

Michael Komrek

List of Publications by Year in Descending Order

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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	Electroactive Fe-biochar for redox-related remediation of arsenic and chromium: Distinct redox nature with varying iron/carbon speciation. <i>Journal of Hazardous Materials</i> , 2022 , 430, 128479	12.8	3
120	Cadmium isotope systematics for source apportionment in an urban/rural region. <i>Applied Geochemistry</i> , 2022 , 137, 105196	3.5	0
119	Mg-Fe LDH-coated biochars for metal(loid) removal: Surface complexation modeling and structural change investigations. <i>Chemical Engineering Journal</i> , 2022 , 432, 134360	14.7	0
118	Multiple pollution sources unravelled by environmental forensics techniques and multivariate statistics. <i>Journal of Hazardous Materials</i> , 2022 , 424, 127413	12.8	2
117	Innovative in situ remediation of mine waters using a layered double hydroxide-biochar composite. <i>Journal of Hazardous Materials</i> , 2022 , 424, 127136	12.8	0
116	Machine learning exploration of the direct and indirect roles of Fe impregnation on Cr(VI) removal by engineered biochar. <i>Chemical Engineering Journal</i> , 2022 , 428, 131967	14.7	8
115	Challenges in Reducing Phytotoxicity of Metals in Soils Affected by Non-Ferrous Smelter Operations. <i>Geography, Environment, Sustainability</i> , 2022 , 15, 112-121	1	
114	Investigation of Fe isotope systematics for the complete sequence of natural and metallurgical processes of Ni lateritic ores: Implications for environmental source tracing. <i>Applied Geochemistry</i> , 2021 , 127, 104930	3.5	1
113	Investigation of zinc binding properties onto natural and synthetic zeolites: Implications for soil remediation. <i>Microporous and Mesoporous Materials</i> , 2021 , 317, 111022	5.3	1
112	Cadmium Isotope Fractionation during Complexation with Humic Acid. <i>Environmental Science & Technology</i> , 2021 , 55, 7430-7444	10.3	14
111	Tracing the sources of bioaccessible metal(loid)s in urban environments: A multidisciplinary approach. <i>Science of the Total Environment</i> , 2021 , 771, 144827	10.2	11
110	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. <i>Environmental Pollution</i> , 2021 , 285, 117268	9.3	6
109	Soil moisture influences performance of selected stabilizing amendments in soil remediation. <i>Geoderma</i> , 2021 , 402, 115307	6.7	0
108	Health risk assessment of metal(loid)s in soil and particulate matter from industrialized regions: A multidisciplinary approach. <i>Environmental Pollution</i> , 2020 , 260, 114057	9.3	12
107	Metal(loid) and isotopic tracing of Pb in soils, road and house dusts from the industrial area of Volos (central Greece). <i>Science of the Total Environment</i> , 2020 , 725, 138300	10.2	27
106	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. <i>Science of the Total Environment</i> , 2020 , 703, 134710	10.2	9
105	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. <i>Chemosphere</i> , 2020 , 242, 125248	8.4	29

104	Nanoscale Zero-Valent Iron Has Minimum Toxicological Risk on the Germination and Early Growth of Two Grass Species with Potential for Phytostabilization. <i>Nanomaterials</i> , 2020 , 10,	5.4	2
103	Multifunctional iron-biochar composites for the removal of potentially toxic elements, inherent cations, and hetero-chloride from hydraulic fracturing wastewater. <i>Environment International</i> , 2019 , 124, 521-532	12.9	287
102	Antimonate adsorption onto Mg-Fe layered double hydroxides in aqueous solutions at different pH values: Coupling surface complexation modeling with solid-state analyses. <i>Chemosphere</i> , 2019 , 229, 236-246	8.4	14
101	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. <i>Environment International</i> , 2019 , 127, 848-857	12.9	11
100	Nano zero-valent iron aging interacts with the soil microbial community: a microcosm study. <i>Environmental Science: Nano</i> , 2019 , 6, 1189-1206	7.1	20
99	Synthesis of modified amorphous manganese oxide using low-cost sugars and biochars: Material characterization and metal(loid) sorption properties. <i>Science of the Total Environment</i> , 2019 , 670, 1159-1169	10.2	14
98	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. <i>Science of the Total Environment</i> , 2019 , 648, 1511-1519	10.2	19
97	Biochar and Its Composites for Metal(loid) Removal From Aqueous Solutions 2019 , 113-141		3
96	In situ chemical stabilization of trace element-contaminated soil [Field demonstrations and barriers to transition from laboratory to the field] A review. <i>Applied Geochemistry</i> , 2019 , 100, 335-351	3.5	48
95	Effect of nano zero-valent iron application on As, Cd, Pb, and Zn availability in the rhizosphere of metal(loid) contaminated soils. <i>Chemosphere</i> , 2018 , 200, 217-226	8.4	67
94	AMOchar: Amorphous manganese oxide coating of biochar improves its efficiency at removing metal(loid)s from aqueous solutions. <i>Science of the Total Environment</i> , 2018 , 625, 71-78	10.2	41
93	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. <i>Journal of Cleaner Production</i> , 2018 , 171, 944-953	10.3	31
92	Nano Zero-Valent Iron Mediated Metal(loid) Uptake and Translocation by Arbuscular Mycorrhizal Symbioses. <i>Environmental Science & Technology</i> , 2018 , 52, 7640-7651	10.3	23
91	Unleaded gasoline as a significant source of Pb emissions in the Subarctic. <i>Chemosphere</i> , 2018 , 193, 230-236	8.4	23
90	Revisiting models of Cd, Cu, Pb and Zn adsorption onto Fe(III) oxides. <i>Chemical Geology</i> , 2018 , 493, 189-198	10.2	31
89	Metal(loid)s behaviour in soils amended with nano zero-valent iron as a function of pH and time. <i>Journal of Environmental Management</i> , 2017 , 186, 268-276	7.9	57
88	Exposure of engineered nanomaterials to plants: Insights into the physiological and biochemical responses-A review. <i>Plant Physiology and Biochemistry</i> , 2017 , 110, 236-264	5.4	240
87	Characterization of Fe-Mn concentric nodules from Luvisol irrigated by mine water in a semi-arid agricultural area. <i>Geoderma</i> , 2017 , 299, 32-42	6.7	17

86	Stable isotope tracing of Ni and Cu pollution in North-East Norway: Potentials and drawbacks. <i>Environmental Pollution</i> , 2017 , 228, 149-157	9.3	22
85	Engineered Nanomaterials for Phytoremediation of Metal/Metalloid-Contaminated Soils: Implications for Plant Physiology 2017 , 369-403		14
84	Interactions of two novel stabilizing amendments with sunflower plants grown in a contaminated soil. <i>Chemosphere</i> , 2017 , 186, 374-380	8.4	17
83	Suitability of selected bioindicators of atmospheric pollution in the industrialised region of Ostrava, Upper Silesia, Czech Republic. <i>Environmental Monitoring and Assessment</i> , 2017 , 189, 478	3.1	4
82	Sorption mechanisms of arsenate on Mg-Fe layered double hydroxides: A combination of adsorption modeling and solid state analysis. <i>Chemosphere</i> , 2017 , 168, 539-548	8.4	34
81	Evaluating the suitability of different environmental samples for tracing atmospheric pollution in industrial areas. <i>Environmental Pollution</i> , 2017 , 220, 286-297	9.3	42
80	MONITORING OF MOBILIZATION AND UPTAKE OF NUTRIENTS IN RESPONSE TO EDTA ADDITIONS TO A CONTAMINATED AGRICULTURAL SOIL. <i>Environmental Engineering and Management Journal</i> , 2017 , 16, 2475-2483	0.6	1
79	Study of interactions between relevant organic acids and aluminium in model solutions using HPLC and IC. <i>Soil and Water Research</i> , 2016 , 10, 172-180	2.5	10
78	Comparative effects of nanoscale zero-valent iron (nZVI) and Fe ₂ O ₃ nanoparticles on root hydraulic conductivity of <i>Solanum lycopersicum</i> L.. <i>Environmental and Experimental Botany</i> , 2016 , 131, 128-136	5.9	27
77	Maghemite nanoparticles and ferrous sulfate for the stimulation of iron plaque formation and arsenic immobilization in <i>Phragmites australis</i> . <i>Environmental Pollution</i> , 2016 , 219, 296-304	9.3	23
76	Response to Comment on "Competitive Adsorption of Cd(II), Cr(VI), and Pb(II) onto Nanomaghemite: A Spectroscopic and Modeling Approach". <i>Environmental Science & Technology</i> , 2016 , 50, 1634-5	10.3	2
75	Metal(loid) distribution and Pb isotopic signatures in the urban environment of Athens, Greece. <i>Environmental Pollution</i> , 2016 , 213, 420-431	9.3	34
74	Lead and cadmium sorption mechanisms on magnetically modified biochars. <i>Bioresource Technology</i> , 2016 , 203, 318-24	11	189
73	Root water transport of <i>Helianthus annuus</i> L. under iron oxide nanoparticle exposure. <i>Environmental Science and Pollution Research</i> , 2016 , 23, 1732-41	5.1	111
72	Biosorption of Cr(VI) from natural groundwater and the effect of DOC-rich treated water on Cr dissolving from contaminated soil. <i>Soil and Water Research</i> , 2016 , 10, 236-243	2.5	
71	Chromate adsorption on selected soil minerals: Surface complexation modeling coupled with spectroscopic investigation. <i>Journal of Hazardous Materials</i> , 2016 , 318, 433-442	12.8	39
70	Stability, transformations and stabilizing potential of an amorphous manganese oxide and its surface-modified form in contaminated soils. <i>Applied Geochemistry</i> , 2016 , 75, 125-136	3.5	12
69	Selected Fe and Mn (nano)oxides as perspective amendments for the stabilization of As in contaminated soils. <i>Environmental Science and Pollution Research</i> , 2016 , 23, 10841-10854	5.1	22

68	Metal sorption onto soils loaded with urban particulate matter. <i>Chemie Der Erde</i> , 2015 , 75, 29-33	4.3	
67	Biosorbent encapsulation in calcium alginate: Effects of process variables on Cr(VI) removal from solutions. <i>International Journal of Biological Macromolecules</i> , 2015 , 80, 260-70	7.9	16
66	Interactions of nano-oxides with low-molecular-weight organic acids in a contaminated soil. <i>Journal of Hazardous Materials</i> , 2015 , 293, 7-14	12.8	46
65	Cadmium isotope fractionation within the soil profile complicates source identification in relation to Pb/Zn mining and smelting processes. <i>Chemical Geology</i> , 2015 , 405, 1-9	4.2	59
64	Effects of Nano-maghemite on Trace Element Accumulation and Drought Response of <i>Helianthus annuus</i> L. in a Contaminated Mine Soil. <i>Water, Air, and Soil Pollution</i> , 2015 , 226, 1	2.6	49
63	Competitive Adsorption of Cd(II), Cr(VI), and Pb(II) onto Nanomaghemite: A Spectroscopic and Modeling Approach. <i>Environmental Science & Technology</i> , 2015 , 49, 12851-9	10.3	87
62	Bioaccumulation of thallium in a neutral soil as affected by solid-phase association. <i>Journal of Geochemical Exploration</i> , 2015 , 159, 208-212	3.8	24
61	Phytoextraction of Metals: Modeling Root Metal Uptake and Associated Processes 2015 , 69-83		3
60	Thallium contamination of soils/vegetation as affected by sphalerite weathering: a model rhizospheric experiment. <i>Journal of Hazardous Materials</i> , 2015 , 283, 148-56	12.8	31
59	The pH-dependent long-term stability of an amorphous manganese oxide in smelter-polluted soils: implication for chemical stabilization of metals and metalloids. <i>Journal of Hazardous Materials</i> , 2015 , 286, 386-94	12.8	47
58	Stability of a novel synthetic amorphous manganese oxide in contrasting soils. <i>Geoderma</i> , 2014 , 214-215, 2-9	6.7	16
57	Copper removal from aqueous solution using biochar: Effect of chemical activation. <i>Arabian Journal of Chemistry</i> , 2014 , 7, 43-52	5.9	96
56	Geochemical and spectroscopic investigations of Cd and Pb sorption mechanisms on contrasting biochars: engineering implications. <i>Bioresource Technology</i> , 2014 , 171, 442-51	11	120
55	Evaluating the potential of three Fe- and Mn-(nano)oxides for the stabilization of Cd, Cu and Pb in contaminated soils. <i>Journal of Environmental Management</i> , 2014 , 146, 226-234	7.9	55
54	Lead migration in smelter-impacted deciduous and coniferous organic soil horizons based on a long-term in-situ implantation and laboratory column experiments. <i>Applied Geochemistry</i> , 2014 , 48, 168-175	3.5	4
53	Trace elements and nutrients adsorption onto nano-maghemite in a contaminated-soil solution: A geochemical/statistical approach. <i>Journal of Hazardous Materials</i> , 2014 , 276, 271-7	12.8	16
52	Isotope fractionation and spectroscopic analysis as an evidence of Cr(VI) reduction during biosorption. <i>Chemosphere</i> , 2014 , 95, 402-7	8.4	25
51	pK a Constant Determination of Two Triazole Pesticides: Tebuconazole and Penconazole. <i>Journal of Solution Chemistry</i> , 2013 , 42, 1075-1082	1.8	16

50	Phase-dependent phytoavailability of thallium--a synthetic soil experiment. <i>Journal of Hazardous Materials</i> , 2013 , 250-251, 265-71	12.8	22
49	Brewers draff as a new low-cost sorbent for chromium (VI): comparison with other biosorbents. <i>Journal of Colloid and Interface Science</i> , 2013 , 396, 227-33	9.3	27
48	Adsorption of copper, cadmium, lead and zinc onto a synthetic manganese oxide. <i>Journal of Colloid and Interface Science</i> , 2013 , 399, 99-106	9.3	103
47	Tebuconazole Sorption in Contrasting Soil Types. <i>Soil and Sediment Contamination</i> , 2013 , 22, 404-414	3.2	25
46	The influence of copper on tebuconazole sorption onto soils, humic substances, and ferrihydrite. <i>Environmental Science and Pollution Research</i> , 2013 , 20, 4205-15	5.1	9
45	Chemical stabilization of metals and arsenic in contaminated soils using oxides--a review. <i>Environmental Pollution</i> , 2013 , 172, 9-22	9.3	395
44	Geochemical position of thallium in soils from a smelter-impacted area. <i>Journal of Geochemical Exploration</i> , 2013 , 124, 176-182	3.8	51
43	Modelling of Cd, Cu, Pb and Zn transport in metal contaminated soil and their uptake by willow (<i>Salix smithiana</i>) using HYDRUS-2D program. <i>Plant and Soil</i> , 2013 , 366, 433-451	4.2	12
42	New low cost sorbents for Cr(VI) batch and column experiments. <i>E3S Web of Conferences</i> , 2013 , 1, 25006.5		
41	Incubation of air-pollution-control residues from secondary Pb smelter in deciduous and coniferous organic soil horizons: leachability of lead, cadmium and zinc. <i>Journal of Hazardous Materials</i> , 2012 , 209-210, 40-7	12.8	9
40	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. <i>Environmental Monitoring and Assessment</i> , 2012 , 184, 2517-36	3.1	74
39	Effect of low-molecular-weight organic acids on the leaching of thallium and accompanying cations from soil A model rhizosphere solution approach. <i>Journal of Geochemical Exploration</i> , 2012 , 112, 212-217	3.8	30
38	50years of different landscape management influencing retention of metals in soils. <i>Journal of Geochemical Exploration</i> , 2012 , 115, 59-68	3.8	10
37	Sorption behavior of Cd, Cu, Pb, and Zn and their interactions in phytoremediated soil. <i>International Journal of Phytoremediation</i> , 2012 , 14, 806-19	3.9	14
36	Roles of Metal-(Hydr)oxides in Chelant-Enhanced (Phyto)extraction 2012 , 198-211		
35	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. <i>International Journal of Phytoremediation</i> , 2012 , 14, 754-71	3.9	23
34	Sorption of tebuconazole onto selected soil minerals and humic acids. <i>Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes</i> , 2012 , 47, 336-42	2.2	22
33	Distribution of thallium and accompanying metals in tree rings of Scots pine (<i>Pinus sylvestris</i> L.) from a smelter-affected area. <i>Journal of Geochemical Exploration</i> , 2011 , 108, 73-80	3.8	21

32	Biochar application to metal-contaminated soil: Evaluating of Cd, Cu, Pb and Zn sorption behavior using single- and multi-element sorption experiment. <i>Plant, Soil and Environment</i> , 2011 , 57, 372-380	2.2	67
31	Mobility of lead, zinc and cadmium in alluvial soils heavily polluted by smelting industry. <i>Plant, Soil and Environment</i> , 2011 , 51, 316-321	2.2	56
30	Evolution of bioavailable copper and major soil cations in contaminated soils treated with ethylenediaminedisuccinate: a two-year experiment. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2011 , 86, 525-30	2.7	7
29	Complexation between the fungicide tebuconazole and copper(II) probed by electrospray ionization mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2011 , 25, 1037-42	2.2	27
28	Effect of illite and birnessite on thallium retention and bioavailability in contaminated soils. <i>Journal of Hazardous Materials</i> , 2011 , 191, 170-6	12.8	52
27	Contamination of vineyard soils with fungicides: a review of environmental and toxicological aspects. <i>Environment International</i> , 2010 , 36, 138-151	12.9	463
26	Lead contamination of an agricultural soil in the vicinity of a shooting range. <i>Environmental Monitoring and Assessment</i> , 2010 , 162, 37-46	3.1	36
25	Potential and drawbacks of EDDS-enhanced phytoextraction of copper from contaminated soils. <i>Environmental Pollution</i> , 2010 , 158, 2428-38	9.3	46
24	Thallium dynamics in contrasting light sandy soils--soil vulnerability assessment to anthropogenic contamination. <i>Journal of Hazardous Materials</i> , 2010 , 173, 717-23	12.8	40
23	Assessment of the BCR sequential extraction procedure for thallium fractionation using synthetic mineral mixtures. <i>Journal of Hazardous Materials</i> , 2010 , 176, 913-8	12.8	29
22	Thallium uptake by white mustard (<i>Sinapis alba</i> L.) grown on moderately contaminated soils--agro-environmental implications. <i>Journal of Hazardous Materials</i> , 2010 , 182, 303-8	12.8	39
21	Bioavailability of lead and cadmium in soils artificially contaminated with smelter fly ash. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2009 , 83, 286-90	2.7	6
20	Effect of ozonation on polychlorinated biphenyl degradation and on soil physico-chemical properties. <i>Journal of Hazardous Materials</i> , 2009 , 161, 1202-7	12.8	25
19	Retention of copper originating from different fungicides in contrasting soil types. <i>Journal of Hazardous Materials</i> , 2009 , 166, 1395-402	12.8	41
18	Copper determination using ICP-MS with hexapole collision cell. <i>Chemical Papers</i> , 2009 , 63,	1.9	24
17	Interactions of EDDS with Fe- and Al-(hydr)oxides. <i>Chemosphere</i> , 2009 , 77, 87-93	8.4	32
16	Lithogenic thallium behavior in soils with different land use. <i>Journal of Geochemical Exploration</i> , 2009 , 102, 7-12	3.8	50
15	Nutrient mobilization and nutrient contents of Zea mays in response to EDTA additions to heavy-metal-contaminated agricultural soil. <i>Journal of Plant Nutrition and Soil Science</i> , 2009 , 172, 520-527 ³	2.3	5

14	The use of poplar during a two-year induced phytoextraction of metals from contaminated agricultural soils. <i>Environmental Pollution</i> , 2008 , 151, 27-38	9.3	63
13	Lead isotopes in environmental sciences: a review. <i>Environment International</i> , 2008 , 34, 562-77	12.9	555
12	Phytoextraction of Pb and Cd from a contaminated agricultural soil using different EDTA application regimes: Laboratory versus field scale measures of efficiency. <i>Geoderma</i> , 2008 , 144, 446-454	6.7	120
11	Copper contamination of vineyard soils from small wine producers: A case study from the Czech Republic. <i>Geoderma</i> , 2008 , 147, 16-22	6.7	84
10	A critical evaluation of the 0.05 M EDTA extraction of Pb from forest soils. <i>International Journal of Environmental Analytical Chemistry</i> , 2008 , 88, 385-396	1.8	11
9	The role of Fe- and Mn-oxides during EDTA-enhanced phytoextraction of heavy metals. <i>Plant, Soil and Environment</i> , 2008 , 53, 216-224	2.2	18
8	The role of chloride salts in chemically enhanced phytoextraction of heavy metals from a contaminated agricultural soil. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2007 , 78, 176-80	2.7	4
7	Metal/metalloid contamination and isotopic composition of lead in edible mushrooms and forest soils originating from a smelting area. <i>Environment International</i> , 2007 , 33, 677-84	12.9	74
6	The use of maize and poplar in chelant-enhanced phytoextraction of lead from contaminated agricultural soils. <i>Chemosphere</i> , 2007 , 67, 640-51	8.4	110
5	Vanadium determination in chloride matrices using ICP-MS: finding the optimum collision/reaction cell parameters for suppressing polyatomic interferences. <i>Analytical and Bioanalytical Chemistry</i> , 2006 , 385, 962-70	4.4	21
4	Evaluation of extraction/digestion techniques used to determine lead isotopic composition in forest soils. <i>Analytical and Bioanalytical Chemistry</i> , 2006 , 385, 1109-15	4.4	39
3	Effects of flooding on lead and cadmium speciation in sediments from a drinking water reservoir. <i>Environmental Monitoring and Assessment</i> , 2006 , 118, 113-23	3.1	14
2	ICP-MS measurements of lead isotopic ratios in soils heavily contaminated by lead smelting: tracing the sources of pollution. <i>Analytical and Bioanalytical Chemistry</i> , 2004 , 378, 311-7	4.4	161
1	Metal isotope complexation with environmentally relevant surfaces: Opening the isotope fractionation black box. <i>Critical Reviews in Environmental Science and Technology</i> , 1-31	11.1	5