Sergey Blagodatsky

List of Publications by Year in descending order

64 papers	4,541 citations	159585 30 h-index	123424 61 g-index
69 all docs	69 docs citations	69 times ranked	4864 citing authors

#	Article	IF	Citations
1	Soil C and N availability determine the priming effect: microbial N mining and stoichiometric decomposition theories. Global Change Biology, 2014, 20, 2356-2367.	9.5	758
2	Priming effects in Chernozem induced by glucose and N in relation to microbial growth strategies. Applied Soil Ecology, 2007, 37, 95-105.	4.3	355
3	Contrasting effects of glucose, living roots and maize straw on microbial growth kinetics and substrate availability in soil. European Journal of Soil Science, 2009, 60, 186-197.	3.9	202
4	Stimulation of microbial extracellular enzyme activities by elevated CO₂ depends on soil aggregate size. Global Change Biology, 2009, 15, 1603-1614.	9.5	185
5	Turnover of soil organic matter and of microbial biomass under C3â€“C4 vegetation change: Consideration of 13C fractionation and preferential substrate utilization. Soil Biology and Biochemistry, 2011, 43, 159-166.	8.8	176
6	Soil physics meets soil biology: Towards better mechanistic prediction of greenhouse gas emissions from soil. Soil Biology and Biochemistry, 2012, 47, 78-92.	8.8	173
7	Model of apparent and real priming effects: Linking microbial activity with soil organic matter decomposition. Soil Biology and Biochemistry, 2010, 42, 1275-1283.	8.8	172
8	Microbial Growth and Carbon Use Efficiency in the Rhizosphere and Root-Free Soil. PLoS ONE, 2014, 9, e93282.	2.5	169
9	Elevated atmospheric CO₂ increases microbial growth rates in soil: results of three CO₂ enrichment experiments. Global Change Biology, 2010, 16, 836-848.	9.5	153
10	Microbial interactions affect sources of priming induced by cellulose. Soil Biology and Biochemistry, 2014, 74, 39-49.	8.8	147
11	Microbial growth in soil and nitrogen turnover: a theoretical model considering the activity state of microorganisms. Soil Biology and Biochemistry, 1998, 30, 1743-1755.	8.8	144
12	Estimating the active and total soil microbial biomass by kinetic respiration analysis. Biology and Fertility of Soils, 2000, 32, 73-81.	4.3	142
13	Nitrogen availability regulates topsoil carbon dynamics after permafrost thaw by altering microbial metabolic efficiency. Nature Communications, 2018, 9, 3951.	12.8	135
14	Three-source-partitioning of microbial biomass and of CO2 efflux from soil to evaluate mechanisms of priming effects. Soil Biology and Biochemistry, 2011, 43, 778-786.	8.8	129
15	Temperature sensitivity and enzymatic mechanisms of soil organic matter decomposition along an altitudinal gradient on Mount Kilimanjaro. Scientific Reports, 2016, 6, 22240.	3.3	106
16	Effect of pH, temperature and substrate on N2O, NO and CO2 production by Alcaligenes faecalis p.. Journal of Applied Microbiology, 2006, 101, 655-667.	3.1	96
17	Model evaluation of different mechanisms driving freezeâ€“thaw N2O emissions. Agriculture, Ecosystems and Environment, 2009, 133, 196-207.	5.3	91
18	Decomposition of biogas residues in soil and their effects on microbial growth kinetics and enzyme activities. Biomass and Bioenergy, 2012, 45, 221-229.	5.7	90

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19	Comments on the paper by Kemmitt etÂal. (2008) â€˜Mineralization of native soil organic matter is not regulated by the size, activity or composition of the soil microbial biomass â€“ A new perspectiveâ€™ [Soil Biology & Biochemistry 40, 61â€“73]: The biology of the Regulatory Gate. Soil Biology and Biochemistry, 2009, 41, 435-439.	8.8	87
20	Stimulation of r- vs. K-selected microorganisms by elevated atmospheric CO2 depends on soil aggregate size. FEMS Microbiology Ecology, 2009, 69, 43-52.	2.7	73
21	Carbon balance of rubber (Hevea brasiliensis) plantations: A review of uncertainties at plot, landscape and production level. Agriculture, Ecosystems and Environment, 2016, 221, 8-19.	5.3	67
22	Microbial growth in soil and nitrogen turnover: Model calibration with laboratory data. Soil Biology and Biochemistry, 1998, 30, 1757-1764.	8.8	54
23	Oxygen and substrate availability interactively control the temperature sensitivity of CO2 and N2O emission from soil. Biology and Fertility of Soils, 2014, 50, 775-783.	4.3	53
24	Impact of herbicide application on soil erosion and induced carbon loss in a rubber plantation of Southwest China. Catena, 2016, 145, 180-192.	5.0	51
25	Response of bacterial and fungal communities to high petroleum pollution in different soils. Scientific Reports, 2021, 11, 164.	3.3	47
26	Soil respiration and carbon balance of gray forest soils as affected by land use. Biology and Fertility of Soils, 1998, 27, 251-257.	4.3	45
27	Land-use change impact on time-averaged carbon balances: Rubber expansion and reforestation in a biosphere reserve, South-West China. Forest Ecology and Management, 2016, 372, 149-163.	3.2	42
28	Soil microbial biomass and its activity estimated by kinetic respiration analysis â€“ Statistical guidelines. Soil Biology and Biochemistry, 2012, 45, 102-112.	8.8	36
29	Modelling of microbial carbon and nitrogen turnover in soil with special emphasis on N-trace gases emission. Plant and Soil, 2011, 346, 297-330.	3.7	35
30	Determination of microbial mineralization activity in soil by modified Wright and Hobbie method. Biology and Fertility of Soils, 1992, 14, 280-287.	4.3	34
31	Quantitative Isolation of Microbial DNA from Different Types of Soils of Natural and Agricultural Ecosystems. Microbiology, 2003, 72, 744-749.	1.2	31
32	Seasonal differences in soil respiration and methane uptake in rubber plantation and rainforest. Agriculture, Ecosystems and Environment, 2017, 240, 314-328.	5.3	29
33	Deep soil carbon storage in tree-dominated land use systems in tropical lowlands of Kalimantan. Geoderma, 2019, 354, 113864.	5.1	27
34	Environmental and socio-economic impacts of rubber cultivation in the Mekong region: challenges for sustainable land use.. CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources, 0, , 1-11.	1.0	27
35	Land-use change and management effects on carbon sequestration in soils of Russia's South Taiga zone. Tellus, Series B: Chemical and Physical Meteorology, 2003, 55, 331-337.	1.6	23
36	Rubber tree allometry, biomass partitioning and carbon stocks in mountainous landscapes of sub-tropical China. Forest Ecology and Management, 2017, 404, 84-99.	3.2	23

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37	Production of NO and N2O by the Heterotrophic NitrifierAlcaligenes faecalis parafaecalisunder Varying Conditions of Oxygen Saturation. Geomicrobiology Journal, 2006, 23, 165-176.	2.0	22
38	Extractability of microbial N as influenced by Câ€Š:â€ŠN ratio in the flush after drying or fumigation. Biology and Fertility of Soils, 1998, 28, 5-11.	4.3	20
39	Microbial biomass and growth kinetics of microorganisms in chernozem soils under different land use modes. Microbiology, 2008, 77, 99-106.	1.2	19
40	Soil microbial activity along an altitudinal gradient: Vegetation as a main driver beyond topographic and edaphic factors. Applied Soil Ecology, 2021, 168, 104197.	4.3	19
41	Symposium report: emerging threats for human health â€“ impact of socioeconomic and climate change on zoonotic diseases in the Republic of Sakha (Yakutia), Russia. International Journal of Circumpolar Health, 2020, 79, 1715698.	1.2	17
42	Mechanism of methane uptake in profiles of tropical soils converted from forest to rubber plantations. Soil Biology and Biochemistry, 2020, 145, 107796.	8.8	17
43	Kinetics of the respiratory response of the soil and rhizosphere microbial communities in a field experiment with an elevated concentration of atmospheric CO2. Eurasian Soil Science, 2006, 39, 290-297.	1.6	16
44	Modelling weed management strategies to control erosion in rubber plantations. Catena, 2019, 172, 345-355.	5.0	16
45	Systems approaches in global change and biogeochemistry research. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 311-321.	4.0	15
46	Climbing the mountain fast but smart: Modelling rubber tree growth and latex yield under climate change. Forest Ecology and Management, 2019, 439, 55-69.	3.2	14
47	Extractable Microbial DNA Pool and Microbial Activity in Paleosols of Southern Urals. Microbiology, 2003, 72, 750-755.	1.2	13
48	Assessing Ecosystem Services in Rubber Dominated Landscapes in South-East Asiaâ€”A Challenge for Biophysical Modeling and Transdisciplinary Valuation. Forests, 2017, 8, 505.	2.1	13
49	A global, empirical, harmonised dataset of soil organic carbon changes under perennial crops. Scientific Data, 2019, 6, 57.	5.3	13
50	DRIFTS band areas as measured pool size proxy to reduce parameter uncertainty in soil organic matter models. Biogeosciences, 2020, 17, 1393-1413.	3.3	13
51	Nitrogen immobilization and remineralization by microorganisms and nitrogen uptake by plants: Interactions and rate calculations. Geomicrobiology Journal, 1993, 11, 185-193.	2.0	12
52	Temperature dependence of the activity of polyphenol peroxidases and polyphenol oxidases in modern and buried soils. Eurasian Soil Science, 2014, 47, 459-465.	1.6	12
53	Converting forests into rubber plantations weakened the soil CH₄ sink in tropical uplands. Land Degradation and Development, 2019, 30, 2311-2322.	3.9	12
54	Microbial carbon use efficiency during plant residue decomposition: Integrating multi-enzyme stoichiometry and C balance approach. Applied Soil Ecology, 2021, 159, 103820.	4.3	11

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55	A mixed model for landscape soil organic carbon prediction across continuous profile depth in the mountainous subtropics. Geoderma, 2018, 330, 177-192.	5.1	10
56	Modeling temperature sensitivity of soil organic matter decomposition: Splitting the pools. Soil Biology and Biochemistry, 2021, 153, 108108.	8.8	10
57	Fertilizing effect of the increasing CO2 concentration in the atmosphere. Eurasian Soil Science, 2006, 39, S6-S14.	1.6	9
58	Nitrous oxide production in soils and the ratio of the fungal to bacterial biomass. Eurasian Soil Science, 2008, 41, 1448-1455.	1.6	8
59	Impact of forest cover and conservation agriculture on sediment export: A case study in a montane reserve, south-western China. Science of the Total Environment, 2020, 702, 134802.	8.0	8
60	The effect of earthworms on the physiological state of the microbial community at vermicomposting. Microbiology, 2009, 78, 510-519.	1.2	7
61	Soil sample drying temperature affects specific organic mid-DRIFTS peaks and quality indices. Geoderma, 2019, 355, 113897.	5.1	4
62	Impact of rubber plantation age on erosive potential studied with USLE model. Journal of Applied Water Engineering and Research, 2018, 6, 252-261.	1.8	3
63	Microbial respiration and functional diversity of soil microbial community under treeline shifts in the Northwestern Caucasus. RUDN Journal of Agronomy and Animal Industries, 2021, 16, 226-237.	0.1	0
64	Soil Organic Carbon Stocks Mapping In Mountainous Subtropics Using A 3D Mixed Model With Upscaling Capabilities. , 2019, , .		0