

Andreas Richter

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.

490
papers

35,051
citations

93
h-index

166
g-index

622
ext. papers

41,557
ext. citations

6.5
avg, IF

7.13
L-index

#	Paper	IF	Citations
490	Increase in tropospheric nitrogen dioxide over China observed from space. <i>Nature</i> , 2005 , 437, 129-32	50.4	1116
489	The Global Ozone Monitoring Experiment (GOME): Mission Concept and First Scientific Results. <i>Journals of the Atmospheric Sciences</i> , 1999 , 56, 151-175	2.1	888
488	ACE2 links amino acid malnutrition to microbial ecology and intestinal inflammation. <i>Nature</i> , 2012 , 487, 477-81	50.4	756
487	Environmental and stoichiometric controls on microbial carbon-use efficiency in soils. <i>New Phytologist</i> , 2012 , 196, 79-91	9.8	728
486	Nitrososphaera viennensis, an ammonia oxidizing archaeon from soil. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 8420-5	11.5	644
485	A moderately thermophilic ammonia-oxidizing crenarchaeote from a hot spring. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 2134-9	11.5	548
484	Halogens and their role in polar boundary-layer ozone depletion. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 4375-4418	6.8	494
483	Non-structural carbon compounds in temperate forest trees. <i>Plant, Cell and Environment</i> , 2003 , 26, 1067-1081	10.81	487
482	Dynamic oxidation of gaseous mercury in the Arctic troposphere at polar sunrise. <i>Environmental Science & Technology</i> , 2002 , 36, 1245-56	10.3	484
481	An improved tropospheric NO ₂ column retrieval algorithm for the Ozone Monitoring Instrument. <i>Atmospheric Measurement Techniques</i> , 2011 , 4, 1905-1928	4	456
480	Carbon use efficiency of microbial communities: stoichiometry, methodology and modelling. <i>Ecology Letters</i> , 2013 , 16, 930-9	10	436
479	The application of ecological stoichiometry to plant-microbial-soil organic matter transformations. <i>Ecological Monographs</i> , 2015 , 85, 133-155	9	431
478	Who is who in litter decomposition? Metaproteomics reveals major microbial players and their biogeochemical functions. <i>ISME Journal</i> , 2012 , 6, 1749-62	11.9	421
477	amoA-based consensus phylogeny of ammonia-oxidizing archaea and deep sequencing of amoA genes from soils of four different geographic regions. <i>Environmental Microbiology</i> , 2012 , 14, 525-39	5.2	402
476	NO _x emission trends for China, 1995-2004: The view from the ground and the view from space. <i>Journal of Geophysical Research</i> , 2007 , 112,		386
475	Adjustment of microbial nitrogen use efficiency to carbon:nitrogen imbalances regulates soil nitrogen cycling. <i>Nature Communications</i> , 2014 , 5, 3694	17.4	373
474	The MACC reanalysis: an 8 yr data set of atmospheric composition. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 4073-4109	6.8	352

473	ATMOSPHERIC REMOTE-SENSING REFERENCE DATA FROM GOME. TEMPERATURE-DEPENDENT ABSORPTION CROSS SECTIONS OF O3 IN THE 231-294NM RANGE. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 1999 , 61, 509-517	2.1	337
472	Microbes as Engines of Ecosystem Function: When Does Community Structure Enhance Predictions of Ecosystem Processes?. <i>Frontiers in Microbiology</i> , 2016 , 7, 214	5.7	321
471	Stoichiometric imbalances between terrestrial decomposer communities and their resources: mechanisms and implications of microbial adaptations to their resources. <i>Frontiers in Microbiology</i> , 2014 , 5, 22	5.7	312
470	Tropospheric NO2 from GOME measurements. <i>Advances in Space Research</i> , 2002 , 29, 1673-1683	2.4	306
469	Antarctic springtime depletion of atmospheric mercury. <i>Environmental Science & Technology</i> , 2002 , 36, 1238-44	10.3	273
468	Root Exudation of Primary Metabolites: Mechanisms and Their Roles in Plant Responses to Environmental Stimuli. <i>Frontiers in Plant Science</i> , 2019 , 10, 157	6.2	253
467	Belowground carbon allocation by trees drives seasonal patterns of extracellular enzyme activities by altering microbial community composition in a beech forest soil. <i>New Phytologist</i> , 2010 , 187, 843-58	9.8	252
466	Thaumarchaeotes abundant in refinery nitrifying sludges express amoA but are not obligate autotrophic ammonia oxidizers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 16771-6	11.5	239
465	Simultaneous global observations of glyoxal and formaldehyde from space. <i>Geophysical Research Letters</i> , 2006 , 33,	4.9	237
464	Does photosynthesis affect grassland soil-respired CO2 and its carbon isotope composition on a diurnal timescale?. <i>New Phytologist</i> , 2009 , 182, 451-460	9.8	224
463	Microbial community dynamics alleviate stoichiometric constraints during litter decay. <i>Ecology Letters</i> , 2014 , 17, 680-90	10	221
462	Aerobic nitrous oxide production through N-nitrosating hybrid formation in ammonia-oxidizing archaea. <i>ISME Journal</i> , 2014 , 8, 1135-46	11.9	207
461	Seasonality and resource availability control bacterial and archaeal communities in soils of a temperate beech forest. <i>ISME Journal</i> , 2011 , 5, 389-402	11.9	207
460	Atmospheric composition change: Climate-Chemistry interactions. <i>Atmospheric Environment</i> , 2009 , 43, 5138-5192	5.3	206
459	The effect of resource quantity and resource stoichiometry on microbial carbon-use-efficiency. <i>FEMS Microbiology Ecology</i> , 2010 , 73, 430-40	4.3	205
458	Long-term change in the nitrogen cycle of tropical forests. <i>Science</i> , 2011 , 334, 664-6	33.3	203
457	Megacities as hot spots of air pollution in the East Mediterranean. <i>Atmospheric Environment</i> , 2011 , 45, 1223-1235	5.3	196
456	NxrB encoding the beta subunit of nitrite oxidoreductase as functional and phylogenetic marker for nitrite-oxidizing Nitrospira. <i>Environmental Microbiology</i> , 2014 , 16, 3055-71	5.2	193

455	ATMOSPHERIC REMOTE-SENSING REFERENCE DATA FROM GOME: PART 1. TEMPERATURE-DEPENDENT ABSORPTION CROSS-SECTIONS OF NO ₂ IN THE 231–294 nm RANGE. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 1998 , 60, 1025-1031	2.1	193
454	Long-term changes of tropospheric NO ₂ over megacities derived from multiple satellite instruments. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 4145-4169	6.8	192
453	Satellite-observed U.S. power plant NO _x emission reductions and their impact on air quality. <i>Geophysical Research Letters</i> , 2006 , 33,	4.9	191
452	Magnification of atmospheric mercury deposition to polar regions in springtime: The link to tropospheric ozone depletion chemistry. <i>Geophysical Research Letters</i> , 2001 , 28, 3219-3222	4.9	190
451	SO ₂ emissions and lifetimes: Estimates from inverse modeling using in situ and global, space-based (SCIAMACHY and OMI) observations. <i>Journal of Geophysical Research</i> , 2011 , 116,		182
450	Global patterns of phosphatase activity in natural soils. <i>Scientific Reports</i> , 2017 , 7, 1337	4.9	179
449	Metatranscriptomic census of active protists in soils. <i>ISME Journal</i> , 2015 , 9, 2178-90	11.9	175
448	Frost flowers on sea ice as a source of sea salt and their influence on tropospheric halogen chemistry. <i>Geophysical Research Letters</i> , 2004 , 31,	4.9	174
447	Microbial carbon use efficiency and biomass turnover times depending on soil depth – Implications for carbon cycling. <i>Soil Biology and Biochemistry</i> , 2016 , 96, 74-81	7.5	173
446	Validation of Ozone Monitoring Instrument nitrogen dioxide columns. <i>Journal of Geophysical Research</i> , 2008 , 113,		168
445	Experimental drought reduces the transfer of recently fixed plant carbon to soil microbes and alters the bacterial community composition in a mountain meadow. <i>New Phytologist</i> , 2014 , 201, 916-927 ^{9.8}	9.8	166
444	Essential role for collectrin in renal amino acid transport. <i>Nature</i> , 2006 , 444, 1088-91	50.4	166
443	Input of easily available organic C and N stimulates microbial decomposition of soil organic matter in arctic permafrost soil. <i>Soil Biology and Biochemistry</i> , 2014 , 75, 143-151	7.5	165
442	Stoichiometric controls of nitrogen and phosphorus cycling in decomposing beech leaf litter. <i>Ecology</i> , 2012 , 93, 770-82	4.6	165
441	Nitrogen fixation by phyllosphere bacteria associated with higher plants and their colonizing epiphytes of a tropical lowland rainforest of Costa Rica. <i>ISME Journal</i> , 2008 , 2, 561-70	11.9	160
440	Heterotrophic microbial communities use ancient carbon following glacial retreat. <i>Biology Letters</i> , 2007 , 3, 487-90	3.6	160
439	Functional diversity of the soil microflora in primary succession across two glacier forelands in the Central Alps. <i>European Journal of Soil Science</i> , 2003 , 54, 685-696	3.4	152
438	The influence of natural and anthropogenic secondary sources on the glyoxal global distribution. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 4965-4981	6.8	149

437	Host-compound foraging by intestinal microbiota revealed by single-cell stable isotope probing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 4720-5	11.5	147
436	Nitrification in terrestrial hot springs of Iceland and Kamchatka. <i>FEMS Microbiology Ecology</i> , 2008 , 64, 167-74	4.3	138
435	Tropospheric chemistry in the Integrated Forecasting System of ECMWF. <i>Geoscientific Model Development</i> , 2015 , 8, 975-1003	6.3	137
434	Summer drought alters carbon allocation to roots and root respiration in mountain grassland. <i>New Phytologist</i> , 2015 , 205, 1117-1127	9.8	135
433	Comparison of box-air-mass-factors and radiances for Multiple-Axis Differential Optical Absorption Spectroscopy (MAX-DOAS) geometries calculated from different UV/visible radiative transfer models. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 1809-1833	6.8	135
432	Non-structural carbohydrates in woody plants compared among laboratories. <i>Tree Physiology</i> , 2015 , 35, 1146-65	4.2	133
431	Microbial processes and community composition in the rhizosphere of European beech: The influence of plant C exudates. <i>Soil Biology and Biochemistry</i> , 2011 , 43, 551-558	7.5	133
430	Nitrification rates in Arctic soils are associated with functionally distinct populations of ammonia-oxidizing archaea. <i>ISME Journal</i> , 2013 , 7, 1620-31	11.9	131
429	NO ₂ columns in the western United States observed from space and simulated by a regional chemistry model and their implications for NO _x emissions. <i>Journal of Geophysical Research</i> , 2009 , 114,		131
428	Measuring atmospheric composition change. <i>Atmospheric Environment</i> , 2009 , 43, 5351-5414	5.3	130
427	Negligible contribution from roots to soil-borne phospholipid fatty acid fungal biomarkers 18:2 ω ,9 and 18:1 ω . <i>Soil Biology and Biochemistry</i> , 2010 , 42, 1650-1652	7.5	127
426	Temperature-dependent shift from labile to recalcitrant carbon sources of arctic heterotrophs. <i>Rapid Communications in Mass Spectrometry</i> , 2005 , 19, 1401-8	2.2	127
425	Disruption of AtMRP4, a guard cell plasma membrane ABC-type ABC transporter, leads to deregulation of stomatal opening and increased drought susceptibility. <i>Plant Journal</i> , 2004 , 39, 219-36	6.9	126
424	Global observations of tropospheric BrO columns using GOME-2 satellite data. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 1791-1811	6.8	123
423	Analysis for BrO in zenith-sky spectra: An intercomparison exercise for analysis improvement. <i>Journal of Geophysical Research</i> , 2002 , 107, ACH 10-1		121
422	Multi-model ensemble simulations of tropospheric NO ₂ compared with GOME retrievals for the year 2000. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 2943-2979	6.8	118
421	Satellite measurements of NO ₂ from international shipping emissions. <i>Geophysical Research Letters</i> , 2004 , 31,	4.9	117
420	Soil microbial carbon use efficiency and biomass turnover in a long-term fertilization experiment in a temperate grassland. <i>Soil Biology and Biochemistry</i> , 2016 , 97, 168-175	7.5	117

419	Inverse modelling of the spatial distribution of NO _x ; emissions on a continental scale using satellite data. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 1747-1770	6.8	115
418	Improving algorithms and uncertainty estimates for satellite NO ₂ retrievals: results from the quality assurance for the essential climate variables (QA4ECV) project. <i>Atmospheric Measurement Techniques</i> , 2018 , 11, 6651-6678	4	115
417	Distinct microbial communities associated with buried soils in the Siberian tundra. <i>ISME Journal</i> , 2014 , 8, 841-53	11.9	111
416	A pan-Arctic synthesis of CH ₄ and CO production from anoxic soil incubations. <i>Global Change Biology</i> , 2015 , 21, 2787-2803	11.4	110
415	An improved NO ₂ retrieval for the GOME-2 satellite instrument. <i>Atmospheric Measurement Techniques</i> , 2011 , 4, 1147-1159	4	110
414	Microbial temperature sensitivity and biomass change explain soil carbon loss with warming. <i>Nature Climate Change</i> , 2018 , 8, 885-889	21.4	110
413	Chemical characterization of air pollution in Eastern China and the Eastern United States. <i>Atmospheric Environment</i> , 2006 , 40, 2607-2625	5.3	109
412	Systematic analysis of interannual and seasonal variations of model-simulated tropospheric NO ₂ in Asia and comparison with GOME-satellite data. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 1671-1681	6.8	109
411	Sample preservation for determination of organic compounds: microwave versus freeze-drying. <i>Journal of Experimental Botany</i> , 1996 , 47, 1469-1473	7	106
410	Initial effects of experimental warming on carbon exchange rates, plant growth and microbial dynamics of a lichen-rich dwarf shrub tundra in Siberia. <i>Plant and Soil</i> , 2008 , 307, 191-205	4.2	105
409	Quantification and monosaccharide composition of hemicelluloses from different plant functional types. <i>Plant Physiology and Biochemistry</i> , 2010 , 48, 1-8	5.4	104
408	Multi-model simulations of the impact of international shipping on Atmospheric Chemistry and Climate in 2000 and 2030. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 757-780	6.8	104
407	Conservation of soil organic matter through cryoturbation in arctic soils in Siberia. <i>Journal of Geophysical Research</i> , 2007 , 112,		101
406	The 2005 and 2006 DANDELIONS NO ₂ and aerosol intercomparison campaigns. <i>Journal of Geophysical Research</i> , 2008 , 113,		100
405	Growth of nitrite-oxidizing bacteria by aerobic hydrogen oxidation. <i>Science</i> , 2014 , 345, 1052-4	33.3	99
404	Satellite remote sensing of changes in NO _x emissions over China during 1996-2010. <i>Science Bulletin</i> , 2012 , 57, 2857-2864		97
403	GOME-2 observations of oxygenated VOCs: what can we learn from the ratio glyoxal to formaldehyde on a global scale?. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 10145-10160	6.8	97
402	Seasonal variation in functional properties of microbial communities in beech forest soil. <i>Soil Biology and Biochemistry</i> , 2013 , 60, 95-104	7.5	95

401	Satellite observations of atmospheric SO ₂ from volcanic eruptions during the time-period of 1996-2002. <i>Advances in Space Research</i> , 2005 , 36, 879-887	2.4	95
400	Temporal and spatial variability of glyoxal as observed from space. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 4485-4504	6.8	94
399	Some measurements of stratospheric and tropospheric BrO. <i>Advances in Space Research</i> , 2002 , 29, 1667-1672	1.6	94
398	On the improvement of NO ₂ satellite retrievals aerosol impact on the air mass factors. <i>Atmospheric Measurement Techniques</i> , 2010 , 3, 475-493	4	93
397	Operational total and tropospheric NO ₂ column retrieval for GOME-2. <i>Atmospheric Measurement Techniques</i> , 2011 , 4, 1491-1514	4	93
396	Retrieval of vertical columns of sulfur dioxide from SCIAMACHY and OMI: Air mass factor algorithm development, validation, and error analysis. <i>Journal of Geophysical Research</i> , 2009 , 114,		93
395	Intercomparison of slant column measurements of NO ₂ and O ₄ by MAX-DOAS and zenith-sky UV and visible spectrometers. <i>Atmospheric Measurement Techniques</i> , 2010 , 3, 1629-1646	4	92
394	Structural uncertainty in air mass factor calculation for NO ₂ and HCHO satellite retrievals. <i>Atmospheric Measurement Techniques</i> , 2017 , 10, 759-782	4	91
393	Remote Sensing of Tropospheric Pollution from Space. <i>Bulletin of the American Meteorological Society</i> , 2008 , 89, 805-822	6.1	91
392	Convergence of soil nitrogen isotopes across global climate gradients. <i>Scientific Reports</i> , 2015 , 5, 8280	4.9	90
391	Testing and improving OMI DOMINO tropospheric NO ₂ using observations from the DANDELIONS and INTEX-B validation campaigns. <i>Journal of Geophysical Research</i> , 2010 , 115,		90
390	Determination of gross rates of amino acid production and immobilization in decomposing leaf litter by a novel ¹⁵ N isotope pool dilution technique. <i>Soil Biology and Biochemistry</i> , 2010 , 42, 1293-1302	7.5	89
389	Analysis of the Raffinose Family Oligosaccharide Pathway in Pea Seeds with Contrasting Carbohydrate Composition. <i>Plant Physiology</i> , 2001 , 127, 1764-1772	6.6	89
388	Plants control the seasonal dynamics of microbial N cycling in a beech forest soil by belowground C allocation. <i>Ecology</i> , 2011 , 92, 1036-51	4.6	87
387	myo-Inositol and sucrose concentrations affect the accumulation of raffinose family oligosaccharides in seeds. <i>Journal of Experimental Botany</i> , 2004 , 55, 1981-7	7	87
386	Short-term changes in carbon isotope composition of soluble carbohydrates and starch: from canopy leaves to the root system. <i>Rapid Communications in Mass Spectrometry</i> , 2006 , 20, 653-60	2.2	85
385	Remote sensing and inverse transport modeling of the Kasatochi eruption sulfur dioxide cloud. <i>Journal of Geophysical Research</i> , 2010 , 115,		83
384	Data assimilation of satellite-retrieved ozone, carbon monoxide and nitrogen dioxide with ECMWF's Composition-IFS. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 5275-5303	6.8	82

383	Standardized protocols and procedures can precisely and accurately quantify non-structural carbohydrates. <i>Tree Physiology</i> , 2018 , 38, 1764-1778	4.2	82
382	Increased microbial growth, biomass, and turnover drive soil organic carbon accumulation at higher plant diversity. <i>Global Change Biology</i> , 2020 , 26, 669-681	11.4	81
381	Microbial nitrogen dynamics in organic and mineral soil horizons along a latitudinal transect in western Siberia. <i>Global Biogeochemical Cycles</i> , 2015 , 29, 567-582	5.9	80
380	BrO, blizzards, and drivers of polar tropospheric ozone depletion events. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 4639-4652	6.8	80
379	Chemical and aerosol characterisation of the troposphere over West Africa during the monsoon period as part of AMMA. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 7575-7601	6.8	80
378	Variations of the increasing trend of tropospheric NO ₂ over central east China during the past decade. <i>Atmospheric Environment</i> , 2007 , 41, 4865-4876	5.3	77
377	Fungal and bacterial utilization of organic substrates depends on substrate complexity and N availability. <i>FEMS Microbiology Ecology</i> , 2014 , 87, 142-52	4.3	76
376	Decreasing emissions of NO _x relative to CO ₂ in East Asia inferred from satellite observations. <i>Nature Geoscience</i> , 2014 , 7, 792-795	18.3	76
375	Satellite measurement based estimates of decadal changes in European nitrogen oxides emissions. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 2623-2641	6.8	76
374	Widespread soil bacterium that oxidizes atmospheric methane. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 8515-8524	11.5	75
373	Economic crisis detected from space: Air quality observations over Athens/Greece. <i>Geophysical Research Letters</i> , 2013 , 40, 458-463	4.9	75
372	Microbial activities and foliar uptake of nitrogen in the epiphytic bromeliad <i>Vriesea gigantea</i> . <i>New Phytologist</i> , 2007 , 175, 311-320	9.8	75
371	Soil warming alters microbial substrate use in alpine soils. <i>Global Change Biology</i> , 2014 , 20, 1327-38	11.4	74
370	Microbial carbon limitation: The need for integrating microorganisms into our understanding of ecosystem carbon cycling. <i>Global Change Biology</i> , 2019 , 26, 1953	11.4	74
369	Exploring the missing source of glyoxal (CHOCHO) over China. <i>Geophysical Research Letters</i> , 2012 , 39, n/a-n/a	4.9	73
368	Chemical differences between seeds and elaiosomes indicate an adaptation to nutritional needs of ants. <i>Oecologia</i> , 2008 , 155, 539-47	2.9	73
367	Algorithm theoretical baseline for formaldehyde retrievals from S5P TROPOMI and from the QA4ECV project. <i>Atmospheric Measurement Techniques</i> , 2018 , 11, 2395-2426	4	73
366	Soil multifunctionality is affected by the soil environment and by microbial community composition and diversity. <i>Soil Biology and Biochemistry</i> , 2019 , 136, 107521	7.5	72

365	Dynamical control of NH and SH winter/spring total ozone from GOME observations in 1995-2002. <i>Geophysical Research Letters</i> , 2003 , 30,	4.9	72
364	Optimal metabolic regulation along resource stoichiometry gradients. <i>Ecology Letters</i> , 2017 , 20, 1182-1191	11.1	71
363	The Cabauw Intercomparison campaign for Nitrogen Dioxide measuring Instruments (CINDI): design, execution, and early results. <i>Atmospheric Measurement Techniques</i> , 2012 , 5, 457-485	4	71
362	Analysis of tropospheric NO _x over Asia using the model of atmospheric transport and chemistry (MATCH-MPIC) and GOME-satellite observations. <i>Atmospheric Environment</i> , 2004 , 38, 581-596	5.3	71
361	Decoupling of microbial carbon, nitrogen, and phosphorus cycling in response to extreme temperature events. <i>Science Advances</i> , 2017 , 3, e1602781	14.3	70
360	Evaluations of NO _x and highly reactive VOC emission inventories in Texas and their implications for ozone plume simulations during the Texas Air Quality Study 2006. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 11361-11386	6.8	70
359	Proteome analysis of fungal and bacterial involvement in leaf litter decomposition. <i>Proteomics</i> , 2010 , 10, 1819-30	4.8	70
358	Satellite measurements of daily variations in soil NO _x emissions. <i>Geophysical Research Letters</i> , 2005 , 32,	4.9	70
357	Chain Elongation of raffinose in pea seeds. Isolation, characterization, and molecular cloning of multifunctional enzyme catalyzing the synthesis of stachyose and verbascose. <i>Journal of Biological Chemistry</i> , 2002 , 277, 194-200	5.4	70
356	MAX-DOAS formaldehyde slant column measurements during CINDI: intercomparison and analysis improvement. <i>Atmospheric Measurement Techniques</i> , 2013 , 6, 167-185	4	69
355	Global observations of stratospheric bromine monoxide from SCIAMACHY. <i>Geophysical Research Letters</i> , 2005 , 32,	4.9	69
354	Intercomparison of BrO measurements from ERS-2 GOME, ground-based and balloon platforms. <i>Advances in Space Research</i> , 2002 , 29, 1661-1666	2.4	69
353	Microbial community composition shapes enzyme patterns in topsoil and subsoil horizons along a latitudinal transect in Western Siberia. <i>Soil Biology and Biochemistry</i> , 2015 , 83, 106-115	7.5	68
352	Effects of soil organic matter properties and microbial community composition on enzyme activities in cryoturbated arctic soils. <i>PLoS ONE</i> , 2014 , 9, e94076	3.7	68
351	Storage and transformation of organic matter fractions in cryoturbated permafrost soils across the Siberian Arctic. <i>Biogeosciences</i> , 2015 , 12, 4525-4542	4.6	67
350	Responses of belowground carbon allocation dynamics to extended shading in mountain grassland. <i>New Phytologist</i> , 2013 , 198, 116-126	9.8	67
349	Short-term dynamics of nonstructural carbohydrates and hemicelluloses in young branches of temperate forest trees during bud break. <i>Tree Physiology</i> , 2009 , 29, 901-11	4.2	67
348	Evaluation of the MOCAGE chemistry transport model during the ICARTT/ITOP experiment. <i>Journal of Geophysical Research</i> , 2007 , 112,		67

347	Preparation of starch and other carbon fractions from higher plant leaves for stable carbon isotope analysis. <i>Rapid Communications in Mass Spectrometry</i> , 2001 , 15, 1136-40	2.2	67
346	Linking Microbial and Ecosystem Ecology Using Ecological Stoichiometry: A Synthesis of Conceptual and Empirical Approaches. <i>Ecosystems</i> , 2011 , 14, 261-273	3.9	66
345	Production of dissolved organic carbon and low-molecular weight organic acids in soil solution driven by recent tree photosynthate. <i>Biogeochemistry</i> , 2007 , 84, 1-12	3.8	66
344	Inhibition of raffinose oligosaccharide breakdown delays germination of pea seeds. <i>Journal of Plant Physiology</i> , 2007 , 164, 1093-6	3.6	66
343	Temperature response of permafrost soil carbon is attenuated by mineral protection. <i>Global Change Biology</i> , 2018 , 24, 3401-3415	11.4	66
342	Convective forcing of mercury and ozone in the Arctic boundary layer induced by leads in sea ice. <i>Nature</i> , 2014 , 506, 81-4	50.4	65
341	Preparation of starch and soluble sugars of plant material for the analysis of carbon isotope composition: a comparison of methods. <i>Rapid Communications in Mass Spectrometry</i> , 2009 , 23, 2476-88	2.2	65
340	An intercomparison campaign of ground-based UV-visible measurements of NO ₂ , BrO, and OClO slant columns: Methods of analysis and results for NO ₂ . <i>Journal of Geophysical Research</i> , 2005 , 110,		65
339	GEM-AQ, an on-line global multiscale chemical weather modelling system: model description and evaluation of gas phase chemistry processes. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 3255-3281	6.8	64
338	Photosynthetic carbohydrate metabolism in the resurrection plant <i>Craterostigma plantagineum</i> . <i>Journal of Experimental Botany</i> , 2000 , 51, 159-65	7	64
337	Plant-derived compounds stimulate the decomposition of organic matter in arctic permafrost soils. <i>Scientific Reports</i> , 2016 , 6, 25607	4.9	64
336	Low yield and abiotic origin of NO formed by the complete nitrifier <i>Nitrospira inopinata</i> . <i>Nature Communications</i> , 2019 , 10, 1836	17.4	62
335	Nitrogen dynamics in Turbic Cryosols from Siberia and Greenland. <i>Soil Biology and Biochemistry</i> , 2013 , 67, 85-93	7.5	62
334	Site- and horizon-specific patterns of microbial community structure and enzyme activities in permafrost-affected soils of Greenland. <i>Frontiers in Microbiology</i> , 2014 , 5, 541	5.7	62
333	Significance of organic nitrogen acquisition for dominant plant species in an alpine meadow on the Tibet plateau, China. <i>Plant and Soil</i> , 2006 , 285, 221-231	4.2	62
332	Multi-annual changes of NO _x emissions in megacity regions: nonlinear trend analysis of satellite measurement based estimates. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 8481-8498	6.8	61
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46	Improving algorithms and uncertainty estimates for satellite NO ₂ retrievals: Results from the Quality Assurance for Essential Climate Variables (QA4ECV) project		2
45	The importance of surface reflectance anisotropy for cloud and NO ₂ retrievals from GOME-2 and OMI		2
44	Studies of the horizontal inhomogeneities in NO ₂ concentrations above a shipping lane using ground-based MAX-DOAS and airborne imaging DOAS measurements		2
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