

# Silas G Villas-Bañás

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7251828/publications.pdf>

Version: 2024-02-01

116  
papers

6,231  
citations

66343

42  
h-index

71685

76  
g-index

128  
all docs

128  
docs citations

128  
times ranked

8466  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mass spectrometry in metabolome analysis. <i>Mass Spectrometry Reviews</i> , 2005, 24, 613-646.	5.4	513
2	Global metabolite analysis of yeast: evaluation of sample preparation methods. <i>Yeast</i> , 2005, 22, 1155-1169.	1.7	365
3	Analytical platform for metabolome analysis of microbial cells using methyl chloroformate derivatization followed by gas chromatography-mass spectrometry. <i>Nature Protocols</i> , 2010, 5, 1709-1729.	12.0	360
4	Whole grain-rich diet reduces body weight and systemic low-grade inflammation without inducing major changes of the gut microbiome: a randomised cross-over trial. <i>Gut</i> , 2019, 68, 83-93.	12.1	278
5	Simultaneous analysis of amino and nonamino organic acids as methyl chloroformate derivatives using gas chromatography-mass spectrometry. <i>Analytical Biochemistry</i> , 2003, 322, 134-138.	2.4	177
6	Fish oil supplements in New Zealand are highly oxidised and do not meet label content of n-3 PUFA. <i>Scientific Reports</i> , 2015, 5, 7928.	3.3	176
7	Linking high-resolution metabolic flux phenotypes and transcriptional regulation in yeast modulated by the global regulator Gcn4p. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 6477-6482.	7.1	154
8	High-throughput metabolic state analysis: the missing link in integrated functional genomics of yeasts. <i>Biochemical Journal</i> , 2005, 388, 669-677.	3.7	147
9	Cold glycerol-saline: The promising quenching solution for accurate intracellular metabolite analysis of microbial cells. <i>Analytical Biochemistry</i> , 2007, 370, 87-97.	2.4	142
10	The metabolic basis of <i>Candida albicans</i> morphogenesis and quorum sensing. <i>Fungal Genetics and Biology</i> , 2011, 48, 747-763.	2.1	141
11	Analysis of Intracellular Metabolites from Microorganisms: Quenching and Extraction Protocols. <i>Metabolites</i> , 2017, 7, 53.	2.9	127
12	A low-gluten diet induces changes in the intestinal microbiome of healthy Danish adults. <i>Nature Communications</i> , 2018, 9, 4630.	12.8	124
13	Metab: an R package for high-throughput analysis of metabolomics data generated by GC-MS. <i>Bioinformatics</i> , 2011, 27, 2316-2318.	4.1	123
14	Alkylation or Silylation for Analysis of Amino and Non-Amino Organic Acids by GC-MS?. <i>Metabolites</i> , 2011, 1, 3-20.	2.9	123
15	Highly Sensitive GC/MS/MS Method for Quantitation of Amino and Nonamino Organic Acids. <i>Analytical Chemistry</i> , 2011, 83, 2705-2711.	6.5	121
16	Metabolite profiling for analysis of yeast stress response during very high gravity ethanol fermentations. <i>Biotechnology and Bioengineering</i> , 2005, 90, 703-714.	3.3	116
17	Microbial conversion of lignocellulosic residues for production of animal feeds. <i>Animal Feed Science and Technology</i> , 2002, 98, 1-12.	2.2	111
18	Pathway Activity Profiling (PAPi): from the metabolite profile to the metabolic pathway activity. <i>Bioinformatics</i> , 2010, 26, 2969-2976.	4.1	107

#	ARTICLE	IF	CITATIONS
19	Fermentation performance and intracellular metabolite patterns in laboratory and industrial xylose-fermenting <i>Saccharomyces cerevisiae</i> . <i>Applied Microbiology and Biotechnology</i> , 2002, 59, 436-442.	3.6	98
20	Stable isotope coded derivatizing reagents as internal standards in metabolite profiling. <i>Journal of Chromatography A</i> , 2013, 1296, 196-203.	3.7	97
21	Extracellular metabolomics: A metabolic footprinting approach to assess fiber degradation in complex media. <i>Analytical Biochemistry</i> , 2006, 349, 297-305.	2.4	94
22	Extracellular Microbial Metabolomics: The State of the Art. <i>Metabolites</i> , 2017, 7, 43.	2.9	94
23	The biological interpretation of metabolomic data can be misled by the extraction method used. <i>Metabolomics</i> , 2012, 8, 410-421.	3.0	90
24	Fully Automated Trimethylsilyl (TMS) Derivatisation Protocol for Metabolite Profiling by GC-MS. <i>Metabolites</i> , 2017, 7, 1.	2.9	81
25	Intracellular metabolite profiling of <i>Fusarium oxysporum</i> converting glucose to ethanol. <i>Journal of Biotechnology</i> , 2005, 115, 425-434.	3.8	78
26	Sauvignon blanc metabolomics: grape juice metabolites affecting the development of varietal thiols and other aroma compounds in wines. <i>Metabolomics</i> , 2014, 10, 556-573.	3.0	74
27	Metabolomics or metabolite profiles?. <i>Trends in Biotechnology</i> , 2005, 23, 385-386.	9.3	72
28	The Potential of Metabolomics Tools in Bioremediation Studies. <i>OMICS A Journal of Integrative Biology</i> , 2007, 11, 305-313.	2.0	68
29	Hair Metabolomics: Identification of Fetal Compromise Provides Proof of Concept for Biomarker Discovery. <i>Theranostics</i> , 2014, 4, 953-959.	10.0	68
30	Metabolite secretion in microorganisms: the theory of metabolic overflow put to the test. <i>Metabolomics</i> , 2018, 14, 43.	3.0	66
31	Title is missing!. <i>World Journal of Microbiology and Biotechnology</i> , 2003, 19, 461-467.	3.6	62
32	Structural and functional characterization of a promiscuous feruloyl esterase (Est1E) from the rumen bacterium <i>Butyrivibrio proteoclasticus</i> . <i>Proteins: Structure, Function and Bioinformatics</i> , 2010, 78, 1457-1469.	2.6	62
33	Toxin-Antitoxin Systems of <i>Mycobacterium smegmatis</i> Are Essential for Cell Survival. <i>Journal of Biological Chemistry</i> , 2012, 287, 5340-5356.	3.4	59
34	Early pregnancy metabolite profiling discovers a potential biomarker for the subsequent development of gestational diabetes mellitus. <i>Acta Diabetologica</i> , 2014, 51, 887-890.	2.5	55
35	The Growth and Survival of <i>Mycobacterium smegmatis</i> Is Enhanced by Co-Metabolism of Atmospheric H <sub>2</sub> . <i>PLoS ONE</i> , 2014, 9, e103034.	2.5	55
36	Metabolite profiling of symbiont and host during thermal stress and bleaching in a model cnidarian-dinoflagellate symbiosis. <i>Journal of Experimental Biology</i> , 2015, 219, 516-27.	1.7	52

#	ARTICLE	IF	CITATIONS
37	Mitochondrial mutations and metabolic adaptation in pancreatic cancer. <i>Cancer &amp; Metabolism</i> , 2017, 5, 2.	5.0	51
38	Differential expression of novel metabolic and immunological biomarkers in oysters challenged with a virulent strain of OsHV-1. <i>Developmental and Comparative Immunology</i> , 2017, 73, 229-245.	2.3	50
39	Sonic vibration affects the metabolism of yeast cells growing in liquid culture: a metabolomic study. <i>Metabolomics</i> , 2012, 8, 670-678.	3.0	47
40	Clarifying the regulation of NO/N <sub>2</sub> O production in <i>Nitrosomonas europaea</i> during anoxic-oxic transition via flux balance analysis of a metabolic network model. <i>Water Research</i> , 2014, 60, 267-277.	11.3	47
41	A comparison of direct infusion MS and GC-MS for metabolic footprinting of yeast mutants. <i>Biotechnology and Bioengineering</i> , 2007, 96, 1014-1022.	3.3	45
42	Fermentation performance and intracellular metabolite profiling of <i>Fusarium oxysporum</i> cultivated on a glucose-xylose mixture. <i>Enzyme and Microbial Technology</i> , 2005, 36, 100-106.	3.2	43
43	Concentrations of the Volatile Thiol 3-Mercaptohexanol in Sauvignon blanc Wines: No Correlation with Juice Precursors. <i>American Journal of Enology and Viticulture</i> , 2012, 63, 407-412.	1.7	43
44	A metabolomic study of the effect of <i>Candida albicans</i> glutamate dehydrogenase deletion on growth and morphogenesis. <i>Npj Biofilms and Microbiomes</i> , 2019, 5, 13.	6.4	39
45	Global Metabolic Response of <i>Enterococcus faecalis</i> to Oxygen. <i>Journal of Bacteriology</i> , 2014, 196, 2012-2022.	2.2	37
46	Rapid Quantification of Major Volatile Metabolites in Fermented Food and Beverages Using Gas Chromatography-Mass Spectrometry. <i>Metabolites</i> , 2017, 7, 37.	2.9	37
47	Title is missing!. <i>World Journal of Microbiology and Biotechnology</i> , 2002, 18, 541-545.	3.6	34
48	Metabolic footprint analysis of recombinant <i>Escherichia coli</i> strains during fed-batch fermentations. <i>Molecular BioSystems</i> , 2011, 7, 899-910.	2.9	34
49	Maternal hair metabolome analysis identifies a potential marker of lipid peroxidation in gestational diabetes mellitus. <i>Acta Diabetologica</i> , 2016, 53, 119-122.	2.5	34
50	Nitrogen and carbon assimilation by <i>Saccharomyces cerevisiae</i> during Sauvignon blanc juice fermentation. <i>FEMS Yeast Research</i> , 2014, 14, 1206-1222.	2.3	33
51	Use of metabolomics for the identification and validation of clinical biomarkers for preterm birth: Preterm SAMBA. <i>BMC Pregnancy and Childbirth</i> , 2016, 16, 212.	2.4	33
52	An Exometabolomics Approach to Monitoring Microbial Contamination in Microalgal Fermentation Processes by Using Metabolic Footprint Analysis. <i>Applied and Environmental Microbiology</i> , 2011, 77, 7605-7610.	3.1	32
53	Biosynthesis of glyoxylate from glycine in. <i>FEMS Yeast Research</i> , 2005, 5, 703-709.	2.3	31
54	Transcriptional and Metabolomic Consequences of <i>luxS</i> Inactivation Reveal a Metabolic Rather than Quorum-Sensing Role for <i>LuxS</i> in <i>Lactobacillus reuteri</i> 100-23. <i>Journal of Bacteriology</i> , 2012, 194, 1743-1746.	2.2	31

#	ARTICLE	IF	CITATIONS
55	Impact of Grape Maturity and Ethanol Concentration on Sensory Properties of Washington State Merlot Wines. <i>American Journal of Enology and Viticulture</i> , 2017, 68, 344-356.	1.7	31
56	Vinegar Metabolomics: An Explorative Study of Commercial Balsamic Vinegars Using Gas Chromatography-Mass Spectrometry. <i>Metabolites</i> , 2016, 6, 22.	2.9	30
57	Linear Ion Trap MS <sup>n</sup> of Enzymatically Synthesized <sup>13</sup> C-Labeled Fructans Revealing Differentiating Fragmentation Patterns of I <sup>2</sup> (1-2) and I <sup>2</sup> (1-6) Fructans and Providing a Tool for Oligosaccharide Identification in Complex Mixtures. <i>Analytical Chemistry</i> , 2012, 84, 1540-1548.	6.5	29
58	The metabolic response of <i>Candida albicans</i> to farnesol under hyphae-inducing conditions. <i>FEMS Yeast Research</i> , 2012, 12, 879-889.	2.3	28
59	Comprehensive lipidome profiling of Sauvignon blanc grape juice. <i>Food Chemistry</i> , 2015, 180, 249-256.	8.2	27
60	The effect of linoleic acid on the Sauvignon blanc fermentation by different wine yeast strains. <i>FEMS Yeast Research</i> , 2016, 16, fow050.	2.3	27
61	A reverse-phase liquid chromatography/mass spectrometry method for the analysis of high-molecular-weight fructooligosaccharides. <i>Analytical Biochemistry</i> , 2009, 395, 113-115.	2.4	26
62	Identification of candidate biomarkers for quality assessment of hatchery-reared mussel larvae via GC/MS-based metabolomics. <i>New Zealand Journal of Marine and Freshwater Research</i> , 2015, 49, 87-95.	2.0	26
63	Linking genetic, metabolic, and phenotypic diversity among <i>Saccharomyces cerevisiae</i> strains using multi-omics associations. <i>GigaScience</i> , 2019, 8, .	6.4	25
64	Species-Specific Chemical Signatures in Scale Insect Honeydew. <i>Journal of Chemical Ecology</i> , 2011, 37, 1231-1241.	1.8	24
65	Metabolome analysis during the morphological transition of <i>Candida albicans</i> . <i>Metabolomics</i> , 2012, 8, 1204-1217.	3.0	24
66	Analysis of high-molecular-weight fructan polymers in crude plant extracts by high-resolution LC-MS. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 401, 2955-2963.	3.7	23
67	Chemicals eluting from disposable plastic syringes and syringe filters alter neurite growth, axogenesis and the microtubule cytoskeleton in cultured hippocampal neurons. <i>Journal of Neurochemistry</i> , 2015, 133, 53-65.	3.9	23
68	Modulation of Nitrous Oxide (N <sub>2</sub> O) Accumulation by Primary Metabolites in Denitrifying Cultures Adapting to Changes in Environmental C and N. <i>Environmental Science &amp; Technology</i> , 2017, 51, 13678-13688.	10.0	22
69	Can we predict the intracellular metabolic state of a cell based on extracellular metabolite data?. <i>Molecular BioSystems</i> , 2015, 11, 3297-3304.	2.9	21
70	Metabolic Engineering of <i>Fusarium oxysporum</i> to Improve Its Ethanol-Producing Capability. <i>Frontiers in Microbiology</i> , 2016, 7, 632.	3.5	21
71	Metabolic Response of <i>Candida albicans</i> to Phenylethyl Alcohol under Hyphae-Inducing Conditions. <i>PLoS ONE</i> , 2013, 8, e71364.	2.5	21
72	<i>Lactobacillus acidophilus</i> NCFM affects vitamin E acetate metabolism and intestinal bile acid signature in monocolonized mice. <i>Gut Microbes</i> , 2014, 5, 296-495.	9.8	19

#	ARTICLE	IF	CITATIONS
73	Phenotypic characterization of transposon-inserted mutants of <i>Clostridium proteoclasticum</i> B316T using extracellular metabolomics. <i>Journal of Biotechnology</i> , 2008, 134, 55-63.	3.8	18
74	Constitutive homologous expression of phosphoglucomutase and transaldolase increases the metabolic flux of <i>Fusarium oxysporum</i> . <i>Microbial Cell Factories</i> , 2014, 13, 43.	4.0	18
75	Metabolic profiling of mussel larvae: effect of handling and culture conditions. <i>Aquaculture International</i> , 2016, 24, 843-856.	2.2	18
76	Analytical methods from the perspective of method standardization. <i>Topics in Current Genetics</i> , 2007, 11-52.	0.7	17
77	Bioengineering Silicon Quantum Dot Theranostics using a Network Analysis of Metabolomic and Proteomic Data in Cardiac Ischemia. <i>Theranostics</i> , 2013, 3, 719-728.	10.0	17
78	Juice Index: an integrated Sauvignon blanc grape and wine metabolomics database shows mainly seasonal differences. <i>Metabolomics</i> , 2019, 15, 3.	3.0	17
79	Pre-fermentative supplementation of fatty acids alters the metabolic activity of wine yeasts. <i>Food Research International</i> , 2019, 121, 835-844.	6.2	17
80	Metabolite Profile of Cervicovaginal Fluids from Early Pregnancy Is Not Predictive of Spontaneous Preterm Birth. <i>International Journal of Molecular Sciences</i> , 2015, 16, 27741-27748.	4.1	16
81	Reference samples guide variable selection for correlation of wine sensory and volatile profiling data. <i>Food Chemistry</i> , 2018, 267, 344-354.	8.2	16
82	Calibration curve-free GC-MS method for quantitation of amino and non-amino organic acids in biological samples. <i>Metabolomics</i> , 2016, 12, 1.	3.0	15
83	Epipyron A, a Broad-Spectrum Antifungal Compound Produced by <i>Epicoccum nigrum</i> ICMP 19927. <i>Molecules</i> , 2020, 25, 5997.	3.8	15
84	Sampling and Sample Preparation. , 0, , 39-82.		14
85	Effect of free fatty acids and lipolysis on Sauvignon Blanc fermentation. <i>Australian Journal of Grape and Wine Research</i> , 2018, 24, 398-405.	2.1	13
86	Metabolic fingerprinting of <i>Lactobacillus paracasei</i> : the optimal quenching strategy. <i>Microbial Cell Factories</i> , 2015, 14, 132.	4.0	12
87	Assessment of nitric oxide (NO) redox reactions contribution to nitrous oxide (N <sub>2</sub> O) formation during nitrification using a multispecies metabolic network model. <i>Biotechnology and Bioengineering</i> , 2016, 113, 1124-1136.	3.3	11
88	Trace biomarkers associated with spontaneous preterm birth from the maternal serum metabolome of asymptomatic nulliparous women – parallel case-control studies from the SCOPE cohort. <i>Scientific Reports</i> , 2019, 9, 13701.	3.3	11
89	Genome Sequence of the Saprophytic Ascomycete <i>Epicoccum nigrum</i> Strain ICMP 19927, Isolated from New Zealand. <i>Genome Announcements</i> , 2017, 5, .	0.8	10
90	Metabolomics in Humans and Other Mammals. , 0, , 253-288.		9

#	ARTICLE	IF	CITATIONS
91	Influence of the RelA Activity on E. coli Metabolism by Metabolite Profiling of Glucose-Limited Chemostat Cultures. <i>Metabolites</i> , 2012, 2, 717-732.	2.9	9
92	Postprandial Responses to Lipid and Carbohydrate Ingestion in Repeated Subcutaneous Adipose Tissue Biopsies in Healthy Adults. <i>Nutrients</i> , 2015, 7, 5347-5361.	4.1	9
93	The fate of linoleic acid on <i>Saccharomyces cerevisiae</i> metabolism under aerobic and anaerobic conditions. <i>Metabolomics</i> , 2018, 14, 103.	3.0	9
94	Identification of New Natural Sources of Flavour and Aroma Metabolites from Solid-State Fermentation of Agro-Industrial By-Products. <i>Metabolites</i> , 2022, 12, 157.	2.9	9
95	Human urine metabolomic signature after ingestion of polyphenol-rich juice of purple grumixama ( <i>Eugenia brasiliensis</i> Lam.). <i>Food Research International</i> , 2019, 120, 544-552.	6.2	8
96	Sound Stimulation Can Affect <i>Saccharomyces cerevisiae</i> Growth and Production of Volatile Metabolites in Liquid Medium. <i>Metabolites</i> , 2021, 11, 605.	2.9	6
97	A Method to Calibrate Metabolic Network Models with Experimental Datasets. <i>Advances in Intelligent Systems and Computing</i> , 2014, , 183-190.	0.6	5
98	Impact of <i>Pseudomonas</i> sp. SVB-B33 on Stress- and Cell Wall-Related Genes in Roots and Leaves of Hemp under Salinity. <i>Horticulturae</i> , 2022, 8, 336.	2.8	5
99	Maternal-fetal hepatic and placental metabolome profiles are associated with reduced fetal growth in a rat model of maternal obesity. <i>Metabolomics</i> , 2016, 12, 1.	3.0	4
100	Rapid estimation of polysaccharide content in complex microbial culture media. <i>World Journal of Microbiology and Biotechnology</i> , 2007, 23, 873-876.	3.6	3
101	A Comparative Proteome Analysis of <i>Escherichia coli</i> $\Delta$ relA Mutant Cells. <i>Frontiers in Bioengineering and Biotechnology</i> , 2016, 4, 78.	4.1	3
102	Yeast Metabolomics: The Discovery of New Metabolic Pathways in <i>Saccharomyces Cerevisiae</i> . , 0, , 189-202.		2
103	Microbial Metabolomics: Rapid Sampling Techniques to Investigate Intracellular Metabolite DynamicsâAn Overview. , 0, , 203-214.		2
104	ANALYTICAL TECHNIQUES & APPLICATIONS OF METABOLOMICS IN SYSTEMS MEDICINE AND SYSTEMS BIOTECHNOLOGY. <i>Computational and Structural Biotechnology Journal</i> , 2013, 4, e201301001.	4.1	2
105	Metabolomics in Functional Genomics and Systems Biology. , 0, , 1-14.		1
106	Plant Metabolomics. , 0, , 215-238.		1
107	Analytical Tools. , 0, , 83-145.		1
108	Pigment production by New Zealand microbes: screening and industrial application. <i>New Biotechnology</i> , 2009, 25, S70.	4.4	1

#	ARTICLE	IF	CITATIONS
109	Applying a Metabolic Footprinting Approach to Characterize the Impact of the Recombinant Protein Production in Escherichia coli. <i>Advances in Intelligent and Soft Computing</i> , 2010, , 193-200.	0.2	1
110	Automated high through-put analysis of fractions generated during the isolation of natural products. <i>New Zealand Journal of Agricultural Research</i> , 2012, 55, 15-20.	1.6	1
111	Genome scale metabolic network reconstruction of the pathogen <i>Enterococcus faecalis</i> . <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013, 46, 131-136.	0.4	1
112	What is the relationship between intracellular and extracellular metabolites? The theory of "metabolic overflow" put into test. <i>New Biotechnology</i> , 2014, 31, S28-S29.	4.4	1
113	Introduction to Microbial Metabolomics. , 2016, , 1-12.		1
114	Evaluation of the Beneficial Effects of Phytonutrients by Metabolomics. , 2010, , 287-296.		0
115	Algorithms to infer metabolic flux ratios from fluxomics data. , 2013, , .		0
116	Linoleic acid increases ethanol production in <i>Saccharomyces cerevisiae</i> and is converted into conjugated linoleic acid under aerobiosis. <i>New Biotechnology</i> , 2016, 33, S205.	4.4	0