Radim VaÅ¡Ã¡t

List of Publications by Year
in descending order

37 papers	1,064 citations	471509 17 h-index	414414 32 g-index
37 all docs	37 docs citations	37 times ranked	955 citing authors

#	Article	IF	Citations
1	Visible, Near-Infrared, and Mid-Infrared Spectroscopy Applications for Soil Assessment with Emphasis on Soil Organic Matter Content and Quality: State-of-the-Art and Key Issues. Applied Spectroscopy, 2013, 67, 1349-1362.	2.2	139
2	Comparing different data preprocessing methods for monitoring soil heavy metals based on soil spectral features. Soil and Water Research, 2015, 10, 218-227.	1.7	125
3	Sampling design optimization for multivariate soil mapping. Geoderma, 2010, 155, 147-153.	5.1	68
4	Simple but efficient signal pre-processing in soil organic carbon spectroscopic estimation. Geoderma, 2017, 298, 46-53.	5.1	66
5	Estimation of Potentially Toxic Elements Contamination in Anthropogenic Soils on a Brown Coal Mining Dumpsite by Reflectance Spectroscopy: A Case Study. PLoS ONE, 2015, 10, e0117457.	2.5	65
6	Forest soil acidification assessment using principal component analysis and geostatistics. Geoderma, 2007, 140, 374-382.	5.1	52
7	Uncertainty propagation in VNIR reflectance spectroscopy soil organic carbon mapping. Geoderma, 2013, 199, 54-63.	5.1	49
8	Prediction of soil texture classes through different wavelength regions of reflectance spectroscopy at various soil depths. Catena, 2020, 189, 104485.	5.0	49
9	A Memory-Based Learning Approach as Compared to Other Data Mining Algorithms for the Prediction of Soil Texture Using Diffuse Reflectance Spectra. Remote Sensing, 2016, 8, 341.	4.0	44
10	Consideration of peak parameters derived from continuum-removed spectra to predict extractable nutrients in soils with visible and near-infrared diffuse reflectance spectroscopy (VNIR-DRS). Geoderma, 2014, 232-234, 208-218.	5.1	37
11	Colluvial soils as a soil organic carbon pool in different soil regions. Geoderma, 2015, 253-254, 122-134.	5.1	35
12	Ensemble predictive model for more accurate soil organic carbon spectroscopic estimation. Computers and Geosciences, 2017, 104, 75-83.	4.2	24
13	Source apportionment, contamination levels, and spatial prediction of potentially toxic elements in selected soils of the Czech Republic. Environmental Geochemistry and Health, 2021, 43, 601-620.	3.4	24
14	Transformation of iron forms during pedogenesis after tree uprooting in a natural beech-dominated forest. Catena, 2015, 132, 12-20.	5.0	22
15	Exploring the Suitability of UAS-Based Multispectral Images for Estimating Soil Organic Carbon: Comparison with Proximal Soil Sensing and Spaceborne Imagery. Remote Sensing, 2021, 13, 308.	4.0	21
16	Quantifying the pedodiversity-elevation relations. Geoderma, 2020, 373, 114441.	5.1	19
17	Health risk assessment and the application of CF-PMF: a pollution assessmentâ€"based receptor model in an urban soil. Journal of Soils and Sediments, 2021, 21, 3117-3136.	3.0	19
18	Human health risk exposure and ecological risk assessment of potentially toxic element pollution in agricultural soils in the district of Frydek Mistek, Czech Republic: a sample location approach. Environmental Sciences Europe, 2021, 33, .	5.5	19

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19	Combining reflectance spectroscopy and the digital elevation model for soil oxidizable carbon estimation. Geoderma, 2017, 303, 133-142.	5.1	18
20	Does the limited use of orthogonal signal correction pre-treatment approach to improve the prediction accuracy of soil organic carbon need attention?. Geoderma, 2021, 388, 114945.	5.1	17
21	Factors influencing distribution of different Al forms in forest soils of the JizerskÃ© hory Mts.. Journal of Forest Science, 2006, 52, S87-S92.	1.1	14
22	Factors of spatial distribution of forest floor properties in the JizerskÃ© Mountains. Plant, Soil and Environment, 2005, 51, 447-455.	2.2	13
23	Ecological risk source distribution, uncertainty analysis, and application of geographically weighted regression cokriging for prediction of potentially toxic elements in agricultural soils. Chemical Engineering Research and Design, 2022, 164, 729-746.	5.6	13
24	Estimation of the stability of topsoil aggregates in areas affected by water erosion using selected soil and terrain properties. Soil and Tillage Research, 2022, 219, 105348.	5.6	12
25	Mapping the topsoil pH and humus quality of forest soils in the North Bohemian JizerskÃ© hory Mts. region with ordinary, universal, and regression kriging: cross-validation comparison. Soil and Water Research, 2013, 8, 97-104.	1.7	11
26	Prediction of nickel concentration in peri-urban and urban soils using hybridized empirical bayesian kriging and support vector machine regression. Scientific Reports, 2022, 12, 3004.	3.3	11
27	Prediction of topsoil organic carbon content with Sentinel-2 imagery and spectroscopic measurements under different conditions using an ensemble model approach with multiple pre-treatment combinations. Soil and Tillage Research, 2022, 220, 105379.	5.6	11
28	Using spectral indices and terrain attribute datasets and their combination in the prediction of cadmium content in agricultural soil. Computers and Electronics in Agriculture, 2022, 198, 107077.	7.7	10
29	A geostatistical approach to estimating source apportionment in urban and peri-urban soils using the Czech Republic as an example. Scientific Reports, 2021, 11, 23615.	3.3	9
30	Absorption Features in Soil Spectra Assessment. Applied Spectroscopy, 2015, 69, 1425-1431.	2.2	8
31	Predicting oxidizable carbon content via visible- and near-infrared diffuse reflectance spectroscopy in soils heavily affected by water erosion. Soil and Water Research, 2015, 10, 74-77.	1.7	8
32	Using an ensemble model coupled with portable X-ray fluorescence and visible near-infrared spectroscopy to explore the viability of mapping and estimating arsenic in an agricultural soil. Science of the Total Environment, 2022, 818, 151805.	8.0	8
33	Can in situ spectral measurements under disturbance-reduced environmental conditions help improve soil organic carbon estimation?. Science of the Total Environment, 2022, 838, 156304.	8.0	7
34	Application of regression-kriging and sequential Gaussian simulation for the delineation of forest areas potentially suitable for liming in the Jizera Mountains region, Czech Republic. Geoderma Regional, 2020, 21, e00286.	2.1	6
35	Modelling the impact of acid deposition on forest soils in North Bohemian Mountains with two dynamic models: the Very Simple Dynamic Model (VSD) and the Model of Acidification of Groundwater in Catchments (MAGIC). Soil and Water Research, 2015, 10, 10-18.	1.7	5
36	Multi-geochemical background comparison and the identification of the best normalizer for the estimation of PTE contamination in agricultural soil. Environmental Geochemistry and Health, 2021, , 1.	3.4	5

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37	Delineating Acidified Soils in the Jizera Mountains Region Using Fuzzy Classification. , 2008, , 303-309.		1