

Daniel Petras

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

16,137
citations

185998

28
h-index

118652

62
g-index

93
all docs

93
docs citations

93
times ranked

18886
citing authors

#	ARTICLE	IF	CITATIONS
1	Reproducible, interactive, scalable and extensible microbiome data science using QIIME 2. <i>Nature Biotechnology</i> , 2019, 37, 852-857.	9.4	11,167
2	Feature-based molecular networking in the GNPS analysis environment. <i>Nature Methods</i> , 2020, 17, 905-908.	9.0	650
3	Reproducible molecular networking of untargeted mass spectrometry data using GNPS. <i>Nature Protocols</i> , 2020, 15, 1954-1991.	5.5	344
4	Systematic classification of unknown metabolites using high-resolution fragmentation mass spectra. <i>Nature Biotechnology</i> , 2021, 39, 462-471.	9.4	317
5	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.	1.8	191
6	Mass spectrometry searches using MASST. <i>Nature Biotechnology</i> , 2020, 38, 23-26.	9.4	160
7	Significance estimation for large scale metabolomics annotations by spectral matching. <i>Nature Communications</i> , 2017, 8, 1494.	5.8	128
8	The gyrase inhibitor albicidin consists of p-aminobenzoic acids and cyanoalanine. <i>Nature Chemical Biology</i> , 2015, 11, 195-197.	3.9	126
9	Ion identity molecular networking for mass spectrometry-based metabolomics in the GNPS environment. <i>Nature Communications</i> , 2021, 12, 3832.	5.8	119
10	Database-independent molecular formula annotation using Gibbs sampling through ZODIAC. <i>Nature Machine Intelligence</i> , 2020, 2, 629-641.	8.3	103
11	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.	5.8	102
12	Convergent evolution of pain-inducing defensive venom components in spitting cobras. <i>Science</i> , 2021, 371, 386-390.	6.0	96
13	High-Resolution Liquid Chromatography Tandem Mass Spectrometry Enables Large Scale Molecular Characterization of Dissolved Organic Matter. <i>Frontiers in Marine Science</i> , 2017, 4, .	1.2	94
14	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.	1.8	90
15	A community resource for paired genomic and metabolomic data mining. <i>Nature Chemical Biology</i> , 2021, 17, 363-368.	3.9	81
16	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.	1.2	80
17	ReDU: a framework to find and reanalyze public mass spectrometry data. <i>Nature Methods</i> , 2020, 17, 901-904.	9.0	79
18	Auto-deconvolution and molecular networking of gas chromatography-mass spectrometry data. <i>Nature Biotechnology</i> , 2021, 39, 169-173.	9.4	78

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19	From single cells to our planet – recent advances in using mass spectrometry for spatially resolved metabolomics. <i>Current Opinion in Chemical Biology</i> , 2017, 36, 24-31.	2.8	75
20	Top-down venomomics 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.	1.2	60
21	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.	3.3	57
22	Untargeted mass spectrometry-based metabolomics approach unveils molecular changes in raw and processed foods and beverages. <i>Food Chemistry</i> , 2020, 302, 125290.	4.2	52
23	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.	1.2	47
24	Mass Spectrometry-Based Visualization of Molecules Associated with Human Habitats. <i>Analytical Chemistry</i> , 2016, 88, 10775-10784.	3.2	44
25	Solenodon 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.	3.3	42
26	Mass spectrometry guided venom profiling and bioactivity screening of the Anatolian Meadow Viper, <i>Vipera anatolica</i> . <i>Toxicon</i> , 2015, 107, 163-174.	0.8	41
27	Siderophore-mediated zinc acquisition enhances enterobacterial colonization of the inflamed gut. <i>Nature Communications</i> , 2021, 12, 7016.	5.8	35
28	GNPS Dashboard: collaborative exploration of mass spectrometry data in the web browser. <i>Nature Methods</i> , 2022, 19, 134-136.	9.0	35
29	Non-targeted tandem mass spectrometry enables the visualization of organic matter chemotype shifts in coastal seawater. <i>Chemosphere</i> , 2021, 271, 129450.	4.2	33
30	Molecular insights into antibiotic resistance - how a binding protein traps albicidin. <i>Nature Communications</i> , 2018, 9, 3095.	5.8	32
31	Combined venom profiling and cytotoxicity screening of the Radde's mountain viper (<i>Montivipera</i>) Tj ETQq1 1 0.784314 rgBT /Overl A549 lung carcinoma cells. <i>Toxicon</i> , 2017, 135, 71-83.	0.8	30
32	Native mass spectrometry-based metabolomics identifies metal-binding compounds. <i>Nature Chemistry</i> , 2022, 14, 100-109.	6.6	30
33	<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.	5.9	30
34	Total Synthesis and Biological Assessment of Novel Albicidins Discovered by Mass Spectrometric Networking. <i>Chemistry - A European Journal</i> , 2017, 23, 15316-15321.	1.7	29
35	Chemical interplay and complementary adaptive strategies toggle bacterial antagonism and co-existence. <i>Cell Reports</i> , 2021, 36, 109449.	2.9	28
36	Distinguishing the molecular diversity, nutrient content, and energetic potential of exometabolomes produced by macroalgae and reef-building corals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	28

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37	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.	5.3	27
38	Protein-species quantitative venomics: looking through a crystal ball. <i>Journal of Venomous Animals and Toxins Including Tropical Diseases</i> , 2017, 23, 27.	0.8	26
39	Mass Spectrometry Based Molecular 3D-Cartography of Plant Metabolites. <i>Frontiers in Plant Science</i> , 2017, 8, 429.	1.7	24
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.	6.6	23
41	Metabolomics and Molecular Networking to Characterize the Chemical Space of Four <i>Momordica</i> Plant Species. <i>Metabolites</i> , 2021, 11, 763.	1.3	23
42	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.	1.2	22
43	Chemical Proportionality within Molecular Networks. <i>Analytical Chemistry</i> , 2021, 93, 12833-12839.	3.2	22
44	A Metabolic Choreography of Maize Plants Treated with a Humic Substance-Based Biostimulant under Normal and Starved Conditions. <i>Metabolites</i> , 2021, 11, 403.	1.3	21
45	The O-Carbamoyl-Transferase Alb15 Is Responsible for the Modification of Albicidin. <i>ACS Chemical Biology</i> , 2016, 11, 1198-1204.	1.6	20
46	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, .	1.2	17
47	Deuterium-Labeled Precursor Feeding Reveals a New ABA-Containing Meroterpenoid from the Mango Pathogen <i>Xanthomonas citri</i> pv. <i>mangiferaeindicae</i> . <i>Journal of Natural Products</i> , 2016, 79, 1532-1537.	1.5	12
48	Fungal-bacterial interaction selects for quorum sensing mutants with increased production of natural antifungal compounds. <i>Communications Biology</i> , 2020, 3, 670.	2.0	12
49	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, .	1.2	12
50	Three-Dimensional Molecular Cartography of the Caribbean Reef-Building Coral <i>Orbicella faveolata</i> . <i>Frontiers in Marine Science</i> , 2021, 8, .	1.2	11
51	The Sea Spray Chemistry and Particle Evolution study (SeaSCAPE): overview and experimental methods. <i>Environmental Sciences: Processes and Impacts</i> , 2022, 24, 290-315.	1.7	11
52	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.	1.8	10
53	The Diversity, Metabolomics Profiling, and the Pharmacological Potential of Actinomycetes Isolated from the Estremadura Spur Pockmarks (Portugal). <i>Marine Drugs</i> , 2022, 20, 21.	2.2	8
54	Leader Peptide-Free In-Vitro Reconstitution of Microviridin Biosynthesis Enables Design of Synthetic Protease-Targeted Libraries. <i>Angewandte Chemie</i> , 2016, 128, 9544-9547.	1.6	7

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55	Listeria monocytogenes exposed to antimicrobial peptides displays differential regulation of lipids and proteins associated to stress response. Cellular and Molecular Life Sciences, 2022, 79, 263.	2.4	7
56	Assessment of styrene- <i>co</i> -divinylbenzene polymer (PPL) solid-phase extraction and non-targeted tandem mass spectrometry for the analysis of xenobiotics in seawater. Limnology and Oceanography: Methods, 2022, 20, 89-101.	1.0	6
57	Mass Difference Matching Unfolds Hidden Molecular Structures of Dissolved Organic Matter. Environmental Science & Technology, 2022, 56, 11027-11040.	4.6	5
58	Isotopic Insights into Organic Composition Differences between Supermicron and Submicron Sea Spray Aerosol. Environmental Science & Technology, 2022, 56, 9947-9958.	4.6	4
59	Chemical Gradients of Plant Substrates in an <i>Atta texana</i> Fungus Garden. MSystems, 2021, 6, e0060121.	1.7	2
60	Applying Tissue Separation and Untargeted Metabolomics to Understanding Lipid Saturation Kinetics of Host Mitochondria and Symbiotic Algae in Corals Under High Temperature Stress. Frontiers in Marine Science, 2022, 9, .	1.2	1