

Peter K Weber

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

105
papers

7,091
citations

39
h-index

83
g-index

126
ext. papers

8,202
ext. citations

8
avg, IF

5.68
L-index

#	Paper	IF	Citations
105	N-doping of graphene through electrothermal reactions with ammonia. <i>Science</i> , 2009 , 324, 768-71	33.3	1842
104	Mineral protection of soil carbon counteracted by root exudates. <i>Nature Climate Change</i> , 2015 , 5, 588-595	21.4	443
103	A bacterium that can grow by using arsenic instead of phosphorus. <i>Science</i> , 2011 , 332, 1163-6	33.3	331
102	Advances in imaging secondary ion mass spectrometry for biological samples. <i>Annual Review of Biophysics</i> , 2009 , 38, 53-74	21.1	246
101	Phase separation of lipid membranes analyzed with high-resolution secondary ion mass spectrometry. <i>Science</i> , 2006 , 313, 1948-51	33.3	239
100	Extracellular proteins limit the dispersal of biogenic nanoparticles. <i>Science</i> , 2007 , 316, 1600-3	33.3	221
99	Linking microbial phylogeny to metabolic activity at the single-cell level by using enhanced element labeling-catalyzed reporter deposition fluorescence in situ hybridization (EL-FISH) and NanoSIMS. <i>Applied and Environmental Microbiology</i> , 2008 , 74, 3143-50	4.8	200
98	An arbuscular mycorrhizal fungus significantly modifies the soil bacterial community and nitrogen cycling during litter decomposition. <i>Environmental Microbiology</i> , 2013 , 15, 1870-81	5.2	196
97	Direct chemical evidence for sphingolipid domains in the plasma membranes of fibroblasts. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, E613-22	11.5	157
96	Fixation and fate of C and N in the cyanobacterium <i>Trichodesmium</i> using nanometer-scale secondary ion mass spectrometry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 6345-50	11.5	133
95	Carbon and nitrogen fixation and metabolite exchange in and between individual cells of <i>Anabaena oscillarioides</i> . <i>ISME Journal</i> , 2007 , 1, 354-60	11.9	123
94	Sphingolipid domains in the plasma membranes of fibroblasts are not enriched with cholesterol. <i>Journal of Biological Chemistry</i> , 2013 , 288, 16855-16861	5.4	113
93	High-pressure highly reduced nitrides and oxides from chromitite of a Tibetan ophiolite. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 19233-8	11.5	109
92	Element partitioning between magnesium silicate perovskite and ferropericlasite: New insights into bulk lower-mantle geochemistry. <i>Earth and Planetary Science Letters</i> , 2008 , 269, 164-174	5.3	107
91	Subcellular metal imaging identifies dynamic sites of Cu accumulation in <i>Chlamydomonas</i> . <i>Nature Chemical Biology</i> , 2014 , 10, 1034-42	11.7	106
90	In search of the dead zone: Use of otoliths for tracking fish exposure to hypoxia. <i>Journal of Marine Systems</i> , 2015 , 141, 167-178	2.7	102
89	Experimental determination of the sources of otolith carbon and associated isotopic fractionation. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2006 , 63, 79-89	2.4	94

88	Nano-scale investigation of the association of microbial nitrogen residues with iron (hydr)oxides in a forest soil O-horizon. <i>Geochimica Et Cosmochimica Acta</i> , 2012 , 95, 213-226	5.5	77
87	Cyanobacterial reuse of extracellular organic carbon in microbial mats. <i>ISME Journal</i> , 2016 , 10, 1240-51	11.9	74
86	Imaging and 3D elemental characterization of intact bacterial spores by high-resolution secondary ion mass spectrometry. <i>Analytical Chemistry</i> , 2008 , 80, 5986-92	7.8	73
85	Tracking microbial interactions with NanoSIMS. <i>Current Opinion in Biotechnology</i> , 2016 , 41, 114-121	11.4	69
84	NanoSIP: NanoSIMS applications for microbial biology. <i>Methods in Molecular Biology</i> , 2012 , 881, 375-408	1.4	68
83	Size, growth, and origin-dependent mortality of juvenile Chinook salmon <i>Oncorhynchus tshawytscha</i> during early ocean residence. <i>Marine Ecology - Progress Series</i> , 2013 , 487, 163-175	2.6	65
82	An astronomical 2175 angstrom feature in interplanetary dust particles. <i>Science</i> , 2005 , 307, 244-7	33.3	64
81	Salmon origin in California's Sacramento-San Joaquin river system as determined by otolith strontium isotopic composition. <i>Geology</i> , 1999 , 27, 851	5	64
80	Oxygen isotope variations at the margin of a CAI records circulation within the solar nebula. <i>Science</i> , 2011 , 331, 1175-8	33.3	63
79	Constraints on the formation age of cometary material from the NASA Stardust mission. <i>Science</i> , 2010 , 328, 483-6	33.3	61
78	Advances in the Analysis of Biogeochemical Interfaces. <i>Advances in Agronomy</i> , 2013 , 1-46	7.7	57
77	Identification of a novel cyanobacterial group as active diazotrophs in a coastal microbial mat using NanoSIMS analysis. <i>ISME Journal</i> , 2012 , 6, 1427-39	11.9	56
76	Otolith sulfur isotope method to reconstruct salmon (<i>Oncorhynchus tshawytscha</i>) life history. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2002 , 59, 587-591	2.4	55
75	Revisiting N-fixation in Guerrero Negro intertidal microbial mats with a functional single-cell approach. <i>ISME Journal</i> , 2015 , 9, 485-96	11.9	52
74	High-throughput isotopic analysis of RNA microarrays to quantify microbial resource use. <i>ISME Journal</i> , 2012 , 6, 1210-21	11.9	51
73	Migration and rearing histories of chinook salmon (<i>Oncorhynchus tshawytscha</i>) determined by ion microprobe Sr isotope and Sr/Ca transects of otoliths. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2004 , 61, 2425-2439	2.4	48
72	Establishment of stable synthetic mutualism without co-evolution between microalgae and bacteria demonstrated by mutual transfer of metabolites (NanoSIMS isotopic imaging) and persistent physical association (Fluorescent in situ hybridization). <i>Algal Research</i> , 2016 , 15, 179-186	5	48
71	Anoxic carbon flux in photosynthetic microbial mats as revealed by metatranscriptomics. <i>ISME Journal</i> , 2013 , 7, 817-29	11.9	47

70	Supported membrane composition analysis by secondary ion mass spectrometry with high lateral resolution. <i>Biophysical Journal</i> , 2005 , 88, 2965-75	2.9	45
69	Fermentation couples Chloroflexi and sulfate-reducing bacteria to Cyanobacteria in hypersaline microbial mats. <i>Frontiers in Microbiology</i> , 2014 , 5, 61	5.7	43
68	Qingsongite, natural cubic boron nitride: The first boron mineral from the Earth's mantle. <i>American Mineralogist</i> , 2014 , 99, 764-772	2.9	42
67	Hydrogen production in photosynthetic microbial mats in the Elkhorn Slough estuary, Monterey Bay. <i>ISME Journal</i> , 2012 , 6, 863-74	11.9	41
66	Hemagglutinin clusters in the plasma membrane are not enriched with cholesterol and sphingolipids. <i>Biophysical Journal</i> , 2015 , 108, 1652-1659	2.9	38
65	Correlated AFM and NanoSIMS imaging to probe cholesterol-induced changes in phase behavior and non-ideal mixing in ternary lipid membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2011 , 1808, 307-15	3.8	36
64	Elevated temperature increases carbon and nitrogen fluxes between phytoplankton and heterotrophic bacteria through physical attachment. <i>ISME Journal</i> , 2017 , 11, 641-650	11.9	35
63	Reconstructing the Migratory Behavior and Long-Term Survivorship of Juvenile Chinook Salmon under Contrasting Hydrologic Regimes. <i>PLoS ONE</i> , 2015 , 10, e0122380	3.7	35
62	Correlated SEM, FIB-SEM, TEM, and NanoSIMS imaging of microbes from the hindgut of a lower termite: methods for in situ functional and ecological studies of uncultivable microbes. <i>Microscopy and Microanalysis</i> , 2013 , 19, 1490-501	0.5	33
61	Evaluating otolith Sr/Ca as a tool for reconstructing estuarine habitat use. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2011 , 68, 360-373	2.4	33
60	Manganese co-localizes with calcium and phosphorus in acidocalcisomes and is mobilized in manganese-deficient conditions. <i>Journal of Biological Chemistry</i> , 2019 , 294, 17626-17641	5.4	32
59	Fluorinated colloidal gold immunolabels for imaging select proteins in parallel with lipids using high-resolution secondary ion mass spectrometry. <i>Bioconjugate Chemistry</i> , 2012 , 23, 450-60	6.3	31
58	Genome Evolution and Nitrogen Fixation in Bacterial Ectosymbionts of a Protist Inhabiting Wood-Feeding Cockroaches. <i>Applied and Environmental Microbiology</i> , 2016 , 82, 4682-4695	4.8	30
57	FORMATION OF THE SHORT-LIVED RADIONUCLIDE ³⁶ Cl IN THE PROTOPLANETARY DISK DURING LATE-STAGE IRRADIATION OF A VOLATILE-RICH RESERVOIR. <i>Astrophysical Journal Letters</i> , 2011 , 731, L28	7.9	30
56	Quantitative analysis of supported membrane composition using the NanoSIMS. <i>Applied Surface Science</i> , 2006 , 252, 6950-6956	6.7	30
55	Phylogenetic patterns in the microbial response to resource availability: amino acid incorporation in San Francisco Bay. <i>PLoS ONE</i> , 2014 , 9, e95842	3.7	29
54	Hydrogen self-diffusion in single crystal olivine and electrical conductivity of the Earth's mantle. <i>Scientific Reports</i> , 2017 , 7, 5344	4.9	28
53	Formation of spinel-, hibonite-rich inclusions found in CM2 carbonaceous chondrites. <i>American Mineralogist</i> , 2006 , 91, 1675-1687	2.9	28

52	Ion microprobe measurement of strontium isotopes in calcium carbonate with application to salmon otoliths. <i>Geochimica Et Cosmochimica Acta</i> , 2005 , 69, 1225-1239	5.5	28
51	Managed metapopulations: do salmon hatchery 'sources' lead to in-river 'sinks' in conservation?. <i>PLoS ONE</i> , 2012 , 7, e28880	3.7	28
50	Spatially resolved characterization of water and ion incorporation in Bacillus spores. <i>Applied and Environmental Microbiology</i> , 2010 , 76, 3275-82	4.8	27
49	Attachment between heterotrophic bacteria and microalgae influences symbiotic microscale interactions. <i>Environmental Microbiology</i> , 2018 , 20, 4385-4400	5.2	25
48	Identification of Desulfobacterales as primary hydrogenotrophs in a complex microbial mat community. <i>Geobiology</i> , 2014 , 12, 221-30	4.3	24
47	Phylogenetically conserved resource partitioning in the coastal microbial loop. <i>ISME Journal</i> , 2017 , 11, 2781-2792	11.9	24
46	NanoSIMS imaging of Bacillus spores sectioned by focused ion beam. <i>Journal of Microscopy</i> , 2010 , 238, 189-99	1.9	23
45	Response to Comments on "A Bacterium That Can Grow Using Arsenic Instead of Phosphorus". <i>Science</i> , 2011 , 332, 1149-1149	33.3	21
44	Chemical imaging with NanoSIMS: A window into deep-Earth geochemistry. <i>Earth and Planetary Science Letters</i> , 2007 , 262, 543-551	5.3	21
43	Multimodal LA-ICP-MS and nanoSIMS imaging enables copper mapping within photoreceptor megamitochondria in a zebrafish model of Menkes disease. <i>Metallomics</i> , 2018 , 10, 474-485	4.5	20
42	Three-dimensional imaging of cholesterol and sphingolipids within a Madin-Darby canine kidney cell. <i>Biointerphases</i> , 2016 , 11, 02A309	1.8	20
41	Endangered winter-run Chinook salmon rely on diverse rearing habitats in a highly altered landscape. <i>Biological Conservation</i> , 2018 , 217, 358-362	6.2	19
40	Spatially resolved chemical imaging of individual atmospheric particles using nanoscale imaging mass spectrometry: insight into particle origin and chemistry. <i>Analytical Methods</i> , 2014 , 6, 2444-2451	3.2	19
39	Secondary ion mass spectrometry imaging of biological membranes at high spatial resolution. <i>Methods in Molecular Biology</i> , 2013 , 950, 483-501	1.4	19
38	Oxygen isotopic variations in the outer margins and Warköflövering rims of refractory inclusions. <i>Geochimica Et Cosmochimica Acta</i> , 2016 , 186, 242-276	5.5	18
37	Taxon-specific C/N relative use efficiency for amino acids in an estuarine community. <i>FEMS Microbiology Ecology</i> , 2013 , 83, 402-12	4.3	18
36	Applied focused ion beam techniques for sample preparation of astromaterials for integrated nanoanalysis. <i>Meteoritics and Planetary Science</i> , 2008 , 43, 561-569	2.8	18
35	Deposition of vaporized species onto glassy fallout from a near-surface nuclear test. <i>Geochimica Et Cosmochimica Acta</i> , 2017 , 201, 410-426	5.5	17

34	Object-oriented engineering data exchange as a base for automatic generation of simulation models 2009 ,		17
33	Characterizing Chemoautotrophy and Heterotrophy in Marine Archaea and Bacteria With Single-Cell Multi-isotope NanoSIP. <i>Frontiers in Microbiology</i> , 2019 , 10, 2682	5.7	16
32	Temporal succession in carbon incorporation from macromolecules by particle-attached bacteria in marine microcosms. <i>Environmental Microbiology Reports</i> , 2016 , 8, 68-75	3.7	14
31	Identification and characterization of Nanobodies targeting the EphA4 receptor. <i>Journal of Biological Chemistry</i> , 2017 , 292, 11452-11465	5.4	13
30	Microscale Isotopic Variation in Uranium Fuel Pellets with Implications for Nuclear Forensics. <i>Analytical Chemistry</i> , 2019 , 91, 11598-11605	7.8	13
29	Light Regimes Shape Utilization of Extracellular Organic C and N in a Cyanobacterial Biofilm. <i>MBio</i> , 2016 , 7,	7.8	13
28	Studies on bacteria-like particles sampled from the stratosphere. <i>Aerobiologia</i> , 2004 , 20, 237-240	2.4	12
27	Selective collection of iron-rich dust particles by natural Trichodesmium colonies. <i>ISME Journal</i> , 2020 , 14, 91-103	11.9	11
26	Influence of Light on Particulate Organic Matter Utilization by Attached and Free-Living Marine Bacteria. <i>Frontiers in Microbiology</i> , 2019 , 10, 1204	5.7	9
25	Hydrogen accumulation in and at the perimeter of U ^{IV} inclusions in uranium. A SIMS analysis. <i>Journal of Alloys and Compounds</i> , 2015 , 645, S225-S229	5.7	9
24	The role of soil redox conditions in microbial phosphorus cycling in humid tropical forests. <i>Ecology</i> , 2020 , 101, e02928	4.6	9
23	High Initial Sputter Rate Found for Vaccinia Virions Using Isotopic Labeling, NanoSIMS, and AFM. <i>Analytical Chemistry</i> , 2018 , 90, 1613-1620	7.8	7
22	Cholesterol is enriched in the sphingolipid patches on the substrate near nonpolarized MDCK cells, but not in the sphingolipid domains in their plasma membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2018 , 1860, 2004-2011	3.8	7
21	Hyphae move matter and microbes to mineral microsites: Integrating the hyphosphere into conceptual models of soil organic matter stabilization.. <i>Global Change Biology</i> , 2022 ,	11.4	7
20	Isotopes and genes reveal freshwater origins of Chinook salmon <i>Oncorhynchus tshawytscha</i> aggregations in California's coastal ocean. <i>Marine Ecology - Progress Series</i> , 2016 , 548, 181-196	2.6	7
19	Active virus-host interactions at sub-freezing temperatures in Arctic peat soil. <i>Microbiome</i> , 2021 , 9, 208	16.6	6
18	Bidirectional C and N transfer and a potential role for sulfur in an epiphytic diazotrophic mutualism. <i>ISME Journal</i> , 2020 , 14, 3068-3078	11.9	6
17	Uncovering uranium isotopic heterogeneity of fuel pellets from the fifth collaborative materials exercise of The Nuclear Forensics International Technical Working Group. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2020 , 326, 1853-1866	1.5	5

16	Quantitative isotope incorporation reveals substrate partitioning in a coastal microbial community. <i>FEMS Microbiology Ecology</i> , 2018 , 94,	4.3	4
15	Correction for Finzi-Hart et al., Fixation and fate of C and N in the cyanobacterium <i>Trichodesmium</i> using nanometer-scale secondary ion mass spectrometry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 9931-9931	11.5	4
14	Threatened salmon rely on a rare life history strategy in a warming landscape. <i>Nature Climate Change</i> , 2021 , 11, 982-988	21.4	4
13	Plants and mycorrhizal symbionts acquire substantial soil nitrogen from gaseous ammonia transport. <i>New Phytologist</i> , 2021 , 231, 1746-1757	9.8	4
12	Metagenomic analysis of intertidal hypersaline microbial mats from Elkhorn Slough, California, grown with and without molybdate. <i>Standards in Genomic Sciences</i> , 2017 , 12, 67		3
11	Chip-SIP: Stable Isotope Probing Analyzed with rRNA-Targeted Microarrays and NanoSIMS. <i>Methods in Molecular Biology</i> , 2019 , 2046, 71-87	1.4	3
10	A Phased Array System for the Acquisition of Ultrasonic RF-Data up to 20 MHz. <i>Acoustical Imaging</i> , 2004 , 25-32		3
9	Wavefront shaping with a Hadamard basis for scattering soil imaging.. <i>Applied Optics</i> , 2022 , 61, F47-F54	1.7	2
8	High-Resolution Imaging of the Distributions of Cholesterol, Sphingolipids, and Specific Proteins in the Plasma Membrane with Secondary Ion Mass Spectrometry. <i>Microscopy and Microanalysis</i> , 2015 , 21, 2397-2398	0.5	1
7	Adaptive optics multiphoton microscope for imaging microbial processes in highly scattering soil and roots 2020 ,		1
6	Measuring Cyanobacterial Metabolism in Biofilms with NanoSIMS Isotope Imaging and Scanning Electron Microscopy (SEM). <i>Bio-protocol</i> , 2017 , 7, e2263	0.9	1
5	Ecology of active viruses and their bacterial hosts in frozen Arctic peat soil revealed with H218O stable isotope probing metagenomics		1
4	Metagenomics reveals niche partitioning within the phototrophic zone of a microbial mat. <i>PLoS ONE</i> , 2018 , 13, e0202792	3.7	1
3	Community RNA-Seq: multi-kingdom responses to living versus decaying roots in soil. <i>ISME Communications</i> , 2021 , 1,		1
2	NanoSIP: NanoSIMS Applications for Microbial Biology. <i>Methods in Molecular Biology</i> , 2022 , 2349, 91-136	1.4	0
1	Correlated Imaging of Topology and Composition Within Phase-separated Supported Lipid Membranes. <i>Microscopy and Microanalysis</i> , 2020 , 26, 1602-1603	0.5	