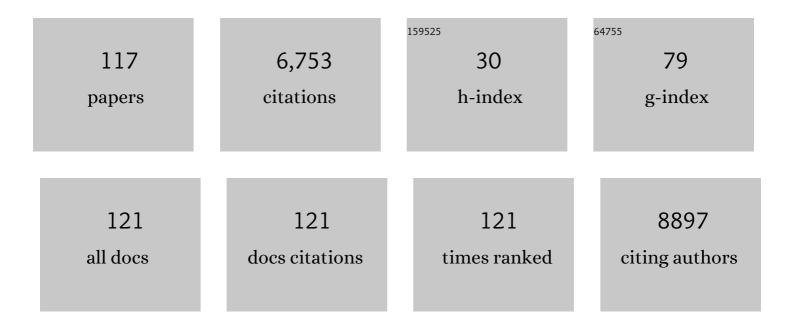
Fumio Matsuda

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/7703780/publications.pdf Version: 2024-02-01



#	Article	IF	CITATIONS
1	MassBank: a public repository for sharing mass spectral data for life sciences. Journal of Mass Spectrometry, 2010, 45, 703-714.	0.7	1,831
2	Metabolomics for Functional Genomics, Systems Biology, and Biotechnology. Annual Review of Plant Biology, 2010, 61, 463-489.	8.6	647
3	Comprehensive Flavonol Profiling and Transcriptome Coexpression Analysis Leading to Decoding Gene–Metabolite Correlations in <i>Arabidopsis</i> ÂÂ. Plant Cell, 2008, 20, 2160-2176.	3.1	347
4	RIKEN tandem mass spectral database (ReSpect) for phytochemicals: A plant-specific MS/MS-based data resource and database. Phytochemistry, 2012, 82, 38-45.	1.4	284
5	Current metabolomics: Practical applications. Journal of Bioscience and Bioengineering, 2013, 115, 579-589.	1.1	245
6	Acetate-mediated novel survival strategy against drought in plants. Nature Plants, 2017, 3, 17097.	4.7	232
7	MS/MS spectral tagâ€based annotation of nonâ€targeted profile of plant secondary metabolites. Plant Journal, 2009, 57, 555-577.	2.8	208
8	Dissection of genotype–phenotype associations in rice grains using metabolome quantitative trait loci analysis. Plant Journal, 2012, 70, 624-636.	2.8	173
9	AtMetExpress Development: A Phytochemical Atlas of Arabidopsis Development Â. Plant Physiology, 2010, 152, 566-578.	2.3	161
10	Metabolomeâ€genomeâ€wide association study dissects genetic architecture for generating natural variation in rice secondary metabolism. Plant Journal, 2015, 81, 13-23.	2.8	152
11	Genetic engineering to enhance the Ehrlich pathway and alter carbon flux for increased isobutanol production from glucose by Saccharomyces cerevisiae. Journal of Biotechnology, 2012, 159, 32-37.	1.9	150
12	Increased isobutanol production in Saccharomyces cerevisiae by eliminating competing pathways and resolving cofactor imbalance. Microbial Cell Factories, 2013, 12, 119.	1.9	126
13	Widely targeted metabolic profiling analysis of yeast central metabolites. Journal of Bioscience and Bioengineering, 2012, 113, 665-673.	1.1	94
14	OpenMebius: An Open Source Software for Isotopically Nonstationary ¹³ C-Based Metabolic Flux Analysis. BioMed Research International, 2014, 2014, 1-10.	0.9	87
15	Integrated Metabolic Flux and Omics Analysis of Synechocystis sp. PCC 6803 under Mixotrophic and Photoheterotrophic Conditions. Plant and Cell Physiology, 2014, 55, 1605-1612.	1.5	86
16	Metabolic profiling and cytological analysis of proanthocyanidins in immature seeds of Arabidopsis thaliana flavonoid accumulation mutants. Plant Journal, 2010, 62, 549-559.	2.8	85
17	PRIMe Update: Innovative Content for Plant Metabolomics and Integration of Gene Expression and Metabolite Accumulation. Plant and Cell Physiology, 2013, 54, e5-e5.	1.5	76
18	Rewiring of embryonic glucose metabolism via suppression of PFK-1 and aldolase during mouse chorioallantoic branching. Development (Cambridge), 2017, 144, 63-73.	1.2	70

#	Article	IF	CITATIONS
19	Organosolv pretreatment of sorghum bagasse using a low concentration of hydrophobic solvents such as 1-butanol or 1-pentanol. Biotechnology for Biofuels, 2016, 9, 27.	6.2	68
20	Assessment of Metabolome Annotation Quality: A Method for Evaluating the False Discovery Rate of Elemental Composition Searches. PLoS ONE, 2009, 4, e7490.	1.1	63
21	Development of microbial cell factories for bio-refinery through synthetic bioengineering. Journal of Biotechnology, 2013, 163, 204-216.	1.9	55
22	Metabolic Adaptation to Nutritional Stress in Human Colorectal Cancer. Scientific Reports, 2016, 6, 38415.	1.6	55
23	13C-metabolic flux analysis for mevalonate-producing strain of Escherichia coli. Journal of Bioscience and Bioengineering, 2017, 123, 177-182.	1.1	48
24	Engineering strategy of yeast metabolism for higher alcohol production. Microbial Cell Factories, 2011, 10, 70.	1.9	42
25	Overexpressing enzymes of the Ehrlich pathway and deleting genes of the competing pathway in Saccharomyces cerevisiae for increasing 2-phenylethanol production from glucose. Journal of Bioscience and Bioengineering, 2016, 122, 34-39.	1.1	40
26	Technical Challenges in Mass Spectrometry-Based Metabolomics. Mass Spectrometry, 2016, 5, S0052-S0052.	0.2	38
27	Method for Assessing the Statistical Significance of Mass Spectral Similarities Using Basic Local Alignment Search Tool Statistics. Analytical Chemistry, 2013, 85, 8291-8297.	3.2	34
28	Inter-Laboratory Comparison of Metabolite Measurements for Metabolomics Data Integration. Metabolites, 2019, 9, 257.	1.3	34
29	Rre37 stimulates accumulation of 2â€oxoglutarate and glycogen under nitrogen starvation in <i>Synechocystis</i> sp. PCC 6803. FEBS Letters, 2014, 588, 466-471.	1.3	33
30	Three gene expression vector sets for concurrently expressing multiple genes in <i>Saccharomyces cerevisiae</i> . FEMS Yeast Research, 2014, 14, 399-411.	1.1	33
31	Construction of an Artificial Pathway for Isobutanol Biosynthesis in the Cytosol of <i>Saccharomyces cerevisiae</i> . Bioscience, Biotechnology and Biochemistry, 2012, 76, 2139-2141.	0.6	32
32	Synthetic metabolic bypass for a metabolic toggle switch enhances acetyl-CoA supply for isopropanol production by Escherichia coli. Journal of Bioscience and Bioengineering, 2017, 123, 625-633.	1.1	31
33	Metabolic flux analysis of <i>Synechocystis</i> sp. PCC 6803 Δ <i>nrtABCD</i> mutant reveals a mechanism for metabolic adaptation to nitrogen-limited conditions. Plant and Cell Physiology, 2017, 58, pcw233.	1.5	31
34	Metabolic engineering of Synechococcus elongatus PCC 7942 for improvement of 1,3-propanediol and glycerol production based on in silico simulation of metabolic flux distribution. Microbial Cell Factories, 2017, 16, 212.	1.9	31
35	Mass Spectra-Based Framework for Automated Structural Elucidation of Metabolome Data to Explore Phytochemical Diversity. Frontiers in Plant Science, 2011, 2, 40.	1.7	30
36	Increased biomass production and glycogen accumulation in apcE gene deleted Synechocystis sp. PCC 6803. AMB Express, 2014, 4, 17.	1.4	30

#	Article	IF	CITATIONS
37	13C-metabolic flux analysis in S-adenosyl-l-methionine production by Saccharomyces cerevisiae. Journal of Bioscience and Bioengineering, 2015, 120, 532-538.	1.1	30
38	Absolute quantitation of glycolytic intermediates reveals thermodynamic shifts in Saccharomyces cerevisiae strains lacking PFK1 or ZWF1 genes. Journal of Bioscience and Bioengineering, 2015, 120, 280-286.	1.1	30
39	A pyruvate carbon flux tugging strategy for increasing 2,3-butanediol production and reducing ethanol subgeneration in the yeast Saccharomyces cerevisiae. Biotechnology for Biofuels, 2018, 11, 180.	6.2	30
40	Transomics data-driven, ensemble kinetic modeling for system-level understanding and engineering of the cyanobacteria central metabolism. Metabolic Engineering, 2019, 52, 273-283.	3.6	30
41	Metabolic engineering of isopropyl alcoholâ€producing <i>Escherichia coli</i> strains with ¹³ Câ€metabolic flux analysis. Biotechnology and Bioengineering, 2017, 114, 2782-2793.	1.7	26
42	Changes in Lignin and Polysaccharide Components in 13 Cultivars of Rice Straw following Dilute Acid Pretreatment as Studied by Solution-State 2D 1H-13C NMR. PLoS ONE, 2015, 10, e0128417.	1.1	26
43	Winners of CASMI2013: Automated Tools and Challenge Data. Mass Spectrometry, 2014, 3, S0039-S0039.	0.2	24
44	Metabolome analysis of Saccharomyces cerevisiae and optimization of culture medium for S-adenosyl-I-methionine production. AMB Express, 2016, 6, 38.	1.4	24
45	Toward the complete utilization of rice straw: Methane fermentation and lignin recovery by a combinational process involving mechanical milling, supporting material and nanofiltration. Bioresource Technology, 2016, 216, 830-837.	4.8	24
46	Transcriptome analysis of the cyanobacterium Synechocystis sp. PCC 6803 and mechanisms of photoinhibition tolerance under extreme high light conditions. Journal of Bioscience and Bioengineering, 2018, 126, 596-602.	1.1	24
47	Magnesium starvation improves production of malonyl-CoA-derived metabolites in Escherichia coli. Metabolic Engineering, 2019, 52, 215-223.	3.6	24
48	Learning from quantitative data to understand central carbon metabolism. Biotechnology Advances, 2017, 35, 971-980.	6.0	23
49	Application of adaptive laboratory evolution to overcome a flux limitation in an <i>Escherichia coli</i> production strain. Biotechnology and Bioengineering, 2018, 115, 1542-1551.	1.7	23
50	Metabolic engineering of mevalonate-producing Escherichia coli strains based on thermodynamic analysis. Metabolic Engineering, 2018, 47, 1-9.	3.6	22
51	Treatment of Retinoblastoma 1–Intact Hepatocellular Carcinoma With Cyclinâ€Dependent Kinase 4/6 Inhibitor Combination Therapy. Hepatology, 2021, 74, 1971-1993.	3.6	22
52	Heterologous expression of bacterial phosphoenol pyruvate carboxylase and Entner–Doudoroff pathway in Saccharomyces cerevisiae for improvement of isobutanol production. Journal of Bioscience and Bioengineering, 2017, 124, 263-270.	1.1	21
53	Metabolic flux of the oxidative pentose phosphate pathway under low light conditions in Synechocystis sp. PCC 6803. Journal of Bioscience and Bioengineering, 2018, 126, 38-43.	1.1	21
54	Precipitate obtained following membrane separation of hydrothermally pretreated rice straw liquid revealed by 2D NMR to have high lignin content. Biotechnology for Biofuels, 2015, 8, 88.	6.2	20

#	Article	IF	CITATIONS
55	13C-based metabolic flux analysis of Saccharomyces cerevisiae with a reduced Crabtree effect. Journal of Bioscience and Bioengineering, 2015, 120, 140-144.	1.1	18
56	Targeted proteome analysis of single-gene deletion strains of Saccharomyces cerevisiae lacking enzymes in the central carbon metabolism. PLoS ONE, 2017, 12, e0172742.	1.1	18
57	Fragmentation of Dicarboxylic and Tricarboxylic Acids in the Krebs Cycle Using GC-EI-MS and GC-EI-MS/MS. Mass Spectrometry, 2019, 8, A0073-A0073.	0.2	17
58	Metabolic characterization of cultured mammalian cells by mass balance analysis, tracer labeling experiments and computer-aided simulations. Journal of Bioscience and Bioengineering, 2015, 120, 725-731.	1,1	16
59	Sugar phosphate analysis with baseline separation and soft ionization by gas chromatography-negative chemical ionization-mass spectrometry improves flux estimation of bidirectional reactions in cancer cells. Metabolic Engineering, 2019, 51, 43-49.	3.6	16
60	Rethinking Mass Spectrometry-Based Small Molecule Identification Strategies in Metabolomics. Mass Spectrometry, 2014, 3, S0038-S0038.	0.2	15
61	GC-MS/MS survey of collision-induced dissociation of tert-butyldimethylsilyl-derivatized amino acids and its application to 13C-metabolic flux analysis of Escherichia coli central metabolism. Analytical and Bioanalytical Chemistry, 2016, 408, 6133-6140.	1.9	15
62	Investigation of useful carbon tracers for 13 C-metabolic flux analysis of Escherichia coli by considering five experimentally determined flux distributions. Metabolic Engineering Communications, 2016, 3, 187-195.	1.9	15
63	Assessment of Protein Content and Phosphorylation Level in Synechocystis sp. PCC 6803 under Various Growth Conditions Using Quantitative Phosphoproteomic Analysis. Molecules, 2020, 25, 3582.	1.7	15
64	Drought Stress Responses in Context-Specific Genome-Scale Metabolic Models of Arabidopsis thaliana. Metabolites, 2020, 10, 159.	1.3	15
65	A Highly Specific Genome-Wide Association Study Integrated with Transcriptome Data Reveals the Contribution of Copy Number Variations to Specialized Metabolites in Arabidopsis thaliana Accessions. Molecular Biology and Evolution, 2017, 34, 3111-3122.	3.5	14
66	Comparison of metabolic profiles of yeasts based on the difference of the Crabtree positive and negative. Journal of Bioscience and Bioengineering, 2020, 129, 52-58.	1.1	14
67	Comparative Targeted Proteomics of the Central Metabolism and Photosystems in SigE Mutant Strains of Synechocystis sp. PCC 6803. Molecules, 2018, 23, 1051.	1.7	13
68	Seed-coat protective neolignans are produced by the dirigent protein AtDP1 and the laccase AtLAC5 in Arabidopsis. Plant Cell, 2021, 33, 129-152.	3.1	13
69	Nano-scale liquid chromatography coupled to tandem mass spectrometry using the multiple reaction monitoring mode based quantitative platform for analyzing multiple enzymes associated with central metabolic pathways of Saccharomyces cerevisiae using ultra fast mass spectrometry. Journal of Bioscience and Bioengineering. 2015. 119. 117-120.	1.1	12
70	13C-metabolic flux analysis of ethanol-assimilating Saccharomyces cerevisiae for S-adenosyl-l-methionine production. Microbial Cell Factories, 2018, 17, 82.	1.9	12
71	Time-resolved analysis of short term metabolic adaptation at dark transition in Synechocystis sp. PCC 6803. Journal of Bioscience and Bioengineering, 2019, 128, 424-428.	1.1	12
72	Molecular components of Arabidopsis intact vacuoles clarified with metabolomic and proteomic analyses. Plant and Cell Physiology, 2018, 59, 1353-1362.	1.5	11

#	Article	IF	CITATIONS
73	Mass Spectrometry-Based Method to Study Inhibitor-Induced Metabolic Redirection in the Central Metabolism of Cancer Cells. Mass Spectrometry, 2018, 7, A0067-A0067.	0.2	11
74	Repression of mitochondrial metabolism for cytosolic pyruvate-derived chemical production in Saccharomyces cerevisiae. Microbial Cell Factories, 2019, 18, 177.	1.9	11
75	Mutations in hik26 and slr1916 lead to high-light stress tolerance in Synechocystis sp. PCC6803. Communications Biology, 2021, 4, 343.	2.0	11
76	mfapy: An open-source Python package for 13C-based metabolic flux analysis. Metabolic Engineering Communications, 2021, 13, e00177.	1.9	11
77	Targeted proteome analysis of microalgae under high-light conditions by optimized protein extraction of photosynthetic organisms. Journal of Bioscience and Bioengineering, 2019, 127, 394-402.	1.1	10
78	Direct and quantitative analysis of altered metabolic flux distributions and cellular ATP production pathway in fumarate hydratase-diminished cells. Scientific Reports, 2020, 10, 13065.	1.6	10
79	Elevated Sporulation Efficiency in Fission Yeast Schizosaccharomyces japonicus Strains Isolated from Drosophila. Journal of Fungi (Basel, Switzerland), 2021, 7, 350.	1.5	10
80	Synthetic production of prenylated naringenins in yeast using promiscuous microbial prenyltransferases. Metabolic Engineering Communications, 2021, 12, e00169.	1.9	10
81	Soft-sensor development for monitoring the lysine fermentation process. Journal of Bioscience and Bioengineering, 2021, 132, 183-189.	1.1	10
82	Optogenetic reprogramming of carbon metabolism using light-powering microbial proton pump systems. Metabolic Engineering, 2022, 72, 227-236.	3.6	10
83	Evaluation of control mechanisms for Saccharomyces cerevisiae central metabolic reactions using metabolome data of eight single-gene deletion mutants. Applied Microbiology and Biotechnology, 2013, 97, 3569-3577.	1.7	8
84	Theophylline-inducible riboswitch accurately regulates protein expression at low level in Escherichia coli. Biotechnology Letters, 2019, 41, 743-751.	1.1	8
85	Increased carvone production in Escherichia coli by balancing limonene conversion enzyme expression via targeted quantification concatamer proteome analysis. Scientific Reports, 2021, 11, 22126.	1.6	8
86	Metabolomics-based phenotypic screens for evaluation of drug synergy via direct-infusion mass spectrometry. IScience, 2022, 25, 104221.	1.9	8
87	Data science-based modeling of the lysine fermentation process. Journal of Bioscience and Bioengineering, 2020, 130, 409-415.	1.1	7
88	Computational data mining method for isotopomer analysis in the quantitative assessment of metabolic reprogramming. Scientific Reports, 2020, 10, 286.	1.6	7
89	Effects of mutations of GID protein–coding genes on malate production and enzyme expression profiles in Saccharomyces cerevisiae. Applied Microbiology and Biotechnology, 2020, 104, 4971-4983.	1.7	7
90	Analyses of Lipid A Diversity in Gram-Negative Intestinal Bacteria Using Liquid Chromatography–Quadrupole Time-of-Flight Mass Spectrometry. Metabolites, 2021, 11, 197.	1.3	7

#	Article	IF	CITATIONS
91	Random Transfer of Ogataea polymorpha Genes into Saccharomyces cerevisiae Reveals a Complex Background of Heat Tolerance. Journal of Fungi (Basel, Switzerland), 2021, 7, 302.	1.5	7
92	Novel allosteric inhibition of phosphoribulokinase identified by ensemble kinetic modeling of Synechocystis sp. PCC 6803 metabolism. Metabolic Engineering Communications, 2020, 11, e00153.	1.9	7
93	Isotope Calculation Gadgets: A Series of Software for Isotope-Tracing Experiments in Garuda Platform. Metabolites, 2022, 12, 646.	1.3	7
94	Regular expressions of MS/MS spectra for partial annotation of metabolite features. Metabolomics, 2016, 12, 1.	1.4	6
95	Prediction of Hopeless Peptides Unlikely to be Selected for Targeted Proteome Analysis. Mass Spectrometry, 2017, 6, A0056-A0056.	0.2	6
96	Comparative analysis of fermentation and enzyme expression profiles among industrial Saccharomyces cerevisiae strains. Applied Microbiology and Biotechnology, 2018, 102, 7071-7081.	1.7	6
97	Improvement of 2,3-butanediol production by dCas9 gene expression system in Saccharomyces cerevisiae. Journal of Bioscience and Bioengineering, 2022, 133, 208-212.	1.1	5
98	Evaluation of Brachypodium distachyon L-Tyrosine Decarboxylase Using L-Tyrosine Over-Producing Saccharomyces cerevisiae. PLoS ONE, 2015, 10, e0125488.	1.1	4
99	Positive effects of proline addition on the central metabolism of wild-type and lactic acid-producing Saccharomyces cerevisiae strains. Bioprocess and Biosystems Engineering, 2016, 39, 1711-1716.	1.7	4
100	A Fusion Method to Develop an Expanded Artificial Genomic RNA Replicable by $Q^{\hat{l}2}$ Replicase. ChemBioChem, 2019, 20, 2331-2335.	1.3	4
101	Proteome analysis of response to different spectral light irradiation in Synechocystis sp. PCC 6803. Journal of Proteomics, 2021, 246, 104306.	1.2	3
102	Differences in glucose yield of residues from among varieties of rice, wheat, and sorghum after dilute acid pretreatment. Bioscience, Biotechnology and Biochemistry, 2017, 81, 1650-1656.	0.6	2
103	Lipoprotein profiling methodology based on determination of apolipoprotein concentration. Bioanalysis, 2017, 9, 9-19.	0.6	2
104	Fake metabolomics chromatogram generation for facilitating deep learning of peak-picking neural networks. Journal of Bioscience and Bioengineering, 2021, 131, 207-212.	1.1	2
105	Comparative ¹³ Câ€metabolic flux analysis indicates elevation of ATP regeneration, carbon dioxide, and heat production in industrial <i>Saccharomyces cerevisiae</i> strains. Biotechnology Journal, 2022, 17, e2000438.	1.8	2
106	Hydrophilic Metabolite Analysis. Journal of the Mass Spectrometry Society of Japan, 2017, 65, 195-198.	0.0	1
107	Expression of Saccharomyces cerevisiae cDNAs to enhance the growth of non-ethanol-producing S.Acerevisiae strains lacking pyruvate decarboxylases. Journal of Bioscience and Bioengineering, 2018, 126, 317-321.	1.1	1
108	Editorial overview: Recent progress in analytical technologies for design-build-test-learn cycle in biotechnology. Current Opinion in Biotechnology, 2018, 54, 145-147.	3.3	1

#	Article	IF	CITATIONS
109	Survival of membrane-damaged Escherichia coli in a cytosol-mimicking solution. Journal of Bioscience and Bioengineering, 2019, 128, 558-563.	1.1	1
110	Comparative Evaluation of Plasma Metabolomic Data from Multiple Laboratories. Metabolites, 2022, 12, 135.	1.3	1
111	Automated Recommendation of Research Keywords from PubMed That Suggest the Molecular Mechanism Associated with Biomarker Metabolites. Metabolites, 2022, 12, 133.	1.3	1
112	Constitutive expression of the global regulator AbrB restores the growth defect of a genome-reduced <i>Bacillus subtilis</i> strain and improves its metabolite production. DNA Research, 2022, 29, .	1.5	1
113	<i>In Silico</i> Metabolic Pathway Design and ¹³ C-Based Metabolic Flux Analysis for Bio-Production. Kagaku To Seibutsu, 2015, 53, 455-461.	0.0	0
114	Application Studies Using Metabolomics. Journal of the Mass Spectrometry Society of Japan, 2017, 65, 220-222.	0.0	0
115	Analysis of Metabolic Dynamics in Metabolomics: Measurement of Metabolic Dynamics by Mass Spectrometry <i>via</i> Isotope Labeling Kinetics. Journal of the Mass Spectrometry Society of Japan, 2017, 65, 210-214.	0.0	0
116	Rewiring of embryonic glucose metabolism via suppression of PFK-1 and aldolase during mouse chorioallantoic branching. Journal of Cell Science, 2017, 130, e1.1-e1.1.	1.2	0
117	Effects of Organic Solvents on Cancer Metabolism. Journal of the Mass Spectrometry Society of Japan, 2020, 68, 90-92.	0.0	Ο