0	2
115	Subcellular forms of cholesterol oxidase from Rhodococcus sp. CIP 105 335: induction, solubilization and characterization. , 2009, , .		1
116	Gradient copolymer prepared from alternating ring-opening metathesis of three monomers. Polymer Chemistry, 2021, 12, 5613-5622.	3.9	1
117	Exploring the value of Mycobacterium tuberculosis modified lipoprotein as a potential biomarker for TB detection in children. BMC Infectious Diseases, 2022, 22, 158.	2.9	1
118	Cholesterol Oxidases: A Study of Natureâ€²s Approach to Protein Design. ChemInform, 2003, 34, no.	0.0	0
119	A Facile Synthetic Method to Prepare Fluorescently Labeled ROMP Polymers. ChemInform, 2004, 35, no.	0.0	0
120	ROMP of Norbornyl Oligopeptides: A Versatile Synthetic Method for Exploring Receptor Topology. , 2006, , 59-60.		0
121	Correction: Small-Molecule Anticancer Compounds Selectively Target the Hemopexin Domain of Matrix Metalloproteinase-9: Figure 3.. Cancer Research, 2012, 72, 5141-5142.	0.9	0
122	A mass spectrometry-based isotope-coded mass tag method to map thiol accessibility in biological systems. Methods in Enzymology, 2019, 621, 245-260.	1.0	0
123	ChoD Is Important for Lipid Modification in M. smegmatis. FASEB Journal, 2008, 22, 611.17.	0.5	0