Henning Prommer

List of Publications by Year
in descending order

124 papers	4,495 citations	94433 37 h-index	123424 61 g-index
126 all docs	126 docs citations	126 times ranked	3400 citing authors

#	Article	IF	Citations
1	MODFLOW/MT3DMS-Based Reactive Multicomponent Transport Modeling. Ground Water, 2003, 41, 247-257.	1.3	256
2	Analytical approximations for real values of the Lambert W-function. Mathematics and Computers in Simulation, 2000, 53, 95-103.	4.4	198
3	Modelling the fate of oxidisable organic contaminants in groundwater. Advances in Water Resources, 2002, 25, 945-983.	3.8	157
4	Tideâ€induced recirculation across the aquiferâ€ocean interface. Water Resources Research, 2007, 43, .	4.2	156
5	Identification of Temperature-Dependent Water Quality Changes during a Deep Well Injection Experiment in a Pyritic Aquifer. Environmental Science & Technology, 2005, 39, 2200-2209.	10.0	129
6	Modeling Seasonal Redox Dynamics and the Corresponding Fate of the Pharmaceutical Residue Phenazone During Artificial Recharge of Groundwater. Environmental Science & Technology, 2006, 40, 6615-6621.	10.0	124
7	Colloid release and clogging in porous media: Effects of solution ionic strength and flow velocity. Journal of Contaminant Hydrology, 2015, 181, 161-171.	3.3	124
8	The riverâ€“groundwater interface as a hotspot for arsenic release. Nature Geoscience, 2020, 13, 288-295.	12.9	104
9	The impact of variably saturated conditions on hydrogeochemical changes during artificial recharge of groundwater. Applied Geochemistry, 2005, 20, 1409-1426.	3.0	97
10	Identifying and Quantifying the Intermediate Processes during Nitrate-Dependent Iron(II) Oxidation. Environmental Science & Technology, 2018, 52, 5771-5781.	10.0	95
11	Three-dimensional model for multi-component reactive transport with variable density groundwater flow. Environmental Modelling and Software, 2006, 21, 615-628.	4.5	94
12	Modelling of physical and reactive processes during biodegradation of a hydrocarbon plume under transient groundwater flow conditions. Journal of Contaminant Hydrology, 2002, 59, 113-131.	3.3	93
13	Geochemical evolution of groundwater in carbonate aquifers in Taiyuan, northern China. Applied Geochemistry, 2011, 26, 884-897.	3.0	91
14	Biogeochemical and Isotopic Gradients in a BTEX/PAH Contaminant Plume: Model-Based Interpretation of a High-Resolution Field Data Set. Environmental Science & Technology, 2009, 43, 8206-8212.	10.0	90
15	Process-Based Reactive Transport Model To Quantify Arsenic Mobility during Aquifer Storage and Recovery of Potable Water. Environmental Science & Technology, 2011, 45, 6924-6931.	10.0	90
16	Beyond the Rayleigh Equation: Reactive Transport Modeling of Isotope Fractionation Effects to Improve Quantification of Biodegradation. Environmental Science & Technology, 2008, 42, 2457-2463.	10.0	89
17	Fringe-Controlled Natural Attenuation of Phenoxy Acids in a Landfill Plume:â€‰ Integration of Field-Scale Processes by Reactive Transport Modeling. Environmental Science & Technology, 2006, 40, 4732-4738.	10.0	81
18	Elucidating temperature effects on seasonal variations of biogeochemical turnover rates during riverbank filtration. Journal of Hydrology, 2012, 428-429, 104-115.	5.4	75

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19	Effects of hydrodynamic dispersion on plume lengths for instantaneous bimolecular reactions. Advances in Water Resources, 2004, 27, 803-813.	3.8	72
20	Modeling of carbon cycling and biogeochemical changes during injection and recovery of reclaimed water at Bolivar, South Australia. Water Resources Research, 2005, 41, .	4.2	67
21	A fieldâ€scale reactive transport model for U(VI) migration influenced by coupled multirate mass transfer and surface complexation reactions. Water Resources Research, 2010, 46, .	4.2	66
22	Evaluation of Conceptual and Numerical Models for Arsenic Mobilization and Attenuation during Managed Aquifer Recharge. Environmental Science & Technology, 2010, 44, 5035-5041.	10.0	63
23	Numerical Modeling of Arsenic Mobility during Reductive Iron-Mineral Transformations. Environmental Science & Technology, 2016, 50, 2459-2467.	10.0	62
24	Spatial and temporal evolution of groundwater arsenic contamination in the Red River delta, Vietnam: Interplay of mobilisation and retardation processes. Science of the Total Environment, 2020, 717, 137143.	8.0	61
25	Model-Based Analysis of Arsenic Immobilization via Iron Mineral Transformation under Advective Flows. Environmental Science & Technology, 2018, 52, 9243-9253.	10.0	57
26	Contribution of anaerobic microbial activity to natural attenuation of benzene in groundwater. Engineering Geology, 2003, 70, 343-349.	6.3	55
27	Okavango Delta Islands: Interaction between density-driven flow and geochemical reactions under evapo-concentration. Journal of Hydrology, 2007, 335, 389-405.	5.4	55
28	Multicomponent reactive transport simulation of the Elder problem: Effects of chemical reactions on salt plume development. Water Resources Research, 2007, 43, .	4.2	53
29	Geochemical controls on sediment reactivity and buffering processes in a heterogeneous aquifer. Applied Geochemistry, 2010, 25, 261-275.	3.0	49
30	Suitability of temperature, hydraulic heads, and acesulfame to quantify wastewaterâ€related fluxes in the hyporheic and riparian zone. Water Resources Research, 2013, 49, 426-440.	4.2	49
31	Mobilization of Arsenic and Other Naturally Occurring Contaminants during Managed Aquifer Recharge: A Critical Review. Environmental Science & Technology, 2021, 55, 2208-2223.	10.0	46
32	A critical evaluation of combined engineered and aquifer treatment systems in water recycling. Water Science and Technology, 2008, 57, 753-762.	2.5	44
33	Geochemical reconstruction of the provenance, weathering and deposition of detrital-dominated sediments in the Perth Basin: The Cretaceous Leederville Formation, south-west Australia. Sedimentary Geology, 2011, 236, 62-76.	2.1	43
34	Processes governing arsenic retardation on <scp>P</scp>leistocene sediments: Adsorption experiments and modelâ€based analysis. Water Resources Research, 2017, 53, 4344-4360.	4.2	42
35	Aerobic Biodegradation of Chlorinated Ethenes in a Fractured Bedrock Aquifer: Quantitative Assessment by Compound-Specific Isotope Analysis (CSIA) and Reactive Transport Modeling. Environmental Science & Technology, 2009, 43, 7458-7464.	10.0	41
36	A one-dimensional reactive multi-component transport model for biodegradation of petroleum hydrocarbons in groundwater. Environmental Modelling and Software, 1998, 14, 213-223.	4.5	39

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37	Geochemical changes during biodegradation of petroleum hydrocarbons: field investigations and biogeochemical modelling. Organic Geochemistry, 1999, 30, 423-435.	1.8	39
38	Electrokinetic in situ oxidation remediation: Assessment of parameter sensitivities and the influence of aquifer heterogeneity on remediation efficiency. Journal of Contaminant Hydrology, 2012, 136-137, 72-85.	3.3	34
39	Controlling Arsenic Mobilization during Managed Aquifer Recharge: The Role of Sediment Heterogeneity. Environmental Science & Technology, 2020, 54, 8728-8738.	10.0	33
40	Numerical modelling for design and evaluation of groundwater remediation schemes. Ecological Modelling, 2000, 128, 181-195.	2.5	32
41	Evaluation of saline tracer performance during electrical conductivity groundwater monitoring. Journal of Contaminant Hydrology, 2011, 123, 157-166.	3.3	32
42	Comparison of split-operator methods for solving coupled chemical non-equilibrium reaction/groundwater transport models. Mathematics and Computers in Simulation, 2000, 53, 113-127.	4.4	31
43	Modelling of iron cycling and its impact on the electron balance at a petroleum hydrocarbon contaminated site in Hnevice, Czech Republic. Journal of Contaminant Hydrology, 2007, 89, 270-294.	3.3	31
44	Comparison of parameter sensitivities between a laboratory and fieldâ€scale model of uranium transport in a dual domain, distributed rate reactive system. Water Resources Research, 2010, 46, .	4.2	31
45	Identification and quantification of redox and pH buffering processes in a heterogeneous, low carbonate aquifer during managed aquifer recharge. Water Resources Research, 2016, 52, 4003-4025.	4.2	30
46	Influence of calcite on uranium(VI) reactive transport in the groundwaterâ€“river mixing zone. Journal of Contaminant Hydrology, 2014, 156, 27-37.	3.3	29
47	Quantifying Reactive Transport Processes Governing Arsenic Mobility after Injection of Reactive Organic Carbon into a Bengal Delta Aquifer. Environmental Science & Technology, 2017, 51, 8471-8480.	10.0	29
48	Modelling of geochemical and isotopic changes in a column experiment for degradation of TCE by zero-valent iron. Journal of Contaminant Hydrology, 2008, 97, 13-26.	3.3	28
49	Enhancing Roxarsone Degradation and In Situ Arsenic Immobilization Using a Sulfate-Mediated Bioelectrochemical System. Environmental Science & Technology, 2021, 55, 393-401.	10.0	26
50	Feasibility of electrokinetic in situ leaching of gold. Hydrometallurgy, 2018, 175, 70-78.	4.3	25
51	Toward a more sustainable mining future with electrokinetic in situ leaching. Science Advances, 2021, 7, .	10.3	25
52	Kinetic Reaction Modeling Framework for Identifying and Quantifying Reductant Reactivity in Heterogeneous Aquifer Sediments. Environmental Science & Technology, 2010, 44, 6698-6705.	10.0	24
53	Heat and mass transport during a groundwater replenishment trial in a highly heterogeneous aquifer. Water Resources Research, 2014, 50, 9463-9483.	4.2	24
54	Deoxygenation Prevents Arsenic Mobilization during Deepwell Injection into Sulfide-Bearing Aquifers. Environmental Science & Technology, 2018, 52, 13801-13810.	10.0	24

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55	Modeling the longâ€term and transient evolution of biogeochemical and isotopic signatures in coal tarâ€“contaminated aquifers. Water Resources Research, 2011, 47, .	4.2	23
56	Using Reactive Transport Models to Quantify and Predict Groundwater Quality. Elements, 2019, 15, 87-92.	0.5	23
57	Numerical evaluation of voltage gradient constraints on electrokinetic injection of amendments. Advances in Water Resources, 2012, 38, 60-69.	3.8	22
58	In situ recovery of gold: Column leaching experiments and reactive transport modeling. Hydrometallurgy, 2012, 125-126, 16-23.	4.3	22
59	Assessment of controlling processes for field-scale uranium reactive transport under highly transient flow conditions. Water Resources Research, 2014, 50, 1006-1024.	4.2	22
60	Multiscale Characterization and Quantification of Arsenic Mobilization and Attenuation During Injection of Treated Coal Seam Gas Coproduced Water into Deep Aquifers. Water Resources Research, 2017, 53, 10779-10801.	4.2	22
61	Carbon and methane cycling in arsenic-contaminated aquifers. Water Research, 2021, 200, 117300.	11.3	22
62	Fluoride and phosphate release from carbonate-rich fluorapatite during managed aquifer recharge. Journal of Hydrology, 2018, 562, 809-820.	5.4	21
63	Reactive Transport of Iomeprol during Stream-Groundwater Interactions. Environmental Science & Technology, 2014, 48, 199-207.	10.0	20
64	Numerical investigation of coupled densityâ€driven flow and hydrogeochemical processes below playas. Water Resources Research, 2015, 51, 9338-9352.	4.2	19
65	Fate of arsenic, phosphate and ammonium plumes in a coastal aquifer affected by saltwater intrusion. Journal of Contaminant Hydrology, 2015, 179, 116-131.	3.3	19
66	Investigation into the microbial communities and associated crude oil-contamination along a Gulf War impacted groundwater system in Kuwait. Water Research, 2020, 170, 115314.	11.3	19
67	Similitude applied to centrifugal scaling of unsaturated flow. Water Resources Research, 2001, 37, 2471-2479.	4.2	18
68	Modelling the fate of styrene in a mixed petroleum hydrocarbon plume. Journal of Contaminant Hydrology, 2009, 105, 38-55.	3.3	18
69	Reactive transport modeling of thorium in a cloud computing environment. Journal of Geochemical Exploration, 2014, 144, 63-73.	3.2	18
70	Modeling of biogeochemical processes in a barrier island freshwater lens (Spiekeroog, Germany). Journal of Hydrology, 2019, 575, 1133-1144.	5.4	18
71	Origin of a Mixed Brominated Ethene Groundwater Plume:Â Contaminant Degradation Pathways and Reactions. Environmental Science & Technology, 2007, 41, 1352-1358.	10.0	17
72	A process-based reactive hybrid transport model for coupled discrete conduitâ€“continuum systems. Journal of Hydrology, 2007, 347, 23-34.	5.4	17

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73	Simulating adsorption of U(VI) under transient groundwater flow and hydrochemistry: Physical versus chemical nonequilibrium model. Water Resources Research, 2011, 47, .	4.2	16
74	Evolution of carbon isotope signatures during reactive transport of hydrocarbons in heterogeneous aquifers. Journal of Contaminant Hydrology, 2015, 174, 10-27.	3.3	16
75	Validity and slopes of the linear equation of state for natural brines in salt lake systems. Journal of Hydrology, 2015, 523, 190-195.	5.4	16
76	Electrokinetic in situ leaching of gold from intact ore. Hydrometallurgy, 2018, 178, 124-136.	4.3	16
77	Fermentation, methanotrophy and methanogenesis influence sedimentary Fe and As dynamics in As-affected aquifers in Vietnam. Science of the Total Environment, 2021, 779, 146501.	8.0	16
78	Assessment of amenability of sandstone-hosted uranium deposit for in-situ recovery. Hydrometallurgy, 2018, 179, 157-166.	4.3	15
79	Using heuristic multi-objective optimization for quantifying predictive uncertainty associated with groundwater flow and reactive transport models. Journal of Hydrology, 2019, 577, 123999.	5.4	15
80	Model-Based Analysis of Reactive Transport Processes Governing Fluoride and Phosphate Release and Attenuation during Managed Aquifer Recharge. Environmental Science & Technology, 2020, 54, 2800-2811.	10.0	15
81	Effects of Increasing Acidity on Metal(loid) Bioprecipitation in Groundwater:â€‰ Column Studies. Environmental Science & Technology, 2007, 41, 7131-7137.	10.0	14
82	Variable density groundwater flow: from modelling to applications. , 2010, , 87-118.		14
83	Model-based analysis of Î´34 S signatures to trace sedimentary pyrite oxidation during managed aquifer recharge in a heterogeneous aquifer. Journal of Hydrology, 2017, 548, 368-381.	5.4	14
84	Sources of ammonium enriched in groundwater in the central Yangtze River Basin: Anthropogenic or geogenic?. Environmental Pollution, 2022, 306, 119463.	7.5	14
85	Modeling of Microbial Dynamics and Geochemical Changes in a Metal Bioprecipitation Experiment. Environmental Science & Technology, 2007, 41, 8433-8438.	10.0	13
86	Prediction of diffuse sulfate emissions from a former mining district and associated groundwater discharges to surface waters. Journal of Hydrology, 2014, 513, 169-178.	5.4	13
87	Using predictive uncertainty analysis to optimise tracer test design and data acquisition. Journal of Hydrology, 2014, 515, 191-204.	5.4	13
88	Assessing and Managing Largeâ€Scale Geochemical Impacts From Groundwater Replenishment With Highly Treated Reclaimed Wastewater. Water Resources Research, 2020, 56, e2020WR028066.	4.2	13
89	Process-based modeling of arsenic(III) oxidation by manganese oxides under circumneutral pH conditions. Water Research, 2020, 185, 116195.	11.3	13
90	Response of anaerobic granular sludge to long-term loading of roxarsone: From macro- to micro-scale perspective. Water Research, 2021, 204, 117599.	11.3	13

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91	Simulating MODFLOWâ€Based Reactive Transport Under Radially Symmetric Flow Conditions. Ground Water, 2013, 51, 398-413.	1.3	12
92	Physical and Chemical Controls on the Simultaneous Occurrence of Young and Old Groundwater Inferred From Multiple Age Tracers. Water Resources Research, 2018, 54, 9514-9532.	4.2	12
93	Redox Dependent Arsenic Occurrence and Partitioning in an Industrial Coastal Aquifer: Evidence from High Spatial Resolution Characterization of Groundwater and Sediments. Water (Switzerland), 2020, 12, 2932.	2.7	12
94	Effects of divalent heavy metal cations on the synthesis and characteristics of magnetite. Chemical Geology, 2020, 547, 119669.	3.3	12
95	Fluoride release from carbonate-rich fluorapatite during managed aquifer recharge: Model-based development of mitigation strategies. Water Research, 2021, 193, 116880.	11.3	12
96	Reactive transport controls on sandy acid sulfate soils and impacts on shallow groundwater quality. Water Resources Research, 2014, 50, 4924-4952.	4.2	11
97	Zero valent iron remediation of a mixed brominated ethene contaminated groundwater. Journal of Contaminant Hydrology, 2009, 103, 109-118.	3.3	10
98	Model-Based Integration and Analysis of Biogeochemical and Isotopic Dynamics in a Nitrate-Polluted Pyritic Aquifer. Environmental Science & Technology, 2013, 47, 130909083606007.	10.0	10
99	A general reactive transport modeling framework for simulating and interpreting groundwater14C age and Î´13C. Water Resources Research, 2015, 51, 359-376.	4.2	10
100	Identifying remedial solutions through optimal bioremediation design under real-world field conditions. Journal of Contaminant Hydrology, 2021, 237, 103751.	3.3	10
101	Temperature dependence of nitrate-reducing Fe(II) oxidation by Acidovorax strain BoFeN1 â€“ evaluating the role of enzymatic vs. abiotic Fe(II) oxidation by nitrite. FEMS Microbiology Ecology, 2022, 97, .	2.7	10
102	Biodegradability of legacy crude oil contamination in Gulf War damaged groundwater wells in Northern Kuwait. Biodegradation, 2019, 30, 71-85.	3.0	9
103	Modelling of an enhanced PAH attenuation experiment and associated biogeochemical changes at a former gasworks site in southern Germany. Journal of Contaminant Hydrology, 2011, 119, 99-112.	3.3	8
104	<scp>PHT3Dâ€UZF</scp>: A Reactive Transport Model for Variablyâ€Saturated Porous Media. Ground Water, 2016, 54, 23-34.	1.3	8
105	Elucidating the fate of a mixed toluene, DHM, methanol, and i-propanol plume during in situ bioremediation. Journal of Contaminant Hydrology, 2017, 201, 6-18.	3.3	8
106	Reactive Transport Modeling of Swelling Processes in Clayâ€sulfate Rocks. Water Resources Research, 2018, 54, 6543-6565.	4.2	8
107	Unraveling biogeochemical complexity through better integration of experiments and modeling. Environmental Sciences: Processes and Impacts, 2021, 23, 1825-1833.	3.5	8
108	Analyzing the heave of an entire city: Modeling of swelling processes in clay-sulfate rocks. Engineering Geology, 2019, 261, 105259.	6.3	7

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109	In situ arsenic immobilisation for coastal aquifers using stimulated iron cycling: Lab-based viability assessment. Applied Geochemistry, 2022, 136, 105155.	3.0	7
110	Suitability of precipitation waters as semi-artificial groundwater tracers. Journal of Hydrology, 2019, 577, 123982.	5.4	6
111	Modeling Bioremediation of Contaminated Groundwater. , 2014, , 108-138.		5
112	A reactive transport benchmark on modeling biogenic uraninite re-oxidation by Fe(III)-(hydr)oxides. Computational Geosciences, 2015, 19, 569-583.	2.4	5
113	Factors controlling iodine enrichment in a coastal plain aquifer in the North Jiangsu Yishusi Plain, China. Journal of Contaminant Hydrology, 2021, 243, 103894.	3.3	5
114	Predictive modelling of dispersion controlled reactive plumes at the laboratory-scale. Journal of Contaminant Hydrology, 2007, 93, 304-315.	3.3	4
115	Noble gas constraints on the fate of arsenic in groundwater. Water Research, 2022, 214, 118199.	11.3	4
116	Singleâ€Rate Dualâ€Domain Mass Transfer Model: Elucidating Temperature Effects. Water Resources Research, 2021, 57, e2020WR029474.	4.2	3
117	Tidal Dynamics of Groundwater Flow and Contaminant Transport in Coastal Aquifers. , 2003, , .		2
118	Geochemical changes under variably saturated conditions during artificial recharge via ponded infiltration â€" A field study. , 2005, , 51-63.		2
119	Ore characterization, hydrometallurgical and reactive transport studies for in-place leaching of oxidized gold deposits. Mining, Metallurgy and Exploration, 2010, 27, 72-80.	0.8	2
120	Australian exemplars of sustainable and economic managed aquifer recharge. Water E-Journal, 2021, 5, 1-19.	0.2	2
121	Process oriented quantification of mine dump pollutant inventories on the large scaleâ€"The case of the lignite mining district Lusatia, Germany. Journal of Geochemical Exploration, 2012, 112, 161-173.	3.2	1
122	Multi-isotope studies investigating recharge and inter-aquifer connectivity in coal seam gas areas (Qld, NSW) and shale gas areas (NT). APPEA Journal, 2020, 60, 335.	0.2	1
123	MODFLOW-Based Tools for Simulation of Variable-Density Groundwater Flow. , 2003, , .		0
124	Numerical modeling of arsenic mobility. Arsenic in the Environment, 2014, , 35-52.	0.0	0