

Kristin Vala Ragnarsdottir

List of Publications by Year in descending order

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110
papers

6,840
citations

53660

45
h-index

62479

80
g-index

116
all docs

116
docs citations

116
times ranked

7932
citing authors

#	ARTICLE	IF	CITATIONS
1	Modelling and measuring sustainable wellbeing in connection with the UN Sustainable Development Goals. <i>Ecological Economics</i> , 2016, 130, 350-355.	2.9	587
2	Crossing Disciplines and Scales to Understand the Critical Zone. <i>Elements</i> , 2007, 3, 307-314.	0.5	521
3	Development: Time to leave GDP behind. <i>Nature</i> , 2014, 505, 283-285.	13.7	515
4	Challenges of Sustainable and Commercial Aquaponics. <i>Sustainability</i> , 2015, 7, 4199-4224.	1.6	304
5	The dissolution of apatite in the presence of aqueous metal cations at pH 2–7. <i>Chemical Geology</i> , 1998, 151, 215-233.	1.4	243
6	Environmental fate and toxicology of organophosphate pesticides. <i>Journal of the Geological Society</i> , 2000, 157, 859-876.	0.9	213
7	Effect of inorganic and organic ligands on the mechanism of cadmium sorption to goethite. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 2989-3002.	1.6	193
8	The mechanism of cadmium surface complexation on iron oxyhydroxide minerals. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 2971-2987.	1.6	175
9	Sorption of As(V) on green rust (Fe ₄ (II)Fe ₂ (III)(OH) ₁₂ SO ₄ · 3H ₂ O) and lepidocrocite (̳-FeOOH): Surface complexes from EXAFS spectroscopy. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 1015-1023.	1.6	166
10	Assessing the impact of soil degradation on food production. <i>Current Opinion in Environmental Sustainability</i> , 2012, 4, 478-488.	3.1	142
11	On modelling the global copper mining rates, market supply, copper price and the end of copper reserves. <i>Resources, Conservation and Recycling</i> , 2014, 87, 158-174.	5.3	118
12	Reaction mechanism of uranyl in the presence of zero-valent iron nanoparticles. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 4047-4057.	1.6	111
13	An assessment of metal supply sustainability as an input to policy: security of supply extraction rates, stocks-in-use, recycling, and risk of scarcity. <i>Journal of Cleaner Production</i> , 2017, 140, 359-372.	4.6	111
14	The effect of iron on montmorillonite stability. (II) Experimental investigation. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 323-336.	1.6	101
15	The effect of iron on montmorillonite stability. (I) Background and thermodynamic considerations. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 306-322.	1.6	92
16	Reviewing integrated sustainability indicators for tourism. <i>Journal of Sustainable Tourism</i> , 2018, 26, 583-599.	5.7	91
17	Surface reactivity of volcanic ash from the eruption of Soufrière Hills volcano, Montserrat, West Indies with implications for health hazards. <i>Environmental Research</i> , 2003, 93, 202-215.	3.7	90
18	A system dynamics model for platinum group metal supply, market price, depletion of extractable amounts, ore grade, recycling and stocks-in-use. <i>Resources, Conservation and Recycling</i> , 2016, 114, 130-152.	5.3	89

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19	Uranium and thorium solubilities in subduction zone fluids. <i>Earth and Planetary Science Letters</i> , 1994, 124, 119-129.	1.8	86
20	The boron isotope systematics of Icelandic geothermal waters: 1. Meteoric water charged systems. <i>Geochimica Et Cosmochimica Acta</i> , 2000, 64, 579-585.	1.6	85
21	Standard thermodynamic properties and heat capacity equations of rare earth hydroxides. <i>Chemical Geology</i> , 1998, 151, 327-347.	1.4	84
22	Soil Processes and Functions in Critical Zone Observatories: Hypotheses and Experimental Design. <i>Vadose Zone Journal</i> , 2011, 10, 974-987.	1.3	81
23	Investigating the sustainability of the global silver supply, reserves, stocks in society and market price using different approaches. <i>Resources, Conservation and Recycling</i> , 2014, 83, 121-140.	5.3	78
24	Aluminium for the future: Modelling the global production, market supply, demand, price and long term development of the global reserves. <i>Resources, Conservation and Recycling</i> , 2015, 103, 139-154.	5.3	75
25	Soil processes and functions across an international network of Critical Zone Observatories: Introduction to experimental methods and initial results. <i>Comptes Rendus - Geoscience</i> , 2012, 344, 758-772.	0.4	68
26	Dissolution kinetics of heulandite at pH 2 and 25°C. <i>Geochimica Et Cosmochimica Acta</i> , 1993, 57, 2439-2449.	1.6	67
27	Experimental determination of corundum solubilities in pure water between 400 and 700°C and 1 to 3 kbar. <i>Geochimica Et Cosmochimica Acta</i> , 1985, 49, 2109-2115.	1.6	66
28	On the origin of zoned grossular-andradite garnets in hydrothermal systems. <i>European Journal of Mineralogy</i> , 1995, 7, 1399-1410.	0.4	66
29	The geochemistry of fluids from an active shallow submarine hydrothermal system: Milos island, Hellenic Volcanic Arc. <i>Journal of Volcanology and Geothermal Research</i> , 2005, 148, 130-151.	0.8	65
30	Global phosphorus supply chain dynamics: Assessing regional impact to 2050. <i>Global Food Security</i> , 2020, 26, 100426.	4.0	64
31	Surface Complexation of Hg ²⁺ on Goethite: Mechanism from EXAFS Spectroscopy and Density Functional Calculations. <i>Journal of Colloid and Interface Science</i> , 1999, 219, 345-350.	5.0	61
32	An extended X-ray absorption fine structure spectroscopy investigation of cadmium sorption on cryptomelane (KMn ₈ O ₁₆). <i>Chemical Geology</i> , 1998, 151, 95-106.	1.4	59
33	Removal of Uranium(VI), Lead(II) at the Surface of TiO ₂ Nanotubes Studied by X-Ray Photoelectron Spectroscopy. <i>Water, Air, and Soil Pollution</i> , 2012, 223, 3845-3857.	1.1	57
34	Speciation of tin (Sn ²⁺ and Sn ⁴⁺) in aqueous Cl solutions from 25°C to 350°C: an in situ EXAFS study. <i>Chemical Geology</i> , 2000, 167, 169-176.	1.4	56
35	Challenging the planetary boundaries II: Assessing the sustainable global population and phosphate supply, using a systems dynamics assessment model. <i>Applied Geochemistry</i> , 2011, 26, S307-S310.	1.4	56
36	Complexation of Cu ²⁺ in oxidized NaCl brines from 25°C to 175°C: results from in situ EXAFS spectroscopy. <i>Chemical Geology</i> , 2000, 167, 65-73.	1.4	55

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37	Wellbeing economy: An effective paradigm to mainstream post-growth policies?. <i>Ecological Economics</i> , 2022, 192, 107261.	2.9	55
38	Rare metals getting rarer. <i>Nature Geoscience</i> , 2008, 1, 720-721.	5.4	54
39	Influence of Anionic Layer Structure of Fe-Oxyhydroxides on the Structure of Cd Surface Complexes. <i>Journal of Colloid and Interface Science</i> , 2000, 228, 306-316.	5.0	53
40	Non-ideal solid solution aqueous solution modeling of synthetic calcium silicate hydrate. <i>Cement and Concrete Research</i> , 2007, 37, 502-511.	4.6	53
41	Copper deficiency elicits glial and neuronal response typical of neurodegenerative disorders. <i>Neuropathology and Applied Neurobiology</i> , 2007, 33, 212-225.	1.8	50
42	An ecosystem approach to assess soil quality in organically and conventionally managed farms in Iceland and Austria. <i>Soil</i> , 2015, 1, 83-101.	2.2	50
43	Determination of the Rare Earth Elements in Aqueous Samples at Sub-ppt Levels by Inductively Coupled Plasma Mass Spectrometry and Flow Injection ICPMS. <i>Analytical Chemistry</i> , 1996, 68, 4418-4423.	3.2	49
44	Aqueous speciation of yttrium at temperatures from 25 to 340Å°C at Psat: an in situ EXAFS study. <i>Chemical Geology</i> , 1998, 151, 29-39.	1.4	47
45	Hydrous ferric oxide: evaluation of Cdâ€™HFO surface complexation models combining CdK EXAFS data, potentiometric titration results, and surface site structures identified from mineralogical knowledge. <i>Journal of Colloid and Interface Science</i> , 2003, 266, 1-18.	5.0	47
46	Description and interpretation of the composition of fluid and alteration mineralogy in the geothermal system, at Svartsengi, Iceland. <i>Geochimica Et Cosmochimica Acta</i> , 1984, 48, 1535-1553.	1.6	46
47	The effects of prion protein expression on metal metabolism. <i>Molecular and Cellular Neurosciences</i> , 2009, 41, 135-147.	1.0	45
48	Measurements of daily urinary uranium excretion in German peacekeeping personnel and residents of the Kosovo region to assess potential intakes of depleted uranium (DU). <i>Science of the Total Environment</i> , 2007, 381, 77-87.	3.9	44
49	Soil indicators for sustainable development: A transdisciplinary approach for indicator development using expert stakeholders. <i>Agriculture, Ecosystems and Environment</i> , 2016, 232, 179-189.	2.5	43
50	Antimony transport in hydrothermal solutions: an EXAFS study of antimony(V) complexation in alkaline sulfide and sulfideâ€™chloride brines at temperatures from 25Å°C to 300Å°C at Psat. <i>Chemical Geology</i> , 2000, 167, 161-167.	1.4	42
51	Biochar application in a tropical, agricultural region: A plot scale study in Tamil Nadu, India. <i>Applied Geochemistry</i> , 2011, 26, S218-S221.	1.4	38
52	An EXAFS spectroscopic study of aqueous antimony(III)-chloride complexation at temperatures from 25 to 250Å°C. <i>Chemical Geology</i> , 1998, 151, 21-27.	1.4	37
53	Integrated Modelling of the Global Cobalt Extraction, Supply, Price and Depletion of Extractable Resources Using the WORLD6 Model. <i>BioPhysical Economics and Resource Quality</i> , 2017, 2, 1.	2.4	37
54	High resolution characterization of ectomycorrhizal fungal-mineral interactions in axenic microcosm experiments. <i>Biogeochemistry</i> , 2012, 111, 411-425.	1.7	35

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55	Mechanical restitution of the rat papillary muscle. <i>Acta Physiologica Scandinavica</i> , 1982, 115, 183-191.	2.3	34
56	Pressure sensitive α -silica geothermometer determined from quartz solubility experiments at 250 \AA C. <i>Geochimica Et Cosmochimica Acta</i> , 1983, 47, 941-946.	1.6	34
57	Challenging the planetary boundaries I: Basic principles of an integrated model for phosphorous supply dynamics and global population size. <i>Applied Geochemistry</i> , 2011, 26, S303-S306.	1.4	34
58	Determination of uranium and thorium in basalts and uranium in aqueous solution by inductively coupled plasma mass spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 1993, 8, 551.	1.6	32
59	The Adsorption Mechanism of Sr^{2+} on the Surface of Goethite. <i>Radiochimica Acta</i> , 1998, 81, 201-206.	0.5	32
60	On the long-term sustainability of copper, zinc and lead supply, using a system dynamics model. <i>Resources Conservation & Recycling X</i> , 2019, 4, 100007.	4.2	32
61	Controls on uranium and thorium behaviour in ocean-floor hydrothermal systems: examples from the Pindos ophiolite, Greece. <i>Chemical Geology</i> , 1997, 135, 263-274.	1.4	30
62	Re-partitioning of Cu and Zn isotopes by modified protein expression. <i>Geochemical Transactions</i> , 2008, 9, 11.	1.8	30
63	Controls on polyacrylamide adsorption to quartz, kaolinite, and feldspar. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 3515-3523.	1.6	29
64	Surface chemistry of reacted heulandite determined by SIMS and XPS. <i>Chemical Geology</i> , 1996, 131, 167-181.	1.4	27
65	Nanoscale Observations of Extracellular Polymeric Substances Deposition on Phyllosilicates by an Ectomycorrhizal Fungus. <i>Geomicrobiology Journal</i> , 2013, 30, 721-730.	1.0	26
66	Soil Functions in Earth's Critical Zone. <i>Advances in Agronomy</i> , 2017, 142, 1-27.	2.4	26
67	In situ atomic force microscopy measurements of biotite basal plane reactivity in the presence of oxalic acid. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 6870-6881.	1.6	25
68	Trace element partitioning between wollastonite and silicate-carbonate melt. <i>Mineralogical Magazine</i> , 2000, 64, 651-661.	0.6	24
69	A potentiometric study of Eu^{3+} complexation with acetate ligand from 25 to 170 \AA C at Psat. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 3599-3613.	1.6	24
70	The Cu, Mn and Zn concentration of sheep wool: Influence of washing procedures, age and colour of matrix. <i>Science of the Total Environment</i> , 2009, 407, 4140-4148.	3.9	24
71	Nanoscale channels on ectomycorrhizal colonized chlorite: Evidence for plant driven fungal dissolution. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	24
72	SoilTrEC: a global initiative on critical zone research and integration. <i>Environmental Science and Pollution Research</i> , 2014, 21, 3191-3195.	2.7	24

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73	Investigating the role of microbes in mineral weathering: Nanometre-scale characterisation of the cellâ€“mineral interface using FIB and TEM. <i>Micron</i> , 2013, 47, 10-17.	1.1	23
74	The reduction of aqueous Au ³⁺ by sulfide minerals and green rust phases. <i>American Mineralogist</i> , 2003, 88, 725-739.	0.9	21
75	Bioremediation trial on aged PCB-polluted soilsâ€“a bench study in Iceland. <i>Environmental Science and Pollution Research</i> , 2014, 21, 1759-1768.	2.7	21
76	Exploring a city's potential low carbon futures using Delphi methods: some preliminary findings. <i>Journal of Environmental Planning and Management</i> , 2012, 55, 1022-1046.	2.4	19
77	From waste to resource: A systems dynamics and stakeholder analysis of phosphorus recycling from municipal wastewater in Europe. <i>Ambio</i> , 2019, 48, 741-751.	2.8	19
78	Bioavailable copper and manganese in soils from Iceland and their relationship with scrapie occurrence in sheep. <i>Journal of Geochemical Exploration</i> , 2006, 88, 228-234.	1.5	18
79	Opening access to the black box: The need for reporting on the global phosphorus supply chain. <i>Ambio</i> , 2020, 49, 881-891.	2.8	18
80	Defining a free market: drivers of unsustainability as illustrated with an example of shrimp farming in the mangrove forest in South East Asia. <i>Journal of Cleaner Production</i> , 2017, 140, 299-311.	4.6	17
81	XPS analysis of polyacrylamide adsorption to kaolinite, quartz and feldspar. <i>Surface and Interface Analysis</i> , 1998, 26, 518-523.	0.8	16
82	Geomicrobiology of a Weathering Crust from an Impact Crater and a Hypothesis for its Formation. <i>Geomicrobiology Journal</i> , 2007, 24, 425-440.	1.0	16
83	High-resolution imaging of biotite dissolution and measurement of activation energy. <i>Mineralogical Magazine</i> , 2008, 72, 115-120.	0.6	16
84	LREE distribution in perovskite, apatite and titanite from South West Ugandan xenoliths and kamafugite lavas. <i>Mineralogy and Petrology</i> , 1996, 57, 205-228.	0.4	15
85	Solubility of Uranium Oxide and Calcium Uranate in Water, and Ca(OH) ₂ -bearing Solutions. <i>Radiochimica Acta</i> , 1997, 79, 249-258.	0.5	13
86	Soil Aggregate Stability in Different Soil Orders Quantified by Low Dispersive Ultrasonic Energy Levels. <i>Soil Science Society of America Journal</i> , 2014, 78, 713-723.	1.2	13
87	Experimental determination of the complexation of strontium and cesium with acetate in high-temperature aqueous solutions. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 3955-3964.	1.6	12
88	Chlorite topography and dissolution of the interlayer studied with atomic force microscopy. <i>American Mineralogist</i> , 2014, 99, 128-138.	0.9	10
89	Modelling Global Wolfram Mining, Secondary Extraction, Supply, Stocks-in-Society, Recycling, Market Price and Resources, Using the WORLD6 System Dynamics Model. <i>BioPhysical Economics and Resource Quality</i> , 2017, 2, 1.	2.4	10
90	Corruption Risks in Renewable Resource Governance: Case Studies in Iceland and Romania. <i>Politics and Governance</i> , 2020, 8, 167-179.	0.8	10

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91	A System Dynamics Assessment of the Supply of Molybdenum and Rhenium Used for Super-alloys and Specialty Steels, Using the WORLD6 Model. <i>BioPhysical Economics and Resource Quality</i> , 2018, 3, 1.	2.4	9
92	Effect of cyanobacterial growth on biotite surfaces under laboratory nutrient-limited conditions. <i>Mineralogical Magazine</i> , 2008, 72, 71-75.	0.6	7
93	Energy return on investment of Austrian sugar beet: A small-scale comparison between organic and conventional production. <i>Biomass and Bioenergy</i> , 2015, 75, 267-271.	2.9	7
94	A Comparative Analysis of the Energy Return on Investment of Organic and Conventional Icelandic Dairy Farms. <i>Icelandic Agricultural Sciences</i> , 0, 28, 29-42.	0.0	7
95	Kinetic Studies of Synthetic Metaschoepite under Acidic Conditions in Batch and Flow Experiments. <i>Environmental Science & Technology</i> , 2005, 39, 7915-7920.	4.6	6
96	Development of a Biophysical Economics Module for the Global Integrated Assessment Model WORLD7. <i>Contemporary Systems Thinking</i> , 2021, , 247-283.	0.3	6
97	Aggregation and organic matter in subarctic Andosols under different grassland management. <i>Acta Agriculturae Scandinavica - Section B Soil and Plant Science</i> , 2015, 65, 246-263.	0.3	5
98	Geochemistry of crustal fluids: a Tyrolean perspective. <i>Chemical Geology</i> , 1998, 151, 1-9.	1.4	3
99	Pollutants, human health and the environment – A risk-based approach. <i>Applied Geochemistry</i> , 2011, 26, S238-S240.	1.4	3
100	Si Precipitation During Weathering in Different Icelandic Andosols. <i>Procedia Earth and Planetary Science</i> , 2014, 10, 260-265.	0.6	3
101	The Interlayer Regions of Sheet Silicates as a Favorable Habitat for Endolithic Microorganisms. <i>Geomicrobiology Journal</i> , 2015, 32, 530-537.	1.0	3
102	Soil aggregation and soil organic matter in conventionally and organically farmed Austrian Chernozems / Bodenaggregation und organische Substanz in konventionell und biologisch bewirtschafteten Österreichischen Tschernosemböden. <i>Bodenkultur</i> , 2017, 68, 41-55.	0.1	3
103	TiO ₂ anatase nanotubes for the purification of uranium, arsenic and lead containing water: an X-ray Photoelectron Spectroscopy study. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1171, 35.	0.1	2
104	Global Megatrends and Resource Use – A Systemic Reflection. <i>Eco-efficiency in Industry and Science</i> , 2018, , 31-43.	0.1	2
105	Flow and Transport During Contact Metamorphism and Hydrothermal Activity: Examples from the Oslo Rift. , 1997, , 57-82.		2
106	Mineral/Reagent Interactions: An X-ray Photoelectron Spectroscopic Study of Adsorption of Reagents onto Mixtures of Minerals. <i>Clay Minerals</i> , 1999, 34, 51-56.	0.2	1
107	Relationship between isotopic variations and geographical distribution of MORBs and OIBs-CABs. <i>Chemical Geology</i> , 1988, 70, 48.	1.4	0
108	Chapter 5 Prions, Metals, and Soils. <i>Developments in Earth and Environmental Sciences</i> , 2007, , 125-152.	0.1	0

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109	The adsorption of progesterone onto mineral surfaces imaged with high-resolution atomic force microscopy. Mineralogical Magazine, 2008, 72, 419-424.	0.6	0
110	Introduction and Conceptual Framing of Transformation Literacy as a Future-Making Skill. , 2022, , 1-13.		0