David A Polya

List of Publications by Year
in descending order

#	ARTICLE	IF	CITATIONS
1	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.	5.3	13
2	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.	3.9	7
3	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.	1.6	10
4	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.	1.0	4
5	Geostatistical model of the spatial distribution of arsenic in groundwaters in Gujarat State, India. Environmental Geochemistry and Health, 2021, 43, 2649-2664.	1.8	26
6	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.	1.8	5
7	Arsenic exposure from food exceeds that from drinking water in endemic area of Bihar, India. Science of the Total Environment, 2021, 754, 142082.	3.9	42
8	Distribution of Groundwater Arsenic in Uruguay Using Hybrid Machine Learning and Expert System Approaches. Water (Switzerland), 2021, 13, 527.	1.2	10
9	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.	1.4	10
10	Groundwater Arsenic-Attributable Cardiovascular Disease (CVD) Mortality Risks in India. Water (Switzerland), 2021, 13, 2232.	1.2	10
11	Assessment of hypertension association with arsenic exposure from food and drinking water in Bihar, India. Ecotoxicology and Environmental Safety, 2021, 223, 112572.	2.9	11
12	Understanding Microbial Arsenic-Mobilization in Multiple Aquifers: Insight from DNA and RNA Analyses. Environmental Science & Technology, 2021, 55, 15181-15195.	4.6	22
13	Groundwater Arsenic Distribution in India by Machine Learning Geospatial Modeling. International Journal of Environmental Research and Public Health, 2020, 17, 7119.	1.2	57
14	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.	3.9	26
15	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.	1.8	1
16	Major and trace (including arsenic) groundwater chemistry in central and southern Myanmar. Applied Geochemistry, 2020, 115, 104535.	1.4	25
17	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.	1.2	36
18	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.	1.2	48

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19	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.	1.6	2
20	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.	4.8	32
21	Dissolved organic matter tracers reveal contrasting characteristics across high arsenic aquifers in Cambodia: A fluorescence spectroscopy study. Geoscience Frontiers, 2019, 10, 1653-1667.	4.3	28
22	Contrasting sorption behaviours affecting groundwater arsenic concentration in Kandal Province, Cambodia. Geoscience Frontiers, 2019, 10, 1701-1713.	4.3	21
23	Dual in-aquifer and near surface processes drive arsenic mobilization in Cambodian groundwaters. Science of the Total Environment, 2019, 659, 699-714.	3.9	25
24	Risk perception of arsenic exposure from rice intake in a UK population. Palgrave Communications, 2019, 5, .	4.7	15
25	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.	2.3	31
26	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
27	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.	1.7	21
28	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.	3.9	32
29	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.	1.6	16
30	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.	1.0	43
31	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.	1.2	6
32	Best Practice Guide on the Control of Arsenic in Drinking Water. Water Intelligence Online, 2017, 16, 9781780404929.	0.3	13
33	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.	1.7	71
34	Tracing organic matter composition and distribution and its role on arsenic release in shallow Cambodian groundwaters. Geochimica Et Cosmochimica Acta, 2016, 178, 160-177.	1.6	90
35	Microbial ecology of arsenicâ€mobilizing <scp>C</scp>ambodian sediments: lithological controls uncovered by stableâ€isotope probing. Environmental Microbiology, 2015, 17, 1857-1869.	1.8	44
36	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.	1.8	11

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37	Use of lithium tracers to quantify drilling fluid contamination for groundwater monitoring in Southeast Asia. Applied Geochemistry, 2015, 63, 190-202.	1.4	24
38	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.	1.2	11
39	Mobilisation of arsenic from bauxite residue (red mud) affected soils: Effect of pH and redox conditions. Applied Geochemistry, 2014, 51, 268-277.	1.4	50
40	Microbially mediated reduction of FeIII and AsV in Cambodian sediments amended with 13C-labelled hexadecane and kerogen. Environmental Chemistry, 2014, 11, 538.	0.7	16
41	High arsenic in rice is associated with elevated genotoxic effects in humans. Scientific Reports, 2013, 3, 2195.	1.6	159
42	Characterisation of organic matter associated with groundwater arsenic in reducing aquifers of southwestern Taiwan. Journal of Hazardous Materials, 2013, 262, 970-979.	6.5	32
43	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.	1.6	34
44	Pond-Derived Organic Carbon Driving Changes in Arsenic Hazard Found in Asian Groundwaters. Environmental Science & Technology, 2013, 47, 7085-7094.	4.6	106
45	Arsenic Bioremediation by Biogenic Iron Oxides and Sulfides. Applied and Environmental Microbiology, 2013, 79, 4325-4335.	1.4	99
46	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.	1.4	57
47	Isotopic and microbiological signatures of pyrite-driven denitrification in a sandy aquifer. Chemical Geology, 2012, 300-301, 123-132.	1.4	74
48	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.	1.8	130
49	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.	3.9	133
50	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.	1.4	14
51	Geochemistry of aquifer sediments and arsenic-rich groundwaters from Kandal Province, Cambodia. Applied Geochemistry, 2008, 23, 3029-3046.	1.4	71
52	Hopane, sterane and n-alkane distributions in shallow sediments hosting high arsenic groundwaters in Cambodia. Applied Geochemistry, 2008, 23, 3047-3058.	1.4	51
53	Arsenic in Groundwaters of South-East Asia: With Emphasis on Cambodia and Vietnam. Applied Geochemistry, 2008, 23, 2968-2976.	1.4	38
54	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.	1.4	263

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55	Molecular and cultivation-dependent analysis of metal-reducing bacteria implicated in arsenic mobilisation in south-east asian aquifers. Applied Geochemistry, 2008, 23, 3215-3223.	1.4	58
56	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.	0.9	16
57	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
58	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
59	Mechanisms of arsenic attenuation in acid mine drainage from Mount Bischoff, western Tasmania. Science of the Total Environment, 2005, 345, 219-228.	3.9	68
60	Preservation strategies for inorganic arsenic species in high iron, low-Eh groundwater from West Bengal, India. Analytical and Bioanalytical Chemistry, 2005, 381, 347-353.	1.9	73
61	Role of metal-reducing bacteria in arsenic release from Bengal delta sediments. Nature, 2004, 430, 68-71.	13.7	1,071
62	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.	1.6	108
63	Seasonal variation of total dissolved arsenic and arsenic speciation in a polluted surface waterway. Environmental Geochemistry and Health, 2003, 25, 77-85.	1.8	13
64	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.	1.4	33
65	Efficiency of hydrothermal ore formation and the Panasqueira Wâ€“Cu(Ag)â€“Sn vein deposit. Nature, 1988, 333, 838-841.	13.7	28