Joseph N Ryan

List of Publications by Year
in descending order

84 papers	8,479 citations	36303 51 h-index	56724 83 g-index
85 all docs	85 docs citations	85 times ranked	7290 citing authors

#	Article	IF	Citations
1	Colloid mobilization and transport in groundwater. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1996, 107, 1-56.	4.7	990
2	Influence of Dissolved Organic Matter on the Environmental Fate of Metals, Nanoparticles, and Colloids. Environmental Science & Technology, 2011, 45, 3196-3201.	10.0	678
3	Binding of Mercury(II) to Dissolved Organic Matter:Â The Role of the Mercury-to-DOM Concentration Ratio. Environmental Science & Technology, 2002, 36, 3564-3570.	10.0	336
4	Relative Insignificance of Mineral Grain Zeta Potential to Colloid Transport in Geochemically Heterogeneous Porous Media. Environmental Science & Technology, 2000, 34, 2143-2148.	10.0	245
5	Effects of Iron on Optical Properties of Dissolved Organic Matter. Environmental Science & Technology, 2014, 48, 10098-10106.	10.0	231
6	Peer Reviewed: The Promise of Bank Filtration. Environmental Science & Technology, 2002, 36, 422A-428A.	10.0	224
7	Transport ofCryptosporidiumOocysts in Porous Media:Â Role of Straining and Physicochemical Filtrationâ€. Environmental Science & Technology, 2004, 38, 5932-5938.	10.0	219
8	Binding of Mercury(II) to Aquatic Humic Substances:Â Influence of pH and Source of Humic Substances. Environmental Science & Technology, 2003, 37, 2436-2441.	10.0	207
9	Bacteriophage PRD1 and Silica Colloid Transport and Recovery in an Iron Oxide-Coated Sand Aquifer. Environmental Science & Technology, 1999, 33, 63-73.	10.0	199
10	Effects of Ionic Strength and Flow Rate on Colloid Release: Relating Kinetics to Intersurface Potential Energy. Journal of Colloid and Interface Science, 1994, 164, 21-34.	9.4	196
11	Enhanced Dissolution of Cinnabar (Mercuric Sulfide) by Dissolved Organic Matter Isolated from the Florida Everglades. Environmental Science & Technology, 1998, 32, 3305-3311.	10.0	192
12	Colloid Movement in Unsaturated Porous Media: Recent Advances and Future Directions. Vadose Zone Journal, 2004, 3, 338-351.	2.2	180
13	Inhibition of Precipitation and Aggregation of Metacinnabar (Mercuric Sulfide) by Dissolved Organic Matter Isolated from the Florida Everglades. Environmental Science & Technology, 1999, 33, 1418-1423.	10.0	166
14	Transport and Recovery of Bacteriophage PRD1 in a Sand and Gravel Aquifer:Â Effect of Sewage-Derived Organic Matter. Environmental Science & Technology, 1997, 31, 1163-1170.	10.0	163
15	Dissolution of cinnabar (HgS) in the presence of natural organic matter. Geochimica Et Cosmochimica Acta, 2005, 69, 1575-1588.	3.9	145
16	Field and Laboratory Investigations of Inactivation of Viruses (PRD1 and MS2) Attached to Iron Oxide-Coated Quartz Sand. Environmental Science & Technology, 2002, 36, 2403-2413.	10.0	141
17	Mercury(II) Sorption to Two Florida Everglades Peats:Â Evidence for Strong and Weak Binding and Competition by Dissolved Organic Matter Released from the Peat. Environmental Science & Technology, 2002, 36, 4058-4064.	10.0	134
18	Effects of Humic Substances on Precipitation and Aggregation of Zinc Sulfide Nanoparticles. Environmental Science & Technology, 2011, 45, 3217-3223.	10.0	131

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19	Effect of Solution Chemistry on Clay Colloid Release from an Iron Oxide-Coated Aquifer Sand. Environmental Science & Technology, 1994, 28, 1717-1726.	10.0	129
20	Colloid mobilization in two Atlantic coastal plain aquifers: Field studies. Water Resources Research, 1990, 26, 307-322.	4.2	120
21	Temporal characterization of flowback and produced water quality from a hydraulically fractured oil and gas well. Science of the Total Environment, 2017, 596-597, 369-377.	8.0	115
22	Formation of Mercury Sulfide from Hg(II)â€"Thiolate Complexes in Natural Organic Matter. Environmental Science & Technology, 2015, 49, 9787-9796.	10.0	111
23	Formation of Nanocolloidal Metacinnabar in Mercury-DOM-Sulfide Systems. Environmental Science & Technology, 2011, 45, 9180-9187.	10.0	110
24	Sampling Colloids and Colloid-Associated Contaminants in Ground Water. Ground Water, 1993, 31, 466-479.	1.3	105
25	Fate of 4-Nonylphenol and 17Î²-Estradiol in the Redwood River of Minnesota. Environmental Science & Technology, 2012, 46, 860-868.	10.0	100
26	Determination of hydrologic pathways during snowmelt for alpine/subalpine basins, Rocky Mountain National Park, Colorado. Water Resources Research, 2000, 36, 63-75.	4.2	98
27	Membranes for the control of natural organic matter from surface waters. Water Research, 2000, 34, 3355-3370.	11.3	98
28	Role of organic acidity in sorption of natural organic matter (NOM) to oxide surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1996, 107, 297-307.	4.7	93
29	Unconventional oil and gas spills: Materials, volumes, and risks to surface waters in four states of the U.S.. Science of the Total Environment, 2017, 581-582, 369-377.	8.0	92
30	Virus transport in physically and geochemically heterogeneous subsurface porous media. Journal of Contaminant Hydrology, 2002, 57, 161-187.	3.3	89
31	Conservative and reactive solute transport in constructed wetlands. Water Resources Research, 2004, 40, .	4.2	87
32	Role of Biofilms in Sorptive Removal of Steroidal Hormones and 4-Nonylphenol Compounds from Streams. Environmental Science & Technology, 2011, 45, 7275-7283.	10.0	81
33	Biodegradation and Attenuation of Steroidal Hormones and Alkylphenols by Stream Biofilms and Sediments. Environmental Science & Technology, 2011, 45, 4370-4376.	10.0	81
34	A new method of calculating electrical conductivity with applications to natural waters. Geochimica Et Cosmochimica Acta, 2012, 77, 369-382.	3.9	80
35	In-Stream Attenuation of Neuro-Active Pharmaceuticals and Their Metabolites. Environmental Science & Technology, 2013, 47, 9781-9790.	10.0	80
36	Spatial Dependence of Reduced Sulfur in Everglades Dissolved Organic Matter Controlled by Sulfate Enrichment. Environmental Science & Technology, 2017, 51, 3630-3639.	10.0	78

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37	Use of PRD1 bacteriophage in groundwater viral transport, inactivation, and attachment studies. FEMS Microbiology Ecology, 2004, 49, 3-16.	2.7	75
38	Deposition and mobilization of clay colloids in unsaturated porous media. Water Resources Research, 2004, 40, .	4.2	75
39	Colloid-Facilitated Mobilization of Metals by Freezeâ€"Thaw Cycles. Environmental Science & Technology, 2014, 48, 977-984.	10.0	75
40	A Framework for Identifying Organic Compounds of Concern in Hydraulic Fracturing Fluids Based on Their Mobility and Persistence in Groundwater. Environmental Science and Technology Letters, 2015, 2, 158-164.	8.7	75
41	Groundwater methane in relation to oil and gas development and shallow coal seams in the Denver-Julesburg Basin of Colorado. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8391-8396.	7.1	75
42	Pore-scale mechanisms of colloid deposition and mobilization during steady and transient flow through unsaturated granular media. Water Resources Research, 2006, 42, .	4.2	70
43	Identification of polypropylene glycols and polyethylene glycol carboxylates in flowback and produced water from hydraulic fracturing. Journal of Hazardous Materials, 2017, 323, 11-17.	12.4	68
44	Copper(II) Binding by Dissolved Organic Matter: Importance of the Copper-to-Dissolved Organic Matter Ratio and Implications for the Biotic Ligand Model. Environmental Science & Technology, 2012, 46, 9948-9955.	10.0	66
45	Mobilization of Natural Colloids from an Iron Oxide-Coated Sand Aquifer:Â Effect of pH and Ionic Strength. Environmental Science & Technology, 2002, 36, 314-322.	10.0	65
46	Colloid Mobilization in a Fractured Soil during Dryâ€"Wet Cycles: Role of Drying Duration and Flow Path Permeability. Environmental Science & Technology, 2015, 49, 9100-9106.	10.0	64
47	Metallothionein-Like Multinuclear Clusters of Mercury(II) and Sulfur in Peat. Environmental Science & Technology, 2011, 45, 7298-7306.	10.0	59
48	Fate of Volatile Organic Compounds in Constructed Wastewater Treatment Wetlands. Environmental Science & Technology, 2004, 38, 2209-2216.	10.0	56
49	A critical review of three methods used for the measurement of mercury (Hg2+)-dissolved organic matter stability constants. Applied Geochemistry, 2007, 22, 1583-1597.	3.0	56
50	Effect of iron diagenesis on the transport of colloidal clay in an unconfined sand aquifer. Geochimica Et Cosmochimica Acta, 1992, 56, 1507-1521.	3.9	54
51	Comparison of electrical conductivity calculation methods for natural waters. Limnology and Oceanography: Methods, 2012, 10, 952-967.	2.0	53
52	A novel two-dimensional model for colloid transport in physically and geochemically heterogeneous porous media. Journal of Contaminant Hydrology, 2001, 49, 173-199.	3.3	52
53	Colloid Movement in Unsaturated Porous Media: Recent Advances and Future Directions. Vadose Zone Journal, 2004, 3, 338-351.	2.2	51
54	Mercury transformation and release differs with depth and time in a contaminated riparian soil during simulated flooding. Geochimica Et Cosmochimica Acta, 2016, 176, 118-138.	3.9	50

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55	Effects of Sulfide Concentration and Dissolved Organic Matter Characteristics on the Structure of Nanocolloidal Metacinnabar. Environmental Science & Technology, 2017, 51, 13133-13142.	10.0	50
56	Silica-Coated Titania and Zirconia Colloids for Subsurface Transport Field Experiments. Environmental Science & Technology, 2000, 34, 2000-2005.	10.0	49
57	Surface Casing Pressure As an Indicator of Well Integrity Loss and Stray Gas Migration in the Wattenberg Field, Colorado. Environmental Science & Technology, 2017, 51, 3567-3574.	10.0	47
58	Colloid transport in a geochemically heterogeneous porous medium: aquifer tank experiment and modeling. Journal of Contaminant Hydrology, 2003, 65, 161-182.	3.3	46
59	Sensitivity analysis and parameter identifiability for colloid transport in geochemically heterogeneous porous media. Water Resources Research, 2001, 37, 209-222.	4.2	44
60	Estimating mercury emissions resulting from wildfire in forests of the Western United States. Science of the Total Environment, 2016, 568, 578-586.	8.0	44
61	Extraction of Iron Oxides from Sediments Using Reductive Dissolution by Titanium(III). Clays and Clay Minerals, 1991, 39, 509-518.	1.3	43
62	Pathogen and chemical transport in the karst limestone of the Biscayne aquifer: 3. Use of microspheres to estimate the transport potential of <i>Cryptosporidium parvum</i> oocysts. Water Resources Research, 2008, 44, .	4.2	36
63	Colloid Mobilization in a Fractured Soil: Effect of Pore-Water Exchange between Preferential Flow Paths and Soil Matrix. Environmental Science & Technology, 2016, 50, 2310-2317.	10.0	36
64	Particle Release and Permeability Reduction in a Natural Zeolite (Clinoptilolite) and Sand Porous Medium. Environmental Science & Technology, 2001, 35, 4502-4508.	10.0	33
65	Effect of basin physical characteristics on solute fluxes in nine alpine/subalpine basins, Colorado, USA. Hydrological Processes, 2001, 15, 2749-2769.	2.6	30
66	Geochemical Factors Controlling Dissolved Elemental Mercury and Methylmercury Formation in Alaskan Wetlands of Varying Trophic Status. Environmental Science & Technology, 2019, 53, 6203-6213.	10.0	30
67	Public data from three US states provide new insights into well integrity. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	28
68	Water Stress from High-Volume Hydraulic Fracturing Potentially Threatens Aquatic Biodiversity and Ecosystem Services in Arkansas, United States. Environmental Science & Technology, 2018, 52, 2349-2358.	10.0	27
69	Degradation of polyethylene glycols and polypropylene glycols in microcosms simulating a spill of produced water in shallow groundwater. Environmental Sciences: Processes and Impacts, 2019, 21, 256-268.	3.5	27
70	Effect of desorption kinetics on colloid-facilitated transport of contaminants: Cesium, strontium, and illite colloids. Water Resources Research, 2006, 42, .	4.2	26
71	Comparison of transport and attachment behaviors of Cryptosporidium parvum oocysts and oocyst-sized microspheres being advected through three minerologically different granular porous media. Water Research, 2010, 44, 5334-5344.	11.3	25
72	Mobilization of Microspheres from a Fractured Soil during Intermittent Infiltration Events. Vadose Zone Journal, 2015, 14, vzj2014.05.0058.	2.2	25

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73	Inhibition of Biodegradation of Hydraulic Fracturing Compounds by Glutaraldehyde: Groundwater Column and Microcosm Experiments. Environmental Science & Technology, 2017, 51, 10251-10261.	10.0	25
74	Colloid transport in saturated porous media: Elimination of attachment efficiency in a new colloid transport model. Water Resources Research, 2013, 49, 2952-2965.	4.2	23
75	Introduction to special section on Colloid Transport in Subsurface Environments. Water Resources Research, 2006, 42, .	4.2	19
76	Methods for evaluating in-stream attenuation of trace organic compounds. Applied Geochemistry, 2011, 26, S344-S345.	3.0	18
77	Effects of chlorine and other water quality parameters on the release of silver nanoparticles from a ceramic surface. Water Research, 2013, 47, 4032-4039.	11.3	17
78	Water acquisition and use during unconventional oil and gas development and the existing data challenges: Weld and Garfield counties, CO. Journal of Environmental Management, 2016, 181, 36-47.	7.8	15
79	Effect of Dissolved Organic Carbon on the Transport and Attachment Behaviors of <i>Cryptosporidium parvum</i> oocysts and Carboxylate-Modified Microspheres Advected through Temperate Humic and Tropical Volcanic Agricultural soil. Environmental Science & Technology, 2012, 46, 2088-2094.	10.0	12
80	Vulnerability of Groundwater Resources Underlying Unlined Produced Water Ponds in the Tulare Basin of the San Joaquin Valley, California. Environmental Science & Technology, 2021, 55, 14782-14794.	10.0	9
81	Mine Water Use, Treatment, and Reuse in the United States: A Look at Current Industry Practices and Select Case Studies. ACS ES&T Engineering, 2022, 2, 391-408.	7.6	9
82	Microbial and Biogeochemical Indicators of Methane in Groundwater Aquifers of the Denver Basin, Colorado. Environmental Science & Technology, 2021, 55, 292-303.	10.0	7
83	Metal and nutrient behavior in the Raritan estuary, New Jersey, U.S.A.: The effect of multiple freshwater and industrial waste inputs. Chemical Geology, 1990, 81, 133-149.	3.3	5
84	Characterization of Accidental Spills and Releases Affecting Groundwater in the Greater Wattenberg Area of the Denver-Julesburg Basin in Northeastern Colorado. , 2017, , .		0