Michael Komrek

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.

121 papers	5,555 citations	39 h-index	72 g-index
121 ext. papers	6,361 ext. citations	7.3 avg, IF	5.99 L-index

#	Paper	IF	Citations
121	Lead isotopes in environmental sciences: a review. *Environment International*, **2008**, 34, 562-77	12.9	555
120	Contamination of vineyard soils with fungicides: a review of environmental and toxicological aspects. *Environment International*, **2010**, 36, 138-151	12.9	463
119	Chemical stabilization of metals and arsenic in contaminated soils using oxides--a review. *Environmental Pollution*, **2013**, 172, 9-22	9.3	395
118	Multifunctional iron-biochar composites for the removal of potentially toxic elements, inherent cations, and hetero-chloride from hydraulic fracturing wastewater. *Environment International*, **2019**, 124, 521-532	12.9	287
117	Exposure of engineered nanomaterials to plants: Insights into the physiological and biochemical responses-A review. *Plant Physiology and Biochemistry*, **2017**, 110, 236-264	5.4	240
116	Lead and cadmium sorption mechanisms on magnetically modified biochars. *Bioresource Technology* , **2016**, 203, 318-24	11	189
115	ICP-MS measurements of lead isotopic ratios in soils heavily contaminated by lead smelting: tracing the sources of pollution. *Analytical and Bioanalytical Chemistry*, **2004**, 378, 311-7	4.4	161
114	Geochemical and spectroscopic investigations of Cd and Pb sorption mechanisms on contrasting biochars: engineering implications. *Bioresource Technology*, **2014**, 171, 442-51	11	120
113	Phytoextraction of Pb and Cd from a contaminated agricultural soil using different EDTA application regimes: Laboratory versus field scale measures of efficiency. *Geoderma*, **2008**, 144, 446-454	6.7	120
112	Root water transport of Helianthus annuus L. under iron oxide nanoparticle exposure. *Environmental Science and Pollution Research*, **2016**, 23, 1732-41	5.1	111
111	The use of maize and poplar in chelant-enhanced phytoextraction of lead from contaminated agricultural soils. *Chemosphere*, **2007**, 67, 640-51	8.4	110
110	Adsorption of copper, cadmium, lead and zinc onto a synthetic manganese oxide. *Journal of Colloid and Interface Science*, **2013**, 399, 99-106	9.3	103
109	Copper removal from aqueous solution using biochar: Effect of chemical activation. *Arabian Journal of Chemistry*, **2014**, 7, 43-52	5.9	96
108	Competitive Adsorption of Cd(II), Cr(VI), and Pb(II) onto Nanomaghemite: A Spectroscopic and Modeling Approach. *Environmental Science & Technology*, **2015**, 49, 12851-9	10.3	87
107	Copper contamination of vineyard soils from small wine producers: A case study from the Czech Republic. *Geoderma*, **2008**, 147, 16-22	6.7	84
106	Geochemical position of Pb, Zn and Cd in soils near the Olkusz mine/smelter, South Poland: effects of land use, type of contamination and distance from pollution source. *Environmental Monitoring and Assessment*, **2012**, 184, 2517-36	3.1	74
105	Metal/metalloid contamination and isotopic composition of lead in edible mushrooms and forest soils originating from a smelting area. *Environment International*, **2007**, 33, 677-84	12.9	74

104	Effect of nano zero-valent iron application on As, Cd, Pb, and Zn availability in the rhizosphere of metal(loid) contaminated soils. *Chemosphere*, **2018**, 200, 217-226	8.4	67
103	Biochar application to metal-contaminated soil: Evaluating of Cd, Cu, Pb and Zn sorption behavior using single- and multi-element sorption experiment. *Plant, Soil and Environment*, **2011**, 57, 372-380	2.2	67
102	The use of poplar during a two-year induced phytoextraction of metals from contaminated agricultural soils. *Environmental Pollution*, **2008**, 151, 27-38	9.3	63
101	Cadmium isotope fractionation within the soil profile complicates source identification in relation to Pb–Zn mining and smelting processes. *Chemical Geology*, **2015**, 405, 1-9	4.2	59
100	Metal(loid)s behaviour in soils amended with nano zero-valent iron as a function of pH and time. *Journal of Environmental Management*, **2017**, 186, 268-276	7.9	57
99	Mobility of lead, zinc and cadmium in alluvial soils heavily polluted by smelting industry. *Plant, Soil and Environment*, **2011**, 51, 316-321	2.2	56
98	Evaluating the potential of three Fe- and Mn-(nano)oxides for the stabilization of Cd, Cu and Pb in contaminated soils. *Journal of Environmental Management*, **2014**, 146, 226-234	7.9	55
97	Effect of illite and birnessite on thallium retention and bioavailability in contaminated soils. *Journal of Hazardous Materials*, **2011**, 191, 170-6	12.8	52
96	Geochemical position of thallium in soils from a smelter-impacted area. *Journal of Geochemical Exploration*, **2013**, 124, 176-182	3.8	51
95	Lithogenic thallium behavior in soils with different land use. *Journal of Geochemical Exploration*, **2009**, 102, 7-12	3.8	50
94	Effects of Nano-maghemite on Trace Element Accumulation and Drought Response of Helianthus annuus L. in a Contaminated Mine Soil. *Water, Air, and Soil Pollution*, **2015**, 226, 1	2.6	49
93	In situ chemical stabilization of trace element-contaminated soil – Field demonstrations and barriers to transition from laboratory to the field – A review. *Applied Geochemistry*, **2019**, 100, 335-351	3.5	48
92	The pH-dependent long-term stability of an amorphous manganese oxide in smelter-polluted soils: implication for chemical stabilization of metals and metalloids. *Journal of Hazardous Materials*, **2015**, 286, 386-94	12.8	47
91	Interactions of nano-oxides with low-molecular-weight organic acids in a contaminated soil. *Journal of Hazardous Materials*, **2015**, 293, 7-14	12.8	46
90	Potential and drawbacks of EDDS-enhanced phytoextraction of copper from contaminated soils. *Environmental Pollution*, **2010**, 158, 2428-38	9.3	46
89	Evaluating the suitability of different environmental samples for tracing atmospheric pollution in industrial areas. *Environmental Pollution*, **2017**, 220, 286-297	9.3	42
88	AMOchar: Amorphous manganese oxide coating of biochar improves its efficiency at removing metal(loid)s from aqueous solutions. *Science of the Total Environment*, **2018**, 625, 71-78	10.2	41
87	Retention of copper originating from different fungicides in contrasting soil types. *Journal of Hazardous Materials*, **2009**, 166, 1395-402	12.8	41

86	Thallium dynamics in contrasting light sandy soils--soil vulnerability assessment to anthropogenic contamination. *Journal of Hazardous Materials*, **2010**, 173, 717-23	12.8	40
85	Thallium uptake by white mustard (Sinapis alba L.) grown on moderately contaminated soils--agro-environmental implications. *Journal of Hazardous Materials*, **2010**, 182, 303-8	12.8	39
84	Evaluation of extraction/digestion techniques used to determine lead isotopic composition in forest soils. *Analytical and Bioanalytical Chemistry*, **2006**, 385, 1109-15	4.4	39
83	Chromate adsorption on selected soil minerals: Surface complexation modeling coupled with spectroscopic investigation. *Journal of Hazardous Materials*, **2016**, 318, 433-442	12.8	39
82	Lead contamination of an agricultural soil in the vicinity of a shooting range. *Environmental Monitoring and Assessment*, **2010**, 162, 37-46	3.1	36
81	Metal(loid) distribution and Pb isotopic signatures in the urban environment of Athens, Greece. *Environmental Pollution*, **2016**, 213, 420-431	9.3	34
80	Sorption mechanisms of arsenate on Mg-Fe layered double hydroxides: A combination of adsorption modeling and solid state analysis. *Chemosphere*, **2017**, 168, 539-548	8.4	34
79	Interactions of EDDS with Fe- and Al-(hydr)oxides. *Chemosphere*, **2009**, 77, 87-93	8.4	32
78	Thallium contamination of soils/vegetation as affected by sphalerite weathering: a model rhizospheric experiment. *Journal of Hazardous Materials*, **2015**, 283, 148-56	12.8	31
77	Highly effective Zn(II) and Pb(II) removal from aqueous solutions using Mg-Fe layered double hydroxides: Comprehensive adsorption modeling coupled with solid state analyses. *Journal of Cleaner Production*, **2018**, 171, 944-953	10.3	31
76	Revisiting models of Cd, Cu, Pb and Zn adsorption onto Fe(III) oxides. *Chemical Geology*, **2018**, 493, 189-198	4.2	31
75	Effect of low-molecular-weight organic acids on the leaching of thallium and accompanying cations from soil A model rhizosphere solution approach. *Journal of Geochemical Exploration*, **2012**, 112, 212-217	3.8	30
74	Assessment of the BCR sequential extraction procedure for thallium fractionation using synthetic mineral mixtures. *Journal of Hazardous Materials*, **2010**, 176, 913-8	12.8	29
73	Assessment of biochar and/or nano zero-valent iron for the stabilisation of Zn, Pb and Cd: A temporal study of solid phase geochemistry under changing soil conditions. *Chemosphere*, **2020**, 242, 125248	8.4	29
72	Metal(loid) and isotopic tracing of Pb in soils, road and house dusts from the industrial area of Volos (central Greece). *Science of the Total Environment*, **2020**, 725, 138300	10.2	27
71	Comparative effects of nanoscale zero-valent iron (nZVI) and Fe2O3 nanoparticles on root hydraulic conductivity of Solanum lycopersicum L.. *Environmental and Experimental Botany*, **2016**, 131, 128-136	5.9	27
70	Brewers draff as a new low-cost sorbent for chromium (VI): comparison with other biosorbents. *Journal of Colloid and Interface Science*, **2013**, 396, 227-33	9.3	27
69	Complexation between the fungicide tebuconazole and copper(II) probed by electrospray ionization mass spectrometry. *Rapid Communications in Mass Spectrometry*, **2011**, 25, 1037-42	2.2	27

68	Tebuconazole Sorption in Contrasting Soil Types. *Soil and Sediment Contamination*, **2013**, 22, 404-414	3.2	25
67	Isotope fractionation and spectroscopic analysis as an evidence of Cr(VI) reduction during biosorption. *Chemosphere*, **2014**, 95, 402-7	8.4	25
66	Effect of ozonation on polychlorinated biphenyl degradation and on soil physico-chemical properties. *Journal of Hazardous Materials*, **2009**, 161, 1202-7	12.8	25
65	Bioaccumulation of thallium in a neutral soil as affected by solid-phase association. *Journal of Geochemical Exploration*, **2015**, 159, 208-212	3.8	24
64	Copper determination using ICP-MS with hexapole collision cell. *Chemical Papers*, **2009**, 63,	1.9	24
63	Maghemite nanoparticles and ferrous sulfate for the stimulation of iron plaque formation and arsenic immobilization in Phragmites australis. *Environmental Pollution*, **2016**, 219, 296-304	9.3	23
62	Nano Zero-Valent Iron Mediated Metal(loid) Uptake and Translocation by Arbuscular Mycorrhizal Symbioses. *Environmental Science & Technology*, **2018**, 52, 7640-7651	10.3	23
61	Chemically enhanced phytoextraction of risk elements from a contaminated agricultural soil using Zea mays and Triticum aestivum: performance and metal mobilization over a three year period. *International Journal of Phytoremediation*, **2012**, 14, 754-71	3.9	23
60	Unleaded gasoline as a significant source of Pb emissions in the Subarctic. *Chemosphere*, **2018**, 193, 230-236	8.4	23
59	Stable isotope tracing of Ni and Cu pollution in North-East Norway: Potentials and drawbacks. *Environmental Pollution*, **2017**, 228, 149-157	9.3	22
58	Phase-dependent phytoavailability of thallium--a synthetic soil experiment. *Journal of Hazardous Materials*, **2013**, 250-251, 265-71	12.8	22
57	Sorption of tebuconazole onto selected soil minerals and humic acids. *Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes*, **2012**, 47, 336-42	2.2	22
56	Selected Fe and Mn (nano)oxides as perspective amendments for the stabilization of As in contaminated soils. *Environmental Science and Pollution Research*, **2016**, 23, 10841-10854	5.1	22
55	Distribution of thallium and accompanying metals in tree rings of Scots pine (Pinus sylvestris L.) from a smelter-affected area. *Journal of Geochemical Exploration*, **2011**, 108, 73-80	3.8	21
54	Vanadium determination in chloride matrices using ICP-MS: finding the optimum collision/reaction cell parameters for suppressing polyatomic interferences. *Analytical and Bioanalytical Chemistry*, **2006**, 385, 962-70	4.4	21
53	Nano zero-valent iron aging interacts with the soil microbial community: a microcosm study. *Environmental Science: Nano*, **2019**, 6, 1189-1206	7.1	20
52	Stability and stabilizing efficiency of Mg-Fe layered double hydroxides and mixed oxides in aqueous solutions and soils with elevated As(V), Pb(II) and Zn(II) contents. *Science of the Total Environment*, **2019**, 648, 1511-1519	10.2	19
51	The role of Fe- and Mn-oxides during EDTA-enhanced phytoextraction of heavy metals. *Plant, Soil and Environment*, **2008**, 53, 216-224	2.2	18

50	Characterization of Fe-Mn concentric nodules from Luvisol irrigated by mine water in a semi-arid agricultural area. *Geoderma*, **2017**, 299, 32-42	6.7	17
49	Interactions of two novel stabilizing amendments with sunflower plants grown in a contaminated soil. *Chemosphere*, **2017**, 186, 374-380	8.4	17
48	Biosorbent encapsulation in calcium alginate: Effects of process variables on Cr(VI) removal from solutions. *International Journal of Biological Macromolecules*, **2015**, 80, 260-70	7.9	16
47	Stability of a novel synthetic amorphous manganese oxide in contrasting soils. *Geoderma*, **2014**, 214-215, 2-9	6.7	16
46	Trace elements and nutrients adsorption onto nano-maghemite in a contaminated-soil solution: A geochemical/statistical approach. *Journal of Hazardous Materials*, **2014**, 276, 271-7	12.8	16
45	pK a Constant Determination of Two Triazole Pesticides: Tebuconazole and Penconazole. *Journal of Solution Chemistry*, **2013**, 42, 1075-1082	1.8	16
44	Engineered Nanomaterials for Phytoremediation of Metal/Metalloid-Contaminated Soils: Implications for Plant Physiology **2017**, 369-403		14
43	Antimonate adsorption onto Mg-Fe layered double hydroxides in aqueous solutions at different pH values: Coupling surface complexation modeling with solid-state analyses. *Chemosphere*, **2019**, 229, 236-246	8.4	14
42	Synthesis of modified amorphous manganese oxide using low-cost sugars and biochars: Material characterization and metal(loid) sorption properties. *Science of the Total Environment*, **2019**, 670, 1159-1169	10.2	14
41	Sorption behavior of Cd, Cu, Pb, and Zn and their interactions in phytoremediated soil. *International Journal of Phytoremediation*, **2012**, 14, 806-19	3.9	14
40	Effects of flooding on lead and cadmium speciation in sediments from a drinking water reservoir. *Environmental Monitoring and Assessment*, **2006**, 118, 113-23	3.1	14
39	Cadmium Isotope Fractionation during Complexation with Humic Acid. *Environmental Science & Technology*, **2021**, 55, 7430-7444	10.3	14
38	Health risk assessment of metal(loid)s in soil and particulate matter from industrialized regions: A multidisciplinary approach. *Environmental Pollution*, **2020**, 260, 114057	9.3	12
37	Modelling of Cd, Cu, Pb and Zn transport in metal contaminated soil and their uptake by willow (Salix smithiana) using HYDRUS-2D program. *Plant and Soil*, **2013**, 366, 433-451	4.2	12
36	Stability, transformations and stabilizing potential of an amorphous manganese oxide and its surface-modified form in contaminated soils. *Applied Geochemistry*, **2016**, 75, 125-136	3.5	12
35	The role of soil components in synthetic mixtures during the adsorption and speciation changes of Cr(VI): Conjunction of the modeling approach with spectroscopic and isotopic investigations. *Environment International*, **2019**, 127, 848-857	12.9	11
34	A critical evaluation of the 0.05 M EDTA extraction of Pb from forest soils. *International Journal of Environmental Analytical Chemistry*, **2008**, 88, 385-396	1.8	11
33	Tracing the sources of bioaccessible metal(loid)s in urban environments: A multidisciplinary approach. *Science of the Total Environment*, **2021**, 771, 144827	10.2	11

32	Study of interactions between relevant organic acids and aluminium in model solutions using HPLC and IC. *Soil and Water Research*, **2016**, 10, 172-180	2.5	10
31	50years of different landscape management influencing retention of metals in soils. *Journal of Geochemical Exploration*, **2012**, 115, 59-68	3.8	10
30	Incubation of air-pollution-control residues from secondary Pb smelter in deciduous and coniferous organic soil horizons: leachability of lead, cadmium and zinc. *Journal of Hazardous Materials*, **2012**, 209-210, 40-7	12.8	9
29	The influence of copper on tebuconazole sorption onto soils, humic substances, and ferrihydrite. *Environmental Science and Pollution Research*, **2013**, 20, 4205-15	5.1	9
28	Seasonal fluctuations of Zn, Pb, As and Cd contents in the biomass of selected grass species growing on contaminated soils: Implications for in situ phytostabilization. *Science of the Total Environment*, **2020**, 703, 134710	10.2	9
27	Machine learning exploration of the direct and indirect roles of Fe impregnation on Cr(VI) removal by engineered biochar. *Chemical Engineering Journal*, **2022**, 428, 131967	14.7	8
26	Evolution of bioavailable copper and major soil cations in contaminated soils treated with ethylenediaminedisuccinate: a two-year experiment. *Bulletin of Environmental Contamination and Toxicology*, **2011**, 86, 525-30	2.7	7
25	Bioavailability of lead and cadmium in soils artificially contaminated with smelter fly ash. *Bulletin of Environmental Contamination and Toxicology*, **2009**, 83, 286-90	2.7	6
24	Contaminated soils of different natural pH and industrial origin: The role of (nano) iron- and manganese-based amendments in As, Sb, Pb, and Zn leachability. *Environmental Pollution*, **2021**, 285, 117268	9.3	6
23	Nutrient mobilization and nutrient contents of Zea mays in response to EDTA additions to heavy-metal-contaminated agricultural soil. *Journal of Plant Nutrition and Soil Science*, **2009**, 172, 520-527	2.3	5
22	Metal isotope complexation with environmentally relevant surfaces: Opening the isotope fractionation black box. *Critical Reviews in Environmental Science and Technology*,1-31	11.1	5
21	Lead migration in smelter-impacted deciduous and coniferous organic soil horizons based on a long-term in-situ implantation and laboratory column experiments. *Applied Geochemistry*, **2014**, 48, 168-175	3.5	4
20	Suitability of selected bioindicators of atmospheric pollution in the industrialised region of Ostrava, Upper Silesia, Czech Republic. *Environmental Monitoring and Assessment*, **2017**, 189, 478	3.1	4
19	The role of chloride salts in chemically enhanced phytoextraction of heavy metals from a contaminated agricultural soil. *Bulletin of Environmental Contamination and Toxicology*, **2007**, 78, 176-80	2.7	4
18	Phytoextraction of Metals: Modeling Root Metal Uptake and Associated Processes **2015**, 69-83		3
17	Electroactive Fe-biochar for redox-related remediation of arsenic and chromium: Distinct redox nature with varying iron/carbon speciation. *Journal of Hazardous Materials*, **2022**, 430, 128479	12.8	3
16	Biochar and Its Composites for Metal(loid) Removal From Aqueous Solutions **2019**, 113-141		3
15	Response to Comment on "Competitive Adsorption of Cd(II), Cr(VI), and Pb(II) onto Nanomaghemite: A Spectroscopic and Modeling Approach". *Environmental Science & Technology*, **2016**, 50, 1634-5	10.3	2

14	Multiple pollution sources unravelled by environmental forensics techniques and multivariate statistics. *Journal of Hazardous Materials*, **2022**, 424, 127413	12.8	2
13	Nanoscale Zero-Valent Iron Has Minimum Toxicological Risk on the Germination and Early Growth of Two Grass Species with Potential for Phytostabilization. *Nanomaterials*, **2020**, 10,	5.4	2
12	MONITORING OF MOBILIZATION AND UPTAKE OF NUTRIENTS IN RESPONSE TO EDTA ADDITIONS TO A CONTAMINATED AGRICULTURAL SOIL. *Environmental Engineering and Management Journal*, **2017**, 16, 2475-2483	0.6	1
11	Investigation of Fe isotope systematics for the complete sequence of natural and metallurgical processes of Ni lateritic ores: Implications for environmental source tracing. *Applied Geochemistry*, **2021**, 127, 104930	3.5	1
10	Investigation of zinc binding properties onto natural and synthetic zeolites: Implications for soil remediation. *Microporous and Mesoporous Materials*, **2021**, 317, 111022	5.3	1
9	Cadmium isotope systematics for source apportionment in an urban–rural region. *Applied Geochemistry*, **2022**, 137, 105196	3.5	0
8	Mg-Fe LDH-coated biochars for metal(loid) removal: Surface complexation modeling and structural change investigations. *Chemical Engineering Journal*, **2022**, 432, 134360	14.7	0
7	Innovative in situ remediation of mine waters using a layered double hydroxide-biochar composite. *Journal of Hazardous Materials*, **2022**, 424, 127136	12.8	0
6	Soil moisture influences performance of selected stabilizing amendments in soil remediation. *Geoderma*, **2021**, 402, 115307	6.7	0
5	Metal sorption onto soils loaded with urban particulate matter. *Chemie Der Erde*, **2015**, 75, 29-33	4.3	
4	Roles of Metal-(Hydr)oxides in Chelant-Enhanced (Phyto)extraction **2012**, 198-211		
3	New low cost sorbents for Cr(VI) – batch and column experiments. *E3S Web of Conferences*, **2013**, 1, 25006	0.5	
2	Biosorption of Cr(VI) from natural groundwater and the effect of DOC-rich treated water on Cr dissolving from contaminated soil. *Soil and Water Research*, **2016**, 10, 236-243	2.5	
1	Challenges in Reducing Phytotoxicity of Metals in Soils Affected by Non-Ferrous Smelter Operations. *Geography, Environment, Sustainability*, **2022**, 15, 112-121	1	