David A Polya

List of Publications by Year
in descending order

65 papers	3,792 citations	159585 30 h-index	128289 60 g-index
69 all docs	69 docs citations	69 times ranked	3667 citing authors

#	Article	IF	Citations
1	Role of metal-reducing bacteria in arsenic release from Bengal delta sediments. Nature, 2004, 430, 68-71.	27.8	1,071
2	Rice is a major exposure route for arsenic in Chakdaha block, Nadia district, West Bengal, India: A probabilistic risk assessment. Applied Geochemistry, 2008, 23, 2987-2998.	3.0	263
3	High arsenic in rice is associated with elevated genotoxic effects in humans. Scientific Reports, 2013, 3, 2195.	3.3	159
4	Arsenic in hair and nails of individuals exposed to arsenic-rich groundwaters in Kandal province, Cambodia. Science of the Total Environment, 2008, 393, 168-176.	8.0	133
5	Comparison of drinking water, raw rice and cooking of rice as arsenic exposure routes in three contrasting areas of West Bengal, India. Environmental Geochemistry and Health, 2010, 32, 463-477.	3.4	130
6	Importance of mantle derived fluids during granite associated hydrothermal circulation: He and Ar isotopes of ore minerals from Panasqueira 1 1Associate editor: R. Wieler. Geochimica Et Cosmochimica Acta, 2004, 68, 1607-1615.	3.9	108
7	Pond-Derived Organic Carbon Driving Changes in Arsenic Hazard Found in Asian Groundwaters. Environmental Science & Technology, 2013, 47, 7085-7094.	10.0	106
8	Arsenic Bioremediation by Biogenic Iron Oxides and Sulfides. Applied and Environmental Microbiology, 2013, 79, 4325-4335.	3.1	99
9	Tracing organic matter composition and distribution and its role on arsenic release in shallow Cambodian groundwaters. Geochimica Et Cosmochimica Acta, 2016, 178, 160-177.	3.9	90
10	Isotopic and microbiological signatures of pyrite-driven denitrification in a sandy aquifer. Chemical Geology, 2012, 300-301, 123-132.	3.3	74
11	Preservation strategies for inorganic arsenic species in high iron, low-Eh groundwater from West Bengal, India. Analytical and Bioanalytical Chemistry, 2005, 381, 347-353.	3.7	73
12	Geochemistry of aquifer sediments and arsenic-rich groundwaters from Kandal Province, Cambodia. Applied Geochemistry, 2008, 23, 3029-3046.	3.0	71
13	Assessing urinary flow rate, creatinine, osmolality and other hydration adjustment methods for urinary biomonitoring using NHANES arsenic, iodine, lead and cadmium data. Environmental Health, 2016, 15, 68.	4.0	71
14	Mechanisms of arsenic attenuation in acid mine drainage from Mount Bischoff, western Tasmania. Science of the Total Environment, 2005, 345, 219-228.	8.0	68
15	Molecular and cultivation-dependent analysis of metal-reducing bacteria implicated in arsenic mobilisation in south-east asian aquifers. Applied Geochemistry, 2008, 23, 3215-3223.	3.0	58
16	Characterisation of organic matter and microbial communities in contrasting arsenic-rich Holocene and arsenic-poor Pleistocene aquifers, Red River Delta, Vietnam. Applied Geochemistry, 2012, 27, 315-325.	3.0	57
17	Groundwater Arsenic Distribution in India by Machine Learning Geospatial Modeling. International Journal of Environmental Research and Public Health, 2020, 17, 7119.	2.6	57
18	Hopane, sterane and n-alkane distributions in shallow sediments hosting high arsenic groundwaters in Cambodia. Applied Geochemistry, 2008, 23, 3047-3058.	3.0	51

#	Article	IF	Citations
19	Mobilisation of arsenic from bauxite residue (red mud) affected soils: Effect of pH and redox conditions. Applied Geochemistry, 2014, 51, 268-277.	3.0	50
20	Positive Association of Cardiovascular Disease (CVD) with Chronic Exposure to Drinking Water Arsenic (As) at Concentrations below the WHO Provisional Guideline Value: A Systematic Review and Meta-analysis. International Journal of Environmental Research and Public Health, 2020, 17, 2536.	2.6	48
21	Microbial ecology of arsenicâ€mobilizing <scp>C</scp>ambodian sediments: lithological controls uncovered by stableâ€isotope probing. Environmental Microbiology, 2015, 17, 1857-1869.	3.8	44
22	Electrical resistivity tomography determines the spatial distribution of clay layer thickness and aquifer vulnerability, Kandal Province, Cambodia. Journal of Asian Earth Sciences, 2017, 147, 402-414.	2.3	43
23	Arsenic exposure from food exceeds that from drinking water in endemic area of Bihar, India. Science of the Total Environment, 2021, 754, 142082.	8.0	42
24	Arsenic in Groundwaters of South-East Asia: With Emphasis on Cambodia and Vietnam. Applied Geochemistry, 2008, 23, 2968-2976.	3.0	38
25	Distribution and Geochemical Controls of Arsenic and Uranium in Groundwater-Derived Drinking Water in Bihar, India. International Journal of Environmental Research and Public Health, 2020, 17, 2500.	2.6	36
26	Effect of iron redox transformations on arsenic solid-phase associations in an arsenic-rich, ferruginous hydrothermal sediment. Geochimica Et Cosmochimica Acta, 2013, 102, 124-142.	3.9	34
27	Arsenic speciation in surface waters and sediments in a contaminated waterway: an ICâ€“ICP-MS and XAS based study. Applied Geochemistry, 2003, 18, 1387-1397.	3.0	33
28	Characterisation of organic matter associated with groundwater arsenic in reducing aquifers of southwestern Taiwan. Journal of Hazardous Materials, 2013, 262, 970-979.	12.4	32
29	High resolution profile of inorganic aqueous geochemistry and key redox zones in an arsenic bearing aquifer in Cambodia. Science of the Total Environment, 2017, 590-591, 540-553.	8.0	32
30	A comparative assessment of dilution correction methods for spot urinary analyte concentrations in a UK population exposed to arsenic in drinking water. Environment International, 2019, 130, 104721.	10.0	32
31	Delineating sources of groundwater recharge in an arsenic-affected Holocene aquifer in Cambodia using stable isotope-based mixing models. Journal of Hydrology, 2018, 557, 321-334.	5.4	31
32	Efficiency of hydrothermal ore formation and the Panasqueira Wâ€“Cu(Ag)â€“Sn vein deposit. Nature, 1988, 333, 838-841.	27.8	28
33	Dissolved organic matter tracers reveal contrasting characteristics across high arsenic aquifers in Cambodia: A fluorescence spectroscopy study. Geoscience Frontiers, 2019, 10, 1653-1667.	8.4	28
34	Association of low-level inorganic arsenic exposure from rice with age-standardized mortality risk of cardiovascular disease (CVD) in England and Wales. Science of the Total Environment, 2020, 743, 140534.	8.0	26
35	Geostatistical model of the spatial distribution of arsenic in groundwaters in Gujarat State, India. Environmental Geochemistry and Health, 2021, 43, 2649-2664.	3.4	26
36	Dual in-aquifer and near surface processes drive arsenic mobilization in Cambodian groundwaters. Science of the Total Environment, 2019, 659, 699-714.	8.0	25

#	Article	IF	Citations
37	Major and trace (including arsenic) groundwater chemistry in central and southern Myanmar. Applied Geochemistry, 2020, 115, 104535.	3.0	25
38	Use of lithium tracers to quantify drilling fluid contamination for groundwater monitoring in Southeast Asia. Applied Geochemistry, 2015, 63, 190-202.	3.0	24
39	Understanding Microbial Arsenic-Mobilization in Multiple Aquifers: Insight from DNA and RNA Analyses. Environmental Science & Technology, 2021, 55, 15181-15195.	10.0	22
40	Arsenic in residential soil and household dust in Cornwall, south west England: potential human exposure and the influence of historical mining. Environmental Sciences: Processes and Impacts, 2017, 19, 517-527.	3.5	21
41	Contrasting sorption behaviours affecting groundwater arsenic concentration in Kandal Province, Cambodia. Geoscience Frontiers, 2019, 10, 1701-1713.	8.4	21
42	Coupled HPLC-ICP-MS analysis indicates highly hazardous concentrations of dissolved arsenic species in Cambodian groundwaters. Special Publication - Royal Society of Chemistry, 2007, , 127-140.	0.0	18
43	Critical pathway analysis to determine key uncertainties in net impacts on disease burden in Bangladesh of arsenic mitigation involving the substitution of arsenic bearing for groundwater drinking water supplies. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2007, 42, 1909-1917.	1.7	16
44	Microbially mediated reduction of FeIII and AsV in Cambodian sediments amended with 13C-labelled hexadecane and kerogen. Environmental Chemistry, 2014, 11, 538.	1.5	16
45	Biomarker-indicated extent of oxidation of plant-derived organic carbon (OC) in relation to geomorphology in an arsenic contaminated Holocene aquifer, Cambodia. Scientific Reports, 2017, 7, 13093.	3.3	16
46	Risk perception of arsenic exposure from rice intake in a UK population. Palgrave Communications, 2019, 5, .	4.7	15
47	A comparison of two techniques for calculating groundwater arsenic-related lung, bladder and liver cancer disease burden using data from Chakdha block, West Bengal. Applied Geochemistry, 2008, 23, 2999-3009.	3.0	14
48	Seasonal variation of total dissolved arsenic and arsenic speciation in a polluted surface waterway. Environmental Geochemistry and Health, 2003, 25, 77-85.	3.4	13
49	Best Practice Guide on the Control of Arsenic in Drinking Water. Water Intelligence Online, 2017, 16, 9781780404929.	0.3	13
50	A systematic approach to understand hydrogeochemical dynamics in large river systems: Development and application to the River Ganges (Ganga) in India. Water Research, 2022, 211, 118054.	11.3	13
51	Iron and arsenic speciation in groundwaters from West Bengal, India by coupled HPLC-ICP-MS utilising a hexapole collision cell. Special Publication - Royal Society of Chemistry, 2007, , 112-126.	0.0	12
52	Diarrhoeal Health Risks Attributable to Water-Borne-Pathogens in Arsenic-Mitigated Drinking Water in West Bengal are Largely Independent of the Microbiological Quality of the Supplied Water. Water (Switzerland), 2014, 6, 1100-1117.	2.7	11
53	Arsenic hazard in Cambodian rice from a market-based survey with a case study of Preak Russey village, Kandal Province. Environmental Geochemistry and Health, 2015, 37, 757-766.	3.4	11
54	Assessment of hypertension association with arsenic exposure from food and drinking water in Bihar, India. Ecotoxicology and Environmental Safety, 2021, 223, 112572.	6.0	11

#	Article	IF	Citations
55	Distribution of Groundwater Arsenic in Uruguay Using Hybrid Machine Learning and Expert System Approaches. Water (Switzerland), 2021, 13, 527.	2.7	10
56	A critical review of abiotic and microbially-mediated chemical reduction rates of Fe(III) (oxyhydr)oxides using a reactivity model. Applied Geochemistry, 2021, 126, 104895.	3.0	10
57	Groundwater Arsenic-Attributable Cardiovascular Disease (CVD) Mortality Risks in India. Water (Switzerland), 2021, 13, 2232.	2.7	10
58	Environmental tracers and groundwater residence time indicators reveal controls of arsenic accumulation rates beneath a rapidly developing urban area in Patna, India. Journal of Contaminant Hydrology, 2022, 249, 104043.	3.3	10
59	Tritium Tracers of Rapid Surface Water Ingression into Arsenic-bearing Aquifers in the Lower Mekong Basin, Cambodia. Procedia Earth and Planetary Science, 2017, 17, 845-848.	0.6	8
60	Household and community systems for groundwater remediation in Bihar, India: Arsenic and inorganic contaminant removal, controls and implications for remediation selection. Science of the Total Environment, 2022, 830, 154580.	8.0	7
61	Hazard Ranking Method for Populations Exposed to Arsenic in Private Water Supplies: Relation to Bedrock Geology. International Journal of Environmental Research and Public Health, 2017, 14, 1490.	2.6	6
62	Exploratory study of the association in the United Kingdom between hypertension and inorganic arsenic (iAs) intake from rice and rice products. Environmental Geochemistry and Health, 2021, 43, 2505-2538.	3.4	5
63	Quantifying the impacts of groundwater abstraction on Ganges river water infiltration into shallow aquifers under the rapidly developing city of Patna, India. Journal of Hydrology: Regional Studies, 2022, 42, 101133.	2.4	4
64	Calculating 14C mean residence times of inorganic carbon derived from oxidation of organic carbon in groundwater using the principles of 87Sr/86Sr and cation ratio mixing. Geochimica Et Cosmochimica Acta, 2019, 267, 322-340.	3.9	2
65	Geochemical compositional controls on DNA strand breaks induced in in vitro cell-free assays by crushed rock powders from the Panasqueira mine area, Portugal. Environmental Geochemistry and Health, 2020, 43, 2631-2647.	3.4	1