Edward A Bayer

List of Publications by Year
in descending order

170 papers	12,573 citations	22153 59 h-index	29157 104 g-index
177 all docs	177 docs citations	177 times ranked	7978 citing authors

#	Article	IF	Citations
1	The Cellulosomes: Multienzyme Machines for Degradation of Plant Cell Wall Polysaccharides. Annual Review of Microbiology, 2004, 58, 521-554.	7.3	834
2	How Does Plant Cell Wall Nanoscale Architecture Correlate with Enzymatic Digestibility?. Science, 2012, 338, 1055-1060.	12.6	646
3	The Use of the Avidin-Biotin Complex as a Tool in Molecular Biology. Methods of Biochemical Analysis, 2006, 26, 1-45.	0.2	523
4	Cellulose, cellulases and cellulosomes. Current Opinion in Structural Biology, 1998, 8, 548-557.	5.7	520
5	The cellulosome â€" A treasure-trove for biotechnology. Trends in Biotechnology, 1994, 12, 379-386.	9.3	444
6	Cellulosomes: bacterial nanomachines for dismantling plant polysaccharides. Nature Reviews Microbiology, 2017, 15, 83-95.	28.6	336
7	Cellulosomesâ€"Structure and Ultrastructure. Journal of Structural Biology, 1998, 124, 221-234.	2.8	306
8	The cellulosome concept as an efficient microbial strategy for the degradation of insoluble polysaccharides. Trends in Microbiology, 1999, 7, 275-281.	7.7	287
9	The potential of cellulases and cellulosomes for cellulosic waste management. Current Opinion in Biotechnology, 2007, 18, 237-245.	6.6	283
10	From cellulosomes to cellulosomics. Chemical Record, 2008, 8, 364-377.	5.8	267
11	Degradation of Cellulose Substrates by Cellulosome Chimeras. Journal of Biological Chemistry, 2002, 277, 49621-49630.	3.4	254
12	Action of Designer Cellulosomes on Homogeneous Versus Complex Substrates. Journal of Biological Chemistry, 2005, 280, 16325-16334.	3.4	214
13	Species-specificity of the cohesin-dockerin interaction betweenClostridium thermocellum andClostridium cellulolyticum: Prediction of specificity determinants of the dockerin domain. Proteins: Structure, Function and Bioinformatics, 1997, 29, 517-527.	2.6	192
14	Design and Production of Active Cellulosome Chimeras. Journal of Biological Chemistry, 2001, 276, 21257-21261.	3.4	182
15	Microbial enzyme systems for biomass conversion: emerging paradigms. Biofuels, 2010, 1, 323-341.	2.4	175
16	Biomass Utilization by Gut Microbiomes. Annual Review of Microbiology, 2014, 68, 279-296.	7.3	161
17	Towards lactic acid bacteria-based biorefineries. Biotechnology Advances, 2014, 32, 1216-1236.	11.7	152
18	[3] Applications of avidin-biotin technology: Literature survey. Methods in Enzymology, 1990, 184, 14-45.	1.0	148

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19	Major characteristics of the cellulolytic system of Clostridium thermocellum coincide with those of the purified cellulosome. Enzyme and Microbial Technology, 1985, 7, 37-41.	3.2	147
20	Thermophilic lignocellulose deconstruction. FEMS Microbiology Reviews, 2014, 38, 393-448.	8.6	145
21	Unique Organization of Extracellular Amylases into Amylosomes in the Resistant Starch-Utilizing Human Colonic <i>Firmicutes</i> Bacterium Ruminococcus bromii. MBio, 2015, 6, e01058-15.	4.1	145
22	Affinity cytochemistry: The localization of lectin and antibody receptors on erythrocytes via the avidin-biotin complex. FEBS Letters, 1976, 68, 240-244.	2.8	141
23	Expression, purification and subunit-binding properties of cohesins 2 and 3 of theClostridium thermocellumcellulosome. FEBS Letters, 1995, 360, 121-124.	2.8	135
24	Fungal cellulases and complexed cellulosomal enzymes exhibit synergistic mechanisms in cellulose deconstruction. Energy and Environmental Science, 2013, 6, 1858.	30.8	128
25	Evidence for a dual binding mode of dockerin modules to cohesins. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 3089-3094.	7.1	124
26	<i>Clostridium thermocellum</i> cellulosomal genes are regulated by extracytoplasmic polysaccharides via alternative sigma factors. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18646-18651.	7.1	114
27	Improved Thermostability of Clostridium thermocellum Endoglucanase Cel8A by Using Consensus-Guided Mutagenesis. Applied and Environmental Microbiology, 2012, 78, 3458-3464.	3.1	114
28	Enhanced cellulose degradation by targeted integration of a cohesin-fused Î²-glucosidase into the <i>Clostridium thermocellum</i> cellulosome. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10298-10303.	7.1	109
29	Lignocellulose conversion to biofuels: current challenges, global perspectives. Current Opinion in Biotechnology, 2009, 20, 316-317.	6.6	106
30	Single-molecule dissection of the high-affinity cohesinâ€“dockerin complex. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20431-20436.	7.1	104
31	Ruminococcal cellulosome systems from rumen to human. Environmental Microbiology, 2015, 17, 3407-3426.	3.8	104
32	Cellulase-Xylanase Synergy in Designer Cellulosomes for Enhanced Degradation of a Complex Cellulosic Substrate. MBio, 2010, 1, .	4.1	99
33	Dramatic performance of <i>Clostridium thermocellum</i> explained by its wide range of cellulase modalities. Science Advances, 2016, 2, e1501254.	10.3	99
34	Sodium dodecyl sulfate-polyacrylamide gel electrophoretic method for assessing the quaternary state and comparative thermostability of avidin and streptavidin. Electrophoresis, 1996, 17, 1319-1324.	2.4	96
35	Integration of bacterial lytic polysaccharide monooxygenases into designer cellulosomes promotes enhanced cellulose degradation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 9109-9114.	7.1	96
36	Structural Basis of Cellulosome Efficiency Explored by Small Angle X-ray Scattering. Journal of Biological Chemistry, 2005, 280, 38562-38568.	3.4	95

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37	Reversibility of biotin-binding by selective modification of tyrosine in avidin. Biochemical Journal, 1996, 316, 193-199.	3.7	93
38	Recombinant NeutraLite Avidin: a non-glycosylated, acidic mutant of chicken avidin that exhibits high affinity for biotin and low non-specific binding properties. FEBS Letters, 2000, 467, 31-36.	2.8	93
39	Matching fusion protein systems for affinity analysis of two interacting families of proteins: the cohesin-dockerin interaction. Journal of Molecular Recognition, 2005, 18, 491-501.	2.1	92
40	Deconstruction of Lignocellulose into Soluble Sugars by Native and Designer Cellulosomes. MBio, 2012, 3, .	4.1	92
41	Ultrastable cellulosome-adhesion complex tightens under load. Nature Communications, 2014, 5, 5635.	12.8	92
42	Cohesinâ€dockerin microarray: Diverse specificities between two complementary families of interacting protein modules. Proteomics, 2008, 8, 968-979.	2.2	90
43	Unconventional Mode of Attachment of the Ruminococcus flavefaciens Cellulosome to the Cell Surface. Journal of Bacteriology, 2005, 187, 7569-7578.	2.2	87
44	Cohesin-dockerin recognition in cellulosome assembly: Experiment versus hypothesis. , 2000, 39, 170-177.		83
45	Cellodextrin and Laminaribiose ABC Transporters in <i>Clostridium thermocellum</i>. Journal of Bacteriology, 2009, 191, 203-209.	2.2	83
46	Mapping Mechanical Force Propagation through Biomolecular Complexes. Nano Letters, 2015, 15, 7370-7376.	9.1	83
47	Toward combined delignification and saccharification of wheat straw by a laccase-containing designer cellulosome. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10854-10859.	7.1	77
48	A synthetic biology approach for evaluating the functional contribution of designer cellulosome components to deconstruction of cellulosic substrates. Biotechnology for Biofuels, 2013, 6, 182.	6.2	76
49	Identification of the cellulose-binding domain of the cellulosome subunit S1 fromClostridium thermocellumYS. FEMS Microbiology Letters, 1992, 99, 181-186.	1.8	74
50	The cellulose paradox: pollutant par excellence and/or a reclaimable natural resource?. Biodegradation, 1992, 3, 171-188.	3.0	73
51	The unique set of putative membrane-associated anti-Ïƒ factors in Clostridium thermocellumâ€ƒsuggests a novel extracellular carbohydrate-sensing mechanism involved in gene regulation. FEMS Microbiology Letters, 2010, 308, 84-93.	1.8	73
52	Rumen Cellulosomics: Divergent Fiber-Degrading Strategies Revealed by Comparative Genome-Wide Analysis of Six Ruminococcal Strains. PLoS ONE, 2014, 9, e99221.	2.5	73
53	Digestion of crystalline cellulose substrates by the Clostridium thermocellum cellulosome: structural and morphological aspects. Biochemical Journal, 1999, 340, 829-835.	3.7	72
54	Regulation of the Cellulosomal celS (cel48A) Gene of Clostridium thermocellum Is Growth Rate Dependent. Journal of Bacteriology, 2003, 185, 3042-3048.	2.2	72

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55	The Clostridium cellulolyticum Dockerin Displays a Dual Binding Mode for Its Cohesin Partner. Journal of Biological Chemistry, 2008, 283, 18422-18430.	3.4	71
56	Effect of Linker Length and Dockerin Position on Conversion of a <i>Thermobifida fusca</i> Endoglucanase to the Cellulosomal Mode. Applied and Environmental Microbiology, 2009, 75, 7335-7342.	3.1	67
57	Insights into cellulosome assembly and dynamics: from dissection to reconstruction of the supramolecular enzyme complex. Current Opinion in Structural Biology, 2013, 23, 686-694.	5.7	66
58	Abundance and Diversity of Dockerin-Containing Proteins in the Fiber-Degrading Rumen Bacterium, Ruminococcus flavefaciens FD-1. PLoS ONE, 2010, 5, e12476.	2.5	65
59	Interplay between <i>Clostridium thermocellum</i> Family 48 and Family 9 Cellulases in Cellulosomal versus Noncellulosomal States. Applied and Environmental Microbiology, 2010, 76, 3236-3243.	3.1	64
60	Regulation of Expression of Scaffoldin-Related Genes in Clostridium thermocellum. Journal of Bacteriology, 2003, 185, 5109-5116.	2.2	63
61	Assembly of Xylanases into Designer Cellulosomes Promotes Efficient Hydrolysis of the Xylan Component of a Natural Recalcitrant Cellulosic Substrate. MBio, 2011, 2, .	4.1	62
62	The structure of the complex between avidin and the dye, 2-(4'-hydroxyazobenzene) benzoic acid (HABA). FEBS Letters, 1993, 328, 165-168.	2.8	58
63	Clostridium clariflavum: Key Cellulosome Players Are Revealed by Proteomic Analysis. MBio, 2015, 6, e00411-15.	4.1	57
64	Enzymatic profiling of cellulosomal enzymes from the human gut bacterium, <scp><i>R</i></scp><i>uminococcus champanellensis</i>, reveals a fineâ€tuned system for cohesinâ€dockerin recognition. Environmental Microbiology, 2016, 18, 542-556.	3.8	57
65	Mechanisms of Nanonewton Mechanostability in a Protein Complex Revealed by Molecular Dynamics Simulations and Single-Molecule Force Spectroscopy. Journal of the American Chemical Society, 2019, 141, 14752-14763.	13.7	55
66	Mutation of a critical tryptophan to lysine in avidin or streptavidin may explain why sea urchin fibropellin adopts an avidin-like domain. FEBS Letters, 1999, 461, 52-58.	2.8	54
67	Genome-wide analysis of Acetivibrio cellulolyticus provides a blueprint of an elaborate cellulosome system. BMC Genomics, 2012, 13, 210.	2.8	54
68	Cellulosomics of the cellulolytic thermophile Clostridium clariflavum. Biotechnology for Biofuels, 2014, 7, 100.	6.2	53
69	Adaptor Scaffoldins: An Original Strategy for Extended Designer Cellulosomes, Inspired from Nature. MBio, 2016, 7, e00083.	4.1	50
70	Structure and regulation of the cellulose degradome in Clostridium cellulolyticum. Biotechnology for Biofuels, 2013, 6, 73.	6.2	49
71	Enhancement of cellulosome-mediated deconstruction of cellulose by improving enzyme thermostability. Biotechnology for Biofuels, 2016, 9, 164.	6.2	49
72	Primary structure of O-linked carbohydrate chains in the cellulosome of different Clostridium thermocellum strains. FEBS Journal, 1991, 196, 115-122.	0.2	47

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73	Continually emerging mechanistic complexity of the multi-enzyme cellulosome complex. Current Opinion in Structural Biology, 2017, 44, 151-160.	5.7	47
74	How does cellulosome composition influence deconstruction of lignocellulosic substrates in Clostridium (Ruminiclostridium) thermocellum DSM 1313?. Biotechnology for Biofuels, 2017, 10, 222.	6.2	47
75	Thermobifida fuscafamily-6 cellulases as potential designer cellulosome components. Biocatalysis and Biotransformation, 2006, 24, 3-12.	2.0	46
76	Efficient cellulose solubilization by a combined cellulosome-Î²-glucosidase system. Applied Biochemistry and Biotechnology, 1991, 27, 173-183.	2.9	45
77	Novel oligosaccharide constituents of the cellulase complex of Bacteroides cellulosolvens. FEBS Journal, 1992, 205, 799-808.	0.2	45
78	Monoclonal anti-biotin antibodies simulate avidin m the recognition of biotin. FEBS Letters, 1993, 322, 47-50.	2.8	45
79	Identification of the cellulose-binding domain of the cellulosome subunit S1 from Clostridium thermocellum YS. FEMS Microbiology Letters, 1992, 99, 181-186.	1.8	45
80	Cellulosome-like entities inBacteroides cellulosolvens. Current Microbiology, 1991, 22, 27-33.	2.2	43
81	Designer Cellulosomes for Enhanced Hydrolysis of Cellulosic Substrates. Methods in Enzymology, 2012, 510, 429-452.	1.0	43
82	Significance of Relative Position of Cellulases in Designer Cellulosomes for Optimized Cellulolysis. PLoS ONE, 2015, 10, e0127326.	2.5	43
83	Establishment of a Simple Lactobacillus plantarum Cell Consortium for Cellulase-Xylanase Synergistic Interactions. Applied and Environmental Microbiology, 2013, 79, 5242-5249.	3.1	42
84	Nanoscale Engineering of Designer Cellulosomes. Advanced Materials, 2016, 28, 5619-5647.	21.0	42
85	A combined cell-consortium approach for lignocellulose degradation by specialized Lactobacillus plantarumcells. Biotechnology for Biofuels, 2014, 7, 112.	6.2	40
86	Engineering of chicken avidin: a progressive series of reduced charge mutants. FEBS Letters, 1998, 441, 313-317.	2.8	39
87	Novel Methodology for Enzymatic Removal of Atrazine from Water by CBD-Fusion Protein Immobilized on Cellulose. Environmental Science & Technology, 2000, 34, 1292-1296.	10.0	39
88	Resolving dual binding conformations of cellulosome cohesin-dockerin complexes using single-molecule force spectroscopy. ELife, 2015, 4, .	6.0	39
89	Creation of a functional hyperthermostable designer cellulosome. Biotechnology for Biofuels, 2019, 12, 44.	6.2	39
90	Atypical Cohesin-Dockerin Complex Responsible for Cell Surface Attachment of Cellulosomal Components. Journal of Biological Chemistry, 2013, 288, 16827-16838.	3.4	38

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91	Insights into Higher-Order Organization of the Cellulosome Revealed by a Dissect-and-Build Approach: Crystal Structure of Interacting Clostridium thermocellum Multimodular Components. Journal of Molecular Biology, 2010, 396, 833-839.	4.2	34
92	Single versus dual-binding conformations in cellulosomal cohesinâ€“dockerin complexes. Current Opinion in Structural Biology, 2016, 40, 89-96.	5.7	34
93	Scaffoldin Conformation and Dynamics Revealed by a Ternary Complex from the Clostridium thermocellum Cellulosome. Journal of Biological Chemistry, 2012, 287, 26953-26961.	3.4	33
94	Assembly of Synthetic Functional Cellulosomal Structures onto the Cell Surface of Lactobacillus plantarum, a Potent Member of the Gut Microbiome. Applied and Environmental Microbiology, 2018, 84, .	3.1	33
95	Broad phylogeny and functionality of cellulosomal components in the bovine rumen microbiome. Environmental Microbiology, 2017, 19, 185-197.	3.8	32
96	Preparation of deglycosylated egg white avidin. Applied Biochemistry and Biotechnology, 1995, 53, 1-9.	2.9	31
97	Complexity of the Ruminococcus flavefaciens FD-1 cellulosome reflects an expansion of family-related protein-protein interactions. Scientific Reports, 2017, 7, 42355.	3.3	31
98	Decoding Biomass-Sensing Regulons of Clostridium thermocellum Alternative Sigma-I Factors in a Heterologous Bacillus subtilis Host System. PLoS ONE, 2016, 11, e0146316.	2.5	31
99	Cellulosomal expansin: functionality and incorporation into the complex. Biotechnology for Biofuels, 2016, 9, 61.	6.2	29
100	Unique organization and unprecedented diversity of the Bacteroides (Pseudobacteroides) cellulosolvens cellulosome system. Biotechnology for Biofuels, 2017, 10, 211.	6.2	29
101	Reassembly and co-crystallization of a family 9 processive endoglucanase from its component parts: structural and functional significance of the intermodular linker. PeerJ, 2015, 3, e1126.	2.0	29
102	Elaborate cellulosome architecture of<i>Acetivibrio cellulolyticus</i>revealed by selective screening of cohesinâ€“dockerin interactions. PeerJ, 2014, 2, e636.	2.0	29
103	[54] Avidin-biotin mediated immunoassays: Overview. Methods in Enzymology, 1990, , 467-469.	1.0	27
104	Fine-structural variance of family 3 carbohydrate-binding modules as extracellular biomass-sensing components of<i>Clostridium thermocellum</i>anti-Ïƒ^Ifactors. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 522-534.	2.5	26
105	Directed Evolution of Clostridium thermocellum Î²-Glucosidase A Towards Enhanced Thermostability. International Journal of Molecular Sciences, 2019, 20, 4701.	4.1	26
106	Coordinated Î²-glucosidase activity with the cellulosome is effective for enhanced lignocellulose saccharification. Bioresource Technology, 2021, 337, 125441.	9.6	26
107	Lignocellulose-Decomposing Bacteria and Their Enzyme Systems. , 2013, , 215-266.		25
108	Dissociation of the cellulosome of Clostridium thermocellum under nondenaturing conditions. Journal of Biotechnology, 1996, 51, 235-242.	3.8	24

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109	Modular Arrangement of a Cellulosomal Scaffoldin Subunit Revealed from the Crystal Structure of a Cohesin Dyad. Journal of Molecular Biology, 2010, 399, 294-305.	4.2	24
110	Regulation of biomass degradation by alternative Ïƒ factors in cellulolytic clostridia. Scientific Reports, 2018, 8, 11036.	3.3	24
111	Cellulosome-like sequences inArchaeoglobus fulgidus: an enigmatic vestige of cohesin and dockerin domains. FEBS Letters, 1999, 463, 277-280.	2.8	23
112	Nonproteolytic Clevage of Aspartyl Proline Bonds in the Cellulosomal Scaffoldin Subunit from Clostridium thermocellum. Applied Biochemistry and Biotechnology, 2001, 90, 67-74.	2.9	23
113	Intermodular Linker Flexibility Revealed from Crystal Structures of Adjacent Cellulosomal Cohesins of Acetivibrio cellulolyticus. Journal of Molecular Biology, 2009, 391, 86-97.	4.2	23
114	Small Angle X-ray Scattering Analysis of Clostridium thermocellum Cellulosome N-terminal Complexes Reveals a Highly Dynamic Structure. Journal of Biological Chemistry, 2013, 288, 7978-7985.	3.4	22
115	Cell-surface Attachment of Bacterial Multienzyme Complexes Involves Highly Dynamic Protein-Protein Anchors. Journal of Biological Chemistry, 2015, 290, 13578-13590.	3.4	22
116	Revisiting the NMR solution structure of the Cel48S type-I dockerin module from Clostridium thermocellum reveals a cohesin-primed conformation. Journal of Structural Biology, 2014, 188, 188-193.	2.8	21
117	Assembly of Ruminococcus flavefaciens cellulosome revealed by structures of two cohesin-dockerin complexes. Scientific Reports, 2017, 7, 759.	3.3	20
118	The Cellulosome Paradigm in An Extreme Alkaline Environment. Microorganisms, 2019, 7, 347.	3.6	20
119	Approaches for Improving Thermostability Characteristics in Cellulases. Methods in Enzymology, 2012, 510, 261-271.	1.0	19
120	Crystal Structure of an Uncommon Cellulosome-Related Protein Module from Ruminococcus flavefaciens That Resembles Papain-Like Cysteine Peptidases. PLoS ONE, 2013, 8, e56138.	2.5	19
121	Three cellulosomal xylanase genes in<i>Clostridium thermocellum</i> are regulated by both vegetative SigA (Ïƒ^A) and alternative SigI6 (Ïƒ^{I6}) factors. FEBS Letters, 2015, 589, 3133-3140.	2.8	19
122	Lysozyme activity of the <scp><i>R</i></scp><i>uminococcus champanellensis</i> cellulosome. Environmental Microbiology, 2016, 18, 5112-5122.	3.8	19
123	Alternative ÏƒI/anti-ÏƒI factors represent a unique form of bacterial Ïƒ/anti-Ïƒ complex. Nucleic Acids Research, 2019, 47, 5988-5997.	14.5	19
124	The use of a homologous series of affinity labeling reagents in the study of the biotin transport system in yeast cells. FEBS Letters, 1975, 60, 309-312.	2.8	18
125	Streptavidin blocks immune reactions mediated by fibronectin-VLA-5 recognition through an Arg-Gly-Asp mimicking site. European Journal of Immunology, 1993, 23, 893-898.	2.9	17
126	Hoefavidin: A dimeric bacterial avidin with a C-terminal binding tail. Journal of Structural Biology, 2015, 191, 139-148.	2.8	17

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127	Pan-Cellulosomics of Mesophilic Clostridia: Variations on a Theme. Microorganisms, 2017, 5, 74.	3.6	17
128	[22] Enzymatic and radioactive assays for biotin, avidin, and streptavidin. Methods in Enzymology, 1990, 184, 208-217.	1.0	16
129	Indirect ELISAâ€based approach for comparative measurement of highâ€affinity cohesinâ€“dockerin interactions. Journal of Molecular Recognition, 2012, 25, 616-622.	2.1	16
130	Surface Display of Designer Protein Scaffolds on Genome-Reduced Strains of <i>Pseudomonas putida</i>. ACS Synthetic Biology, 2020, 9, 2749-2764.	3.8	16
131	The cohesin module is a major determinant of cellulosome mechanical stability. Journal of Biological Chemistry, 2018, 293, 7139-7147.	3.4	15
132	Colocalization and Disposition of Cellulosomes in <i>Clostridium clariflavum</i> as Revealed by Correlative Superresolution Imaging. MBio, 2018, 9, .	4.1	15
133	Avidin column as a highly efficient and stable alternative for immobilization of ligands for affinity chromatography. Journal of Molecular Recognition, 1990, 3, 102-107.	2.1	14
134	Standalone cohesin as a molecular shuttle in cellulosome assembly. FEBS Letters, 2015, 589, 1569-1576.	2.8	14
135	Crucial Roles of Single Residues in Binding Affinity, Specificity, and Promiscuity in the Cellulosomal Cohesin-Dockerin Interface. Journal of Biological Chemistry, 2015, 290, 13654-13666.	3.4	14
136	Cellulosomes and designer cellulosomes: why toy with <scp>N</scp>ature?. Environmental Microbiology Reports, 2017, 9, 14-15.	2.4	14
137	Insights into enhanced thermostability of a cellulosomal enzyme. Carbohydrate Research, 2014, 389, 78-84.	2.3	12
138	Near-Complete Genome Sequence of the Cellulolytic Bacterium <i>Bacteroides</i> () Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302 Td (<i>P	0.8	12
139	Functional phylotyping approach for assessing intraspecific diversity of Ruminococcus albus within the rumen microbiome. FEMS Microbiology Letters, 2015, 362, 1-10.	1.8	12
140	The Cellulosome: A Natural Bacterial Strategy to Combat Biomass Recalcitrance. , 0, , 407-435.		12
141	Anomalous dissociative behavior of the major glycosylated component of the cellulosome of clostridium thermocellum. Applied Biochemistry and Biotechnology, 1991, 30, 129-136.	2.9	11
142	Unraveling essential cellulosomal components of the (Pseudo)Bacteroides cellulosolvens reveals an extensive reservoir of novel catalytic enzymes. Biotechnology for Biofuels, 2019, 12, 115.	6.2	11
143	Understanding Cellulosome Interaction with Cellulose by High-Resolution Imaging. ACS Central Science, 2020, 6, 1034-1036.	11.3	11
144	Combined Crystal Structure of a Type I Cohesin. Journal of Biological Chemistry, 2015, 290, 16215-16225.	3.4	10

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145	Dual binding in cohesin-dockerin complexes: the energy landscape and the role of short, terminal segments of the dockerin module. Scientific Reports, 2018, 8, 5051.	3.3	9
146	Cellulosome-Enhanced Conversion of Biomass: On the Road to Bioethanol. , 0, , 75-96.		9
147	Carbohydrate Depolymerization by Intricate Cellulosomal Systems. Methods in Molecular Biology, 2017, 1588, 93-116.	0.9	8
148	Impact of scaffoldin mechanostability on cellulosomal activity. Biomaterials Science, 2020, 8, 3601-3610.	5.4	7
149	Minimalistic Cellulosome of the Butanologenic Bacterium Clostridium saccharoperbutylacetonicum. MBio, 2020, 11, .	4.1	7
150	Ordered arrays of quantum dots using cellulosomal proteins. Industrial Biotechnology, 2005, 1, 198-206.	0.8	6
151	Crystal structure of afifavidin reveals common features of molecular assemblage in the bacterial dimeric avidins. FEBS Journal, 2018, 285, 4617-4630.	4.7	6
152	Cell-surface display of designer cellulosomes by Lactobacillus plantarum. Methods in Enzymology, 2019, 617, 241-263.	1.0	6
153	Advanced Cloning Tools for Construction of Designer Cellulosomes. Methods in Molecular Biology, 2018, 1796, 135-151.	0.9	5
154	Rapid adaptation for fibre degradation by changes in plasmid stoichiometry within <i>Lactobacillus plantarum</i> at the synthetic community level. Microbial Biotechnology, 2020, 13, 1748-1764.	4.2	5
155	Nanoscale resolution of microbial fiber degradation in action. ELife, 0, 11, .	6.0	5
156	Effect of Rational Mutagenesis of Selected Cohesin Residues on the High-Affinity Cohesin-Dockerin Interaction. ACS Symposium Series, 2004, , 194-206.	0.5	4
157	Remembering Mary (1917 to 2008): editorial introduction to the thematic series on the life and lifework of Mary Mandels, first lady of cellulase research. Biotechnology for Biofuels, 2009, 2, 23.	6.2	4
158	Mapping the deformability of natural and designed cellulosomes in solution. , 2022, 15, .		4
159	Isolation and properties of a thermostable endoglucanase from a thermophilic mutant strain ofTielavia terrestris. Applied Biochemistry and Biotechnology, 1995, 50, 137-143.	2.9	3
160	Structural characterization of a novel autonomous cohesin from<i>Ruminococcus flavefaciens</i>. Acta Crystallographica Section F, Structural Biology Communications, 2014, 70, 450-456.	0.8	3
161	Molecular simulations reveal that a short helical loop regulates thermal stability of type I cohesinâ€"dockerin complexes. Physical Chemistry Chemical Physics, 2018, 20, 28445-28451.	2.8	3
162	Phage Display of Cellulose Binding Domains for Biotechnological Application. ACS Symposium Series, 2000, , 168-189.	0.5	2

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163	Overexpression, crystallization and preliminary X-ray characterization ofRuminococcus flavefaciensscaffoldin C cohesin in complex with a dockerin from an uncharacterized CBM-containing protein. Acta Crystallographica Section F, Structural Biology Communications, 2014, 70, 1061-1064.	0.8	2
164	Application of Long Sequence Reads To Improve Genomes for Clostridium thermocellum AD2, Clostridium thermocellum LQRI, and Pelosinus fermentans R7. Genome Announcements, 2016, 4, .	0.8	2
165	Affinity Electrophoresis as a Method for Determining Substrate-Binding Specificity of Carbohydrate-Active Enzymes for Soluble Polysaccharides. , 2012, 908, 119-127.		2
166	Homology swapping of intrinsic secondary structural elements between cellulosomal types I and II cohesins and their effect on dockerin binding. Pure and Applied Chemistry, 2010, 82, 193-204.	1.9	1
167	Novel clostridial cell-surface hemicellulose-binding CBM3 proteins. Acta Crystallographica Section F, Structural Biology Communications, 2021, 77, 95-104.	0.8	1
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169	Species-specificity of the cohesin-dockerin interaction between Clostridium thermocellum and Clostridium cellulolyticum: Prediction of specificity determinants of the dockerin domain. , 1997, 29, 517.		1
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