Clemens Reimann

List of Publications by Citations

135 papers	8,616 citations	49 h-index	90 g-index
137 ext. papers	9,490 ext. citations	5.8 avg, IF	6.17 L-index

#	Paper	IF	Citations
135	Background and threshold: critical comparison of methods of determination. *Science of the Total Environment*, **2005**, 346, 1-16	10.2	504
134	Distinguishing between natural and anthropogenic sources for elements in the environment: regional geochemical surveys versus enrichment factors. *Science of the Total Environment*, **2005**, 337, 91-107	10.2	478
133	Geochemical background--concept and reality. *Science of the Total Environment*, **2005**, 350, 12-27	10.2	456
132	Factor analysis applied to regional geochemical data: problems and possibilities. *Applied Geochemistry*, **2002**, 17, 185-206	3.5	365
131	Intrinsic Flaws of Element Enrichment Factors (EFs) in Environmental Geochemistry. *Environmental Science & Technology*, **2000**, 34, 5084-5091	10.3	364
130	Principal component analysis for compositional data with outliers. *Environmetrics*, **2009**, 20, 621-632	1.3	300
129	Univariate statistical analysis of environmental (compositional) data: problems and possibilities. *Science of the Total Environment*, **2009**, 407, 6100-8	10.2	295
128	**2008**,		269
127	Multivariate outlier detection in exploration geochemistry. *Computers and Geosciences*, **2005**, 31, 579-587	4.5	262
126	Cluster analysis applied to regional geochemical data: Problems and possibilities. *Applied Geochemistry*, **2008**, 23, 2198-2213	3.5	240
125	Chemical Elements in the Environment **1998**,		237
124	Drinking water quality in the Ethiopian section of the East African Rift Valley I--data and health aspects. *Science of the Total Environment*, **2003**, 311, 65-80	10.2	182
123	The concept of compositional data analysis in practice--total major element concentrations in agricultural and grazing land soils of Europe. *Science of the Total Environment*, **2012**, 426, 196-210	10.2	171
122	The bivariate statistical analysis of environmental (compositional) data. *Science of the Total Environment*, **2010**, 408, 4230-8	10.2	139
121	The geographic distribution of fluoride in surface and groundwater in Ethiopia with an emphasis on the Rift Valley. *Science of the Total Environment*, **2006**, 367, 182-90	10.2	136
120	Comparison of the element composition in several plant species and their substrate from a 1500000-km2 area in Northern Europe. *Science of the Total Environment*, **2001**, 278, 87-112	10.2	119
119	Establishing geochemical background variation and threshold values for 59 elements in Australian surface soil. *Science of the Total Environment*, **2017**, 578, 633-648	10.2	113

118	Lead and lead isotopes in agricultural soils of Europe The continental perspective. *Applied Geochemistry*, **2012**, 27, 532-542	3.5	111
117	Arsenic distribution in the environment: The effects of scale. *Applied Geochemistry*, **2009**, 24, 1147-1167	3.5	107
116	Variation of 66 elements in European bottled mineral waters. *Science of the Total Environment*, **1999**, 243-244, 21-41	10.2	106
115	Robust factor analysis for compositional data. *Computers and Geosciences*, **2009**, 35, 1854-1861	4.5	100
114	GEMAS: Establishing geochemical background and threshold for 53 chemical elements in European agricultural soil. *Applied Geochemistry*, **2018**, 88, 302-318	3.5	98
113	New soil composition data for Europe and Australia: demonstrating comparability, identifying continental-scale processes and learning lessons for global geochemical mapping. *Science of the Total Environment*, **2012**, 416, 239-52	10.2	97
112	Antimony in the environment: Lessons from geochemical mapping. *Applied Geochemistry*, **2010**, 25, 175-198	3.5	94
111	Natural concentrations of major and trace elements in some Norwegian bedrock groundwaters. *Applied Geochemistry*, **1995**, 10, 1-16	3.5	86
110	Rainwater composition in eight arctic catchments in northern Europe (Finland, Norway and Russia). *Atmospheric Environment*, **1997**, 31, 159-170	5.3	85
109	Bottled drinking water: Water contamination from bottle materials (glass, hard PET, soft PET), the influence of colour and acidification. *Applied Geochemistry*, **2010**, 25, 1030-1046	3.5	83
108	Determination of major and trace elements in European bottled mineral water Analytical methods. *Journal of Geochemical Exploration*, **2010**, 107, 217-226	3.8	82
107	Multi-element, multi-medium regional geochemistry in the European Arctic: element concentration, variation and correlation. *Applied Geochemistry*, **2001**, 16, 759-780	3.5	82
106	Top-/bottom-soil ratios and enrichment factors: What do they really show?. *Applied Geochemistry*, **2012**, 27, 138-145	3.5	79
105	Interpretation of multivariate outliers for compositional data. *Computers and Geosciences*, **2012**, 39, 77-85	4.5	74
104	Seasonal variability of total and easily leachable element contents in topsoils (0-5 cm) from eight catchments in the European Arctic (Finland, Norway and Russia). *Environmental Pollution*, **1997**, 96, 261-74	9.3	70
103	Element concentrations and variations along a 120-km transect in southern Norway Anthropogenic vs. geogenic vs. biogenic element sources and cycles. *Applied Geochemistry*, **2007**, 22, 851-871	3.5	70
102	Mercury in European agricultural and grazing land soils. *Applied Geochemistry*, **2013**, 33, 1-12	3.5	69
101	Element contents in leaves of four plant species (birch, mountain ash, fern and spruce) along anthropogenic and geogenic concentration gradients. *Science of the Total Environment*, **2007**, 377, 416-33	10.2	64

100	Arsenic in agricultural and grazing land soils of Europe. *Applied Geochemistry*, **2013**, 28, 2-10	3.5	62
99	Element levels in birch and spruce wood ashes: green energy?. *Science of the Total Environment*, **2008**, 393, 191-7	10.2	61
98	Regional atmospheric deposition patterns of Ag, As, Bi, Cd, Hg, Mo, Sb and Tl in a 188,000 km2 area in the European arctic as displayed by terrestrial moss samples-long-range atmospheric transport vs local impact. *Atmospheric Environment*, **1997**, 31, 3887-3901	5.3	59
97	The single component geochemical map: Fact or fiction?. *Journal of Geochemical Exploration*, **2016**, 162, 16-28	3.8	57
96	Geochemical mapping: technique or art?. *Geochemistry: Exploration, Environment, Analysis*, **2005**, 5, 359-378	1.8	56
95	Distribution and pathways of heavy metals and sulphur in the vicinity of the copper-nickel smelters in Nikel and Zapoljarnij, Kola Peninsula, Russia, as revealed by different sample media. *Applied Geochemistry*, **1996**, 11, 25-34	3.5	55
94	GEMAS: Cadmium distribution and its sources in agricultural and grazing land soil of Europe Original data versus clr-transformed data. *Journal of Geochemical Exploration*, **2017**, 173, 13-30	3.8	53
93	Bioavailable Sr/Sr in European soils: A baseline for provenancing studies. *Science of the Total Environment*, **2019**, 672, 1033-1044	10.2	52
92	Regional variation of snowpack chemistry in the vicinity of Nikel and Zapoljarnij, Russia, northern Finland and Norway. *Science of the Total Environment*, **1996**, 182, 147-158	10.2	52
91	PAH-concentrations and compositions in the top 2 cm of forest soils along a 120 km long transect through agricultural areas, forests and the city of Oslo, Norway. *Environmental Pollution*, **2007**, 145, 829-38	9.3	51
90	Comparing results from two continental geochemical surveys to world soil composition and deriving Predicted Empirical Global Soil (PEGS2) reference values. *Earth and Planetary Science Letters*, **2012**, 319-320, 269-276	5.3	50
89	The influence of a city on element contents of a terrestrial moss (Hylocomium splendens). *Science of the Total Environment*, **2006**, 369, 419-32	10.2	50
88	Topsoil (0-5 cm) composition in eight arctic catchments in northern Europe (Finland, Norway and Russia). *Environmental Pollution*, **1997**, 95, 45-56	9.3	49
87	Setting action levels for drinking water: are we protecting our health or our economy (or our backs!)?. *Science of the Total Environment*, **2004**, 332, 13-21	10.2	49
86	Element contents in mountain birch leaves, bark and wood under different anthropogenic and geogenic conditions. *Applied Geochemistry*, **2007**, 22, 1549-1566	3.5	48
85	The biosphere: A homogeniser of Pb-isotope signals. *Applied Geochemistry*, **2008**, 23, 705-722	3.5	46
84	Regional distribution of Al, B, Ba, Ca, K, La, Mg, Mn, Na, P, Rb, Si, Sr, Th, U and Y in terrestrial moss within a 188,000 km2 area of the central Barents region: influence of geology, seaspray and human activity. *Applied Geochemistry*, **2001**, 16, 137-159	3.5	46
83	Regional patterns of heavy metals (Co, Cr, Cu, Fe, Ni, Pb, V and Zn) and sulphur in terrestrial moss samples as indication of airborne pollution in a 188, 000 km2 area in northern Finland, Norway and Russia. *Journal of Geochemical Exploration*, **1997**, 58, 269-281	3.8	45

82	GEMAS: Spatial distribution of the pH of European agricultural and grazing land soil. *Applied Geochemistry*, **2014**, 48, 207-216	3.5	44
81	The performance of moss, grass, and 1- and 2-year old spruce needles as bioindicators of contamination: a comparative study at the scale of the Czech Republic. *Science of the Total Environment*, **2011**, 409, 2281-97	10.2	43
80	Snow composition in eight catchments in the central barents Euro-Arctic region. *Atmospheric Environment*, **1998**, 32, 2609-2626	5.3	43
79	Emissions from the copper–nickel industry on the Kola Peninsula and at Noril'sk, Russia. *Atmospheric Environment*, **2009**, 43, 1474-1480	5.3	40
78	Ecogeochemical investigation, Kola peninsula: Sulphur and trace element content in snow. *Water, Air, and Soil Pollution*, **1995**, 85, 749-754	2.6	39
77	The influence of geology and land-use on inorganic stream water quality in the Oslo region, Norway. *Applied Geochemistry*, **2009**, 24, 1862-1874	3.5	38
76	Comparison of elemental contents in O- and C-horizon soils from the surroundings of Nikel, Kola Peninsula, using different grain size fractions and extractions. *Geoderma*, **1998**, 84, 65-87	6.7	37
75	Processes influencing the chemical composition of the O-horizon of podzols along a 500-km north–south profile from the coast of the Barents Sea to the Arctic Circle. *Geoderma*, **2000**, 95, 113-139	6.7	37
74	Anthropogenic noble-metal enrichment of topsoil in the Monchegorsk area, Kola Peninsula, northwest Russia. *Journal of Geochemical Exploration*, **1997**, 58, 283-289	3.8	36
73	Stream water geochemistry from selected catchments on the Kola Peninsula (NW Russia)and in neighbouring areas of Finland and Norway: 1. Elements levels and sources. *Aquatic Geochemistry*, **1996**, 2, 149-168	1.7	36
72	Low-density geochemical mapping and the robustness of geochemical patterns. *Geochemistry: Exploration, Environment, Analysis*, **2008**, 8, 219-227	1.8	35
71	Comparison of plant and precipitation chemistry in catchments with different levels of pollution on the Kola Peninsula, Russia. *Science of the Total Environment*, **1999**, 243-244, 169-191	10.2	34
70	Pb-concentrations and Pb-isotope ratios in soils collected along an east–west transect across the United States. *Applied Geochemistry*, **2011**, 26, 1623-1631	3.5	33
69	Spatial distribution of lead and lead isotopes in soil B-horizon, forest-floor humus, grass (Avenella flexuosa) and spruce (Picea abies) needles across the Czech Republic. *Applied Geochemistry*, **2011**, 26, 1205-1214	3.5	32
68	Mass Balance between Emission and Deposition of Airborne Contaminants. *Environmental Science & Technology*, **1997**, 31, 2966-2972	10.3	32
67	Influence of filtration on concentrations of 62 elements analysed on crystalline bedrock groundwater samples by ICP-MS. *Science of the Total Environment*, **1999**, 234, 155-73	10.2	32
66	Geochemical fingerprinting and source discrimination of agricultural soils at continental scale. *Chemical Geology*, **2015**, 396, 1-15	4.2	31
65	Magnetic properties of terrestrial moss (Hylocomium splendens) along a north-south profile crossing the city of Oslo, Norway. *Science of the Total Environment*, **2011**, 409, 2252-60	10.2	31

64	Multielement regional geochemical reconnaissance as an aid to target selection in Irish Caledonian terrains. *Journal of Geochemical Exploration*, **1993**, 47, 63-87	3.8	31
63	Impacts of Airborne Contamination on Regional Soil and Water Quality: The Kola Peninsula, Russia. *Environmental Science & Technology*, **2000**, 34, 2727-2732	10.3	30
62	Monitoring accuracy and precision Improvements by introducing robust and resistant statistics. *Mikrochimica Acta*, **1986**, 89, 31-42	5.8	30
61	Temperature-dependent leaching of chemical elements from mineral water bottle materials. *Applied Geochemistry*, **2012**, 27, 1492-1498	3.5	29
60	Groundwater composition near the nickel copper smelting industry on the Kola Peninsula, central Barents Region (NW Russia and NE Norway). *Journal of Hydrology*, **1998**, 208, 92-107	6	28
59	Mineralogical fingerprints of industrial emissions an example from Ni mining and smelting on the Kola Peninsula, NW Russia. *Science of the Total Environment*, **1998**, 221, 189-200	10.2	28
58	Metallogenic provinces, geochemical provinces and regional geology What causes large-scale patterns in low density geochemical maps of the C-horizon of podzols in Arctic Europe?. *Applied Geochemistry*, **2001**, 16, 963-983	3.5	28
57	Does bottle type and acid-washing influence trace element analyses by ICP-MS on water samples? A test covering 62 elements and four bottle types: high density polyethene (HDPE), polypropene (PP), fluorinated ethene propene copolymer (FEP) and perfluoroalkoxy polymer (PFA). *Science of the Total Environment*, **1999**, 239, 111-30	10.2	27
56	Annual atmospheric deposition of 16 elements in eight catchments of the central Barents region. *Science of the Total Environment*, **1998**, 220, 95-114	10.2	26
55	Platinum-group elements (Rh, Pt, Pd) and Au distribution in snow samples from the Kola Peninsula, NW Russia. *Atmospheric Environment*, **1999**, 33, 3281-3290	5.3	26
54	Contemporary lead concentration and stable lead isotope ratio distribution in forest moss across the Czech Republic. *Applied Geochemistry*, **2014**, 40, 51-60	3.5	25
53	Stream water geochemistry from selected catchments on the Kola Peninsula (NW Russia) and in neighbouring areas of Finland and Norway: 2. Time-series. *Aquatic Geochemistry*, **1996**, 2, 169-184	1.7	25
52	Sub-continental-scale geochemical mapping: sampling, quality control and data analysis issues. *Geochemistry: Exploration, Environment, Analysis*, **2005**, 5, 311-323	1.8	24
51	GEMAS: Indium in agricultural and grazing land soil of Europe Its source and geochemical distribution patterns. *Journal of Geochemical Exploration*, **2015**, 154, 61-80	3.8	21
50	Distribution of Rb, Ga and Cs in agricultural land soils at European continental scale (GEMAS): Implications for weathering conditions and provenance. *Chemical Geology*, **2018**, 479, 188-203	4.2	21
49	Tellurium in the environment: current knowledge and identification of gaps. *Environmental Chemistry*, **2019**, 16, 215	3.2	21
48	Inorganic chemical quality of European tap-water: 1. Distribution of parameters and regulatory compliance. *Applied Geochemistry*, **2015**, 59, 200-210	3.5	21
47	Use of GEMAS data for risk assessment of cadmium in European agricultural and grazing land soil under the REACH Regulation. *Applied Geochemistry*, **2016**, 74, 109-121	3.5	20

46	Linking chemical elements in forest floor humus (Oh-horizon) in the Czech Republic to contamination sources. *Environmental Pollution*, **2011**, 159, 1205-14	9.3	19
45	Identification of the co-existence of low total organic carbon contents and low pH values in agricultural soil in north-central Europe using hot spot analysis based on GEMAS project data. *Science of the Total Environment*, **2019**, 678, 94-104	10.2	17
44	Comparison of sulphur and heavy metal contents and their regional distribution in humus and moss samples from the vicinity of Nikel and Zapoljarnij, Kola Peninsula, Russia. *Water, Air, and Soil Pollution*, **1997**, 98, 361-380	2.6	16
43	Is pure groundwater safe to drink?: natural "contamination' of groundwater in Norway. *Geology Today*, **1998**, 14, 104-113	0.4	16
42	White HDPE bottles as source of serious contamination of water samples with Ba and Zn. *Science of the Total Environment*, **2007**, 374, 292-6	10.2	16
41	Geosphere-biosphere circulation of chemical elements in soil and plant systems from a 100 km transect from southern central Norway. *Science of the Total Environment*, **2018**, 639, 129-145	10.2	16
40	Low density geochemical mapping and mineral exploration: application of the mineral system concept. *Geochemistry: Exploration, Environment, Analysis*, **2016**, 16, 48-61	1.8	15
39	Blind Source Separation for Spatial Compositional Data. *Mathematical Geosciences*, **2015**, 47, 753-770	2.5	15
38	GEMAS: CNS concentrations and C/N ratios in European agricultural soil. *Science of the Total Environment*, **2018**, 627, 975-984	10.2	15
37	Lake water geochemistry on the western Kola Peninsula, north-west Russia. *Applied Geochemistry*, **1999**, 14, 787-805	3.5	15
36	Hydrochemical distribution patterns in stream waters, Tr□delag, central Norway. *Science of the Total Environment*, **2001**, 267, 1-21	10.2	14
35	Graphical statistics to explore the natural and anthropogenic processes influencing the inorganic quality of drinking water, ground water and surface water. *Applied Geochemistry*, **2018**, 88, 133-148	3.5	13
34	Quantifying Diffuse Contamination: Method and Application to Pb in Soil. *Environmental Science & Technology*, **2017**, 51, 6719-6726	10.3	12
33	U-Th signatures of agricultural soil at the European continental scale (GEMAS): Distribution, weathering patterns and processes controlling their concentrations. *Science of the Total Environment*, **2018**, 622-623, 1277-1293	10.2	12
32	A soil geochemical background for northeastern Brazil. *Geochemistry: Exploration, Environment, Analysis*, **2012**, 12, 197-209	1.8	12
31	Cadmium enrichment in topsoil: Separating diffuse contamination from biosphere-circulation signals. *Science of the Total Environment*, **2019**, 651, 1344-1355	10.2	12
30	Comparison of stream sediment and soil sampling for regional exploration in the eastern Alps, Austria. *Journal of Geochemical Exploration*, **1988**, 31, 75-85	3.8	11
29	GEMAS: Geochemical background and mineral potential of emerging tech-critical elements in Europe revealed from low-sampling density geochemical mapping. *Applied Geochemistry*, **2019**, 111, 104425	3.5	10

28	GEMAS: Source, distribution patterns and geochemical behaviour of Ge in agricultural and grazing land soils at European continental scale. *Applied Geochemistry*, **2016**, 72, 113-124	3.5	8
27	Factors influencing NO3 concentrations in rain, stream water, ground water and podzol profiles of eight small catchments in the European Arctic. *Environmental Pollution*, **1998**, 102, 559-568	9.3	8
26	Reply to the comments on "The biosphere: A homogenizer of Pb-isotope signals" by Richard Bindler and William Shotyk. *Applied Geochemistry*, **2008**, 23, 2527-2535	3.5	8
25	GEMAS: prediction of solid-solution partitioning coefficients (Kd) for cationic metals in soils using mid-infrared diffuse reflectance spectroscopy. *Environmental Toxicology and Chemistry*, **2015**, 34, 224-34	3.8	7
24	Element distribution in Lactarius rufus in comparison to the underlying substrate along a transect in southern Norway. *Applied Geochemistry*, **2018**, 97, 61-70	3.5	7
23	Reply to the comment on "The biosphere: A homogenizer of Pb-isotope signals" by Gaël Le Roux, Jeroen Sonke, Christophe Cloquet, Dominique Aubert, and François de Vleeschouwer. *Applied Geochemistry*, **2008**, 23, 2793-2798	3.5	7
22	Comment on "Maps of heavy metals in the soils of the European Union and proposed priority areas for detailed assessment" by Tóth, G., Hermann, T., Szatmári, G., Pásztor, L. *Science of the Total Environment*, **2017**, 578, 236-241	10.2	6
21	GEMAS: prediction of solid-solution phase partitioning coefficients (Kd) for oxoanions and boric acid in soils using mid-infrared diffuse reflectance spectroscopy. *Environmental Toxicology and Chemistry*, **2015**, 34, 235-46	3.8	6
20	Lead and stable Pb-isotope characteristics of tropical soils in north-eastern Brazil. *Applied Geochemistry*, **2011**, 26, 2191-2200	3.5	6
19	Reply to the comment "Bottled drinking water: Water contamination from bottle materials (glass, hard PET, soft PET), the influence of colour and acidification" by Hayo Müller-Simon. *Applied Geochemistry*, **2010**, 25, 1464-1465	3.5	6
18	Total sulphur in leaves of several plant species from nine catchments within a 1 500 000 km2 area in northern Europe: local vs. regional variability. *Geochemistry: Exploration, Environment, Analysis*, **2003**, 3, 205-215	1.8	6
17	Response of soil C- and O-horizon and terrestrial moss samples to various lithological units and mineralization in southern Norway. *Geochemistry: Exploration, Environment, Analysis*, **2018**, 18, 252-262	1.8	6
16	Regional Distribution of Pd, Pt and Au-Emissions from the Nickel Industry on the Kola Peninsula, NW-Russia, as Seen in Moss and Humus Samples **2006**, 53-70		6
15	The large-scale distribution of Cu and Zn in sub- and topsoil: Separating topsoil bioaccumulation and natural matrix effects from diffuse and regional contamination. *Science of the Total Environment*, **2019**, 655, 730-740	10.2	5
14	The response of 12 different plant materials and one mushroom to Mo and Pb mineralization along a 100-km transect in southern central Norway. *Geochemistry: Exploration, Environment, Analysis*, **2018**, 18, 204-215	1.8	4
13	Reply to the comment on "Geochemical gradients in soil O-horizon samples from southern Norway: Natural or anthropogenic?" by Eiliv Steinnes. *Applied Geochemistry*, **2009**, 24, 2023-2025	3.5	4
12	Reliability of geochemical analyses: Deja vu all over again. *Science of the Total Environment*, **2019**, 670, 138-148	10.2	3
11	Background values of gold, potentially toxic elements and emerging high-tech critical elements in surface water collected in a remote northern European environment. *Geochemistry: Exploration, Environment, Analysis*, **2018**, 18, 185-195	1.8	3

10	Publicly available datasets on thallium (Tl) in the environment-a comment on "Presence of thallium in the environment: sources of contaminations, distribution and monitoring methods" by Bozena Karbowska, Environ Monit Assess (2016) 188:640 (DOI 10.1007/s10661-016-5647-y). *Environmental Monitoring and Assessment*, **2017**, 189, 232	3.1	3
9	Data Analysis for Urban Geochemical Data **2011**, 99-115		2
8	GEMAS: Geochemical distribution of Mg in agricultural soil of Europe. *Journal of Geochemical Exploration*, **2021**, 221, 106706	3.8	2
7	High-fluoride drinking water. A health problem in the Ethiopian Rift Valley 1. Assessment of lateritic soils as defluoridating agents. *Oral Health & Preventive Dentistry*, **2003**, 1, 141-8	1.9	2
6	Quantifying diffuse contamination: Comparing silver and mercury in organogenic and minerogenic soil.. *Science of the Total Environment*, **2022**, 832, 155065	10.2	2
5	Comment on "Heavy metals in agricultural soil of the European Union with implications for food safety" by T□h, G., Hermann, T., Da Silva, M.R. and Montanarella, L. *Environment International*, **2016**, 97, 258-263	12.9	1
4	European Ground Water Geochemistry Using Bottled Water as a Sampling Medium. *NATO Science for Peace and Security Series C: Environmental Security*, **2012**, 115-139	0.3	0
3	Fifty-one chemical elements in till from the Oppdal region, Mid-Norway: relation to mineralization, Quaternary and bedrock geology. *Geochemistry: Exploration, Environment, Analysis*, **2018**, 18, 229-240	1.8	
2	The Scale of an Urban Contamination Footprint: Results from a Transect through Oslo, Norway **2011**, 232-244		
1	Factors influencing NO3 concentrations in rain, stream water, ground water and podzol profiles of eight small catchments in the European Arctic **1998**, 559-568		