Richard T Wilkin

List of Publications by Year
in descending order

67 papers	6,932 citations	101543 36 h-index	106344 65 g-index
68 all docs	68 docs citations	68 times ranked	5899 citing authors

#	Article	IF	Citations
1	The size distribution of framboidal pyrite in modern sediments: An indicator of redox conditions. Geochimica Et Cosmochimica Acta, 1996, 60, 3897-3912.	3.9	879
2	Formation processes of framboidal pyrite. Geochimica Et Cosmochimica Acta, 1997, 61, 323-339.	3.9	608
3	Cadmium in soils and groundwater: A review. Applied Geochemistry, 2019, 108, 104388.	3.0	602
4	Pyrite formation by reactions of iron monosulfides with dissolved inorganic and organic sulfur species. Geochimica Et Cosmochimica Acta, 1996, 60, 4167-4179.	3.9	414
5	Reaction pathways in the Feâ€"S system below 100Â°C. Chemical Geology, 2000, 167, 25-51.	3.3	360
6	History of water-column anoxia in the Black Sea indicated by pyrite framboid size distributions. Earth and Planetary Science Letters, 1997, 148, 517-525.	4.4	274
7	Formation of Ferrihydrite and Associated Iron Corrosion Products in Permeable Reactive Barriers of Zero-Valent Iron. Environmental Science & Technology, 2002, 36, 5469-5475.	10.0	274
8	Per- and polyfluoroalkyl substances in water and wastewater: A critical review of their global occurrence and distribution. Science of the Total Environment, 2022, 809, 151003.	8.0	230
9	Chromium-Removal Processes during Groundwater Remediation by a Zerovalent Iron Permeable Reactive Barrier. Environmental Science & Technology, 2005, 39, 4599-4605.	10.0	213
10	High-level arsenite removal from groundwater by zero-valent iron. Chemosphere, 2005, 59, 377-386.	8.2	201
11	Speciation of arsenic in sulfidic waters. Geochemical Transactions, 2003, 4, 1.	0.7	200
12	Long-Term Performance of Permeable Reactive Barriers Using Zero-Valent Iron: Geochemical and Microbiological Effects. Ground Water, 2003, 41, 493-503.	1.3	186
13	Geochemical Impacts to Groundwater from Geologic Carbon Sequestration: Controls on pH and Inorganic Carbon Concentrations from Reaction Path and Kinetic Modeling. Environmental Science & Technology, 2010, 44, 4821-4827.	10.0	157
14	Variations in pyrite texture, sulfur isotope composition, and iron systematics in the Black Sea: evidence for Late Pleistocene to Holocene excursions of the o2-h2s redox transition. Geochimica Et Cosmochimica Acta, 2001, 65, 1399-1416.	3.9	151
15	Laboratory evaluation of zero-valent iron to treat water impacted by acid mine drainage. Chemosphere, 2003, 53, 715-725.	8.2	145
16	Pyrite formation in the water column and sediments of a meromictic lake. Geology, 1998, 26, 1099.	4.4	104
17	In Situ Chemical Reduction of Cr(VI) in Groundwater Using a Combination of Ferrous Sulfate and Sodium Dithionite:Â A Field Investigation. Environmental Science & Technology, 2007, 41, 5299-5305.	10.0	103
18	Fifteen-year assessment of a permeable reactive barrier for treatment of chromate and trichloroethylene in groundwater. Science of the Total Environment, 2014, 468-469, 186-194.	8.0	101

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19	Perchlorate Behavior in a Municipal Lake Following Fireworks Displays. Environmental Science & Technology, 2007, 41, 3966-3971.	10.0	92
20	Arsenic solid-phase partitioning in reducing sediments of a contaminated wetland. Chemical Geology, 2006, 228, 156-174.	3.3	90
21	Impact of iron sulfide transformation on trichloroethylene degradation. Geochimica Et Cosmochimica Acta, 2010, 74, 2025-2039.	3.9	89
22	Natural arsenic contamination of Holocene alluvial aquifers by linked tectonic, weathering, and microbial processes. Geochemistry, Geophysics, Geosystems, 2005, 6, n/a-n/a.	2.5	85
23	Treatment of Arsenic, Heavy Metals, and Acidity Using a Mixed ZVI-Compost PRB. Environmental Science & Technology, 2009, 43, 1970-1976.	10.0	84
24	Microbial sulfate reduction and metal attenuation in pH 4 acid mine water. Geochemical Transactions, 2007, 8, 10.	0.7	82
25	Solubility and stability of zeolites in aqueous solution; I, Analcime, Na-, and K-clinoptilolite. American Mineralogist, 1998, 83, 746-761.	1.9	80
26	Examination of Arsenic Speciation in Sulfidic Solutions Using X-ray Absorption Spectroscopy. Environmental Science & Technology, 2008, 42, 1643-1650.	10.0	62
27	Biogeochemical controls on reaction of sedimentary organic matter and aqueous sulfides in holocene sediments of Mud Lake, Florida. Geochimica Et Cosmochimica Acta, 2002, 66, 937-954.	3.9	56
28	Iron hydroxy carbonate formation in zerovalent iron permeable reactive barriers: Characterization and evaluation of phase stability. Journal of Contaminant Hydrology, 2010, 116, 47-57.	3.3	55
29	Preservation of sulfidic waters containing dissolved As(iii). Journal of Environmental Monitoring, 2003, 5, 913.	2.1	49
30	Performance of a zerovalent iron reactive barrier for the treatment of arsenic in groundwater: Part 1. Hydrogeochemical studies. Journal of Contaminant Hydrology, 2009, 106, 1-14.	3.3	49
31	Transformation of Reactive Iron Minerals in a Permeable Reactive Barrier (Biowall) Used to Treat TCE in Groundwater. Environmental Science & Technology, 2008, 42, 6690-6696.	10.0	47
32	Geochemical and Isotope Study of Trichloroethene Degradation in a Zero-Valent Iron Permeable Reactive Barrier: A Twenty-Two-Year Performance Evaluation. Environmental Science & Technology, 2019, 53, 296-306.	10.0	46
33	Use of Hydrochloric Acid for Determining Solid-Phase Arsenic Partitioning in Sulfidic Sediments. Environmental Science & Technology, 2002, 36, 4921-4927.	10.0	44
34	Performance of a zerovalent iron reactive barrier for the treatment of arsenic in groundwater: Part 2. Geochemical modeling and solid phase studies. Journal of Contaminant Hydrology, 2009, 106, 15-28.	3.3	42
35	Potential aquifer vulnerability in regions down-gradient from uranium in situ recovery (ISR) sites. Journal of Environmental Management, 2016, 183, 67-83.	7.8	42
36	Uptake of nickel by synthetic mackinawite. Chemical Geology, 2017, 462, 15-29.	3.3	40

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37	Assessing the selectivity of extractant solutions for recovering labile arsenic associated with iron (hydr)oxides and sulfides in sediments. Geoderma, 2009, 152, 137-144.	5.1	37
38	Reductive Activation of Dioxygen for Degradation of Methyl tert-Butyl Ether by Bifunctional Aluminum. Environmental Science & Technology, 2002, 36, 4436-4440.	10.0	31
39	Solubility and stability of zeolites in aqueous solution: II. Calcic clinoptilolite and mordenite. American Mineralogist, 2000, 85, 495-508.	1.9	30
40	Thermodynamics of ion-exchanged and natural clinoptilolite. American Mineralogist, 2001, 86, 438-447.	1.9	29
41	Contaminant Attenuation Processes at Mine Sites. Mine Water and the Environment, 2008, 27, 251.	2.0	28
42	Nucleation and growth kinetics of analcime from precursor Na-clinoptilolite. American Mineralogist, 2000, 85, 1329-1341.	1.9	26
43	Evidence of Sulfate-Dependent Anaerobic Methane Oxidation within an Area Impacted by Coalbed Methane-Related Gas Migration. Environmental Science & Technology, 2017, 51, 1901-1909.	10.0	24
44	Black Sea chemocline oscillations during the Holocene: molecular and isotopic studies of marginal sediments. Organic Geochemistry, 2000, 31, 1525-1531.	1.8	23
45	Geochemical Modeling of Arsenic Speciation and Mobilization: Implications for Bioremediation. ACS Symposium Series, 2005, , 398-413.	0.5	22
46	Groundwater co-contaminant behavior of arsenic and selenium at a lead and zinc smelting facility. Applied Geochemistry, 2018, 89, 255-264.	3.0	22
47	Solution equilibria of uranyl minerals: Role of the common groundwater ions calcium and carbonate. Journal of Hazardous Materials, 2019, 377, 315-320.	12.4	22
48	Coulometric determination of total sulfur and reduced inorganic sulfur fractions in environmental samples. Talanta, 2006, 70, 766-773.	5.5	20
49	Rare-Earth Elements as Natural Tracers for In Situ Remediation of Groundwater. Environmental Science & Technology, 2021, 55, 1251-1259.	10.0	20
50	Arsenic cycling within the water column of a small lake receiving contaminated ground-water discharge. Chemical Geology, 2006, 228, 137-155.	3.3	19
51	Field Measurement of Dissolved Oxygen: A Comparison of Methods. Ground Water Monitoring and Remediation, 2001, 21, 124-132.	0.8	18
52	Thioarsenite Detection and Implications for Arsenic Transport in Groundwater. Environmental Science & Technology, 2019, 53, 11684-11693.	10.0	18
53	Thermodynamics of hydration of Na- and K-clinoptilolite to 300 Â°C. Physics and Chemistry of Minerals, 1999, 26, 468-476.	0.8	16
54	Arsenate and Arsenite Sorption on and Arsenite Oxidation by Iron(II, III) Hydroxycarbonate Green Rust. ACS Symposium Series, 2005, , 25-40.	0.5	13

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55	Nickel sulfide formation at low temperature: initial precipitates, solubility and transformation products. Environmental Chemistry, 2010, 7, 514.	1.5	11
56	Limitations of Current Approaches for Predicting Groundwater Vulnerability from PFAS Contamination in the Vadose Zone. Ground Water Monitoring and Remediation, 2021, 41, 62-75.	0.8	11
57	Determination of Cr(III) solids formed by reduction of Cr(VI) in a contaminated fractured bedrock aquifer: Evidence for natural attenuation of Cr(VI). Chemical Geology, 2017, 474, 1-8.	3.3	10
58	Archean Appinites from the Northern Complex, Michigan. Journal of Geology, 1993, 101, 107-114.	1.4	8
59	In Situ Source Treatment of Cr(VI) Using a Fe(II)-Based Reductant Blend: Long-Term Monitoring and Evaluation. Journal of Environmental Engineering, ASCE, 2008, 134, 651-658.	1.4	8
60	Determination of hexavalent chromium concentrations in matrix porewater from a contaminated aquifer in fractured sedimentary bedrock. Chemical Geology, 2015, 419, 142-148.	3.3	6
61	Geology and geochemistry of granitoid rocks in the Archean Northern complex, Michigan, U.S.A.. Canadian Journal of Earth Sciences, 1992, 29, 1674-1685.	1.3	5
62	Removal of Arsenate and Arsenite in Equimolar Ferrous and Ferric Sulfate Solutions through Mineral Coprecipitation: Formation of Sulfate Green Rust, Goethite, and Lepidocrocite. Soil Systems, 2020, 4, 68.	2.6	4
63	Monitored natural attenuation forum: MNA of metals and radionuclides. Remediation, 2007, 18, 121-129.	2.4	2
64	New Equilibrator Design for Rapid Detection of Methane in Groundwater During Purging. Environmental Engineering Science, 2018, 35, 897-908.	1.6	2
65	Sulfide minerals in sediments. , 1978, , 1157-1161.		2
66	Response to Comment on â€œThioarsenite Detection and Implications for Arsenic Transport in Groundwaterâ€ Environmental Science & Technology, 2020, 54, 7732-7733.	10.0	0
67	Field, Laboratory and Modeling Evidence for Strong Attenuation of a Cr(VI) Plume in a Mudstone Aquifer Due to Matrix Diffusion and Reaction Processes. Soil Systems, 2021, 5, 18.	2.6	0