

David A Polya

List of Publications by Year in descending order

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Version: 2024-02-01

65
papers

3,792
citations

159525

30
h-index

128225

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. <i>Nature</i> , 2004, 430, 68-71.	13.7	1,071
2	Rice is a major exposure route for arsenic in Chakdaha block, Nadia district, West Bengal, India: A probabilistic risk assessment. <i>Applied Geochemistry</i> , 2008, 23, 2987-2998.	1.4	263
3	High arsenic in rice is associated with elevated genotoxic effects in humans. <i>Scientific Reports</i> , 2013, 3, 2195.	1.6	159
4	Arsenic in hair and nails of individuals exposed to arsenic-rich groundwaters in Kandal province, Cambodia. <i>Science of the Total Environment</i> , 2008, 393, 168-176.	3.9	133
5	Comparison of drinking water, raw rice and cooking of rice as arsenic exposure routes in three contrasting areas of West Bengal, India. <i>Environmental Geochemistry and Health</i> , 2010, 32, 463-477.	1.8	130
6	Importance of mantle derived fluids during granite associated hydrothermal circulation: He and Ar isotopes of ore minerals from Panasqueira 1 Associate editor: R. Wieler. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 1607-1615.	1.6	108
7	Pond-Derived Organic Carbon Driving Changes in Arsenic Hazard Found in Asian Groundwaters. <i>Environmental Science & Technology</i> , 2013, 47, 7085-7094.	4.6	106
8	Arsenic Bioremediation by Biogenic Iron Oxides and Sulfides. <i>Applied and Environmental Microbiology</i> , 2013, 79, 4325-4335.	1.4	99
9	Tracing organic matter composition and distribution and its role on arsenic release in shallow Cambodian groundwaters. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 178, 160-177.	1.6	90
10	Isotopic and microbiological signatures of pyrite-driven denitrification in a sandy aquifer. <i>Chemical Geology</i> , 2012, 300-301, 123-132.	1.4	74
11	Preservation strategies for inorganic arsenic species in high iron, low-Eh groundwater from West Bengal, India. <i>Analytical and Bioanalytical Chemistry</i> , 2005, 381, 347-353.	1.9	73
12	Geochemistry of aquifer sediments and arsenic-rich groundwaters from Kandal Province, Cambodia. <i>Applied Geochemistry</i> , 2008, 23, 3029-3046.	1.4	71
13	Assessing urinary flow rate, creatinine, osmolality and other hydration adjustment methods for urinary biomonitoring using NHANES arsenic, iodine, lead and cadmium data. <i>Environmental Health</i> , 2016, 15, 68.	1.7	71
14	Mechanisms of arsenic attenuation in acid mine drainage from Mount Bischoff, western Tasmania. <i>Science of the Total Environment</i> , 2005, 345, 219-228.	3.9	68
15	Molecular and cultivation-dependent analysis of metal-reducing bacteria implicated in arsenic mobilisation in south-east asian aquifers. <i>Applied Geochemistry</i> , 2008, 23, 3215-3223.	1.4	58
16	Characterisation of organic matter and microbial communities in contrasting arsenic-rich Holocene and arsenic-poor Pleistocene aquifers, Red River Delta, Vietnam. <i>Applied Geochemistry</i> , 2012, 27, 315-325.	1.4	57
17	Groundwater Arsenic Distribution in India by Machine Learning Geospatial Modeling. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 7119.	1.2	57
18	Hopane, sterane and n-alkane distributions in shallow sediments hosting high arsenic groundwaters in Cambodia. <i>Applied Geochemistry</i> , 2008, 23, 3047-3058.	1.4	51

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19	Mobilisation of arsenic from bauxite residue (red mud) affected soils: Effect of pH and redox conditions. <i>Applied Geochemistry</i> , 2014, 51, 268-277.	1.4	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. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 2536.	1.2	48
21	Microbial ecology of arsenic-mobilizing Cambodian sediments: lithological controls uncovered by stable isotope probing. <i>Environmental Microbiology</i> , 2015, 17, 1857-1869.	1.8	44
22	Electrical resistivity tomography determines the spatial distribution of clay layer thickness and aquifer vulnerability, Kandal Province, Cambodia. <i>Journal of Asian Earth Sciences</i> , 2017, 147, 402-414.	1.0	43
23	Arsenic exposure from food exceeds that from drinking water in endemic area of Bihar, India. <i>Science of the Total Environment</i> , 2021, 754, 142082.	3.9	42
24	Arsenic in Groundwaters of South-East Asia: With Emphasis on Cambodia and Vietnam. <i>Applied Geochemistry</i> , 2008, 23, 2968-2976.	1.4	38
25	Distribution and Geochemical Controls of Arsenic and Uranium in Groundwater-Derived Drinking Water in Bihar, India. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 2500.	1.2	36
26	Effect of iron redox transformations on arsenic solid-phase associations in an arsenic-rich, ferruginous hydrothermal sediment. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 102, 124-142.	1.6	34
27	Arsenic speciation in surface waters and sediments in a contaminated waterway: an ICP-MS and XAS based study. <i>Applied Geochemistry</i> , 2003, 18, 1387-1397.	1.4	33
28	Characterisation of organic matter associated with groundwater arsenic in reducing aquifers of southwestern Taiwan. <i>Journal of Hazardous Materials</i> , 2013, 262, 970-979.	6.5	32
29	High resolution profile of inorganic aqueous geochemistry and key redox zones in an arsenic bearing aquifer in Cambodia. <i>Science of the Total Environment</i> , 2017, 590-591, 540-553.	3.9	32
30	A comparative assessment of dilution correction methods for spot urinary analyte concentrations in a UK population exposed to arsenic in drinking water. <i>Environment International</i> , 2019, 130, 104721.	4.8	32
31	Delineating sources of groundwater recharge in an arsenic-affected Holocene aquifer in Cambodia using stable isotope-based mixing models. <i>Journal of Hydrology</i> , 2018, 557, 321-334.	2.3	31
32	Efficiency of hydrothermal ore formation and the Panasqueira W-Cu(Ag)-Sn vein deposit. <i>Nature</i> , 1988, 333, 838-841.	13.7	28
33	Dissolved organic matter tracers reveal contrasting characteristics across high arsenic aquifers in Cambodia: A fluorescence spectroscopy study. <i>Geoscience Frontiers</i> , 2019, 10, 1653-1667.	4.3	28
34	Association of low-level inorganic arsenic exposure from rice with age-standardized mortality risk of cardiovascular disease (CVD) in England and Wales. <i>Science of the Total Environment</i> , 2020, 743, 140534.	3.9	26
35	Geostatistical model of the spatial distribution of arsenic in groundwaters in Gujarat State, India. <i>Environmental Geochemistry and Health</i> , 2021, 43, 2649-2664.	1.8	26
36	Dual in-aquifer and near surface processes drive arsenic mobilization in Cambodian groundwaters. <i>Science of the Total Environment</i> , 2019, 659, 699-714.	3.9	25

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37	Major and trace (including arsenic) groundwater chemistry in central and southern Myanmar. <i>Applied Geochemistry</i> , 2020, 115, 104535.	1.4	25
38	Use of lithium tracers to quantify drilling fluid contamination for groundwater monitoring in Southeast Asia. <i>Applied Geochemistry</i> , 2015, 63, 190-202.	1.4	24
39	Understanding Microbial Arsenic-Mobilization in Multiple Aquifers: Insight from DNA and RNA Analyses. <i>Environmental Science & Technology</i> , 2021, 55, 15181-15195.	4.6	22
40	Arsenic in residential soil and household dust in Cornwall, south west England: potential human exposure and the influence of historical mining. <i>Environmental Sciences: Processes and Impacts</i> , 2017, 19, 517-527.	1.7	21
41	Contrasting sorption behaviours affecting groundwater arsenic concentration in Kandal Province, Cambodia. <i>Geoscience Frontiers</i> , 2019, 10, 1701-1713.	4.3	21
42	Coupled HPLC-ICP-MS analysis indicates highly hazardous concentrations of dissolved arsenic species in Cambodian groundwaters. <i>Special Publication - Royal Society of Chemistry</i> , 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. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2007, 42, 1909-1917.	0.9	16
44	Microbially mediated reduction of FeIII and AsV in Cambodian sediments amended with 13C-labelled hexadecane and kerogen. <i>Environmental Chemistry</i> , 2014, 11, 538.	0.7	16
45	Biomarker-indicated extent of oxidation of plant-derived organic carbon (OC) in relation to geomorphology in an arsenic contaminated Holocene aquifer, Cambodia. <i>Scientific Reports</i> , 2017, 7, 13093.	1.6	16
46	Risk perception of arsenic exposure from rice intake in a UK population. <i>Palgrave Communications</i> , 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. <i>Applied Geochemistry</i> , 2008, 23, 2999-3009.	1.4	14
48	Seasonal variation of total dissolved arsenic and arsenic speciation in a polluted surface waterway. <i>Environmental Geochemistry and Health</i> , 2003, 25, 77-85.	1.8	13
49	Best Practice Guide on the Control of Arsenic in Drinking Water. <i>Water Intelligence Online</i> , 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. <i>Water Research</i> , 2022, 211, 118054.	5.3	13
51	Iron and arsenic speciation in groundwaters from West Bengal, India by coupled HPLC-ICP-MS utilising a hexapole collision cell. <i>Special Publication - Royal Society of Chemistry</i> , 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. <i>Water (Switzerland)</i> , 2014, 6, 1100-1117.	1.2	11
53	Arsenic hazard in Cambodian rice from a market-based survey with a case study of Preak Russey village, Kandal Province. <i>Environmental Geochemistry and Health</i> , 2015, 37, 757-766.	1.8	11
54	Assessment of hypertension association with arsenic exposure from food and drinking water in Bihar, India. <i>Ecotoxicology and Environmental Safety</i> , 2021, 223, 112572.	2.9	11

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55	Distribution of Groundwater Arsenic in Uruguay Using Hybrid Machine Learning and Expert System Approaches. <i>Water</i> (Switzerland), 2021, 13, 527.	1.2	10
56	A critical review of abiotic and microbially-mediated chemical reduction rates of Fe(III) (oxyhydr)oxides using a reactivity model. <i>Applied Geochemistry</i> , 2021, 126, 104895.	1.4	10
57	Groundwater Arsenic-Attributable Cardiovascular Disease (CVD) Mortality Risks in India. <i>Water</i> (Switzerland), 2021, 13, 2232.	1.2	10
58	Environmental tracers and groundwater residence time indicators reveal controls of arsenic accumulation rates beneath a rapidly developing urban area in Patna, India. <i>Journal of Contaminant Hydrology</i> , 2022, 249, 104043.	1.6	10
59	Tritium Tracers of Rapid Surface Water Ingression into Arsenic-bearing Aquifers in the Lower Mekong Basin, Cambodia. <i>Procedia Earth and Planetary Science</i> , 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. <i>Science of the Total Environment</i> , 2022, 830, 154580.	3.9	7
61	Hazard Ranking Method for Populations Exposed to Arsenic in Private Water Supplies: Relation to Bedrock Geology. <i>International Journal of Environmental Research and Public Health</i> , 2017, 14, 1490.	1.2	6
62	Exploratory study of the association in the United Kingdom between hypertension and inorganic arsenic (iAs) intake from rice and rice products. <i>Environmental Geochemistry and Health</i> , 2021, 43, 2505-2538.	1.8	5
63	Quantifying the impacts of groundwater abstraction on Ganges river water infiltration into shallow aquifers under the rapidly developing city of Patna, India. <i>Journal of Hydrology: Regional Studies</i> , 2022, 42, 101133.	1.0	4
64	Calculating ¹⁴ C mean residence times of inorganic carbon derived from oxidation of organic carbon in groundwater using the principles of ⁸⁷ Sr/ ⁸⁶ Sr and cation ratio mixing. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 267, 322-340.	1.6	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. <i>Environmental Geochemistry and Health</i> , 2020, 43, 2631-2647.	1.8	1