

Kai M Udert

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

4,764
citations

94381

37
h-index

118793

62
g-index

64
all docs

64
docs citations

64
times ranked

3977
citing authors

#	ARTICLE	IF	CITATIONS
1	Urea hydrolysis and precipitation dynamics in a urine-collecting system. <i>Water Research</i> , 2003, 37, 2571-2582.	5.3	353
2	Low-cost struvite production using source-separated urine in Nepal. <i>Water Research</i> , 2011, 45, 852-862.	5.3	303
3	Successful application of nitrification/anammox to wastewater with elevated organic carbon to ammonia ratios. <i>Water Research</i> , 2014, 49, 316-326.	5.3	250
4	Nitric oxide and nitrous oxide turnover in natural and engineered microbial communities: biological pathways, chemical reactions, and novel technologies. <i>Frontiers in Microbiology</i> , 2012, 3, 372.	1.5	241
5	Fate of major compounds in source-separated urine. <i>Water Science and Technology</i> , 2006, 54, 413-420.	1.2	235
6	Complete nutrient recovery from source-separated urine by nitrification and distillation. <i>Water Research</i> , 2012, 46, 453-464.	5.3	234
7	Struvite precipitation from urine with electrochemical magnesium dosage. <i>Water Research</i> , 2013, 47, 289-299.	5.3	161
8	Estimating the precipitation potential in urine-collecting systems. <i>Water Research</i> , 2003, 37, 2667-2677.	5.3	159
9	Direct and mediated electrochemical oxidation of ammonia on boron-doped diamond electrode. <i>Electrochemistry Communications</i> , 2010, 12, 1714-1717.	2.3	155
10	A novel approach for stabilizing fresh urine by calcium hydroxide addition. <i>Water Research</i> , 2016, 95, 361-369.	5.3	137
11	Electrochemical behavior of ammonia at Ni/Ni(OH) ₂ electrode. <i>Electrochemistry Communications</i> , 2010, 12, 18-21.	2.3	125
12	Combining biocatalyzed electrolysis with anaerobic digestion. <i>Water Science and Technology</i> , 2008, 57, 575-579.	1.2	122
13	Comparing Ion Exchange Adsorbents for Nitrogen Recovery from Source-Separated Urine. <i>Environmental Science & Technology</i> , 2017, 51, 2373-2381.	4.6	114
14	Source Separation and Decentralization for Wastewater Management. , 2013, , .		111
15	Wood ash as a magnesium source for phosphorus recovery from source-separated urine. <i>Science of the Total Environment</i> , 2012, 419, 68-75.	3.9	103
16	Operating a pilot-scale nitrification/distillation plant for complete nutrient recovery from urine. <i>Water Science and Technology</i> , 2016, 73, 215-222.	1.2	92
17	Direct electrochemical oxidation of ammonia on graphite as a treatment option for stored source-separated urine. <i>Water Research</i> , 2015, 69, 284-294.	5.3	90
18	Ammonia oxidation to nitrogen mediated by electrogenerated active chlorine on Ti/PtOx-IrO ₂ . <i>Electrochemistry Communications</i> , 2010, 12, 1203-1205.	2.3	88

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19	Plant uptake of phosphorus and nitrogen recycled from synthetic source-separated urine. <i>Ambio</i> , 2015, 44, 217-227.	2.8	81
20	Pathogens and pharmaceuticals in source-separated urine in eThekweni, South Africa. <i>Water Research</i> , 2015, 85, 57-65.	5.3	81
21	Formation of Chlorination Byproducts and Their Emission Pathways in Chlorine Mediated Electro-Oxidation of Urine on Active and Nonactive Type Anodes. <i>Environmental Science & Technology</i> , 2015, 49, 11062-11069.	4.6	76
22	Regime Shift and Microbial Dynamics in a Sequencing Batch Reactor for Nitrification and Anammox Treatment of Urine. <i>Applied and Environmental Microbiology</i> , 2011, 77, 5897-5907.	1.4	75
23	A Research Agenda for the Future of Urban Water Management: Exploring the Potential of Nongrid, Small-Grid, and Hybrid Solutions. <i>Environmental Science & Technology</i> , 2020, 54, 5312-5322.	4.6	73
24	Electrochemical oxidation of ammonia (NH ₄ ⁺ /NH ₃) on thermally and electrochemically prepared IrO ₂ electrodes. <i>Electrochimica Acta</i> , 2011, 56, 1361-1365.	2.6	71
25	Effects of carbonate on the electrolytic removal of ammonia and urea from urine with thermally prepared IrO ₂ electrodes. <i>Journal of Applied Electrochemistry</i> , 2012, 42, 787-795.	1.5	70
26	State of the art of urine treatment technologies: A critical review.. <i>Water Research X</i> , 2021, 13, 100114.	2.8	67
27	Fate of the pathogen indicators phage ϕ X174 and <i>Ascaris</i> sum eggs during the production of struvite fertilizer from source-separated urine. <i>Water Research</i> , 2011, 45, 4960-4972.	5.3	66
28	Technologies for the treatment of source-separated urine in the eThekweni Municipality. <i>Water S A</i> , 2015, 41, 212.	0.2	65
29	Growth of <i>Nitrosococcus</i> -Related Ammonia Oxidizing Bacteria Coincides with Extremely Low pH Values in Wastewater with High Ammonia Content. <i>Environmental Science & Technology</i> , 2017, 51, 6857-6866.	4.6	64
30	Chemical Nitrite Oxidation in Acid Solutions as a Consequence of Microbial Ammonium Oxidation. <i>Environmental Science & Technology</i> , 2005, 39, 4066-4075.	4.6	57
31	Modeling the low pH limit of <i>Nitrosomonas eutropha</i> in high-strength nitrogen wastewaters. <i>Water Research</i> , 2015, 83, 161-170.	5.3	56
32	Membrane stripping enables effective electrochemical ammonia recovery from urine while retaining microorganisms and micropollutants. <i>Water Research</i> , 2019, 150, 349-357.	5.3	54
33	Pretreated magnesite as a source of low-cost magnesium for producing struvite from urine in Nepal. <i>Science of the Total Environment</i> , 2016, 542, 1155-1161.	3.9	52
34	Nutrient cycles and resource management: implications for the choice of wastewater treatment technology. <i>Water Science and Technology</i> , 2007, 56, 229-237.	1.2	51
35	Water soluble phosphate fertilizers for crops grown in calcareous soils – an outdated paradigm for recycled phosphorus fertilizers?. <i>Plant and Soil</i> , 2018, 424, 367-388.	1.8	50
36	Looking beyond Technology: An Integrated Approach to Water, Sanitation and Hygiene in Low Income Countries. <i>Environmental Science & Technology</i> , 2014, 48, 9965-9970.	4.6	49

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37	Effect of heterotrophic growth on nitrification/anammox in a single sequencing batch reactor. <i>Water Science and Technology</i> , 2008, 58, 277-284.	1.2	46
38	Inhibition of Direct Electrolytic Ammonia Oxidation Due to a Change in Local pH. <i>Electrochimica Acta</i> , 2015, 165, 348-355.	2.6	42
39	Ammonia as an In Situ Sanitizer: Inactivation Kinetics and Mechanisms of the ssRNA Virus MS2 by NH_3 . <i>Environmental Science & Technology</i> , 2015, 49, 1060-1067.	4.6	39
40	Urine diversion dry toilets in eThekweni Municipality, South Africa: acceptance, use and maintenance through users' eyes. <i>Journal of Water Sanitation and Hygiene for Development</i> , 2017, 7, 111-120.	0.7	39
41	Removal of pharmaceuticals from nitrified urine by adsorption on granular activated carbon. <i>Water Research X</i> , 2020, 9, 100057.	2.8	35
42	Removal rates and energy demand of the electrochemical oxidation of ammonia and organic substances in real stored urine. <i>Environmental Science: Water Research and Technology</i> , 2017, 3, 480-491.	1.2	34
43	Estimation of nitrite in source-separated nitrified urine with UV spectrophotometry. <i>Water Research</i> , 2015, 85, 244-254.	5.3	33
44	Vertical distribution of microbial lipids and functional genes in chemically distinct layers of a highly polluted meromictic lake. <i>Organic Geochemistry</i> , 2008, 39, 1572-1588.	0.9	30
45	Bacteria Inactivation during the Drying of Struvite Fertilizers Produced from Stored Urine. <i>Environmental Science & Technology</i> , 2016, 50, 13013-13023.	4.6	27
46	Removal of pharmaceuticals from human urine during storage, aerobic biological treatment, and activated carbon adsorption to produce a safe fertilizer. <i>Resources, Conservation and Recycling</i> , 2021, 166, 105341.	5.3	25
47	Decision Support for Redesigning Wastewater Treatment Technologies. <i>Environmental Science & Technology</i> , 2014, 48, 12238-12246.	4.6	23
48	Towards circular phosphorus: The need of inter- and transdisciplinary research to close the broken cycle. <i>Ambio</i> , 2022, 51, 611-622.	2.8	19
49	Temperature Dependence and Interferences of NO and N_2O Microelectrodes Used in Wastewater Treatment. <i>Environmental Science & Technology</i> , 2012, 46, 2257-2266.	4.6	17
50	Nitrogen cycle microorganisms can be reactivated after Space exposure. <i>Scientific Reports</i> , 2018, 8, 13783.	1.6	16
51	Electrochemical behaviour of ammonia ($\text{NH}_4^+/\text{NH}_3$) on electrochemically grown anodic iridium oxide film (AIROF) electrode. <i>Electrochemistry Communications</i> , 2009, 11, 1590-1592.	2.3	15
52	Practical implementation of true on-site water recycling systems for hand washing and toilet flushing. <i>Water Research X</i> , 2020, 7, 100051.	2.8	14
53	Inactivation kinetics and mechanisms of viral and bacterial pathogen surrogates during urine nitrification. <i>Environmental Science: Water Research and Technology</i> , 2015, 1, 65-76.	1.2	13
54	Socio-technical analysis of a sanitation innovation in a peri-urban household in Durban, South Africa. <i>Science of the Total Environment</i> , 2021, 755, 143284.	3.9	13

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55	Stabilizing control of a urine nitrification process in the presence of sensor drift. Water Research, 2019, 165, 114958.	5.3	9
56	Global parameter optimization for biokinetic modeling of simple batch experiments. Environmental Modelling and Software, 2016, 85, 356-373.	1.9	8
57	Qualitative Risk Analysis for Contents of Dry Toilets Used to Produce Novel Recycling Fertilizers. Circular Economy and Sustainability, 2021, 1, 1107-1146.	3.3	8
58	On-site urine treatment combining Ca(OH) ₂ dissolution and dehydration with ambient air. Water Research X, 2021, 13, 100124.	2.8	8
59	Electrochemical nitrite sensing for urine nitrification. Water Research X, 2020, 9, 100055.	2.8	6
60	Observability of anammox activity in single-stage nitrification/anammox reactors using mass balances. Environmental Science: Water Research and Technology, 2015, 1, 523-534.	1.2	5
61	Innovation for improved hand hygiene: Field testing the Autarky handwashing station in collaboration with informal settlement residents in Durban, South Africa. Science of the Total Environment, 2021, 796, 149024.	3.9	4
62	Promoting Sanitation in South Africa through Nutrient Recovery from Urine. Gaia, 2016, 25, 194-196.	0.3	3
63	Dynamic Influent Generator for Alternative Wastewater Management with Urine Source Separation. Journal of Sustainable Water in the Built Environment, 2020, 6, 04020001.	0.9	2
64	Electrochemical Treatment of Urine. , 2014, , 654-658.		0