

Chong Zhang

List of Publications by Year in descending order

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117
papers

4,411
citations

117625

34
h-index

128289

60
g-index

125
all docs

125
docs citations

125
times ranked

5155
citing authors

#	ARTICLE	IF	CITATIONS
1	A ZnCl ₂ water-in-salt electrolyte for a reversible Zn metal anode. <i>Chemical Communications</i> , 2018, 54, 14097-14099.	4.1	491
2	Atmospheric and room temperature plasma (ARTP) as a new powerful mutagenesis tool. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 5387-5396.	3.6	258
3	States and challenges for high-value biohythane production from waste biomass by dark fermentation technology. <i>Bioresource Technology</i> , 2013, 135, 292-303.	9.6	186
4	Pooled CRISPR interference screening enables genome-scale functional genomics study in bacteria with superior performance. <i>Nature Communications</i> , 2018, 9, 2475.	12.8	168
5	Conjugated Microporous Polymers with Tunable Electronic Structure for High-Performance Potassium-Ion Batteries. <i>ACS Nano</i> , 2019, 13, 745-754.	14.6	162
6	Toward High Performance Thiophene-Containing Conjugated Microporous Polymer Anodes for Lithium-Ion Batteries through Structure Design. <i>Advanced Functional Materials</i> , 2018, 28, 1705432.	14.9	162
7	The electrolyte comprising more robust water and superhalides transforms Zn-metal anode reversibly and dendrite-free. , 2021, 3, 339-348.		100
8	Identifying and characterizing SCRaMbLED synthetic yeast using ReSCuES. <i>Nature Communications</i> , 2018, 9, 1930.	12.8	95
9	Characteristics of hydrogen and methane production from cornstalks by an augmented two- or three-stage anaerobic fermentation process. <i>Bioresource Technology</i> , 2009, 100, 2889-2895.	9.6	94
10	Construction of a linker library with widely controllable flexibility for fusion protein design. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 215-225.	3.6	93
11	Enhanced hydrogen production in a UASB reactor by retaining microbial consortium onto carbon nanotubes (CNTs). <i>International Journal of Hydrogen Energy</i> , 2012, 37, 10619-10626.	7.1	91
12	Tailoring the linking patterns of polypyrene cathodes for high-performance aqueous Zn dual-ion batteries. <i>Energy and Environmental Science</i> , 2021, 14, 462-472.	30.8	88
13	Effects of furan derivatives on biohydrogen fermentation from wet steam-exploded cornstalk and its microbial community. <i>Bioresource Technology</i> , 2015, 175, 152-159.	9.6	86
14	Continuous production of biohythane from hydrothermal liquefied cornstalk biomass via two-stage high-rate anaerobic reactors. <i>Biotechnology for Biofuels</i> , 2016, 9, 254.	6.2	76
15	MiYA, an efficient machine-learning workflow in conjunction with the YeastFab assembly strategy for combinatorial optimization of heterologous metabolic pathways in <i>Saccharomyces cerevisiae</i> . <i>Metabolic Engineering</i> , 2018, 47, 294-302.	7.0	76
16	Bioengineering of the <i>Enterobacter aerogenes</i> strain for biohydrogen production. <i>Bioresource Technology</i> , 2011, 102, 8344-8349.	9.6	74
17	Improved sgRNA design in bacteria via genome-wide activity profiling. <i>Nucleic Acids Research</i> , 2018, 46, 7052-7069.	14.5	73
18	High crude violacein production from glucose by <i>Escherichia coli</i> engineered with interactive control of tryptophan pathway and violacein biosynthetic pathway. <i>Microbial Cell Factories</i> , 2015, 14, 8.	4.0	65

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19	Aptamer assisted CRISPR-Cas12a strategy for small molecule diagnostics. <i>Biosensors and Bioelectronics</i> , 2021, 183, 113196.	10.1	65
20	Bioprocess engineering for biohythane production from low-grade waste biomass: technical challenges towards scale up. <i>Current Opinion in Biotechnology</i> , 2018, 50, 25-31.	6.6	62
21	Toward High-Performance Dihydrophenazine-Based Conjugated Microporous Polymer Cathodes for Dual-Ion Batteries through Donor-Acceptor Structural Design. <i>Advanced Functional Materials</i> , 2021, 31, 2105027.	14.9	58
22	Rapid detection of a gfp-marked <i>Enterobacter aerogenes</i> under anaerobic conditions by aerobic fluorescence recovery. <i>FEMS Microbiology Letters</i> , 2005, 249, 211-218.	1.8	57
23	Intermediate-sensor assisted push-pull strategy and its application in heterologous deoxyviolacein production in <i>Escherichia coli</i> . <i>Metabolic Engineering</i> , 2016, 33, 41-51.	7.0	55
24	Reconstruction of the violacein biosynthetic pathway from <i>Duganella sp. B2</i> in different heterologous hosts. <i>Applied Microbiology and Biotechnology</i> , 2010, 86, 1077-1088.	3.6	50
25	Biosensor-assisted transcriptional regulator engineering for <i>Methylobacterium extorquens</i> AM1 to improve mevalonate synthesis by increasing the acetyl-CoA supply. <i>Metabolic Engineering</i> , 2017, 39, 159-168.	7.0	49
26	Advanced strategies and tools to facilitate and streamline microbial adaptive laboratory evolution. <i>Trends in Biotechnology</i> , 2022, 40, 38-59.	9.3	49
27	Xanthine dehydrogenase: An old enzyme with new knowledge and prospects. <i>Bioengineered</i> , 2016, 7, 395-405.	3.2	47
28	Bioconversion of methanol to value-added mevalonate by engineered <i>Methylobacterium extorquens</i> AM1 containing an optimized mevalonate pathway. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 2171-2182.	3.6	47
29	Non-anticoagulant effects of low molecular weight heparins in inflammatory disorders: A review. <i>Carbohydrate Polymers</i> , 2017, 160, 71-81.	10.2	44
30	Structural characterization and in vitro antioxidant activities of chondroitin sulfate purified from <i>Andrias davidianus</i> cartilage. <i>Carbohydrate Polymers</i> , 2018, 196, 398-404.	10.2	43
31	Microbial microdroplet culture system (MMC): An integrated platform for automated, high-throughput microbial cultivation and adaptive evolution. <i>Biotechnology and Bioengineering</i> , 2020, 117, 1724-1737.	3.3	42
32	Enhanced biohydrogen production from corn stover by the combination of <i>Clostridium cellulolyticum</i> and hydrogen fermentation bacteria. <i>Journal of Bioscience and Bioengineering</i> , 2016, 122, 482-487.	2.2	41
33	Salvianolic acid B exerts anti-liver fibrosis effects via inhibition of MAPK-mediated phospho-Smad2/3 at linker regions in vivo and in vitro. <i>Life Sciences</i> , 2019, 239, 116881.	4.3	41
34	Active inclusion bodies of acid phosphatase PhoC: aggregation induced by GFP fusion and activities modulated by linker flexibility. <i>Microbial Cell Factories</i> , 2013, 12, 25.	4.0	39
35	Conjugated Microporous Polytetra(2-thienyl)ethylene as High Performance Anode Material for Lithium- and Sodium-Ion Batteries. <i>Macromolecular Chemistry and Physics</i> , 2018, 219, 1700524.	2.2	39
36	Characteristics of low molecular weight heparin production by an ultrafiltration membrane bioreactor using maltose binding protein fused heparinase I. <i>Biochemical Engineering Journal</i> , 2009, 46, 193-198.	3.6	37

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37	Gel microdroplet-based high-throughput screening for directed evolution of xylanase-producing <i>Pichia pastoris</i> . <i>Journal of Bioscience and Bioengineering</i> , 2019, 128, 662-668.	2.2	37
38	Fed-batch fermentation of recombinant <i>Citrobacter freundii</i> with expression of a violacein-synthesizing gene cluster for efficient violacein production from glycerol. <i>Biochemical Engineering Journal</i> , 2011, 57, 55-62.	3.6	34
39	Effects of bioactive components of Pu-erh tea on gut microbiomes and health: A review. <i>Food Chemistry</i> , 2021, 353, 129439.	8.2	33
40	Time Effect of Water Injection on the Mechanical Properties of Coal and Its Application in Rockburst Prevention in Mining. <i>Energies</i> , 2017, 10, 1783.	3.1	32
41	Establishment of CRISPR interference in <i>Methylorubrum extorquens</i> and application of rapidly mining a new phytoene desaturase involved in carotenoid biosynthesis. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 4515-4532.	3.6	32
42	Temperature influence on fluorescence intensity and enzyme activity of the fusion protein of GFP and hyperthermophilic xylanase. <i>Applied Microbiology and Biotechnology</i> , 2009, 84, 511-517.	3.6	31
43	Epigenetic silencing of lncRNA ANRIL enhances liver fibrosis and HSC activation through activating AMPK pathway. <i>Journal of Cellular and Molecular Medicine</i> , 2020, 24, 2677-2687.	3.6	31
44	Maltose Utilization as a Novel Selection Strategy for Continuous Evolution of Microbes with Enhanced Metabolite Production. <i>ACS Synthetic Biology</i> , 2017, 6, 2326-2338.	3.8	29
45	Magnetic nanoparticles for the affinity adsorption of maltose binding protein (MBP) fusion enzymes. <i>Journal of Materials Chemistry</i> , 2012, 22, 6813.	6.7	27
46	Effects of operating parameters on hydrogen production from raw wet steam-exploded cornstalk and two-stage fermentation potential for biohythane production. <i>Biochemical Engineering Journal</i> , 2014, 90, 234-238.	3.6	27
47	Studies on the Physical Characteristics of the Radio-Frequency Atmospheric-Pressure Glow Discharge Plasmas for the Genome Mutation of <i>Methylosinus trichosporium</i> . <i>IEEE Transactions on Plasma Science</i> , 2012, 40, 2853-2860.	1.3	25
48	A study on the effects of linker flexibility on acid phosphatase PhoC-GFP fusion protein using a novel linker library. <i>Enzyme and Microbial Technology</i> , 2016, 83, 1-6.	3.2	25
49	Improved production of trans-4-hydroxy-L-proline by chromosomal integration of the <i>Vitreoscilla</i> hemoglobin gene into recombinant <i>Escherichia coli</i> with expression of proline-4-hydroxylase. <i>Journal of Bioscience and Bioengineering</i> , 2017, 123, 109-115.	2.2	25
50	Inversion of the permeability of a tight gas reservoir with the combination of a deep Boltzmann kernel extreme learning machine and nuclear magnetic resonance logging transverse relaxation time spectrum data. <i>Interpretation</i> , 2017, 5, T341-T350.	1.1	24
51	In vivo continuous evolution of metabolic pathways for chemical production. <i>Microbial Cell Factories</i> , 2019, 18, 82.	4.0	24
52	Rewiring the native methanol assimilation metabolism by incorporating the heterologous ribulose monophosphate cycle into <i>Methylorubrum extorquens</i> . <i>Metabolic Engineering</i> , 2021, 64, 95-110.	7.0	24
53	Astragaloside IV inhibits hepatocellular carcinoma by continually suppressing the development of fibrosis and regulating pSmad3C/3L and Nrf2/HO-1 pathways. <i>Journal of Ethnopharmacology</i> , 2021, 279, 114350.	4.1	24
54	Enhanced Production of Crude Violacein from Glucose in <i>Escherichia coli</i> by Overexpression of Rate-Limiting Key Enzyme(S) Involved in Violacein Biosynthesis. <i>Applied Biochemistry and Biotechnology</i> , 2018, 186, 909-916.	2.9	23

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55	Breeding of Methanol-Tolerant <i>Methylobacterium extorquens</i> AM1 by Atmospheric and Room Temperature Plasma Mutagenesis Combined With Adaptive Laboratory Evolution. <i>Biotechnology Journal</i> , 2018, 13, 1700679.	3.5	23
56	Correcting for the inner filter effect in measurements of fluorescent proteins in high-cell-density cultures. <i>Analytical Biochemistry</i> , 2009, 390, 197-202.	2.4	22
57	Acoustic Emission Characteristics of Graded Loading Intact and Holey Rock Samples during the Damage and Failure Process. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 1595.	2.5	22
58	Increased stability and intracellular antioxidant activity of chlorogenic acid depend on its molecular interaction with wheat gluten hydrolysate. <i>Food Chemistry</i> , 2020, 325, 126873.	8.2	20
59	Disruption of lactate dehydrogenase and alcohol dehydrogenase for increased hydrogen production and its effect on metabolic flux in <i>Enterobacter aerogenes</i> . <i>Bioresource Technology</i> , 2015, 194, 99-107.	9.6	19
60	Dynamics of transcription-translation coordination tune bacterial indole signaling. <i>Nature Chemical Biology</i> , 2020, 16, 440-449.	8.0	19
61	Direct affinity immobilization of recombinant heparinase I fused to maltose binding protein on maltose-coated magnetic nanoparticles. <i>Biochemical Engineering Journal</i> , 2014, 90, 170-177.	3.6	18
62	A rapid and specific colorimetric method for free tryptophan quantification. <i>Talanta</i> , 2018, 176, 604-609.	5.5	18
63	A pilot study of biohythane production from cornstalk via two-stage anaerobic fermentation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 31719-31731.	7.1	17
64	Culture characteristics of the atmospheric and room temperature plasma-mutated <i>Spirulina platensis</i> mutants in CO ₂ aeration culture system for biomass production. <i>Journal of Bioscience and Bioengineering</i> , 2015, 120, 438-443.	2.2	16
65	Insights into the global regulation of anaerobic metabolism for improved biohydrogen production. <i>Bioresource Technology</i> , 2016, 200, 35-41.	9.6	16
66	Guide-target mismatch effects on dCas9-sgRNA binding activity in living bacterial cells. <i>Nucleic Acids Research</i> , 2021, 49, 1263-1277.	14.5	16
67	Comparative study on antioxidative system in normal and vitrified shoots of <i>Populus suaveolens</i> in tissue culture. <i>Forestry Studies in China</i> , 2004, 6, 1-8.	0.4	15
68	Targeted mutagenesis: A sniper-like diversity generator in microbial engineering. <i>Synthetic and Systems Biotechnology</i> , 2017, 2, 75-86.	3.7	15
69	Characterization of a novel <i>Acinetobacter baumannii</i> xanthine dehydrogenase expressed in <i>Escherichia coli</i> . <i>Biotechnology Letters</i> , 2016, 38, 337-344.	2.2	14
70	Mutagenesis of <i>Rhodobacter sphaeroides</i> using atmospheric and room temperature plasma treatment for efficient production of coenzyme Q10. <i>Journal of Bioscience and Bioengineering</i> , 2019, 127, 698-702.	2.2	14
71	Quantitative evaluation of organic porosity and inorganic porosity in shale gas reservoirs using logging data. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2019, 41, 811-828.	2.3	14
72	A heparin derivatives library constructed by chemical modification and enzymatic depolymerization for exploitation of non-anticoagulant functions. <i>Carbohydrate Polymers</i> , 2020, 249, 116824.	10.2	14

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73	Smad3 C-terminal phosphorylation site mutation attenuates the hepatoprotective effect of salvianolic acid B against hepatocarcinogenesis. <i>Food and Chemical Toxicology</i> , 2021, 147, 111912.	3.6	14
74	Genome-wide screening identifies promiscuous phosphatases impairing terpenoid biosynthesis in <i>Escherichia coli</i> . <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 9771-9780.	3.6	13
75	Empowering a Methanol-Dependent <i>Escherichia coli</i> via Adaptive Evolution Using a High-Throughput Microbial Microdroplet Culture System. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 570.	4.1	13
76	Salvianolic acid B protects against acute and chronic liver injury by inhibiting Smad2C/L phosphorylation. <i>Experimental and Therapeutic Medicine</i> , 2021, 21, 341.	1.8	13
77	A versatile toolbox for CRISPR-based genome engineering in <i>Pichia pastoris</i> . <i>Applied Microbiology and Biotechnology</i> , 2021, 105, 9211-9218.	3.6	13
78	Encoding Genetic Circuits with DNA Barcodes Paves the Way for Machine Learning-Assisted Metabolite Biosensor Response Curve Profiling in Yeast. <i>ACS Synthetic Biology</i> , 2022, 11, 977-989.	3.8	13
79	Rational design of a tripartite fusion protein of heparinase I enables one-step affinity purification and real-time activity detection. <i>Journal of Biotechnology</i> , 2013, 163, 30-37.	3.8	12
80	Comparing two cortisol aptamers for label-free fluorescent and colorimetric biosensors. <i>Sensors & Diagnostics</i> , 2022, 1, 541-549.	3.8	12
81	First-principles calculations of elastic moduli of Ti-Mo-Nb alloys using a cluster-plus-gluce-atom model for stable solid solutions. <i>Journal of Materials Science</i> , 2013, 48, 3138-3146.	3.7	11
82	Medium redesign for stable cultivation and high production of mevalonate by recombinant <i>Methylobacterium extorquens</i> AM1 with mevalonate synthetic pathway. <i>Biochemical Engineering Journal</i> , 2017, 119, 67-73.	3.6	11
83	Effects of Enzymatically Depolymerized Low Molecular Weight Heparins on CCl ₄ -Induced Liver Fibrosis. <i>Frontiers in Pharmacology</i> , 2017, 8, 514.	3.5	11
84	Numerical computation of the fiber diameter of melt blown nonwovens produced by the inset die. <i>Journal of Applied Polymer Science</i> , 2009, 111, 1775-1779.	2.6	10
85	A first-principle study of the structural and electronic properties of amorphous Cu-Zr alloys. <i>Science China: Physics, Mechanics and Astronomy</i> , 2011, 54, 249-255.	5.1	10
86	Metabolic engineering of <i>Escherichia coli</i> cell factory for highly active xanthine dehydrogenase production. <i>Bioresource Technology</i> , 2017, 245, 1782-1789.	9.6	9
87	Genome-wide genotype-phenotype associations in microbes. <i>Journal of Bioscience and Bioengineering</i> , 2021, 132, 1-8.	2.2	9
88	Development of a novel platform for recombinant protein production in <i>Corynebacterium glutamicum</i> on ethanol. <i>Synthetic and Systems Biotechnology</i> , 2022, 7, 765-774.	3.7	8
89	Design and construction of chimeric linker library with controllable flexibilities for precision protein engineering. <i>Methods in Enzymology</i> , 2021, 647, 23-49.	1.0	7
90	Construction and characterization of novel bifunctional fusion proteins composed of alcohol dehydrogenase and NADH oxidase with efficient oxidized cofactor regeneration. <i>Biotechnology and Applied Biochemistry</i> , 2022, 69, 1535-1544.	3.1	7

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91	DomSign: a top-down annotation pipeline to enlarge enzyme space in the protein universe. BMC Bioinformatics, 2015, 16, 96.	2.6	6
92	Discovery of enzymatically depolymerized heparins capable of treating Bleomycin-induced pulmonary injury and fibrosis in mice. Carbohydrate Polymers, 2017, 174, 82-88.	10.2	6
93	Pore structure classification and logging evaluation method for carbonate reservoirs: A case study from an oilfield in the Middle East. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2019, 41, 1701-1715.	2.3	6
94	Smad3 gene C-terminal phosphorylation site mutation aggravates CCl ₄ -induced inflammation in mice. Journal of Cellular and Molecular Medicine, 2020, 24, 7044-7054.	3.6	6
95	Alteration of energy metabolism in <i>Enterobacter aerogenes</i> by external addition of pyrophosphates and overexpression of polyphosphate kinase for enhanced hydrogen production. Journal of Chemical Technology and Biotechnology, 2012, 87, 996-1003.	3.2	5
96	Luciferase and fluorescent protein as dual reporters analyzing the effect of n-dodecyltrimethylammonium bromide on the physiology of <i>Pseudomonas putida</i> . Applied Microbiology and Biotechnology, 2012, 93, 393-400.	3.6	5
97	Design of Fusion Proteins for Efficient and Soluble Production of Immunogenic Ebola Virus Glycoprotein in <i>Escherichia coli</i> . Biotechnology Journal, 2018, 13, 1700627.	3.5	5
98	Cre/loxP-Mediated Multicopy Integration of the Mevalonate Operon into the Genome of <i>Methylobacterium extorquens</i> AM1. Applied Biochemistry and Biotechnology, 2018, 185, 565-577.	2.9	5
99	Estimation of total porosity in shale formations from element capture logging and conventional logging data. Arabian Journal of Geosciences, 2018, 11, 1.	1.3	5
100	Engineering organoid microfluidic system for biomedical and health engineering: A review. Chinese Journal of Chemical Engineering, 2021, 30, 244-254.	3.5	5
101	Predicting the total porosity of shale gas reservoirs. Petroleum Science and Technology, 2017, 35, 1022-1031.	1.5	4
102	Steady flow of pressure-driven water-in-oil droplets in closed-open-closed microchannels. AIP Advances, 2019, 9, 125040.	1.3	4
103	An improved method in petrophysical rock typing based on mercury-injection capillary pressure data. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-16.	2.3	4
104	Effects of enhanced efficiency nitrogen fertilizers on NH ₃ losses in a calcareous fluvo-aquic soil: a laboratory study. Journal of Soils and Sediments, 2020, 20, 1887-1896.	3.0	4
105	Recent advances of integrated microfluidic suspension cell culture system. Engineering Biology, 2021, 5, 81-97.	1.8	3
106	Enhanced catalytic properties of novel (Î±bÎ³) ₂ heterohexameric <i>Rhodobacter capsulatus</i> xanthine dehydrogenase by separate expression of the redox domains in <i>Escherichia coli</i> . Biochemical Engineering Journal, 2017, 119, 1-8.	3.6	2
107	Effects of Loading Rate on Gas Seepage and Temperature in Coal and Its Potential for Coal-Gas Disaster Early-Warning. Energies, 2017, 10, 1246.	3.1	2
108	Establishment of chondroitin B lyase-based analytical methods for sensitive and quantitative detection of dermatan sulfate in heparin. Carbohydrate Polymers, 2016, 144, 338-345.	10.2	1

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109	Methylotrophic Cell Factory as a Feasible Route for Production of High-Value Chemicals from Methanol. , 2018, , 199-211.		1
110	Highly Efficient Capture of Marine Microbial Strains in Seawater Using Bare Fe ₃ O ₄ Magnetic Beads. Current Microbiology, 2020, 77, 1210-1216.	2.2	1
111	Smad3 gene C-terminal phosphorylation site mutation exacerbates CCl ₄ -induced hepatic fibrogenesis by promoting pSmad2L/C-mediated signaling transduction. Naunyn-Schmiedeberg's Archives of Pharmacology, 2021, 394, 1779-1786.	3.0	1
112	The Ribosome Biogenesis Factor Ltv1 Is Essential for Digestive Organ Development and Definitive Hematopoiesis in Zebrafish. Frontiers in Cell and Developmental Biology, 2021, 9, 704730.	3.7	1
113	Automated Microbial Cultivation and Adaptive Evolution using Microbial Microdroplet Culture System (MMC). Journal of Visualized Experiments, 2022, , .	0.3	1
114	Applications of Cold Atmospheric Plasmas (CAPs) in Agriculture: A Brief Review and Novel Development of a Radio-Frequency CAP Jet Generator for Plant Mutation. Plasma Science and Technology, 0, , .	1.5	1
115	Numerical simulation of radio frequency atmospheric pressure glow discharges for the applications in the microbial genome mutation. , 2012, , .		0
116	High-throughput screening for improving cellular and enzymatic properties. , 2020, , 153-181.		0
117	New Method for Genome-Scale Functional Genomic Study in Bacteria with Superior Performance: CRISPR Interference Screen. Methods in Molecular Biology, 2022, 2377, 123-141.	0.9	0