LuboÅ¡ BorÅ¯vka

List of Publications by Year
in descending order

98 papers	3,052 citations	212478 28 h-index	214428 50 g-index
102 all docs	102 docs citations	102 times ranked	3182 citing authors

#	ARTICLE	IF	CITATIONS
1	An in-depth human health risk assessment of potentially toxic elements in highly polluted riverine soils, PÅ™Ãbram (Czech Republic). Environmental Geochemistry and Health, 2022, 44, 369-385.	1.8	11
2	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.	3.9	8
3	Assessment of Lead Origin in Forest Soils of the Czech Republic Using Isotopic Ratios. Water, Air, and Soil Pollution, 2022, 233, 1.	1.1	6
4	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.	1.6	11
5	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.	2.6	11
6	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.	3.7	10
7	Can in situ spectral measurements under disturbance-reduced environmental conditions help improve soil organic carbon estimation?. Science of the Total Environment, 2022, 838, 156304.	3.9	7
8	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.	2.7	13
9	Satellite Imagery to Map Topsoil Organic Carbon Content over Cultivated Areas: An Overview. Remote Sensing, 2022, 14, 2917.	1.8	25
10	Self-organizing map artificial neural networks and sequential Gaussian simulation technique for mapping potentially toxic element hotspots in polluted mining soils. Journal of Geochemical Exploration, 2021, 222, 106680.	1.5	21
11	Comparison of multivariate methods for arsenic estimation and mapping in floodplain soil via portable X-ray fluorescence spectroscopy. Geoderma, 2021, 384, 114792.	2.3	20
12	National-scale spectroscopic assessment of soil organic carbon in forests of the Czech Republic. Geoderma, 2021, 385, 114832.	2.3	21
13	Trend analysis of global usage of digital soil mapping models in the prediction of potentially toxic elements in soil/sediments: a bibliometric review. Environmental Geochemistry and Health, 2021, 43, 1715-1739.	1.8	20
14	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.	1.8	24
15	Effect of natural and anthropogenic acidification on aluminium distribution in forest soils of two regions in the Czech Republic. Journal of Forestry Research, 2021, 32, 363-370.	1.7	18
16	visâ€“NIR and XRF Data Fusion and Feature Selection to Estimate Potentially Toxic Elements in Soil. Sensors, 2021, 21, 2386.	2.1	23
17	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.	2.3	17
18	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.	1.5	19

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19	Soil organic carbon estimation using VNIRâ€“SWIR spectroscopy: The effect of multiple sensors and scanning conditions. Soil and Tillage Research, 2021, 211, 105017.	2.6	16
20	Modeling and Assessing the Spatial and Vertical Distributions of Potentially Toxic Elements in Soil and How the Concentrations Differ. Toxics, 2021, 9, 181.	1.6	5
21	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.	1.8	21
22	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.	1.8	5
23	AdsorptionÂandÂdegradationÂbehaviorÂofÂsixÂherbicides inÂdifferent agriculturalÂsoils. Environmental Earth Sciences, 2021, 80, 1.	1.3	4
24	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.	1.6	9
25	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, .	2.6	19
26	Spectroscopic measurements and imaging of soil colour for field scale estimation of soil organic carbon. Geoderma, 2020, 357, 113972.	2.3	46
27	The influence of land-use on tropical soil chemical characteristics with emphasis on aluminium. Journal of Inorganic Biochemistry, 2020, 204, 110962.	1.5	3
28	Comparison of Field and Laboratory Wet Soil Spectra in the Vis-NIR Range for Soil Organic Carbon Prediction in the Absence of Laboratory Dry Measurements. Remote Sensing, 2020, 12, 3082.	1.8	20
29	Modelling potentially toxic elements in forest soils with visâ€“NIR spectra and learning algorithms. Environmental Pollution, 2020, 267, 115574.	3.7	33
30	Quantifying the pedodiversity-elevation relations. Geoderma, 2020, 373, 114441.	2.3	19
31	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.	0.9	6
32	VZTAH MEZI OBSAHEM NÃŽKOMOLEKULÃRNÃCH ORGANICKÃCH KYSELIN V PÅ®DÃCH A BOHATOSTÃ•BYLINNÃ‰HO PATRA KARPATSKÃCH BUÄŒIN. Geological Research in Moravia and Silesia, 2019, 25, .	0.1	0
33	Magnetic mapping of distribution of wood ash used for fertilization of forest soil. Science of the Total Environment, 2018, 626, 228-234.	3.9	14
34	Monitoring of selected soil contaminants using proximal and remote sensing techniques: Background, state-of-the-art and future perspectives. Critical Reviews in Environmental Science and Technology, 2018, 48, 243-278.	6.6	63
35	Behaviour of aluminium in forest soils with different lithology and herb vegetation cover. Journal of Inorganic Biochemistry, 2018, 181, 139-144.	1.5	9
36	Soil organic carbon and texture retrieving and mapping using proximal, airborne and Sentinel-2 spectral imaging. Remote Sensing of Environment, 2018, 218, 89-103.	4.6	261

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37	Examining the Performance of PARACUDA-II Data-Mining Engine versus Selected Techniques to Model Soil Carbon from Reflectance Spectra. Remote Sensing, 2018, 10, 1172.	1.8	28
38	Residues of organochlorine pesticides in irrigated sierozem-meadow soils around buried chemicals stock. Soil and Water Research, 2018, 13, 108-114.	0.7	5
39	Chromium in Anthropogenically Polluted and Naturally Enriched Soils: A Review. Scientia Agriculturae Bohemica, 2018, 49, 297-312.	0.3	9
40	Distribution of aluminium fractions in acid forest soils: influence of vegetation changes. IForest, 2018, 11, 721-727.	0.5	8
41	Soil organic carbon content monitoring and mapping using airborne and Sentinel-2 spectral imaging. , 2018, , .		0
42	Soil legacy data rescue via GlobalSoilMap and other international and national initiatives. GeoResJ, 2017, 14, 1-19.	1.4	102
43	Ensemble predictive model for more accurate soil organic carbon spectroscopic estimation. Computers and Geosciences, 2017, 104, 75-83.	2.0	24
44	Combining reflectance spectroscopy and the digital elevation model for soil oxidizable carbon estimation. Geoderma, 2017, 303, 133-142.	2.3	18
45	Simple but efficient signal pre-processing in soil organic carbon spectroscopic estimation. Geoderma, 2017, 298, 46-53.	2.3	66
46	Leaf chlorophyll and nitrogen dynamics and their relationship to lowland rice yield for site-specific paddy management. Information Processing in Agriculture, 2017, 4, 259-268.	2.9	48
47	Agricultural Soil Spectral Response and Properties Assessment: Effects of Measurement Protocol and Data Mining Technique. Remote Sensing, 2017, 9, 1078.	1.8	43
48	Low-Molecular-Mass Organic Acids in the Forest Soil Environment. Mini-Reviews in Organic Chemistry, 2017, 14, 75-84.	0.6	17
49	Pendimethalin degradation in soil and its interaction with soil microorganisms. Soil and Water Research, 2016, 11, 213-219.	0.7	24
50	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.	1.8	44
51	Using legacy data for correction of soil surface clay content predicted from VNIR/SWIR hyperspectral airborne images. Geoderma, 2016, 276, 84-92.	2.3	31
52	Different low-molecular-mass organic acids specifically control leaching of arsenic and lead from contaminated soil. Journal of Contaminant Hydrology, 2016, 187, 18-30.	1.6	61
53	Sustainable Soil Washing: Shredded Card Filtration of Potentially Toxic Elements after Leaching from Soil Using Organic Acid Solutions. PLoS ONE, 2016, 11, e0149882.	1.1	11
54	Absorption Features in Soil Spectra Assessment. Applied Spectroscopy, 2015, 69, 1425-1431.	1.2	8

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55	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.	1.1	65
56	Contents of Potentially Toxic Elements in Forest Soils of the Jizera Mountains Region. Environmental Modeling and Assessment, 2015, 20, 183-195.	1.2	9
57	The variations of aluminium species in mountainous forest soils and its implications to soil acidification. Environmental Science and Pollution Research, 2015, 22, 16676-16687.	2.7	11
58	Sorption of heavy metals in organic horizons of acid forest soils at low added concentrations. Soil and Water Research, 2015, 10, 1-9.	0.7	10
59	Degradation of forest soils in the vicinity of an industrial zone. Soil and Water Research, 2015, 10, 65-73.	0.7	5
60	Study of interactions between relevant organic acids and aluminium in model solutions using HPLC and IC. Soil and Water Research, 2015, 10, 172-180.	0.7	13
61	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.	0.7	5
62	Comparing different data preprocessing methods for monitoring soil heavy metals based on soil spectral features. Soil and Water Research, 2015, 10, 218-227.	0.7	125
63	Potentially toxic element distribution in soils from the Ag-smelting slag of KutnÃ¡ Hora (Czech) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.5	12
64	Lead isotope composition and risk elements distribution in urban soils of historically different cities Ostrava and Prague, the Czech Republic. Journal of Geochemical Exploration, 2014, 147, 215-221.	1.5	31
65	Models for Estimating the Physical Properties of Paddy Soil Using Visible and Near Infrared Reflectance Spectroscopy. Journal of Applied Spectroscopy, 2014, 81, 534-540.	0.3	19
66	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.	2.3	37
67	Profile distribution and temporal changes of sulphate and nitrate contents and related soil properties under beech and spruce forests. Science of the Total Environment, 2013, 442, 165-171.	3.9	21
68	Temporal dissolution of potentially toxic elements from silver smelting slag by synthetic environmental solutions. Journal of Environmental Management, 2013, 129, 157-163.	3.8	12
69	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.	1.2	139
70	Investigation of polluted alluvial soils by magnetic susceptibility methods: a case study of the Litavka River. Soil and Water Research, 2013, 8, 151-157.	0.7	17
71	Study of podzolization process under different vegetation cover in the JizerskÃ© hory Mts. region.. Soil and Water Research, 2013, 8, 1-12.	0.7	13
72	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.	0.7	11

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73	Effect of covering with natural topsoil as a reclamation measure on brown-coal mining dumpsites. Journal of Geochemical Exploration, 2012, 113, 118-123.	1.5	44
74	Spatial delineation of organic carbon-rich Colluvial soils in Chernozem regions by Terrain analysis and fuzzy classification. Catena, 2011, 85, 22-33.	2.2	41
75	Building soil spectral library of the Czech soils for quantitative digital soil mapping. Soil and Water Research, 2011, 6, 165-172.	0.7	32
76	Urban soil contamination by potentially risk elements. Soil and Water Research, 2011, 6, 55-60.	0.7	19
77	Seasonal variation of water extractable aluminium forms in acidified forest organic soils under different vegetation cover. Biogeochemistry, 2010, 101, 151-163.	1.7	24
78	A Numerical Study of the Impact of Precipitation Redistribution in a Beech Forest Canopy on Water and Aluminum Transport in a Podzol. Vadose Zone Journal, 2010, 9, 238-251.	1.3	28
79	Sampling design optimization for multivariate soil mapping. Geoderma, 2010, 155, 147-153.	2.3	68
80	The role of tree uprooting in Cambisol development. Geoderma, 2010, 159, 83-98.	2.3	38
81	Assessment of soil aluminium pools along three mountainous elevation gradients. Journal of Inorganic Biochemistry, 2009, 103, 1449-1458.	1.5	21
82	Comparison of Al speciation and other soil characteristics between meadow, young forest and old forest stands. Journal of Inorganic Biochemistry, 2009, 103, 1459-1464.	1.5	14
83	Combined Chemical and Mineralogical Evidence for Heavy Metal Binding in Mining- and Smelting-Affected Alluvial Soils. Pedosphere, 2008, 18, 464-478.	2.1	39
84	Delineating Acidified Soils in the Jizera Mountains Region Using Fuzzy Classification. , 2008, , 303-309.		1
85	Forest soil acidification assessment using principal component analysis and geostatistics. Geoderma, 2007, 140, 374-382.	2.3	52
86	Grass cover on forest clear-cut areas ameliorates some soil chemical properties. Journal of Inorganic Biochemistry, 2007, 101, 1224-1233.	1.5	29
87	Litavka river alluvium as a model area heavily polluted with potentially risk elements. , 2006, , 267-298.		14
88	Comparison of water-soluble and exchangeable forms of Al in acid forest soils. Journal of Inorganic Biochemistry, 2005, 99, 1788-1795.	1.5	73
89	Factors controlling spatial distribution of soil acidification and Al forms in forest soils. Journal of Inorganic Biochemistry, 2005, 99, 1796-1806.	1.5	60
90	Soil Properties and Selected Aluminium Forms in Acid Forest Soils as Influenced by the Type of Stand Factors. Soil Science and Plant Nutrition, 2005, 51, 741-744.	0.8	20

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91	Some Approaches to the Research of Forest Soils Affected by Acidification in the Czech Republic. Soil Science and Plant Nutrition, 2005, 51, 745-749.	0.8	22
92	Principal component analysis as a tool to indicate the origin of potentially toxic elements in soils. Geoderma, 2005, 128, 289-300.	2.3	248
93	Possible method of aluminium speciation in forest soils. Journal of Inorganic Biochemistry, 2003, 97, 8-15.	1.5	83
94	PHOSPHORUS RETENTION BY THE Ap HORIZON OF A SPODOSOL AS INFLUENCED BY CALCIUM AMENDMENTS 1. Soil Science, 2003, 168, 699-706.	0.9	30
95	Magnetic properties of alluvial soils contaminated with lead, zinc and cadmium. Journal of Applied Geophysics, 2001, 48, 127-136.	0.9	75
96	Geostatistical investigation of a reclaimed dumpsite soil with emphasis on aluminum. Soil and Tillage Research, 2001, 59, 115-126.	2.6	17
97	Heavy metal accumulation in plants grown in heavily polluted soils. Folia Microbiologica, 1997, 42, 524-526.	1.1	17
98	USING LEGACY SOIL DATA FOR STANDARDIZING PREDICTIONS OF TOPSOIL CLAY CONTENT OBTAINED FROM VNIR/SWIR HYPERSPECTRAL AIRBORNE IMAGES. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XL-3/W3, 439-444.	0.2	1