

Songchao Chen

List of Publications by Year in descending order

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78
papers

4,023
citations

109264

35
h-index

123376

61
g-index

85
all docs

85
docs citations

85
times ranked

2831
citing authors

#	ARTICLE	IF	CITATIONS
1	Hand-feel soil texture observations to evaluate the accuracy of digital soil maps for local prediction of soil particle size distribution: A case study in Central France. <i>Pedosphere</i> , 2023, 33, 731-743.	2.1	5
2	Digital soil mapping of organic carbon at two depths in loess hilly region of Northern Iran. , 2022, , 467-475.		2
3	Digital mapping of GlobalSoilMap soil properties at a broad scale: A review. <i>Geoderma</i> , 2022, 409, 115567.	2.3	167
4	Soil organic carbon storage, distribution, and influencing factors at different depths in the dryland farming regions of Northeast and North China. <i>Catena</i> , 2022, 210, 105934.	2.2	18
5	Fusion of visible-to-near-infrared and mid-infrared spectroscopy to estimate soil organic carbon. <i>Soil and Tillage Research</i> , 2022, 217, 105284.	2.6	21
6	Drivers of water erosion-induced lateral soil carbon loss on the Tibetan Plateau. <i>Catena</i> , 2022, 211, 105970.	2.2	7
7	Comparison of near-infrared, mid-infrared, Raman spectroscopy and near-infrared hyperspectral imaging to determine chemical, structural and rheological properties of apple purees. <i>Journal of Food Engineering</i> , 2022, 323, 111002.	2.7	9
8	Role of Environment Variables in Spatial Distribution of Soil C, N, P Ecological Stoichiometry in the Typical Black Soil Region of Northeast China. <i>Sustainability</i> , 2022, 14, 2636.	1.6	5
9	Strategies for efficient estimation of soil organic content at the local scale based on a national spectral database. <i>Land Degradation and Development</i> , 2022, 33, 1649-1661.	1.8	6
10	Comparing Two Different Development Methods of External Parameter Orthogonalization for Estimating Organic Carbon from Field-Moist Intact Soils by Reflectance Spectroscopy. <i>Remote Sensing</i> , 2022, 14, 1303.	1.8	6
11	Hand-feel soil texture and particle-size distribution in central France. Relationships and implications. <i>Catena</i> , 2022, 213, 106155.	2.2	12
12	Fruit variability impacts puree quality: Assessment on individually processed apples using the visible and near infrared spectroscopy. <i>Food Chemistry</i> , 2022, 390, 133088.	4.2	7
13	Improving remote sensing of salinity on topsoil with crop residues using novel indices of optical and microwave bands. <i>Geoderma</i> , 2022, 422, 115935.	2.3	6
14	Digital Mapping of Soil Organic Carbon with Machine Learning in Dryland of Northeast and North Plain China. <i>Remote Sensing</i> , 2022, 14, 2504.	1.8	9
15	Preliminary risk assessment of regional industrial enterprise sites based on big data. <i>Science of the Total Environment</i> , 2022, 838, 156609.	3.9	9
16	Effectiveness of different approaches for in situ measurements of organic carbon using visible and near infrared spectrometry in the Poyang Lake basin area. <i>Land Degradation and Development</i> , 2021, 32, 1301-1311.	1.8	8
17	A review of the world's soil museums and exhibitions. <i>Advances in Agronomy</i> , 2021, 166, 277-304.	2.4	6
18	Digital mapping of the soil thickness of loess deposits over a calcareous bedrock in central France. <i>Catena</i> , 2021, 198, 105062.	2.2	24

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19	Revealing the scale- and location-specific controlling factors of soil organic carbon in Tibet. <i>Geoderma</i> , 2021, 382, 114713.	2.3	39
20	Visible, near- and mid-infrared spectroscopy coupled with an innovative chemometric strategy to control apple puree quality. <i>Food Control</i> , 2021, 120, 107546.	2.8	17
21	Can N ₂ O emissions offset the benefits from soil organic carbon storage?. <i>Global Change Biology</i> , 2021, 27, 237-256.	4.2	174
22	A method using near infrared hyperspectral imaging to highlight the internal quality of apple fruit slices. <i>Postharvest Biology and Technology</i> , 2021, 175, 111497.	2.9	24
23	Soil erosion modelling: A bibliometric analysis. <i>Environmental Research</i> , 2021, 197, 111087.	3.7	78
24	Climate change-induced greening on the Tibetan Plateau modulated by mountainous characteristics. <i>Environmental Research Letters</i> , 2021, 16, 064064.	2.2	16
25	Organic carbon storage potential of cropland topsoils in East China: Indispensable roles of cropping systems and soil managements. <i>Soil and Tillage Research</i> , 2021, 211, 105052.	2.6	8
26	An integrated assessment methodology for management of potentially contaminated sites based on public data. <i>Science of the Total Environment</i> , 2021, 783, 146913.	3.9	21
27	Soil erosion modelling: A global review and statistical analysis. <i>Science of the Total Environment</i> , 2021, 780, 146494.	3.9	261
28	Mid-infrared technique to forecast cooked puree properties from raw apples: A potential strategy towards sustainability and precision processing. <i>Food Chemistry</i> , 2021, 355, 129636.	4.2	4
29	Evaluating validation strategies on the performance of soil property prediction from regional to continental spectral data. <i>Geoderma</i> , 2021, 400, 115159.	2.3	32
30	Diagnosis of cadmium contamination in urban and suburban soils using visible-to-near-infrared spectroscopy. <i>Environmental Pollution</i> , 2021, 291, 118128.	3.7	26
31	Evaluation of Optimized Preprocessing and Modeling Algorithms for Prediction of Soil Properties Using VIS-NIR Spectroscopy. <i>Sensors</i> , 2021, 21, 6745.	2.1	14
32	Monitoring soil organic carbon in alpine soils using in situ vis-NIR spectroscopy and a multilayer perceptron. <i>Land Degradation and Development</i> , 2020, 31, 1026-1038.	1.8	37
33	Composite assessment of human health risk from potentially toxic elements through multiple exposure routes: A case study in farmland in an important industrial city in East China. <i>Journal of Geochemical Exploration</i> , 2020, 210, 106443.	1.5	37
34	Impacts of national scale digital soil mapping programs in France. <i>Geoderma Regional</i> , 2020, 23, e00337.	0.9	10
35	Improved Mapping of Potentially Toxic Elements in Soil via Integration of Multiple Data Sources and Various Geostatistical Methods. <i>Remote Sensing</i> , 2020, 12, 3775.	1.8	16
36	Current Estimates of Soil Organic Carbon Stocks Are Not Four to Six Times Underestimated. Comment on "Non-Flat Earth Recalibrated for Terrain and Topsoil. <i>Soil Syst.</i> 2018, 2, 64". <i>Soil Systems</i> , 2020, 4, 45.	1.0	0

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37	Data fusion for the measurement of potentially toxic elements in soil using portable spectrometers. <i>Environmental Pollution</i> , 2020, 263, 114649.	3.7	36
38	Rapid Determination of Soil Class Based on Visible-Near Infrared, Mid-Infrared Spectroscopy and Data Fusion. <i>Remote Sensing</i> , 2020, 12, 1512.	1.8	25
39	Current status, spatial features, health risks, and potential driving factors of soil heavy metal pollution in China at province level. <i>Environmental Pollution</i> , 2020, 266, 114961.	3.7	257
40	Modelling bioaccumulation of heavy metals in soil-crop ecosystems and identifying its controlling factors using machine learning. <i>Environmental Pollution</i> , 2020, 262, 114308.	3.7	126
41	Fine-Resolution Mapping of Soil Total Nitrogen across China Based on Weighted Model Averaging. <i>Remote Sensing</i> , 2020, 12, 85.	1.8	31
42	Comparing laboratory and airborne hyperspectral data for the estimation and mapping of topsoil organic carbon: Feature selection coupled with random forest. <i>Soil and Tillage Research</i> , 2020, 199, 104589.	2.6	66
43	Model averaging for mapping topsoil organic carbon in France. <i>Geoderma</i> , 2020, 366, 114237.	2.3	52
44	Exploring the potential of airborne hyperspectral image for estimating topsoil organic carbon: Effects of fractional-order derivative and optimal band combination algorithm. <i>Geoderma</i> , 2020, 365, 114228.	2.3	58
45	A comprehensive framework for assessing the impact of potential agricultural pollution on grain security and human health in economically developed areas. <i>Environmental Pollution</i> , 2020, 263, 114653.	3.7	35
46	Rapid determination of soil classes in soil profiles using vis-NIR spectroscopy and multiple objectives mixed support vector classification. <i>European Journal of Soil Science</i> , 2019, 70, 42-53.	1.8	21
47	Multi-sensor fusion for the determination of several soil properties in the Yangtze River Delta, China. <i>European Journal of Soil Science</i> , 2019, 70, 162-173.	1.8	79
48	National digital soil map of organic matter in topsoil and its associated uncertainty in 1980's China. <i>Geoderma</i> , 2019, 335, 47-56.	2.3	80
49	Baseline map of soil organic carbon in Tibet and its uncertainty in the 1980s. <i>Geoderma</i> , 2019, 334, 124-133.	2.3	35
50	Cadmium concentration estimation in peri-urban agricultural soils: Using reflectance spectroscopy, soil auxiliary information, or a combination of both?. <i>Geoderma</i> , 2019, 354, 113875.	2.3	45
51	Satellite data integration for soil clay content modelling at a national scale. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2019, 82, 101905.	1.4	57
52	Improvement of Spatial Modeling of Cr, Pb, Cd, As and Ni in Soil Based on Portable X-ray Fluorescence (PXRF) and Geostatistics: A Case Study in East China. <i>International Journal of Environmental Research and Public Health</i> , 2019, 16, 2694.	1.2	30
53	Simultaneous measurement of multiple soil properties through proximal sensor data fusion: A case study. <i>Geoderma</i> , 2019, 341, 111-128.	2.3	73
54	Evaluation of Machine Learning Approaches to Predict Soil Organic Matter and pH Using vis-NIR Spectra. <i>Sensors</i> , 2019, 19, 263.	2.1	91

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55	X-ray fluorescence and visible near infrared sensor fusion for predicting soil chromium content. <i>Geoderma</i> , 2019, 352, 61-69.	2.3	57
56	High-resolution three-dimensional mapping of soil organic carbon in China: Effects of SoilGrids products on national modeling. <i>Science of the Total Environment</i> , 2019, 685, 480-489.	3.9	66
57	Estimating forest soil organic carbon content using vis-NIR spectroscopy: Implications for large-scale soil carbon spectroscopic assessment. <i>Geoderma</i> , 2019, 348, 37-44.	2.3	70
58	Probability mapping of soil thickness by random survival forest at a national scale. <i>Geoderma</i> , 2019, 344, 184-194.	2.3	36
59	National estimation of soil organic carbon storage potential for arable soils: A data-driven approach coupled with carbon-landscape zones. <i>Science of the Total Environment</i> , 2019, 666, 355-367.	3.9	61
60	Identifying heavy metal pollution hot spots in soil-rice systems: A case study in South of Yangtze River Delta, China. <i>Science of the Total Environment</i> , 2019, 658, 614-625.	3.9	90
61	Combination of fractional order derivative and memory-based learning algorithm to improve the estimation accuracy of soil organic matter by visible and near-infrared spectroscopy. <i>Catena</i> , 2019, 174, 104-116.	2.2	81
62	A high-resolution map of soil pH in China made by hybrid modelling of sparse soil data and environmental covariates and its implications for pollution. <i>Science of the Total Environment</i> , 2019, 655, 273-283.	3.9	124
63	Soil carbon stocks under different land uses and the applicability of the soil carbon saturation concept. <i>Soil and Tillage Research</i> , 2019, 188, 53-58.	2.6	71
64	Fine resolution map of top- and subsoil carbon sequestration potential in France. <i>Science of the Total Environment</i> , 2018, 630, 389-400.	3.9	109
65	Current and future assessments of soil erosion by water on the Tibetan Plateau based on RUSLE and CMIP5 climate models. <i>Science of the Total Environment</i> , 2018, 635, 673-686.	3.9	184
66	Building a pedotransfer function for soil bulk density on regional dataset and testing its validity over a larger area. <i>Geoderma</i> , 2018, 312, 52-63.	2.3	48
67	Assessment of important soil properties related to Chinese Soil Taxonomy based on vis-NIR reflectance spectroscopy. <i>Computers and Electronics in Agriculture</i> , 2018, 144, 1-8.	3.7	58
68	Rapid identification of soil organic matter level via visible and near-infrared spectroscopy: Effects of two-dimensional correlation coefficient and extreme learning machine. <i>Science of the Total Environment</i> , 2018, 644, 1232-1243.	3.9	85
69	Heavy Metal Pollution Delineation Based on Uncertainty in a Coastal Industrial City in the Yangtze River Delta, China. <i>International Journal of Environmental Research and Public Health</i> , 2018, 15, 710.	1.2	42
70	THE GLOBALSOILMAP PROJECT: PAST, PRESENT, FUTURE, AND NATIONAL EXAMPLES FROM FRANCE. <i>Dokuchaev Soil Bulletin</i> , 2018, , 3-23.	0.1	5
71	Organic carbon prediction in soil cores using VNIR and MIR techniques in an alpine landscape. <i>Scientific Reports</i> , 2017, 7, 2144.	1.6	37
72	Application of portable XRF and VNIR sensors for rapid assessment of soil heavy metal pollution. <i>PLoS ONE</i> , 2017, 12, e0172438.	1.1	94

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73	Predicting total dissolved salts and soluble ion concentrations in agricultural soils using portable visible near-infrared and mid-infrared spectrometers. <i>Biosystems Engineering</i> , 2016, 152, 94-103.	1.9	43
74	Prediction of soil attributes using the Chinese soil spectral library and standardized spectra recorded at field conditions. <i>Soil and Tillage Research</i> , 2016, 155, 492-500.	2.6	71
75	Prediction of soil organic matter using a spatially constrained local partial least squares regression and the Chinese vis-NIR spectral library. <i>European Journal of Soil Science</i> , 2015, 66, 679-687.	1.8	138
76	Potential of VIS-NIR-SWIR Spectroscopy from the Chinese Soil Spectral Library for Assessment of Nitrogen Fertilization Rates in the Paddy-Rice Region, China. <i>Remote Sensing</i> , 2015, 7, 7029-7043.	1.8	23
77	In Situ Measurements of Organic Carbon in Soil Profiles Using vis-NIR Spectroscopy on the Qinghai-Tibet Plateau. <i>Environmental Science & Technology</i> , 2015, 49, 4980-4987.	4.6	81
78	Effects of sediment texture on in-stream nitrogen uptake. <i>Environmental Earth Sciences</i> , 2014, 72, 21-33.	1.3	1