Mark A Engle

List of Publications by Year
in descending order

70 papers	3,383 citations	147801 31 h-index	155660 55 g-index
83 all docs	83 docs citations	83 times ranked	3025 citing authors

#	Article	IF	Citations
1	Organic substances in produced and formation water from unconventional natural gas extraction in coal and shale. International Journal of Coal Geology, 2014, 126, 20-31.	5.0	274
2	Hydraulic fracturing water use variability in the <scp>U</scp>nited <scp>S</scp>tates and potential environmental implications. Water Resources Research, 2015, 51, 5839-5845.	4.2	169
3	Quantifying natural source mercury emissions from the Ivanhoe Mining District, north-central Nevada, USA. Atmospheric Environment, 2001, 35, 3987-3997.	4.1	135
4	Geochemical and isotopic evolution of water produced from Middle Devonian Marcellus shale gas wells, Appalachian basin, Pennsylvania. AAPG Bulletin, 2015, 99, 181-206.	1.5	127
5	Geochemistry of formation waters from the Wolfcamp and â€œClineâ€•shales: Insights into brine origin, reservoir connectivity, and fluid flow in the Permian Basin, USA. Chemical Geology, 2016, 425, 76-92.	3.3	124
6	Atmospheric mercury emissions from mine wastes and surrounding geologically enriched terrains. Environmental Geology, 2003, 43, 339-351.	1.2	120
7	Wastewater Disposal from Unconventional Oil and Gas Development Degrades Stream Quality at a West Virginia Injection Facility. Environmental Science & Technology, 2016, 50, 5517-5525.	10.0	118
8	Geochemical evolution of produced waters from hydraulic fracturing of the Marcellus Shale, northern Appalachian Basin: A multivariate compositional data analysis approach. International Journal of Coal Geology, 2014, 126, 45-56.	5.0	116
9	CO2, CO, and Hg emissions from the Truman Shepherd and Ruth Mullins coal fires, eastern Kentucky, USA. Science of the Total Environment, 2010, 408, 1628-1633.	8.0	113
10	Can we beneficially reuse produced water from oil and gas extraction in the U.S.?. Science of the Total Environment, 2020, 717, 137085.	8.0	111
11	Discharges of produced waters from oil and gas extraction via wastewater treatment plants are sources of disinfection by-products to receiving streams. Science of the Total Environment, 2014, 466-467, 1085-1093.	8.0	109
12	Gas emissions, minerals, and tars associated with three coal fires, Powder River Basin, USA. Science of the Total Environment, 2012, 420, 146-159.	8.0	87
13	Volatile-organic molecular characterization of shale-oil produced water from the Permian Basin. Chemosphere, 2016, 148, 126-136.	8.2	85
14	Mercury exchange between the atmosphere and low mercury containing substrates. Applied Geochemistry, 2006, 21, 1913-1923.	3.0	84
15	Mercury distribution in two Sierran forest and one desert sagebrush steppe ecosystems and the effects of fire. Science of the Total Environment, 2006, 367, 222-233.	8.0	84
16	Comparison of atmospheric mercury speciation and deposition at nine sites across central and eastern North America. Journal of Geophysical Research, 2010, 115, .	3.3	84
17	The influence of ozone on atmospheric emissions of gaseous elemental mercury and reactive gaseous mercury from substrates. Atmospheric Environment, 2005, 39, 7506-7517.	4.1	81
18	The Tiptop coal-mine fire, Kentucky: Preliminary investigation of the measurement of mercury and other hazardous gases from coal-fire gas vents. International Journal of Coal Geology, 2009, 80, 63-67.	5.0	74

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19	Characterization and cycling of atmospheric mercury along the central US Gulf Coast. Applied Geochemistry, 2008, 23, 419-437.	3.0	72
20	Partitioning of selected trace elements in coal combustion products from two coal-burning power plants in the United States. International Journal of Coal Geology, 2013, 113, 116-126.	5.0	64
21	Interpretation of Naâ€"Clâ€"Br Systematics in Sedimentary Basin Brines: Comparison of Concentration, Element Ratio, and Isometric Log-ratio Approaches. Mathematical Geosciences, 2013, 45, 87-101.	2.4	58
22	Surface disposal of produced waters in western and southwestern Pennsylvania: Potential for accumulation of alkali-earth elements in sediments. International Journal of Coal Geology, 2014, 126, 162-170.	5.0	56
23	Atmospheric mercury emissions from substrates and fumaroles associated with three hydrothermal systems in the western United States. Journal of Geophysical Research, 2006, 111, .	3.3	50
24	Atmospheric particulate matter in proximity to mountaintop coal mines: sources and potential environmental and human health impacts. Environmental Geochemistry and Health, 2015, 37, 529-544.	3.4	49
25	Scaling of atmospheric mercury emissions from three naturally enriched areas: Flowery Peak, Nevada; Peavine Peak, Nevada; and Long Valley Caldera, California. Science of the Total Environment, 2002, 290, 91-104.	8.0	47
26	Methane and Benzene in Drinking-Water Wells Overlying the Eagle Ford, Fayetteville, and Haynesville Shale Hydrocarbon Production Areas. Environmental Science & Technology, 2017, 51, 6727-6734.	10.0	45
27	Atmospheric Mercury Emissions and Speciation at the Sulphur Bank Mercury Mine Superfund Site, Northern California. Environmental Science & Technology, 2004, 38, 1977-1983.	10.0	44
28	Whole-coal versus ash basis in coal geochemistry: A mathematical approach to consistent interpretations. International Journal of Coal Geology, 2013, 113, 41-49.	5.0	43
29	Quantifying greenhouse gas emissions from coal fires using airborne and ground-based methods. International Journal of Coal Geology, 2011, 88, 147-151.	5.0	41
30	Pore characteristics of Wilcox Group Coal, U.S. Gulf Coast Region: Implications for the occurrence of coalbed gas. International Journal of Coal Geology, 2015, 139, 80-94.	5.0	40
31	The isometric log-ratio (ilr)-ion plot: A proposed alternative to the Piper diagram. Journal of Geochemical Exploration, 2018, 190, 130-141.	3.2	38
32	Linking compositional data analysis with thermodynamic geochemical modeling: Oilfield brines from the Permian Basin, USA. Journal of Geochemical Exploration, 2014, 141, 61-70.	3.2	31
33	Direct estimation of diffuse gaseous emissions from coal fires: Current methods and future directions. International Journal of Coal Geology, 2013, 112, 164-172.	5.0	27
34	Characterization of produced water and surrounding surface water in the Permian Basin, the United States. Journal of Hazardous Materials, 2022, 430, 128409.	12.4	27
35	High Mercury Wet Deposition at a â€œClean Airâ€• Site in Puerto Rico. Environmental Science & Technology, 2015, 49, 12474-12482.	10.0	26
36	Cadmium isotope fractionation during coal combustion: Insights from two U.S. coal-fired power plants. Applied Geochemistry, 2018, 96, 100-112.	3.0	24

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37	Three-way compositional analysis of water quality monitoring data. Environmental and Ecological Statistics, 2014, 21, 565-581.	3.5	22
38	Origin and geochemistry of formation waters from the lower Eagle Ford Group, Gulf Coast Basin, south central Texas. Chemical Geology, 2020, 550, 119754.	3.3	21
39	The role of climate in increasing salt loads in dryland rivers. Journal of Arid Environments, 2014, 111, 7-13.	2.4	20
40	Spatial variability of produced-water quality and alternative-source water analysis applied to the Permian Basin, USA. Hydrogeology Journal, 2019, 27, 2889-2905.	2.1	20
41	Statistical analysis of soil geochemical data to identify pathfinders associated with mineral deposits: An example from the Coles Hill uranium deposit, Virginia, USA. Journal of Geochemical Exploration, 2015, 154, 238-251.	3.2	19
42	Mercury, Trace Elements and Organic Constituents in Atmospheric Fine Particulate Matter, Shenandoah National Park, Virginia, USA: A Combined Approach to Sampling and Analysis. Geostandards and Geoanalytical Research, 2008, 32, 279-293.	3.1	18
43	Gas emissions, tars, and secondary minerals at the Ruth Mullins and Tiptop coal mine fires. International Journal of Coal Geology, 2018, 195, 304-316.	5.0	18
44	Accuracy of methods for reporting inorganic element concentrations and radioactivity in oil and gas wastewaters from the Appalachian Basin, U.S. based on an inter-laboratory comparison. Environmental Sciences: Processes and Impacts, 2019, 21, 224-241.	3.5	18
45	Utica Shale Play Oil and Gas Brines: Geochemistry and Factors Influencing Wastewater Management. Environmental Science & Technology, 2020, 54, 13917-13925.	10.0	17
46	Atmospheric mercury and fine particulate matter in coastal New England: Implications for mercury and trace element sources in the northeastern United States. Atmospheric Environment, 2013, 79, 760-768.	4.1	16
47	Coal elemental (compositional) data analysis with hierarchical clustering algorithms. International Journal of Coal Geology, 2022, 249, 103892.	5.0	16
48	Patterns of mercury dispersion from local and regional emission sources, rural Central Wisconsin, USA. Atmospheric Chemistry and Physics, 2010, 10, 4467-4476.	4.9	15
49	Geochemical and geophysical indicators of oil and gas wastewater can trace potential exposure pathways following releases to surface waters. Science of the Total Environment, 2021, 755, 142909.	8.0	15
50	Using simulated maps to interpret the geochemistry, formation and quality of the Blue Gem coal bed, Kentucky, USA. International Journal of Coal Geology, 2013, 112, 26-35.	5.0	14
51	Quantifying chemical weathering rates along a precipitation gradient on Basse-Terre Island, French Guadeloupe: New insight from U-series isotopes in weathering rinds. Geochimica Et Cosmochimica Acta, 2016, 195, 29-67.	3.9	14
52	Tracking solutes and water from subsurface drip irrigation application of coalbed methaneâ€“produced waters, Powder River Basin, Wyoming. Environmental Geosciences, 2011, 18, 169-187.	0.6	11
53	Predicting Rare Earth Element Potential in Produced and Geothermal Waters of the United States via Emergent Self-Organizing Maps. Energies, 2022, 15, 4555.	3.1	9
54	Advances in self-organizing maps for their application to compositional data. Stochastic Environmental Research and Risk Assessment, 2019, 33, 817-826.	4.0	8

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55	Weighted Symmetric Pivot Coordinates for Compositional Data with Geochemical Applications. Mathematical Geosciences, 2021, 53, 655-674.	2.4	8
56	Hydrogeochemical controls on brackish groundwater and its suitability for use in hydraulic fracturing: The Dockum Aquifer, Midland Basin, Texas. Environmental Geosciences, 2018, 25, 37-63.	0.6	6
57	Considerations in the application of machine learning to aqueous geochemistry: Origin of produced waters in the northern U.S. Gulf Coast Basin. Applied Computing and Geosciences, 2019, 3-4, 100012.	2.2	6
58	Application of near-surface geophysics as part of a hydrologic study of a subsurface drip irrigation system along the Powder River floodplain near Arvada, Wyoming. International Journal of Coal Geology, 2014, 126, 128-139.	5.0	5
59	Application of environmental groundwater tracers at the Sulphur Bank Mercury Mine, California, USA. Hydrogeology Journal, 2008, 16, 559-573.	2.1	4
60	The Role of Water in Unconventional in Situ Energy Resource Extraction Technologies. , 2015, , 183-215.		4
61	Insights on Geochemical, Isotopic, and Volumetric Compositions of Produced Water from Hydraulically Fractured Williston Basin Oil Wells. Environmental Science & Technology, 2021, 55, 10025-10034.	10.0	4
62	Compositional Closureâ€”Its Origin Lies Not in Mathematics but Rather in Nature Itself. Minerals (Basel,) Tj ETQq0 0 0 rgBT /Overlock 10	2.0	4
63	Dissolved organic matter within oil and gas associated wastewaters from U.S. unconventional petroleum plays: Comparisons and consequences for disposal and reuse. Science of the Total Environment, 2022, 838, 156331.	8.0	4
64	Machine Learning Can Assign Geologic Basin to Produced Water Samples Using Major Ion Geochemistry. Natural Resources Research, 2021, 30, 4147-4163.	4.7	3
65	The future low-temperature geochemical data-scape as envisioned by the U.S. geochemical community. Computers and Geosciences, 2021, 157, 104933.	4.2	3
66	Third Year of Subsurface Drip Irrigation Monitoring Using GEM2 Electromagnetic Surveys, Powder River Basin, Wyoming. , 2010, , .		2
67	Environmental geology and the unconventional gas revolution: Introduction to the Special Issue. International Journal of Coal Geology, 2014, 126, 1-3.	5.0	2
68	Direct Trace Element Determination in Oil and Gas Produced Waters with Inductively Coupled Plasmaâ€Optical Emission Spectrometry: Advantages of Highâ€Salinity Tolerance. Geostandards and Geoanalytical Research, 2020, 44, 385-397.	3.1	2
69	Datasets associated with investigating the potential for beneficial reuse of produced water from oil and gas extraction outside of the energy sector. Data in Brief, 2020, 30, 105406.	1.0	2
70	Geochemical data for produced waters from conventional and unconventional oil and gas wells: Results from Colorado, USA. E3S Web of Conferences, 2019, 98, 03002.	0.5	0