Christian Adam

List of Publications by Year
in descending order

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70 papers	2,433 citations	257450 24 h-index	214800 47 g-index
72 all docs	72 docs citations	72 times ranked	1932 citing authors

#	Article	IF	Citations
1	Thermochemical treatment of sewage sludge ashes for phosphorus recovery. Waste Management, 2009, 29, 1122-1128.	7.4	308
2	Sewage sludge ash â€" A promising secondary phosphorus source for fertilizer production. Science of the Total Environment, 2016, 542, 1136-1143.	8.0	246
3	Circular economy model framework in the European water and wastewater sector. Journal of Material Cycles and Waste Management, 2020, 22, 682-697.	3.0	156
4	Recovery potential of German sewage sludge ash. Waste Management, 2015, 45, 400-406.	7.4	117
5	Complete Survey of German Sewage Sludge Ash. Environmental Science & Technology, 2014, 48, 11811-11818.	10.0	112
6	Heavy Metal Removal from Sewage Sludge Ash by Thermochemical Treatment with Gaseous Hydrochloric acid. Environmental Science & Technology, 2011, 45, 7445-7450.	10.0	98
7	Agronomic performance of P recycling fertilizers and methods to predict it: a review. Nutrient Cycling in Agroecosystems, 2019, 115, 1-39.	2.2	85
8	Enhanced post-denitrification without addition of an external carbon source in membrane bioreactors. Water Research, 2005, 39, 3360-3368.	11.3	84
9	Heavy Metal Removal from Sewage Sludge Ash by Thermochemical Treatment with Polyvinylchloride. Environmental Science & Technology, 2013, 47, 563-567.	10.0	71
10	Effect of various types of thermochemical processing of sewage sludges on phosphorus speciation, solubility, and fertilization performance. Waste Management, 2017, 62, 194-203.	7.4	66
11	Process configurations adapted to membrane bioreactors for enhanced biological phosphorous and nitrogen removal. Desalination, 2002, 149, 217-224.	8.2	65
12	Thermochemical treatment of sewage sludge ash with sodium salt additives for phosphorus fertilizer production â€“ Analysis of underlying chemical reactions. Waste Management, 2015, 45, 385-390.	7.4	55
13	Thermal Treatment of Municipal Sewage Sludge Aiming at Marketable P-Fertilisers. Materials Transactions, 2007, 48, 3056-3061.	1.2	47
14	Combined disc pelletisation and thermal treatment of MSWI fly ash. Waste Management, 2018, 73, 381-391.	7.4	45
15	Enhanced biological phosphorus removal in membrane bioreactors. Water Science and Technology, 2002, 46, 281-286.	2.5	38
16	Performance of secondary P-fertilizers in pot experiments analyzed by phosphorus X-ray absorption near-edge structure (XANES) spectroscopy. Ambio, 2018, 47, 62-72.	5.5	36
17	Chemical state of chromium in sewage sludge ash based phosphorus-fertilisers. Chemosphere, 2014, 103, 250-255.	8.2	33
18	Phosphorus in recycling fertilizers - analytical challenges. Environmental Research, 2017, 155, 353-358.	7.5	33

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19	Reaction sequences in the thermochemical treatment of sewage sludge ashes revealed by X-ray powder diffraction Â– A contribution to the European project SUSAN. Zeitschrift FÃ¼r Kristallographie, Supplement, 2009, 2009, 459-464.	0.5	33
20	Phosphorus availability of sewage sludgeâ€based fertilizers determined by the diffusive gradients in thin films (DGT) technique. Journal of Plant Nutrition and Soil Science, 2017, 180, 594-601.	1.9	31
21	Enhanced biological phosphorus removal process implemented in membrane bioreactors to improve phosphorous recovery and recycling. Water Science and Technology, 2003, 48, 87-94.	2.5	28
22	Chemical reactions during the preparation of P and NPK fertilizers from thermochemically treated sewage sludge ashes. Soil Science and Plant Nutrition, 2010, 56, 627-635.	1.9	28
23	Recovery of Chromium from AOD-Converter Slags. Steel Research International, 2010, 81, 1078-1083.	1.8	27
24	Chemical State of Chromium, Sulfur, and Iron in Sewage Sludge Ash based Phosphorus Fertilizers. ACS Sustainable Chemistry and Engineering, 2015, 3, 2376-2380.	6.7	27
25	Uranium and thorium species in phosphate rock and sewage sludge ash based phosphorus fertilizers. Journal of Hazardous Materials, 2020, 382, 121100.	12.4	25
26	Inventory of Polish municipal sewage sludge ash (SSA) â€“ Mass flows, chemical composition, and phosphorus recovery potential. Waste Management, 2020, 116, 31-39.	7.4	24
27	Recycling oriented comparison of mercury distribution in new and spent fluorescent lamps and their potential risk. Chemosphere, 2017, 169, 618-626.	8.2	23
28	Microspectroscopy reveals dust-derived apatite grains in acidic, highly-weathered Hawaiian soils. Geoderma, 2021, 381, 114681.	5.1	22
29	Recycling of blast-furnace sludge by thermochemical treatment with spent iron(II) chloride solution from steel pickling. Journal of Hazardous Materials, 2021, 402, 123511.	12.4	22
30	Determination of chromium (VI) in primary and secondary fertilizer and their respective precursors. Chemosphere, 2017, 182, 48-53.	8.2	22
31	Determination of Phosphorus Fertilizer Soil Reactions by Raman and Synchrotron Infrared Microspectroscopy. Applied Spectroscopy, 2013, 67, 1165-1170.	2.2	21
32	Environmental Evaluation of Gypsum Plasterboard Recycling. Minerals (Basel, Switzerland), 2021, 11, 101.	2.0	21
33	Investigation of scandium in bauxite residues of different origin. Applied Geochemistry, 2021, 126, 104898.	3.0	20
34	Future nutrient recovery from sewage sludge regarding three different scenarios - German case study. Journal of Cleaner Production, 2022, 333, 130130.	9.3	20
35	Spectroscopic Investigation in the Mid- and Far-Infrared Regions of Phosphorus Fertilizers Derived from Thermochemically Treated Sewage Sludge Ash. Applied Spectroscopy, 2011, 65, 265-271.	2.2	19
36	Chemical state of mercury and selenium in sewage sludge ash based P-fertilizers. Journal of Hazardous Materials, 2016, 313, 179-184.	12.4	19

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37	Cost effective and advanced phosphorus removal in membrane bioreactors for a decentralised wastewater technology. Water Science and Technology, 2003, 47, 133-139.	2.5	18
38	Influence of wood ash pre-treatment on leaching behaviour, liming and fertilising potential. Waste Management, 2019, 83, 113-122.	7.4	18
39	Thermochemical Treatment of Sewage Sludge Ash (SSA)â€"Potential and Perspective in Poland. Energies, 2020, 13, 5461.	3.1	18
40	Thermochemical treatment of sewage sludge ash with sodium additives under reducing conditions analyzed by thermogravimetry. Journal of Thermal Analysis and Calorimetry, 2016, 123, 1045-1051.	3.6	17
41	Optimized elemental analysis of fluorescence lamp shredder waste. Talanta, 2016, 147, 615-620.	5.5	16
42	Heavy metal removal from sewage sludge ash analyzed by thermogravimetry. Journal of Thermal Analysis and Calorimetry, 2011, 103, 243-248.	3.6	15
43	Chromium (VI) in phosphorus fertilizers determined with the diffusive gradients in thin-films (DGT) technique. Environmental Science and Pollution Research, 2020, 27, 24320-24328.	5.3	15
44	Characterization of phosphorus compounds in soils by deep ultraviolet (DUV) Raman microspectroscopy. Journal of Raman Spectroscopy, 2017, 48, 867-871.	2.5	14
45	Determination of Phosphate Phases in Sewage Sludge Ash-Based Fertilizers by Raman Microspectroscopy. Applied Spectroscopy, 2013, 67, 1101-1105.	2.2	13
46	Microspectroscopy â€“ Promising Techniques to Characterize Phosphorus in Soil. Communications in Soil Science and Plant Analysis, 2016, 47, 2088-2102.	1.4	13
47	Effects of a nitrification inhibitor on nitrogen species in the soil and the yield and phosphorus uptake of maize. Science of the Total Environment, 2020, 715, 136895.	8.0	13
48	Combining diffusive gradients in thin films (DGT) and spectroscopic techniques for the determination of phosphorus species in soils. Analytica Chimica Acta, 2019, 1057, 80-87.	5.4	11
49	Membrane bioreactor configurations for enhanced biological phosphorus removal. Water Science and Technology: Water Supply, 2003, 3, 237-244.	2.1	10
50	Fate of heavy metals and polycyclic aromatic hydrocarbons (PAH) in sewage sludge carbonisates and ashes â€“ A risk assessment to a thermochemical phosphorus-recycling process. Waste Management, 2018, 78, 576-587.	7.4	10
51	Resources from Waste. Chemie-Ingenieur-Technik, 2012, 84, 999-1004.	0.8	9
52	Phosphorus recovery from the wastewater streamâ€"necessity and possibilities. Desalination and Water Treatment, 2016, 57, 15619-15627.	1.0	9
53	Comparison of thermochemical treatment of sewage sludge ash with sodium sulphate in laboratory-scale and pilot-scale experiments. International Journal of Environmental Science and Technology, 2022, 19, 1997-2006.	3.5	7
54	Crystalline phase analysis and phosphorus availability after thermochemical treatment of sewage sludge ash with sodium and potassium sulfates for fertilizer production. Journal of Material Cycles and Waste Management, 2021, 23, 2242-2254.	3.0	7

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55	Air and chlorine gas corrosion of different silicon carbides analyzed by nano-Fourier-transform infrared (nano-FTIR) spectroscopy. Corrosion Science, 2018, 131, 324-329.	6.6	6
56	Use of nutrients from wastewater for the fertilizer industry - approaches towards the implementation of the circular economy (CE). , 0, 186, 1-9.		6
57	Thermal treatment of sewage sludge for phosphorus fertilizer production: a model experiment. Journal of Plant Nutrition, 2022, 45, 1123-1133.	1.9	6
58	Wasteâ€derived fertilizers can increase phosphorus uptake by sugarcane and availability in a tropical soil[#]. Journal of Plant Nutrition and Soil Science, 2022, 185, 391-402.	1.9	6
59	Evidence of formation of the tridymite form of AlPO₄ in some municipal sewage sludge ashes. Powder Diffraction, 2013, 28, S425-S435.	0.2	5
60	Soybean Fertilized by P-Phases from Bagasse-Based Materials: P-Extraction Procedures, Diffusive Gradients in Thin Films (DGT), and X-ray Diffraction Analysis (XRD). Agronomy, 2020, 10, 895.	3.0	5
61	Thermodynamic properties of calcium alkali phosphates Ca(Na,K)PO4. Journal of Materials Science, 2020, 55, 8477-8490.	3.7	5
62	Nanocrystalline and stacking-disordered Î²-cristobalite AlPO₄: the now deciphered main constituent of a municipal sewage sludge ash from a full-scale incineration facility. Powder Diffraction, 2015, 30, S31-S35.	0.2	4
63	Thermal Treatment of Chromium(III) Oxide with Carbonates Analyzed by Far-Infrared Spectroscopy. Applied Spectroscopy, 2015, 69, 1210-1214.	2.2	4
64	Synthesis and characterisation of alites from reduced basic oxygen furnace slags. Cement and Concrete Research, 2021, 147, 106518.	11.0	4
65	Understanding scandium leaching from bauxite residues of different geological backgrounds using statistical design of experiments. Journal of Geochemical Exploration, 2022, 240, 107041.	3.2	4
66	Recovery of nutrients from sewage sludge â€“ Results of the European research-project SUSAN. Water Practice and Technology, 2008, 3, .	2.0	3
67	Reaction sequences in the thermo-chemical treatment of sewage sludge ashes revealed by X-ray powder diffraction â€“ A contribution to the European project SUSAN. , 2009, , 459-464.		2
68	In situ synchrotron XRD measurements during solidification of a melt in the CaOâ€“SiO2 system using an aerodynamic levitation system. Journal of Physics Condensed Matter, 2021, 33, 264003.	1.8	1
69	Membranbelebungsverfahren mit vermehrter biologischer Phosphorelimination (EBPR). Chemie-Ingenieur-Technik, 2003, 75, 628-632.	0.8	0
70	Nanocrystalline and stacking-disordered Î²-cristobalite AlPO4 chemically stabilized at room temperature: synthesis, physical characterization, and X-ray powder diffraction data. Powder Diffraction, 2017, 32, S193-S200.	0.2	0