Laura Villanueva

List of Publications by Year
in descending order

75 papers	2,751 citations	159585 30 h-index	214800 47 g-index
79 all docs	79 docs citations	79 times ranked	2781 citing authors

#	Article	IF	Citations
1	Niche segregation of ammonia-oxidizing archaea and anammox bacteria in the Arabian Sea oxygen minimum zone. ISME Journal, 2011, 5, 1896-1904.	9.8	214
2	The bacterial sulfur cycle in expanding dysoxic and euxinic marine waters. Environmental Microbiology, 2021, 23, 2834-2857.	3.8	145
3	An overview of the occurrence of ether- and ester-linked iso-diabolic acid membrane lipids in microbial cultures of the Acidobacteria: Implications for brGDGT paleoproxies for temperature and pH. Organic Geochemistry, 2018, 124, 63-76.	1.8	117
4	Intact polar and core glycerol dibiphytanyl glycerol tetraether lipids in the Arabian Sea oxygen minimum zone: I. Selective preservation and degradation in the water column and consequences for the TEX86. Geochimica Et Cosmochimica Acta, 2012, 98, 228-243.	3.9	111
5	A re-evaluation of the archaeal membrane lipid biosynthetic pathway. Nature Reviews Microbiology, 2014, 12, 438-448.	28.6	110
6	Metagenomic analysis of nitrogen and methane cycling in the Arabian Sea oxygen minimum zone. PeerJ, 2016, 4, e1924.	2.0	77
7	Phylogenomic analysis of lipid biosynthetic genes of Archaea shed light on the â€˜lipid divideâ€™. Environmental Microbiology, 2017, 19, 54-69.	3.8	77
8	Inhibition of Bacterial Conjugation by Phage M13 and Its Protein g3p: Quantitative Analysis and Model. PLoS ONE, 2011, 6, e19991.	2.5	76
9	Linking isoprenoidal <scp>GDGT</scp> membrane lipid distributions with gene abundances of ammoniaâ€oxidizing <i><scp>T</scp>haumarchaeota</i> and uncultured crenarchaeotal groups in the water column of a tropical lake (<scp>L</scp>ake <scp>C</scp>halla, <scp>E</scp>ast) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5	3.8	75
10	Methane oxidation in anoxic lake water stimulated by nitrate and sulfate addition. Environmental Microbiology, 2020, 22, 766-782.	3.8	66
11	Bridging the membrane lipid divide: bacteria of the FCB group superphylum have the potential to synthesize archaeal ether lipids. ISME Journal, 2021, 15, 168-182.	9.8	62
12	A combined lipidomic and 16S <scp>rRNA</scp> gene amplicon sequencing approach reveals archaeal sources of intact polar lipids in the stratified Black Sea water column. Geobiology, 2019, 17, 91-109.	2.4	58
13	Benthic archaea as potential sources of tetraether membrane lipids in sediments across an oxygen minimum zone. Biogeosciences, 2018, 15, 4047-4064.	3.3	56
14	Anaerobic Degradation of Sulfated Polysaccharides by Two Novel Kiritimatiellales Strains Isolated From Black Sea Sediment. Frontiers in Microbiology, 2019, 10, 253.	3.5	56
15	Biological source and provenance of deep-water derived isoprenoid tetraether lipids along the Portuguese continental margin. Geochimica Et Cosmochimica Acta, 2016, 172, 177-204.	3.9	53
16	Occurrence and activity of anammox bacteria in surface sediments of the southern North Sea. FEMS Microbiology Ecology, 2014, 89, 99-110.	2.7	52
17	Genome-Wide Gene Expression Patterns and Growth Requirements Suggest that <i>Pelobacter carbinolicus</i> Reduces Fe(III) Indirectly via Sulfide Production. Applied and Environmental Microbiology, 2008, 74, 4277-4284.	3.1	48
18	New Insights Into the Polar Lipid Composition of Extremely Halo(alkali)philic Euryarchaea From Hypersaline Lakes. Frontiers in Microbiology, 2019, 10, 377.	3.5	48

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19	A diverse uncultivated microbial community is responsible for organic matter degradation in the Black Sea sulphidic zone. Environmental Microbiology, 2021, 23, 2709-2728.	3.8	47
20	Novel Mono-, Di-, and Trimethylornithine Membrane Lipids in Northern Wetland Planctomycetes. Applied and Environmental Microbiology, 2013, 79, 6874-6884.	3.1	44
21	Depthâ€related distribution of a key gene of the tetraether lipid biosynthetic pathway in marine <scp>T</scp>haumarchaeota. Environmental Microbiology, 2015, 17, 3527-3539.	3.8	44
22	Seasonality and depth distribution of the abundance and activity of ammonia oxidizing microorganisms in marine coastal sediments (North Sea). Frontiers in Microbiology, 2014, 5, 472.	3.5	42
23	Depth-related differences in archaeal populations impact the isoprenoid tetraether lipid composition of the Mediterranean Sea water column. Organic Geochemistry, 2019, 135, 16-31.	1.8	42
24	Shotgun metagenomic data reveals significant abundance but low diversity of â€œCandidatus Scalinduaâ€• marine anammox bacteria in the Arabian Sea oxygen minimum zone. Frontiers in Microbiology, 2014, 5, 31.	3.5	41
25	Abundant Trimethylornithine Lipids and Specific Gene Sequences Are Indicative of Planctomycete Importance at the Oxic/Anoxic Interface in Sphagnum-Dominated Northern Wetlands. Applied and Environmental Microbiology, 2015, 81, 6333-6344.	3.1	41
26	Are Marine Group II Euryarchaeota significant contributors to tetraether lipids in the ocean?. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E4285.	7.1	37
27	Potential biological sources of long chain alkyl diols in a lacustrine system. Organic Geochemistry, 2014, 68, 27-30.	1.8	35
28	Impact of metabolism and growth phase on the hydrogen isotopic composition of microbial fatty acids. Frontiers in Microbiology, 2015, 6, 408.	3.5	35
29	Different seasonality of pelagic and benthic Thaumarchaeota in the North Sea. Biogeosciences, 2013, 10, 7195-7206.	3.3	33
30	Combined Phospholipid Biomarker-16S rRNA Gene Denaturing Gradient Gel Electrophoresis Analysis of Bacterial Diversity and Physiological Status in an Intertidal Microbial Mat. Applied and Environmental Microbiology, 2004, 70, 6920-6926.	3.1	31
31	Pontiella desulfatans gen. nov., sp. nov., and Pontiella sulfatireligans sp. nov., Two Marine Anaerobes of the Pontiellaceae fam. nov. Producing Sulfated Glycosaminoglycan-like Exopolymers. Microorganisms, 2020, 8, 920.	3.6	31
32	Seasonal variability and sources of in situ brGDGT production in a permanently stratified African crater lake. Biogeosciences, 2020, 17, 5443-5463.	3.3	31
33	Abundance and Diversity of Denitrifying and Anammox Bacteria in Seasonally Hypoxic and Sulfidic Sediments of the Saline Lake Grevelingen. Frontiers in Microbiology, 2016, 7, 1661.	3.5	30
34	A quest for the biological sources of long chain alkyl diols in the western tropical North Atlantic Ocean. Biogeosciences, 2018, 15, 5951-5968.	3.3	30
35	The absence of intact polar lipid-derived GDGTs in marine waters dominated by Marine Group II: Implications for lipid biosynthesis in Archaea. Scientific Reports, 2020, 10, 294.	3.3	30
36	Analysis of diurnal and vertical microbial diversity of a hypersaline microbial mat. Archives of Microbiology, 2007, 188, 137-146.	2.2	29

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37	Nitrate promotes the transfer of methaneâ€derived carbon from the methanotroph <i>Methylobacter</i> sp. to the methylotroph <i>Methylotenera</i> sp. in eutrophic lake water. Limnology and Oceanography, 2021, 66, 878-891.	3.1	29
38	Monitoring Diel Variations of Physiological Status and Bacterial Diversity in an Estuarine Microbial Mat: An Integrated Biomarker Analysis. Microbial Ecology, 2007, 54, 523-531.	2.8	28
39	Elucidation and identification of amino acid containing membrane lipids using liquid chromatography/highâ€resolution mass spectrometry. Rapid Communications in Mass Spectrometry, 2016, 30, 739-750.	1.5	28
40	Impact of Seasonal Hypoxia on Activity and Community Structure of Chemolithoautotrophic Bacteria in a Coastal Sediment. Applied and Environmental Microbiology, 2017, 83, .	3.1	28
41	Potential recycling of thaumarchaeotal lipids by DPANN Archaea in seasonally hypoxic surface marine sediments. Organic Geochemistry, 2018, 119, 101-109.	1.8	26
42	Comparison of the effect of salinity on the D/H ratio of fatty acids of heterotrophic and photoautotrophic microorganisms. FEMS Microbiology Letters, 2015, 362, .	1.8	25
43	Lipidomics of Environmental Microbial Communities. I: Visualization of Component Distributions Using Untargeted Analysis of High-Resolution Mass Spectrometry Data. Frontiers in Microbiology, 2021, 12, 659302.	3.5	24
44	Lysine and novel hydroxylysine lipids in soil bacteria: amino acid membrane lipid response to temperature and pH in Pseudopedobacter saltans. Frontiers in Microbiology, 2015, 6, 637.	3.5	21
45	Archaeal Sources of Intact Membrane Lipid Biomarkers in the Oxygen Deficient Zone of the Eastern Tropical South Pacific. Frontiers in Microbiology, 2019, 10, 765.	3.5	21
46	Genetic biomarkers of the sterolâ€biosynthetic pathway in microalgae. Environmental Microbiology Reports, 2014, 6, 35-44.	2.4	20
47	Biosulfidogenesis Mediates Natural Attenuation in Acidic Mine Pit Lakes. Microorganisms, 2020, 8, 1275.	3.6	19
48	Cascabel: A Scalable and Versatile Amplicon Sequence Data Analysis Pipeline Delivering Reproducible and Documented Results. Frontiers in Genetics, 2020, 11, 489357.	2.3	19
49	Impact of Electron Acceptor Availability on Methane-Influenced Microorganisms in an Enrichment Culture Obtained From a Stratified Lake. Frontiers in Microbiology, 2020, 11, 715.	3.5	18
50	Seasonal and multi-annual variation in the abundance of isoprenoid GDGT membrane lipids and their producers in the water column of a meromictic equatorial crater lake (Lake Chala, East Africa). Quaternary Science Reviews, 2021, 273, 107263.	3.0	18
51	Diversity and physiology of polyhydroxyalkanoate-producing and -degrading strains in microbial mats. FEMS Microbiology Ecology, 2010, 74, 42-54.	2.7	17
52	Quantification of <i>Desulfovibrio vulgaris</i> Dissimilatory Sulfite Reductase Gene Expression during Electron Donor- and Electron Acceptor-Limited Growth. Applied and Environmental Microbiology, 2008, 74, 5850-5853.	3.1	15
53	Impact of culturing conditions on the abundance and composition of long chain alkyl diols in species of the genus Nannochloropsis. Organic Geochemistry, 2017, 108, 9-17.	1.8	15
54	Long-chain diols in rivers: distribution and potential biological sources. Biogeosciences, 2018, 15, 4147-4161.	3.3	15

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55	Anaerobic microbial methanol conversion in marine sediments. Environmental Microbiology, 2021, 23, 1348-1362.	3.8	15
56	Diversity and distribution of a key sulpholipid biosynthetic gene in marine microbial assemblages. Environmental Microbiology, 2014, 16, 774-787.	3.8	14
57	Organic Matter Type Defines the Composition of Active Microbial Communities Originating From Anoxic Baltic Sea Sediments. Frontiers in Microbiology, 2021, 12, 628301.	3.5	13
58	Intact Phospholipid and Quinone Biomarkers to Assess Microbial Diversity and Redox State in Microbial Mats. Microbial Ecology, 2010, 60, 226-238.	2.8	12
59	Fungi and viruses as important players in microbial mats. FEMS Microbiology Ecology, 2020, 96, .	2.7	12
60	The importance of biofilm formation for cultivation of a Micrarchaeon and its interactions with its Thermoplasmatales host. Nature Communications, 2022, 13, 1735.	12.8	12
61	Seasonal changes in the Dâ€¯â€¯/â€¯â€¯H ratio of fatty acids of pelagic microorganisms in the coastal North Sea. Biogeosciences, 2016, 13, 5527-5539.	3.3	11
62	Physiological, chemotaxonomic and genomic characterization of two novel piezotolerant bacteria of the family Marinifilaceae isolated from sulfidic waters of the Black Sea. Systematic and Applied Microbiology, 2020, 43, 126122.	2.8	11
63	Assessing the Effect of Humic Substances and Fe(III) as Potential Electron Acceptors for Anaerobic Methane Oxidation in a Marine Anoxic System. Microorganisms, 2020, 8, 1288.	3.6	11
64	Microbial community development on model particles in the deep sulfidic waters of the Black Sea. Environmental Microbiology, 2021, 23, 2729-2746.	3.8	11
65	The physiology and metabolic properties of a novel, lowâ€ abundance Psychrilyobacter species isolated from the anoxic Black Sea shed light on its ecological role. Environmental Microbiology Reports, 2021, 13, 899-910.	2.4	10
66	Biosynthesis of Long Chain Alkyl Diols and Long Chain Alkenols in <i>Nannochloropsis</i> spp. (Eustigmatophyceae). Plant and Cell Physiology, 2019, 60, 1666-1682.	3.1	9
67	Changes in the Distribution of Membrane Lipids during Growth of Thermotoga maritima at Different Temperatures: Indications for the Potential Mechanism of Biosynthesis of Ether-Bound Diabolic Acid (Membrane-Spanning) Lipids. Applied and Environmental Microbiology, 2022, 88, AEM0176321.	3.1	8
68	Interplay between microbial community composition and chemodiversity of dissolved organic matter throughout the Black Sea water column redox gradient. Limnology and Oceanography, 2022, 67, 329-347.	3.1	8
69	Assessing the metabolism of sedimentary microbial communities using the hydrogen isotopic composition of fatty acids. Organic Geochemistry, 2018, 124, 123-132.	1.8	7
70	Bacteriohopanetetrol-<i>x</i>: constraining its application as a lipid biomarker for marine anammox using the water column oxygen gradient of the Benguela upwelling system. Biogeosciences, 2022, 19, 201-221.	3.3	6
71	Physiological status and microbial diversity assessment of microbial mats: The signature lipid biomarker approach. Ophelia, 2004, 58, 165-173.	0.3	4
72	Engineering E. coli to Have a Hybrid Archaeal/Bacterial Membrane. Trends in Microbiology, 2018, 26, 559-560.	7.7	4

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73	Diagnostic amide products of amino lipids detected in the microaerophilic bacteria Lutibacter during routine fatty acid analysis using gas chromatography. Organic Geochemistry, 2020, 144, 104027.	1.8	3
74	Sources and seasonality of long-chain diols in a temperate lake (Lake Geneva). Organic Geochemistry, 2021, 156, 104223.	1.8	3
75	Novel hydrocarbon-utilizing soil mycobacteria synthesize unique mycocerosic acids at a Sicilian everlasting fire. Biogeosciences, 2021, 18, 1463-1479.	3.3	2