

Daniel Petras

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

16,137
citations

186265

28
h-index

118850

62
g-index

93
all docs

93
docs citations

93
times ranked

18886
citing authors

#	ARTICLE	IF	CITATIONS
1	Native mass spectrometry-based metabolomics identifies metal-binding compounds. <i>Nature Chemistry</i> , 2022, 14, 100-109.	13.6	30
2	GNPS Dashboard: collaborative exploration of mass spectrometry data in the web browser. <i>Nature Methods</i> , 2022, 19, 134-136.	19.0	35
3	Distinguishing the molecular diversity, nutrient content, and energetic potential of exometabolomes produced by macroalgae and reef-building corals A. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	28
4	The Sea Spray Chemistry and Particle Evolution study (SeaSCAPE): overview and experimental methods. <i>Environmental Sciences: Processes and Impacts</i> , 2022, 24, 290-315.	3.5	11
5	Assessment of styrene- <i>o</i> -divinylbenzene polymer (PPL) solid-phase extraction and non-targeted tandem mass spectrometry for the analysis of xenobiotics in seawater. <i>Limnology and Oceanography: Methods</i> , 2022, 20, 89-101.	2.0	6
6	The Diversity, Metabolomics Profiling, and the Pharmacological Potential of Actinomycetes Isolated from the Estremadura Spur Pockmarks (Portugal). <i>Marine Drugs</i> , 2022, 20, 21.	4.6	8
7	<i>Listeria monocytogenes</i> exposed to antimicrobial peptides displays differential regulation of lipids and proteins associated to stress response. <i>Cellular and Molecular Life Sciences</i> , 2022, 79, 263.	5.4	7
8	Applying Tissue Separation and Untargeted Metabolomics to Understanding Lipid Saturation Kinetics of Host Mitochondria and Symbiotic Algae in Corals Under High Temperature Stress. <i>Frontiers in Marine Science</i> , 2022, 9, .	2.5	1
9	<i>Bacillus subtilis</i> biofilm matrix components target seed oil bodies to promote growth and anti-fungal resistance in melon. <i>Nature Microbiology</i> , 2022, 7, 1001-1015.	13.3	30
10	Isotopic Insights into Organic Composition Differences between Supermicron and Submicron Sea Spray Aerosol. <i>Environmental Science & Technology</i> , 2022, 56, 9947-9958.	10.0	4
11	Mass Difference Matching Unfolds Hidden Molecular Structures of Dissolved Organic Matter. <i>Environmental Science & Technology</i> , 2022, 56, 11027-11040.	10.0	5
12	Organic Matter Composition at Ocean Station Papa Affects Its Bioavailability, Bacterioplankton Growth Efficiency and the Responding Taxa. <i>Frontiers in Marine Science</i> , 2021, 7, .	2.5	17
13	Auto-deconvolution and molecular networking of gas chromatography-mass spectrometry data. <i>Nature Biotechnology</i> , 2021, 39, 169-173.	17.5	78
14	Multiomics Analysis Provides Insight into the Laboratory Evolution of <i>Escherichia coli</i> toward the Metabolic Usage of Fluorinated Indoles. <i>ACS Central Science</i> , 2021, 7, 81-92.	11.3	27
15	Systematic classification of unknown metabolites using high-resolution fragmentation mass spectra. <i>Nature Biotechnology</i> , 2021, 39, 462-471.	17.5	317
16	Convergent evolution of pain-inducing defensive venom components in spitting cobras. <i>Science</i> , 2021, 371, 386-390.	12.6	96
17	A community resource for paired genomic and metabolomic data mining. <i>Nature Chemical Biology</i> , 2021, 17, 363-368.	8.0	81
18	Three-Dimensional Molecular Cartography of the Caribbean Reef-Building Coral <i>Orbicella faveolata</i> . <i>Frontiers in Marine Science</i> , 2021, 8, .	2.5	11

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19	Non-targeted tandem mass spectrometry enables the visualization of organic matter chemotype shifts in coastal seawater. <i>Chemosphere</i> , 2021, 271, 129450.	8.2	33
20	A Metabolic Choreography of Maize Plants Treated with a Humic Substance-Based Biostimulant under Normal and Starved Conditions. <i>Metabolites</i> , 2021, 11, 403.	2.9	21
21	Ion identity molecular networking for mass spectrometry-based metabolomics in the GNPS environment. <i>Nature Communications</i> , 2021, 12, 3832.	12.8	119
22	Chemical interplay and complementary adaptative strategies toggle bacterial antagonism and co-existence. <i>Cell Reports</i> , 2021, 36, 109449.	6.4	28
23	Molecular Commerce on Coral Reefs: Using Metabolomics to Reveal Biochemical Exchanges Underlying Holobiont Biology and the Ecology of Coastal Ecosystems. <i>Frontiers in Marine Science</i> , 2021, 8, .	2.5	12
24	Chemical Gradients of Plant Substrates in an <i>Atta texana</i> Fungus Garden. <i>MSystems</i> , 2021, 6, e0060121.	3.8	2
25	Chemical Proportionality within Molecular Networks. <i>Analytical Chemistry</i> , 2021, 93, 12833-12839.	6.5	22
26	Combined Molecular and Elemental Mass Spectrometry Approaches for Absolute Quantification of Proteomes: Application to the Venomics Characterization of the Two Species of Desert Black Cobras, <i>Walterinnesia aegyptia</i> and <i>Walterinnesia morgani</i> . <i>Journal of Proteome Research</i> , 2021, 20, 5064-5078.	3.7	10
27	Metabolomics and Molecular Networking to Characterize the Chemical Space of Four <i>Momordica</i> Plant Species. <i>Metabolites</i> , 2021, 11, 763.	2.9	23
28	Siderophore-mediated zinc acquisition enhances enterobacterial colonization of the inflamed gut. <i>Nature Communications</i> , 2021, 12, 7016.	12.8	35
29	Untargeted mass spectrometry-based metabolomics approach unveils molecular changes in raw and processed foods and beverages. <i>Food Chemistry</i> , 2020, 302, 125290.	8.2	52
30	Mass spectrometry searches using MASST. <i>Nature Biotechnology</i> , 2020, 38, 23-26.	17.5	160
31	Fungal-bacterial interaction selects for quorum sensing mutants with increased production of natural antifungal compounds. <i>Communications Biology</i> , 2020, 3, 670.	4.4	12
32	Database-independent molecular formula annotation using Gibbs sampling through ZODIAC. <i>Nature Machine Intelligence</i> , 2020, 2, 629-641.	16.0	103
33	Feature-based molecular networking in the GNPS analysis environment. <i>Nature Methods</i> , 2020, 17, 905-908.	19.0	650
34	ReDU: a framework to find and reanalyze public mass spectrometry data. <i>Nature Methods</i> , 2020, 17, 901-904.	19.0	79
35	Reproducible molecular networking of untargeted mass spectrometry data using GNPS. <i>Nature Protocols</i> , 2020, 15, 1954-1991.	12.0	344
36	Reproducible, interactive, scalable and extensible microbiome data science using QIIME 2. <i>Nature Biotechnology</i> , 2019, 37, 852-857.	17.5	11,167

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37	The extracellular matrix protects <i>Bacillus subtilis</i> colonies from <i>Pseudomonas</i> invasion and modulates plant co-colonization. <i>Nature Communications</i> , 2019, 10, 1919.	12.8	102
38	Intact protein mass spectrometry reveals intraspecies variations in venom composition of a local population of <i>Vipera kaznakovi</i> in Northeastern Turkey. <i>Journal of Proteomics</i> , 2019, 199, 31-50.	2.4	22
39	<i>Solenodon</i> genome reveals convergent evolution of venom in eulipotyphlan mammals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 25745-25755.	7.1	42
40	Tundrenone: An Atypical Secondary Metabolite from Bacteria with Highly Restricted Primary Metabolism. <i>Journal of the American Chemical Society</i> , 2018, 140, 2002-2006.	13.7	23
41	Transcriptomics-guided bottom-up and top-down venomomics of neonate and adult specimens of the arboreal rear-fanged Brown Treesnake, <i>Boiga irregularis</i> , from Guam. <i>Journal of Proteomics</i> , 2018, 174, 71-84.	2.4	47
42	The medical threat of mamba envenoming in sub-Saharan Africa revealed by genus-wide analysis of venom composition, toxicity and antivenomics profiling of available antivenoms. <i>Journal of Proteomics</i> , 2018, 172, 173-189.	2.4	80
43	Molecular insights into antibiotic resistance - how a binding protein traps albicidin. <i>Nature Communications</i> , 2018, 9, 3095.	12.8	32
44	From single cells to our planetâ€”recent advances in using mass spectrometry for spatially resolved metabolomics. <i>Current Opinion in Chemical Biology</i> , 2017, 36, 24-31.	6.1	75
45	Protein-species quantitative venomomics: looking through a crystal ball. <i>Journal of Venomous Animals and Toxins Including Tropical Diseases</i> , 2017, 23, 27.	1.4	26
46	Combined venom profiling and cytotoxicity screening of the Radde's mountain viper (<i>Montivipera</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 A549 lung carcinoma cells. <i>Toxicon</i> , 2017, 135, 71-83.	1.6	30
47	Meta-mass shift chemical profiling of metabolomes from coral reefs. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 11685-11690.	7.1	57
48	Total Synthesis and Biological Assessment of Novel Albicidins Discovered by Mass Spectrometric Networking. <i>Chemistry - A European Journal</i> , 2017, 23, 15316-15321.	3.3	29
49	Significance estimation for large scale metabolomics annotations by spectral matching. <i>Nature Communications</i> , 2017, 8, 1494.	12.8	128
50	Mass Spectrometry Based Molecular 3D-Cartography of Plant Metabolites. <i>Frontiers in Plant Science</i> , 2017, 8, 429.	3.6	24
51	High-Resolution Liquid Chromatography Tandem Mass Spectrometry Enables Large Scale Molecular Characterization of Dissolved Organic Matter. <i>Frontiers in Marine Science</i> , 2017, 4, .	2.5	94
52	Leader Peptideâ€”Free Inâ€”Vitro Reconstitution of Microviridin Biosynthesis Enables Design of Synthetic Proteaseâ€”Targeted Libraries. <i>Angewandte Chemie</i> , 2016, 128, 9544-9547.	2.0	7
53	Deuterium-Labeled Precursor Feeding Reveals a New <i>pABA</i> -Containing Meroterpenoid from the Mango Pathogen <i>Xanthomonas citri</i> pv. <i>mangiferaeindicae</i> . <i>Journal of Natural Products</i> , 2016, 79, 1532-1537.	3.0	12
54	Mass Spectrometry-Based Visualization of Molecules Associated with Human Habitats. <i>Analytical Chemistry</i> , 2016, 88, 10775-10784.	6.5	44

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55	Top-down venomics of the East African green mamba, <i>Dendroaspis angusticeps</i> , and the black mamba, <i>Dendroaspis polylepis</i> , highlight the complexity of their toxin arsenals. <i>Journal of Proteomics</i> , 2016, 146, 148-164.	2.4	60
56	The O-Carbamoyl-Transferase Alb15 Is Responsible for the Modification of Albicidin. <i>ACS Chemical Biology</i> , 2016, 11, 1198-1204.	3.4	20
57	The gyrase inhibitor albicidin consists of p-aminobenzoic acids and cyanoalanine. <i>Nature Chemical Biology</i> , 2015, 11, 195-197.	8.0	126
58	Venom Proteomics of Indonesian King Cobra, <i>Ophiophagus hannah</i> : Integrating Top-Down and Bottom-Up Approaches. <i>Journal of Proteome Research</i> , 2015, 14, 2539-2556.	3.7	90
59	Mass spectrometry guided venom profiling and bioactivity screening of the Anatolian Meadow Viper, <i>Vipera anatolica</i> . <i>Toxicon</i> , 2015, 107, 163-174.	1.6	41
60	Snake Venomics of African Spitting Cobras: Toxin Composition and Assessment of Congeneric Cross-Reactivity of the Pan-African EchiTAB-Plus-ICP Antivenom by Antivenomics and Neutralization Approaches. <i>Journal of Proteome Research</i> , 2011, 10, 1266-1280.	3.7	191