Robert M Kelly

List of Publications by Year in Descending Order

239 papers	8,496 citations	54 h-index	78 g-index
252 ext. papers	9,634 ext. citations	6 avg, IF	5.92 L-index

#	Paper	IF	Citations
239	Plant Biomass Fermentation by the Extreme Thermophile Caldicellulosiruptor bescii for Co-Production of Green Hydrogen and Acetone: Technoeconomic Analysis.. *Bioresource Technology*, **2022**, 126780	11	1
238	Life in hot acid: a genome-based reassessment of the archaeal order Sulfolobales. *Environmental Microbiology*, **2021**, 23, 3568-3584	5.2	7
237	Intersection of Biotic and Abiotic Sulfur Chemistry Supporting Extreme Microbial Life in Hot Acid. *Journal of Physical Chemistry B*, **2021**, 125, 5243-5257	3.4	1
236	Genome-Scale Metabolic Model of Reveals Optimal Metabolic Engineering Strategies for Bio-based Chemical Production. *MSystems*, **2021**, 6, e0135120	7.6	1
235	Transcriptional Regulation of Plant Biomass Degradation and Carbohydrate Utilization Genes in the Extreme Thermophile. *MSystems*, **2021**, 6, e0134520	7.6	3
234	A genomic catalog of Earth's microbiomes. *Nature Biotechnology*, **2021**, 39, 499-509	44.5	120
233	The biology of thermoacidophilic archaea from the order Sulfolobales. *FEMS Microbiology Reviews*, **2021**, 45,	15.1	8
232	Thermophilic microbial deconstruction and conversion of natural and transgenic lignocellulose. *Environmental Microbiology Reports*, **2021**, 13, 272-293	3.7	5
231	Genome Sequences of Five Type Strain Members of the Archaeal Family , Acidianus ambivalens, Acidianus infernus, Stygiolobus azoricus, Sulfuracidifex metallicus, and Sulfurisphaera ohwakuensis. *Microbiology Resource Announcements*, **2020**, 9,	1.3	2
230	Modification of the glycolytic pathway in Pyrococcus furiosus and the implications for metabolic engineering. *Extremophiles*, **2020**, 24, 511-518	3	5
229	Use of the lignocellulose-degrading bacterium to assess recalcitrance and conversion of wild-type and transgenic poplar. *Biotechnology for Biofuels*, **2020**, 13, 43	7.8	6
228	Metabolically engineered Caldicellulosiruptor bescii as a platform for producing acetone and hydrogen from lignocellulose. *Biotechnology and Bioengineering*, **2020**, 117, 3799-3808	4.9	7
227	Engineering the cellulolytic extreme thermophile Caldicellulosiruptor bescii to reduce carboxylic acids to alcohols using plant biomass as the energy source. *Journal of Industrial Microbiology and Biotechnology*, **2020**, 47, 585-597	4.2	2
226	The biology and biotechnology of the genus Caldicellulosiruptor: recent developments in the Caldi World. *Extremophiles*, **2020**, 24, 1-15	3	12
225	Determinants of sulphur chemolithoautotrophy in the extremely thermoacidophilic Sulfolobales. *Environmental Microbiology*, **2019**, 21, 3696-3710	5.2	7
224	The thermophilic biomass-degrading bacterium utilizes two enzymes to oxidize glyceraldehyde 3-phosphate during glycolysis. *Journal of Biological Chemistry*, **2019**, 294, 9995-10005	5.4	13
223	Lignocellulose solubilization and conversion by extremely thermophilic Caldicellulosiruptor bescii improves by maintaining metabolic activity. *Biotechnology and Bioengineering*, **2019**, 116, 1901-1908	4.9	10

222	Extreme thermophiles as emerging metabolic engineering platforms. *Current Opinion in Biotechnology*, **2019**, 59, 55-64	11.4	19
221	Quantitative fermentation of unpretreated transgenic poplar by Caldicellulosiruptor bescii. *Nature Communications*, **2019**, 10, 3548	17.4	15
220	Extremely Thermoacidophilic Species Mediate Mobilization and Oxidation of Vanadium and Molybdenum Oxides. *Applied and Environmental Microbiology*, **2019**, 85,	4.8	5
219	Comparative Biochemical and Structural Analysis of Novel Cellulose Binding Proteins (T□irins) from Extremely Thermophilic Species. *Applied and Environmental Microbiology*, **2019**, 85,	4.8	7
218	Genus-Wide Assessment of Lignocellulose Utilization in the Extremely Thermophilic Genus Caldicellulosiruptor by Genomic, Pangenomic, and Metagenomic Analyses. *Applied and Environmental Microbiology*, **2018**, 84,	4.8	22
217	Sequential processing with fermentative Caldicellulosiruptor kronotskyensis and chemolithoautotrophic Cupriavidus necator for converting rice straw and CO to polyhydroxybutyrate. *Biotechnology and Bioengineering*, **2018**, 115, 1624-1629	4.9	12
216	Uncoupling Fermentative Synthesis of Molecular Hydrogen from Biomass Formation in Thermotoga maritima. *Applied and Environmental Microbiology*, **2018**, 84,	4.8	26
215	Novel multidomain, multifunctional glycoside hydrolases from highly lignocellulolytic Caldicellulosiruptor species. *AICHE Journal*, **2018**, 64, 4218-4228	3.6	15
214	Secretion and fusion of biogeochemically active archaeal membrane vesicles. *Geobiology*, **2018**, 16, 659-673	4.3	4
213	The diversity and specificity of the extracellular proteome in the cellulolytic bacterium is driven by the nature of the cellulosic growth substrate. *Biotechnology for Biofuels*, **2018**, 11, 80	7.8	8
212	Complete Genome Sequences of Extremely Thermoacidophilic Metal-Mobilizing Type Strain Members of the Archaeal Family Sulfolobaceae, Acidianus brierleyi DSM-1651, Acidianus sulfidivorans DSM-18786, and Metallosphaera hakonensis DSM-7519. *Microbiology Resource Announcements*, **2018**, 7,	1.3	4
211	A synthetic enzymatic pathway for extremely thermophilic acetone production based on the unexpectedly thermostable acetoacetate decarboxylase from Clostridium acetobutylicum. *Biotechnology and Bioengineering*, **2018**, 115, 2951-2961	4.9	6
210	Native xylose-inducible promoter expands the genetic tools for the biomass-degrading, extremely thermophilic bacterium Caldicellulosiruptor bescii. *Extremophiles*, **2018**, 22, 629-638	3	16
209	Engineering redox-balanced ethanol production in the cellulolytic and extremely thermophilic bacterium,. *Metabolic Engineering Communications*, **2018**, 7, e00073	6.5	30
208	Biotechnology of extremely thermophilic archaea. *FEMS Microbiology Reviews*, **2018**, 42, 543-578	15.1	42
207	Simultaneous biosynthesis of ()-acetoin and ethylene glycol from D-xylose through metabolic engineering. *Metabolic Engineering Communications*, **2018**, 7, e00074	6.5	7
206	Parsing in vivo and in vitro contributions to microcrystalline cellulose hydrolysis by multidomain glycoside hydrolases in the Caldicellulosiruptor bescii secretome. *Biotechnology and Bioengineering*, **2018**, 115, 2426-2440	4.9	11
205	Physiological, metabolic and biotechnological features of extremely thermophilic microorganisms. *Wiley Interdisciplinary Reviews: Systems Biology and Medicine*, **2017**, 9, e1377	6.6	25

204	Ethanol production by the hyperthermophilic archaeon Pyrococcus furiosus by expression of bacterial bifunctional alcohol dehydrogenases. *Microbial Biotechnology*, **2017**, 10, 1535-1545	6.3	22
203	Diversity of bacteria and archaea from two shallow marine hydrothermal vents from Vulcano Island. *Extremophiles*, **2017**, 21, 733-742	3	26
202	Genome Stability in Engineered Strains of the Extremely Thermophilic Lignocellulose-Degrading Bacterium Caldicellulosiruptor bescii. *Applied and Environmental Microbiology*, **2017**, 83,	4.8	15
201	Two Distinct α-L-Arabinofuranosidases in Caldicellulosiruptor Species Drive Degradation of Arabinose-Based Polysaccharides. *Applied and Environmental Microbiology*, **2017**, 83,	4.8	9
200	VapC toxins drive cellular dormancy under uranium stress for the extreme thermoacidophile Metallosphaera prunae. *Environmental Microbiology*, **2017**, 19, 2831-2842	5.2	6
199	Extremely thermophilic energy metabolisms: biotechnological prospects. *Current Opinion in Biotechnology*, **2017**, 45, 104-112	11.4	16
198	The renaissance of life near the boiling point - at last, genetics and metabolic engineering. *Microbial Biotechnology*, **2017**, 10, 37-39	6.3	6
197	Functional Analysis of the Glucan Degradation Locus in Caldicellulosiruptor bescii Reveals Essential Roles of Component Glycoside Hydrolases in Plant Biomass Deconstruction. *Applied and Environmental Microbiology*, **2017**, 83,	4.8	25
196	Impact of growth mode, phase, and rate on the metabolic state of the extremely thermophilic archaeon Pyrococcus furiosus. *Biotechnology and Bioengineering*, **2017**, 114, 2947-2954	4.9	3
195	Caldicellulosiruptor saccharolyticus transcriptomes reveal consequences of chemical pretreatment and genetic modification of lignocellulose. *Microbial Biotechnology*, **2017**, 10, 1546-1557	6.3	10
194	Bioavailability of Carbohydrate Content in Natural and Transgenic Switchgrasses for the Extreme Thermophile Caldicellulosiruptor bescii. *Applied and Environmental Microbiology*, **2017**, 83,	4.8	13
193	Reaction kinetic analysis of the 3-hydroxypropionate/4-hydroxybutyrate CO fixation cycle in extremely thermoacidophilic archaea. *Metabolic Engineering*, **2016**, 38, 446-463	9.7	17
192	Temperature-dependent acetoin production by Pyrococcus furiosus is catalyzed by a biosynthetic acetolactate synthase and its deletion improves ethanol production. *Metabolic Engineering*, **2016**, 34, 71-79	9.7	19
191	Heterologous Production of an Energy-Conserving Carbon Monoxide Dehydrogenase Complex in the Hyperthermophile Pyrococcus furiosus. *Frontiers in Microbiology*, **2016**, 7, 29	5.7	26
190	A Highly Thermostable Kanamycin Resistance Marker Expands the Tool Kit for Genetic Manipulation of Caldicellulosiruptor bescii. *Applied and Environmental Microbiology*, **2016**, 82, 4421-4428	4.8	34
189	Ancillary contributions of heterologous biotin protein ligase and carbonic anhydrase for CO incorporation into 3-hydroxypropionate by metabolically engineered Pyrococcus furiosus. *Biotechnology and Bioengineering*, **2016**, 113, 2652-2660	4.9	18
188	Extreme Thermophiles as Metabolic Engineering Platforms: Strategies and Current Perspective **2016**, 505-580		3
187	Transcriptomes of the Extremely Thermoacidophilic Archaeon Metallosphaera sedula Exposed to Metal "Shock" Reveal Generic and Specific Metal Responses. *Applied and Environmental Microbiology*, **2016**, 82, 4613-4627	4.8	23

186	Multidomain, Surface Layer-associated Glycoside Hydrolases Contribute to Plant Polysaccharide Degradation by Caldicellulosiruptor Species. *Journal of Biological Chemistry*, **2016**, 291, 6732-47	5.4	32
185	Discrete and structurally unique proteins (tandem pilins) mediate attachment of extremely thermophilic Caldicellulosiruptor species to cellulose. *Journal of Biological Chemistry*, **2015**, 290, 10645-56	5.4	21
184	Bioprocessing analysis of Pyrococcus furiosus strains engineered for CO2-based 3-hydroxypropionate production. *Biotechnology and Bioengineering*, **2015**, 112, 1533-43	4.9	21
183	Comparative Analysis of Extremely Thermophilic Caldicellulosiruptor Species Reveals Common and Unique Cellular Strategies for Plant Biomass Utilization. *Applied and Environmental Microbiology*, **2015**, 81, 7159-70	4.8	29
182	Alcohol Selectivity in a Synthetic Thermophilic n-Butanol Pathway Is Driven by Biocatalytic and Thermostability Characteristics of Constituent Enzymes. *Applied and Environmental Microbiology*, **2015**, 81, 7187-200	4.8	18
181	A New Class of Tungsten-Containing Oxidoreductase in Caldicellulosiruptor, a Genus of Plant Biomass-Degrading Thermophilic Bacteria. *Applied and Environmental Microbiology*, **2015**, 81, 7339-47	4.8	18
180	A hybrid synthetic pathway for butanol production by a hyperthermophilic microbe. *Metabolic Engineering*, **2015**, 27, 101-106	9.7	42
179	Machine learning reveals sex-specific 17β-estradiol-responsive expression patterns in white perch (Morone americana) plasma proteins. *Proteomics*, **2015**, 15, 2678-90	4.8	10
178	The Confluence of Heavy Metal Biooxidation and Heavy Metal Resistance: Implications for Bioleaching by Extreme Thermoacidophiles. *Minerals (Basel, Switzerland)*, **2015**, 5, 397-451	2.4	62
177	Extremely thermophilic microorganisms as metabolic engineering platforms for production of fuels and industrial chemicals. *Frontiers in Microbiology*, **2015**, 6, 1209	5.7	111
176	Complete Genome Sequences of Caldicellulosiruptor sp. Strain Rt8.B8, Caldicellulosiruptor sp. Strain Wai35.B1, and "Thermoanaerobacter cellulolyticus". *Genome Announcements*, **2015**, 3,		12
175	A mutant (Rab strain) of the hyperthermophilic archaeon Pyrococcus furiosus, lacking flagella, has unusual growth physiology. *Extremophiles*, **2015**, 19, 269-81	3	7
174	Lignocellulosic Biomass Deconstruction by the Extremely Thermophilic Genus Caldicellulosiruptor **2015**, 91-120		3
173	Thermophilic lignocellulose deconstruction. *FEMS Microbiology Reviews*, **2014**, 38, 393-448	15.1	125
172	Single gene insertion drives bioalcohol production by a thermophilic archaeon. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 17618-23	11.5	74
171	Cross-linked polymer nanofibers for hyperthermophilic enzyme immobilization: approaches to improve enzyme performance. *ACS Applied Materials & Interfaces*, **2014**, 6, 11899-906	9.5	46
170	Role of an archaeal PitA transporter in the copper and arsenic resistance of Metallosphaera sedula, an extreme thermoacidophile. *Journal of Bacteriology*, **2014**, 196, 3562-70	3.5	23
169	Nanofibrous membranes for single-step immobilization of hyperthermophilic enzymes. *Journal of Membrane Science*, **2014**, 472, 251-260	9.6	28

168	Production of lignofuels and electrofuels by extremely thermophilic microbes. *Biofuels*, **2014**, 5, 499-515	2	9
167	Engineering hydrogen gas production from formate in a hyperthermophile by heterologous production of an 18-subunit membrane-bound complex. *Journal of Biological Chemistry*, **2014**, 289, 2873-9	5.4	36
166	Conversion of 4-hydroxybutyrate to acetyl coenzyme A and its anapleurosis in the Metallosphaera sedula 3-hydroxypropionate/4-hydroxybutyrate carbon fixation pathway. *Applied and Environmental Microbiology*, **2014**, 80, 2536-45	4.8	19
165	The Order Thermococcales and the Family Thermococcaceae **2014**, 363-383		3
164	Deletion of acetyl-CoA synthetases I and II increases production of 3-hydroxypropionate by the metabolically-engineered hyperthermophile Pyrococcus furiosus. *Metabolic Engineering*, **2014**, 22, 83-8	9.7	22
163	The Extremely Thermophilic Genus Caldicellulosiruptor: Physiological and Genomic Characteristics for Complex Carbohydrate Conversion to Molecular Hydrogen. *Advances in Photosynthesis and Respiration*, **2014**, 177-195	1.7	5
162	Biological conversion of carbon dioxide and hydrogen into liquid fuels and industrial chemicals. *Current Opinion in Biotechnology*, **2013**, 24, 376-84	11.4	76
161	Role of 4-hydroxybutyrate-CoA synthetase in the CO2 fixation cycle in thermoacidophilic archaea. *Journal of Biological Chemistry*, **2013**, 288, 4012-22	5.4	19
160	A thermophile under pressure: Transcriptional analysis of the response of Caldicellulosiruptor saccharolyticus to different H2 partial pressures. *International Journal of Hydrogen Energy*, **2013**, 38, 1837-1849	6.7	12
159	Carbohydrate and lignin are simultaneously solubilized from unpretreated switchgrass by microbial action at high temperature. *Energy and Environmental Science*, **2013**, 6, 2186	35.4	66
158	Exploiting microbial hyperthermophilicity to produce an industrial chemical, using hydrogen and carbon dioxide. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 5840-5	11.5	102
157	Stationary phase and nutrient levels trigger transcription of a genomic locus containing a novel peptide (TM1316) in the hyperthermophilic bacterium Thermotoga maritima. *Applied and Environmental Microbiology*, **2013**, 79, 6637-46	4.8	0
156	Uranium extremophily is an adaptive, rather than intrinsic, feature for extremely thermoacidophilic Metallosphaera species. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 16702-7	11.5	41
155	Caldicellulosiruptor core and pangenomes reveal determinants for noncellulosomal thermophilic deconstruction of plant biomass. *Journal of Bacteriology*, **2012**, 194, 4015-28	3.5	81
154	Extreme Thermophiles: Moving beyond single-enzyme biocatalysis. *Current Opinion in Chemical Engineering*, **2012**, 1, 363-372	5.4	53
153	S-layer homology domain proteins Csac_0678 and Csac_2722 are implicated in plant polysaccharide deconstruction by the extremely thermophilic bacterium Caldicellulosiruptor saccharolyticus. *Applied and Environmental Microbiology*, **2012**, 78, 768-77	4.8	46
152	Hyperthermophilic Thermotoga species differ with respect to specific carbohydrate transporters and glycoside hydrolases. *Applied and Environmental Microbiology*, **2012**, 78, 1978-86	4.8	31
151	Epimerase (Msed_0639) and mutase (Msed_0638 and Msed_2055) convert (S)-methylmalonyl-coenzyme A (CoA) to succinyl-CoA in the Metallosphaera sedula 3-hydroxypropionate/4-hydroxybutyrate cycle. *Applied and Environmental Microbiology*, **2012**, 78, 6194-202	4.8	18

150	Starch self-processing in transgenic sweet potato roots expressing a hyperthermophilic □amylase. *Biotechnology Progress*, **2011**, 27, 351-9	2.8	14
149	Glycoside hydrolase inventory drives plant polysaccharide deconstruction by the extremely thermophilic bacterium Caldicellulosiruptor saccharolyticus. *Biotechnology and Bioengineering*, **2011**, 108, 1559-69	4.9	53
148	Insights into plant biomass conversion from the genome of the anaerobic thermophilic bacterium Caldicellulosiruptor bescii DSM 6725. *Nucleic Acids Research*, **2011**, 39, 3240-54	20.1	94
147	Extremely Thermophilic Routes to Microbial Electrofuels. *ACS Catalysis*, **2011**, 1, 1043-1050	13.1	34
146	VapC6, a ribonucleolytic toxin regulates thermophilicity in the crenarchaeote Sulfolobus solfataricus. *Rna*, **2011**, 17, 1381-92	5.8	29
145	Complete genome sequences for the anaerobic, extremely thermophilic plant biomass-degrading bacteria Caldicellulosiruptor hydrothermalis, Caldicellulosiruptor kristjanssonii, Caldicellulosiruptor kronotskyensis, Caldicellulosiruptor owensensis, and Caldicellulosiruptor lactoaceticus. *Journal of Bacteriology*, **2011**, 193, 1483-4	3.5	49
144	A novel alpha-D-galactosynthase from Thermotoga maritima converts beta-D-galactopyranosyl azide to alpha-galacto-oligosaccharides. *Glycobiology*, **2011**, 21, 448-56	5.8	32
143	Impact of molecular hydrogen on chalcopyrite bioleaching by the extremely thermoacidophilic archaeon Metallosphaera sedula. *Applied and Environmental Microbiology*, **2010**, 76, 2668-72	4.8	24
142	Phylogenetic, microbiological, and glycoside hydrolase diversities within the extremely thermophilic, plant biomass-degrading genus Caldicellulosiruptor. *Applied and Environmental Microbiology*, **2010**, 76, 8084-92	4.8	90
141	Physiological versatility of the extremely thermoacidophilic archaeon Metallosphaera sedula supported by transcriptomic analysis of heterotrophic, autotrophic, and mixotrophic growth. *Applied and Environmental Microbiology*, **2010**, 76, 931-5	4.8	50
140	The genus Thermotoga: recent developments. *Environmental Technology (United Kingdom)*, **2010**, 31, 1169-81	2.6	44
139	Enzymes, Extremely Thermophilic **2010**, 1		
138	Part II: defining and quantifying individual and co-cultured intracellular proteomes of two thermophilic microorganisms by GeLC-MS2 and spectral counting. *Analytical and Bioanalytical Chemistry*, **2010**, 398, 391-404	4.4	10
137	Part I: characterization of the extracellular proteome of the extreme thermophile Caldicellulosiruptor saccharolyticus by GeLC-MS2. *Analytical and Bioanalytical Chemistry*, **2010**, 398, 377-89	4.4	16
136	N-terminal fusion of a hyperthermophilic chitin-binding domain to xylose isomerase from Thermotoga neapolitana enhances kinetics and thermostability of both free and immobilized enzymes. *Biotechnology Progress*, **2010**, 26, 993-1000	2.8	12
135	Microorganisms: Extremely Thermophilic **2009**, 1		
134	Carbohydrate utilization patterns for the extremely thermophilic bacterium Caldicellulosiruptor saccharolyticus reveal broad growth substrate preferences. *Applied and Environmental Microbiology* , **2009**, 75, 7718-24	4.8	89
133	Plant cell calcium-rich environment enhances thermostability of recombinantly produced alpha-amylase from the hyperthermophilic bacterium Thermotoga maritime. *Biotechnology and Bioengineering*, **2009**, 104, 947-56	4.9	7

132	Temperature, not LuxS, mediates AI-2 formation in hydrothermal habitats. *FEMS Microbiology Ecology*, **2009**, 68, 173-81	4.3	26
131	Role of vapBC toxin-antitoxin loci in the thermal stress response of Sulfolobus solfataricus. *Biochemical Society Transactions*, **2009**, 37, 123-6	5.1	43
130	Probing the stability of native and activated forms of alpha2-macroglobulin. *International Journal of Biological Macromolecules*, **2008**, 42, 62-7	7.9	5
129	Microwave activation of enzymatic catalysis. *Journal of the American Chemical Society*, **2008**, 130, 10048-9	26.4	97
128	Functional-genomics-based identification and characterization of open reading frames encoding alpha-glucoside-processing enzymes in the hyperthermophilic archaeon Pyrococcus furiosus. *Applied and Environmental Microbiology*, **2008**, 74, 1281-3	4.8	21
127	Hydrogenomics of the extremely thermophilic bacterium Caldicellulosiruptor saccharolyticus. *Applied and Environmental Microbiology*, **2008**, 74, 6720-9	4.8	132
126	Identification of components of electron transport chains in the extremely thermoacidophilic crenarchaeon Metallosphaera sedula through iron and sulfur compound oxidation transcriptomes. *Applied and Environmental Microbiology*, **2008**, 74, 7723-32	4.8	74
125	The genome sequence of the metal-mobilizing, extremely thermoacidophilic archaeon Metallosphaera sedula provides insights into bioleaching-associated metabolism. *Applied and Environmental Microbiology*, **2008**, 74, 682-92	4.8	122
124	Extremely thermophilic microorganisms for biomass conversion: status and prospects. *Current Opinion in Biotechnology*, **2008**, 19, 210-7	11.4	215
123	Life in hot acid: pathway analyses in extremely thermoacidophilic archaea. *Current Opinion in Biotechnology*, **2008**, 19, 445-53	11.4	48
122	Hydrogenesis in hyperthermophilic microorganisms: implications for biofuels. *Metabolic Engineering*, **2008**, 10, 394-404	9.7	71
121	Polysaccharide degradation and synthesis by extremely thermophilic anaerobes. *Annals of the New York Academy of Sciences*, **2008**, 1125, 322-37	6.5	52
120	Rheological properties of guar galactomannan solutions during hydrolysis with galactomannanase and alpha-galactosidase enzyme mixtures. *Biomacromolecules*, **2007**, 8, 949-56	6.9	20
119	Biochemical analysis of Thermotoga maritima GH36 alpha-galactosidase (TmGalA) confirms the mechanistic commonality of clan GH-D glycoside hydrolases. *Biochemistry*, **2007**, 46, 3319-30	3.2	78
118	Responses of wild-type and resistant strains of the hyperthermophilic bacterium Thermotoga maritima to chloramphenicol challenge. *Applied and Environmental Microbiology*, **2007**, 73, 5058-65	4.8	16
117	Role of the beta1 subunit in the function and stability of the 20S proteasome in the hyperthermophilic archaeon Pyrococcus furiosus. *Journal of Bacteriology*, **2007**, 189, 583-90	3.5	18
116	Impact of substrate glycoside linkage and elemental sulfur on bioenergetics of and hydrogen production by the hyperthermophilic archaeon Pyrococcus furiosus. *Applied and Environmental Microbiology*, **2007**, 73, 6842-53	4.8	32
115	Transcriptional and biochemical analysis of starch metabolism in the hyperthermophilic archaeon Pyrococcus furiosus. *Journal of Bacteriology*, **2006**, 188, 2115-25	3.5	56

114	Colocation of genes encoding a tRNA-mRNA hybrid and a putative signaling peptide on complementary strands in the genome of the hyperthermophilic bacterium Thermotoga maritima. *Journal of Bacteriology*, **2006**, 188, 6802-7	3.5	10
113	The Thermotoga maritima phenotype is impacted by syntrophic interaction with Methanococcus jannaschii in hyperthermophilic coculture. *Applied and Environmental Microbiology*, **2006**, 72, 811-8	4.8	57
112	Dynamic metabolic adjustments and genome plasticity are implicated in the heat shock response of the extremely thermoacidophilic archaeon Sulfolobus solfataricus. *Journal of Bacteriology*, **2006**, 188, 4553-9	3.5	55
111	Global analysis of carbohydrate utilization by Lactobacillus acidophilus using cDNA microarrays. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 3816-21	11.5	155
110	Microbial biochemistry, physiology, and biotechnology of hyperthermophilic Thermotoga species. *FEMS Microbiology Reviews*, **2006**, 30, 872-905	15.1	90
109	Extremely Thermophilic Microorganisms. *Annals of the New York Academy of Sciences*, **2006**, 745, 409-425	6.5	8
108	Denaturation and aggregation of three alpha-lactalbumin preparations at neutral pH. *Journal of Agricultural and Food Chemistry*, **2005**, 53, 3182-90	5.7	69
107	Aflatoxin conducive and non-conducive growth conditions reveal new gene associations with aflatoxin production. *Fungal Genetics and Biology*, **2005**, 42, 506-18	3.9	73
106	Population density-dependent regulation of exopolysaccharide formation in the hyperthermophilic bacterium Thermotoga maritima. *Molecular Microbiology*, **2005**, 55, 664-74	4.1	80
105	Influence of divalent cations on the structural thermostability and thermal inactivation kinetics of class II xylose isomerases. *FEBS Journal*, **2005**, 272, 1454-64	5.7	32
104	Genome-wide transcriptional variation within and between steady states for continuous growth of the hyperthermophile Thermotoga Maritima. *Applied and Environmental Microbiology*, **2005**, 71, 5572-6	4.8	15
103	An expression-driven approach to the prediction of carbohydrate transport and utilization regulons in the hyperthermophilic bacterium Thermotoga maritima. *Journal of Bacteriology*, **2005**, 187, 7267-82	3.5	73
102	Transcriptional analysis of biofilm formation processes in the anaerobic, hyperthermophilic bacterium Thermotoga maritima. *Applied and Environmental Microbiology*, **2004**, 70, 6098-112	4.8	66
101	Transcriptional analysis of dynamic heat-shock response by the hyperthermophilic bacterium Thermotoga maritima. *Extremophiles*, **2004**, 8, 209-17	3	35
100	Strategic biocatalysis with hyperthermophilic enzymes. *Green Chemistry*, **2004**, 6, 459	10	31
99	Significance of polysaccharides in microbial physiology and the ecology of hydrothermal vent environments. *Geophysical Monograph Series*, **2004**, 213-226	1.1	5
98	Functional genomics-based studies of the microbial ecology of hyperthermophilic micro-organisms. *Biochemical Society Transactions*, **2004**, 32, 188-92	5.1	5
97	Heat shock response by the hyperthermophilic archaeon Pyrococcus furiosus. *Applied and Environmental Microbiology*, **2003**, 69, 2365-71	4.8	90

96	Carbohydrate-induced differential gene expression patterns in the hyperthermophilic bacterium Thermotoga maritima. *Journal of Biological Chemistry*, **2003**, 278, 7540-52	5.4	107
95	Strategic selection of hyperthermophilic esterases for resolution of 2-arylpropionic esters. *Biotechnology Progress*, **2003**, 19, 1410-6	2.8	16
94	Growth of hyperthermophilic archaeon Pyrococcus furiosus on chitin involves two family 18 chitinases. *Applied and Environmental Microbiology*, **2003**, 69, 3119-28	4.8	76
93	Proteolysis in hyperthermophilic microorganisms. *Archaea*, **2002**, 1, 63-74	2	40
92	Glucose-to-fructose conversion at high temperatures with xylose (glucose) isomerases from Streptomyces murinus and two hyperthermophilic Thermotoga species. *Biotechnology and Bioengineering*, **2002**, 80, 185-94	4.9	43
91	Structural and catalytic response to temperature and cosolvents of carboxylesterase EST1 from the extremely thermoacidophilic archaeon Sulfolobus solfataricus P1. *Biotechnology and Bioengineering* , **2002**, 80, 784-93	4.9	16
90	Regulation of endo-acting glycosyl hydrolases in the hyperthermophilic bacterium Thermotoga maritima grown on glucan- and mannan-based polysaccharides. *Applied and Environmental Microbiology*, **2002**, 68, 545-54	4.8	86
89	Enzymatic Modification of Guar Solutions **2002**, 41-49		2
88	Enantiomeric resolution of 2-aryl propionic esters with hyperthermophilic and mesophilic esterases: contrasting thermodynamic mechanisms. *Journal of the American Chemical Society*, **2002**, 124, 8190-1	16.4	16
87	Biochemical characterization of Thermotoga maritima endoglucanase Cel74 with and without a carbohydrate binding module (CBM). *FEBS Letters*, **2002**, 531, 375-80	3.8	51
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