Karen H Johannesson

List of Publications by Year
in descending order

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120 papers	5,641 citations	61984 43 h-index	79698 73 g-index
123 all docs	123 docs citations	123 times ranked	4158 citing authors

#	Article	IF	Citations
1	Speciation of rare earth elements in natural terrestrial waters: assessing the role of dissolved organic matter from the modeling approach. Geochimica Et Cosmochimica Acta, 2003, 67, 2321-2339.	3.9	249
2	Rare earth elements (REE) and yttrium in stream waters, stream sediments, and Feâ€“Mn oxyhydroxides: Fractionation, speciation, and controls over REE+Y patterns in the surface environment. Geochimica Et Cosmochimica Acta, 2008, 72, 5962-5983.	3.9	240
3	Factor analytical approaches for evaluating groundwater trace element chemistry data. Analytica Chimica Acta, 2003, 490, 123-138.	5.4	225
4	Rare earth elements as geochemical tracers of regional groundwater mixing. Geochimica Et Cosmochimica Acta, 1997, 61, 3605-3618.	3.9	206
5	Origin of middle rare earth element enrichments in acid waters of a Canadian High Arctic lake. Geochimica Et Cosmochimica Acta, 1999, 63, 153-165.	3.9	194
6	Rare earth element concentrations and speciation in organic-rich blackwaters of the Great Dismal Swamp, Virginia, USA. Chemical Geology, 2004, 209, 271-294.	3.3	176
7	Geochemistry of the rare-earth elements in hypersaline and dilute acidic natural terrestrial waters: Complexation behavior and middle rare-earth element enrichments. Chemical Geology, 1996, 133, 125-144.	3.3	156
8	Rare earth element complexation behavior in circumneutral pH groundwaters: Assessing the role of carbonate and phosphate ions. Earth and Planetary Science Letters, 1996, 139, 305-319.	4.4	153
9	Rare-earth element geochemistry of Colour Lake, an acidic freshwater lake on Axel Heiberg Island, Northwest Territories, Canada. Chemical Geology, 1995, 119, 209-223.	3.3	141
10	Ligand extraction of rare earth elements from aquifer sediments: Implications for rare earth element complexation with organic matter in natural waters. Geochimica Et Cosmochimica Acta, 2010, 74, 6690-6705.	3.9	139
11	The rare earth element geochemistry of Mono Lake water and the importance of carbonate complexing. Limnology and Oceanography, 1994, 39, 1141-1154.	3.1	137
12	Rare earth element fractionation and concentration variations along a groundwater flow path within a shallow, basin-fill aquifer, southern Nevada, USA. Geochimica Et Cosmochimica Acta, 1999, 63, 2697-2708.	3.9	125
13	Balancing the global oceanic neodymium budget: Evaluating the role of groundwater. Earth and Planetary Science Letters, 2007, 253, 129-142.	4.4	121
14	Origin of rare earth element signatures in groundwaters of circumneutral pH from southern Nevada and eastern California, USA. Chemical Geology, 2000, 164, 239-257.	3.3	111
15	Do Archean chemical sediments record ancient seawater rare earth element patterns?. Geochimica Et Cosmochimica Acta, 2006, 70, 871-890.	3.9	111
16	Submarine groundwater discharge is an important net source of light and middle REEs to coastal waters of the Indian River Lagoon, Florida, USA. Geochimica Et Cosmochimica Acta, 2011, 75, 825-843.	3.9	105
17	Title is missing!. Mathematical Geosciences, 2000, 32, 943-968.	0.9	98
18	Rare earth element behavior during groundwaterâ€“seawater mixing along the Kona Coast of Hawaii. Geochimica Et Cosmochimica Acta, 2017, 198, 229-258.	3.9	98

#	Article	IF	Citations
19	The solubility control of rare earth elements in natural terrestrial waters and the significance of PO 4 3? and CO 3 2? in limiting dissolved rare earth concentrations: A review of recent information. Aquatic Geochemistry, 1995, 1, 157-173.	1.3	86
20	Rare earth element geochemistry of groundwaters from a thick till and clay-rich aquitard sequence, Saskatchewan, Canada. Geochimica Et Cosmochimica Acta, 2000, 64, 1493-1509.	3.9	86
21	Controls on the geochemistry of rare earth elements along a groundwater flow path in the Carrizo Sand aquifer, Texas, USA. Chemical Geology, 2006, 225, 156-171.	3.3	86
22	Contrasting dissolved organic matter quality in groundwater in Holocene and Pleistocene aquifers and implications for influencing arsenic mobility. Applied Geochemistry, 2017, 77, 194-205.	3.0	86
23	Geochemical and statistical evidence of deep carbonate groundwater within overlying volcanic rock aquifers/aquitards of southern Nevada, USA. Journal of Hydrology, 2001, 243, 254-271.	5.4	81
24	Controls on tungsten concentrations in groundwater flow systems: The role of adsorption, aquifer sediment Fe(III) oxide/oxyhydroxide content, and thiotungstate formation. Chemical Geology, 2013, 351, 76-94.	3.3	78
25	Perennial ponds are not an important source of water or dissolved organic matter to groundwaters with high arsenic concentrations in West Bengal, India. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	77
26	Rare earth elements adsorption onto Carrizo sand: Influence of strong solution complexation. Chemical Geology, 2010, 279, 120-133.	3.3	74
27	Groundwater geochemistry, quality, and pollution of the largest lake basin in the Middle East: Comparison of PMF and PCA-MLR receptor models and application of the source-oriented HHRA approach. Chemosphere, 2022, 288, 132489.	8.2	73
28	Rhenium, molybdenum, and uranium in groundwater from the southern Great Basin, USA: Evidence for conservative behavior. Geochimica Et Cosmochimica Acta, 1996, 60, 3197-3214.	3.9	70
29	Strontium isotopes and rare earth elements as tracers of groundwaterâ€"lake water interactions, Lake Naivasha, Kenya. Applied Geochemistry, 2003, 18, 1789-1805.	3.0	70
30	Evaluating mobilization and transport of arsenic in sediments and groundwaters of Aquia aquifer, Maryland, USA. Journal of Contaminant Hydrology, 2008, 99, 68-84.	3.3	70
31	Rare earth element concentrations and speciation in alkaline lakes from the western U.S.A.. Geophysical Research Letters, 1994, 21, 773-776.	4.0	69
32	Arsenic concentrations and speciation along a groundwater flow path: The Carrizo Sand aquifer, Texas, USA. Chemical Geology, 2006, 228, 57-71.	3.3	69
33	Controls on the geochemistry of rare earth elements in sediments and groundwaters of the Aquia aquifer, Maryland, USA. Chemical Geology, 2011, 285, 32-49.	3.3	68
34	Tungstenâ€"molybdenum fractionation in estuarine environments. Geochimica Et Cosmochimica Acta, 2016, 177, 105-119.	3.9	67
35	River discharge influences on particulate organic carbon age structure in the Mississippi/Atchafalaya River System. Global Biogeochemical Cycles, 2013, 27, 154-166.	4.9	66
36	Title is missing!. Aquatic Geochemistry, 2000, 6, 19-46.	1.3	64

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37	Elevated arsenic and manganese in groundwaters of Murshidabad, West Bengal, India. Science of the Total Environment, 2014, 488-489, 570-579.	8.0	64
38	Tungsten speciation in sulfidic waters: Determination of thiotungstate formation constants and modeling their distribution in natural waters. Geochimica Et Cosmochimica Acta, 2014, 144, 157-172.	3.9	57
39	Using multivariate statistical analysis of groundwater major cation and trace element concentrations to evaluate groundwater flow in a regional aquifer. Hydrological Processes, 1999, 13, 2655-2673.	2.6	56
40	Adsorption of rare earth elements onto Carrizo sand: Experimental investigations and modeling with surface complexation. Geochimica Et Cosmochimica Acta, 2005, 69, 5247-5261.	3.9	56
41	Conservative behavior of arsenic and other oxyanion-forming trace elements in an oxic groundwater flow system. Journal of Hydrology, 2009, 378, 13-28.	5.4	50
42	Provenance and fate of arsenic and other solutes in the Chaco-Pampean Plain of the Andean foreland, Argentina: From perspectives of hydrogeochemical modeling and regional tectonic setting. Journal of Hydrology, 2014, 518, 300-316.	5.4	45
43	Comparison of tungstate and tetrathiotungstate adsorption onto pyrite. Chemical Geology, 2017, 464, 57-68.	3.3	45
44	Predicting Geogenic Arsenic Contamination in Shallow Groundwater of South Louisiana, United States. Environmental Science & Technology, 2014, 48, 5660-5666.	10.0	43
45	Tungsten Contamination of Soils and Sediments: Current State of Science. Current Pollution Reports, 2017, 3, 55-64.	6.6	41
46	Geochemical processes affecting the acidic groundwaters of Lake Gilmore, Yilgarn Block, Western Australia: a preliminary study using neodymium, samarium, and dysprosium. Journal of Hydrology, 1994, 154, 271-289.	5.4	40
47	Biogeochemical Controls on the Release and Accumulation of Mn and As in Shallow Aquifers, West Bengal, India. Frontiers in Environmental Science, 2017, 5, .	3.3	40
48	Speciation of the rare earth element neodymium in groundwaters of the Nevada Test Site and Yucca Mountain and implications for actinide solubility. Applied Geochemistry, 1995, 10, 565-572.	3.0	37
49	Pathways and processes associated with the transport of groundwater in deltaic systems. Journal of Hydrology, 2013, 498, 319-334.	5.4	37
50	Reconnaissance isotopic and hydrochemical study of Cuatro CiÃ©negas groundwater, Coahuila, MÃ©xico. Journal of South American Earth Sciences, 2004, 17, 171-180.	1.4	36
51	Arsenic, vanadium, iron, and manganese biogeochemistry in a deltaic wetland, southern Louisiana, USA. Marine Chemistry, 2017, 192, 32-48.	2.3	36
52	Similarities in the Chemical Composition of Carbonate Groundwaters and Seawater. Environmental Science & Technology, 1998, 32, 2481-2486.	10.0	34
53	Arsenic and Antimony in Groundwater Flow Systems: A Comparative Study. Aquatic Geochemistry, 2011, 17, 775-807.	1.3	33
54	Rare earth element cycling in a sandy subterranean estuary in Florida, USA. Marine Chemistry, 2015, 176, 34-50.	2.3	30

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55	Geochemical cycling of mercury in a deep, confined aquifer: Insights from biogeochemical reactive transport modeling. Geochimica Et Cosmochimica Acta, 2013, 106, 25-43.	3.9	29
56	Rare Earth Elements Geochemistry and Nd Isotopes in the Mississippi River and Gulf of Mexico Mixing Zone. Frontiers in Marine Science, 2018, 5, .	2.5	28
57	Multivariate statistical analysis of arsenic and selenium concentrations in groundwaters from south-central Nevada and Death Valley, California. Journal of Hydrology, 1996, 178, 181-204.	5.4	27
58	Submarine groundwater discharge of rare earth elements to a tidally-mixed estuary in Southern Rhode Island. Chemical Geology, 2015, 397, 128-142.	3.3	27
59	Geochemistry of Rare Earth Elements in Groundwaters from a Rhyolite Aquifer, Central MÃ©xico. , 2005, , 187-222.		26
60	Biogeochemical and reactive transport modeling of arsenic in groundwaters from the Mississippi River delta plain: An analog for the As-affected aquifers of South and Southeast Asia. Geochimica Et Cosmochimica Acta, 2019, 264, 245-272.	3.9	26
61	Evidence of microbially mediated arsenic mobilization from sediments of the Aquia aquifer, Maryland, USA. Applied Geochemistry, 2011, 26, 575-586.	3.0	25
62	Application of REE geochemical signatures for Mesozoic sediment provenance to the Gettysburg Basin, Pennsylvania. Sedimentary Geology, 2017, 349, 103-111.	2.1	25
63	Evolution of selenium concentrations and speciation in groundwater flow systems: Upper Floridan (Florida) and Carrizo Sand (Texas) aquifers. Chemical Geology, 2007, 246, 147-169.	3.3	24
64	Investigation of tungstate thiolation reaction kinetics and sedimentary molybdenum/tungsten enrichments: Implication for tungsten speciation in sulfidic waters and possible applications for paleoredox studies. Geochimica Et Cosmochimica Acta, 2020, 287, 277-295.	3.9	24
65	Geochemistry of Tungsten and Arsenic in Aquifer Systems: A Comparative Study of Groundwaters from West Bengal, India, and Nevada, USA. Water, Air, and Soil Pollution, 2014, 225, 1.	2.4	23
66	Concentrations and speciation of arsenic along a groundwater flow-path in the Upper Floridan aquifer, Florida, USA. Environmental Geology, 2006, 50, 219-228.	1.2	22
67	Comparison of arsenic and molybdenum geochemistry in meromictic lakes of the McMurdo Dry Valleys, Antarctica: Implications for oxyanion-forming trace element behavior in permanently stratified lakes. Chemical Geology, 2015, 404, 110-125.	3.3	22
68	Rare earth elements as tracers of sediment contamination by fertilizer industries in Southern Brazil, Patos Lagoon Estuary. Applied Geochemistry, 2021, 129, 104965.	3.0	22
69	Vanadium geochemistry along groundwater flow paths in contrasting aquifers of the United States: Carrizo Sand (Texas) and Oasis Valley (Nevada) aquifers. Chemical Geology, 2015, 410, 63-78.	3.3	21
70	Groundwater-derived nutrient and trace element transport to a nearshore Kona coral ecosystem: Experimental mixing model results. Journal of Hydrology: Regional Studies, 2017, 11, 166-177.	2.4	21
71	Modeling metal ion-humic substances complexation in highly saline conditions. Applied Geochemistry, 2017, 79, 52-64.	3.0	19
72	Mercury distributions in sediments of an estuary subject to anthropogenic hydrodynamic alterations (Patos Estuary, Southern Brazil). Environmental Monitoring and Assessment, 2020, 192, 266.	2.7	18

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73	Origin of tungsten and geochemical controls on its occurrence and mobilization in shallow sediments from Fallon, Nevada, USA. Chemosphere, 2020, 260, 127577.	8.2	17
74	Potential contaminants at a dredged spoil placement site, Charles City County, Virginia, as revealed by sequential extraction. Geochemical Transactions, 2004, 5, 1.	0.7	16
75	The Lake St. Martin bolide has a big impact on groundwater fluoride concentrations. Geology, 2008, 36, 115.	4.4	16
76	Mercury and selenium in the Brazilian subtropical marine products: Food composition and safety. Journal of Food Composition and Analysis, 2019, 84, 103310.	3.9	16
77	Distribution and Geochemistry of Arsenic in Sediments of the Worldâ€™s Largest Choked Estuary: the Patos Lagoon, Brazil. Estuaries and Coasts, 2019, 42, 1896-1911.	2.2	15
78	Rare Earth Elements in Stromatolitesâ€"1. Evidence that Modern Terrestrial Stromatolites Fractionate Rare Earth Elements During Incorporation from Ambient Waters. Modern Approaches in Solid Earth Sciences, 2014, , 385-411.	0.3	15
79	Stable isotopic composition of soil calcite (O, C) and gypsum (S) overlying Cu deposits in the Atacama Desert, Chile: Implications for mineral exploration, salt sources, and paleoenvironmental reconstruction. Applied Geochemistry, 2013, 29, 55-72.	3.0	14
80	Mobilization of co-occurring trace elements (CTEs) in arsenic contaminated aquifers in the Bengal basin. Applied Geochemistry, 2020, 122, 104709.	3.0	14
81	Arsenic Geochemistry of the Great Dismal Swamp, Virginia, USA: Possible Organic Matter Controls. Aquatic Geochemistry, 2007, 13, 289-308.	1.3	13
82	Chemical and colloidal analyses of natural seep water collected from the exploratory studies facility inside Yucca Mountain, Nevada, USA. Environmental Geochemistry and Health, 2008, 30, 31-44.	3.4	13
83	Rare earth element cycling and reaction path modeling across the chemocline of the Pettaquamscutt River estuary, Rhode Island. Geochimica Et Cosmochimica Acta, 2020, 284, 21-42.	3.9	13
84	Rare Earth Element Concentrations, Speciation, and Fractionation along Groundwater Flow Paths: The Carrizo Sand (Texas) and Upper Floridan Aquifers. , 2005, , 223-251.		13
85	Measuring Arsenic Speciation in Environmental Media: Sampling, Preservation, and Analysis. Reviews in Mineralogy and Geochemistry, 2014, 79, 371-390.	4.8	12
86	Late holocene paleoclimatic and paleobiologic records from sediments of Devils Lake, North Dakota. Journal of Paleolimnology, 1995, 13, 193-207.	1.6	11
87	Dredging in an estuary causes contamination by fluid mud on a tourist ocean beach. Evidence via REE ratios. Marine Pollution Bulletin, 2020, 159, 111495.	5.0	11
88	Oxyanion Concentrations in Eastern Sierra Nevada Rivers â€" 2. Arsenic and Phosphate. Aquatic Geochemistry, 1997, 3, 61-97.	1.3	10
89	High arsenic (As) concentrations in the shallow groundwaters of southern Louisiana: Evidence of microbial controls on As mobilization from sediments. Journal of Hydrology: Regional Studies, 2016, 5, 100-113.	2.4	9
90	Rare earth element distributions in salt marsh sediment cores reveal evidence of environmental lability during bioturbation and diagenetic processes. Chemical Geology, 2021, 584, 120503.	3.3	8

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91	Cycling of oxyanion-forming trace elements in groundwaters from a freshwater deltaic marsh. Estuarine, Coastal and Shelf Science, 2018, 204, 236-263.	2.1	7
92	Lanthanide rarity in natural waters: implications for microbial C1 metabolism. FEMS Microbiology Letters, 2020, 367, .	1.8	7
93	Open Access publishing practice in geochemistry: overview of current state and look to the future. Heliyon, 2020, 6, e03551.	3.2	7
94	Pleistocene sands of the Mississippi River Alluvial Aquifer produce the highest groundwater arsenic concentrations in southern Louisiana, USA. Journal of Hydrology, 2021, 595, 125995.	5.4	7
95	Arsenic Addition to Soils from Airborne Coal Dust Originating at a Major Coal Shipping Terminal. Water, Air, and Soil Pollution, 2007, 185, 195-207.	2.4	6
96	Submarine groundwater discharge and alkaline earth element dynamics in a deltaic coastal setting. Hydrology Research, 2017, 48, 1169-1176.	2.7	5
97	Geochemical Background for Potentially Toxic Elements in Forested Soils of the State of ParÃ¡, Brazilian Amazon. Minerals (Basel, Switzerland), 2022, 12, 674.	2.0	5
98	â€œRare earth element geochemistry of scleractinian coral skeleton during meteoric diagenesis: a sequence through neomorphism of aragonite to calciteâ€•by Webb <i>etÂ al.</i>, Sedimentology, 56, 1433â€“1463: Discussion. Sedimentology, 2012, 59, 729-732.	3.1	4
99	Comparison of effects between kaolinite and hydrogen peroxide on tungsten and molybdenum speciation and implications for their geochemistry in aquatic environments. Chemical Geology, 2021, 582, 120418.	3.3	4
100	Geochemistry of the redox-sensitive trace elements molybdenum, tungsten, and rhenium in the euxinic porewaters and bottom sediments of the Pettaquamscutt River estuary, Rhode Island. Chemical Geology, 2021, 584, 120499.	3.3	4
101	Chloride-salinity as indicator of the chemical composition of groundwater: empirical predictive model based on aquifers in Southern Quebec, Canada. Environmental Science and Pollution Research, 2022, 29, 59414-59432.	5.3	4
102	Investigating the Potential Impact of Louisiana Coastal Restoration on the Trace Metal Geochemistry of Constructed Marshlands. Soil Systems, 2020, 4, 55.	2.6	2
103	Groundwater-sediment sorption mechanisms and role of organic matter in controlling arsenic release into aquifer sediments of Murshidabad area (Bengal basin), India. Arsenic in the Environment Proceedings, 2014, , 95-97.	0.0	2
104	Comment on â€œEffects of organic ligands on fractionation of rare earth elements (REEs) in hydroponic plants: An application to the determination of binding capacities by humic acid for modellingâ€•by Ding et al. [Chemosphere 65 (2006) 1942â€“1948]. Chemosphere, 2007, 68, 1392-1393.	8.2	1
105	Editorial: REE Marine Geochemistry in the 21st Century: A Tribute to the Pioneering Research of Henry Elderfield (1943â€“2016). Frontiers in Marine Science, 2020, 7, .	2.5	1
106	Effects of Bioirrigation and Salinity on Arsenic Distributions in Ferruginous Concretions from Salt Marsh Sediment Cores (Southern Brazil). Aquatic Geochemistry, 2021, 27, 79-103.	1.3	1
107	Neodymium Isotope Geochemistry of a Subterranean Estuary. Frontiers in Water, 2021, 3, .	2.3	1
108	Potential impacts of titanium dioxide nanoparticles on trace metal speciation in estuarine sediments. Science of the Total Environment, 2022, 843, 156984.	8.0	1

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109	6. Measuring Arsenic Speciation in Environmental Media: Sampling, Preservation, and Analysis. , 2014, , 371-390.		0
110	Acceptance of the 2015 C.C. Patterson Award by Karen H. Johannesson. Geochimica Et Cosmochimica Acta, 2016, 172, 465.	3.9	0
111	Reply to MPB-D-20-01629. Carlos Alberto Eiras Garcia Heitor Evangelista Osmar Olinto MÃ¶ller Jr.Comments on â€œDredging in an estuary causes contamination by fluid mud on a tourist oceanbeach. Evidence via REE ratiosâ€•by N. Mirlean, L. Calliari, and K. Johannesson in Marine Pollution Bulletin 159 (2020) 111495. https://doi.org/10.1016/j.marpolbul.2020.111495. Marine Pollution Bulletin, 2021, 165, 112161.	5.0	0
112	HYDROLOGICAL AND GEOCHEMICAL ANALYSIS OF SHALLOW AQUIFER WATER FOLLOWING A NEARBY DEEP CO₂ INJECTION IN WELLINGTON, KANSAS. , 2016, , .		0
113	LINKING GEOCHEMISTRY AND DISSOLVED ORGANIC MATTER QUALITY TO MN AND AS RELEASE IN GROUNDWATER, MURSHIDABAD, WEST BENGAL, INDIA. , 2016, , .		0
114	A NORTH AMERICAN ANALOG FOR HIGH ARSENIC GROUNDWATER FROM BANGLADESH AND WEST BENGAL, INDIA: THE CASE OF THE MISSISSIPPI RIVER DELTA. , 2016, , .		0
115	CHEMICAL SPECIATION CONTROLS ON ARSENIC AND TUNGSTEN IN WATER RESOURCES. , 2018, , .		0
116	ROLE OF DISSOLVED ORGANIC MATTER IN ARSENIC MOBILIZATION IN BENGAL BASIN. , 2019, , .		0
117	Reaction Path and Reactive Transport Modeling of Rare Earth Elements: Insights into the Evolution of Fractionation Patterns. , 2020, , .		0
118	Role of Sedimentary and Dissolved Organic Matter in Arsenic Mobilization in Bengal Basin. , 2020, , .		0
119	CO-OCCURRING TRACE ELEMENTS (CTES) OF POTENTIAL HUMAN HEALTH CONCERN IN ARSENIC CONTAMINATED AQUIFERS IN THE BENGAL BASIN. , 2020, , .		0
120	Radiogenic isotope: Not just about words. Applied Geochemistry, 2022, 142, 105348.	3.0	0