Xiaohu Dai

List of Publications by Citations

250 papers	6,786 citations	39 h-index	73 g-index
259 ext. papers	9,576 ext. citations	9.6 avg, IF	6.94 L-index

#	Paper	IF	Citations
250	Microplastics in wastewater treatment plants: Detection, occurrence and removal. *Water Research*, **2019**, 152, 21-37	12.5	531
249	Microplastics in sewage sludge from the wastewater treatment plants in China. *Water Research*, **2018**, 142, 75-85	12.5	383
248	High-solid anaerobic digestion of sewage sludge under mesophilic conditions: feasibility study. *Bioresource Technology*, **2012**, 104, 150-6	11	294
247	High-solids anaerobic co-digestion of sewage sludge and food waste in comparison with mono digestions: stability and performance. *Waste Management*, **2013**, 33, 308-16	8.6	259
246	Effects of thermal hydrolysis on organic matter solubilization and anaerobic digestion of high solid sludge. *Chemical Engineering Journal*, **2015**, 264, 174-180	14.7	198
245	Effect of increasing total solids contents on anaerobic digestion of food waste under mesophilic conditions: performance and microbial characteristics analysis. *PLoS ONE*, **2014**, 9, e102548	3.7	198
244	Critical review on dewatering of sewage sludge: Influential mechanism, conditioning technologies and implications to sludge re-utilizations. *Water Research*, **2020**, 180, 115912	12.5	144
243	Changes of heavy metal speciation during high-solid anaerobic digestion of sewage sludge. *Bioresource Technology*, **2013**, 131, 152-8	11	144
242	New insight into chemical changes of dissolved organic matter during anaerobic digestion of dewatered sewage sludge using EEM-PARAFAC and two-dimensional FTIR correlation spectroscopy. *Bioresource Technology*, **2014**, 159, 412-20	11	127
241	Magnetite Triggering Enhanced Direct Interspecies Electron Transfer: A Scavenger for the Blockage of Electron Transfer in Anaerobic Digestion of High-Solids Sewage Sludge. *Environmental Science & Technology*, **2018**, 52, 7160-7169	10.3	121
240	Enhancement in adsorption potential of microplastics in sewage sludge for metal pollutants after the wastewater treatment process. *Water Research*, **2019**, 157, 228-237	12.5	120
239	Simultaneous enhancement of methane production and methane content in biogas from waste activated sludge and perennial ryegrass anaerobic co-digestion: The effects of pH and C/N ratio. *Bioresource Technology*, **2016**, 216, 323-30	11	118
238	Effect of different carbon sources on denitrification performance, microbial community structure and denitrification genes. *Science of the Total Environment*, **2018**, 634, 195-204	10.2	113
237	Occurrence State and Molecular Structure Analysis of Extracellular Proteins with Implications on the Dewaterability of Waste-Activated Sludge. *Environmental Science & Technology*, **2017**, 51, 9235-9243	10.3	107
236	Revealing the Mechanisms of Polyethylene Microplastics Affecting Anaerobic Digestion of Waste Activated Sludge. *Environmental Science & Technology*, **2019**, 53, 9604-9613	10.3	93
235	Flow of sewage sludge-borne phthalate esters (PAEs) from human release to human intake: implication for risk assessment of sludge applied to soil. *Science of the Total Environment*, **2014**, 476-477, 242-9	10.2	92
234	Effects of Metal Nanoparticles on Methane Production from Waste-Activated Sludge and Microorganism Community Shift in Anaerobic Granular Sludge. *Scientific Reports*, **2016**, 6, 25857	4.9	83

233	Free-standing Ti3C2Tx MXene film as binder-free electrode in capacitive deionization with an ultrahigh desalination capacity. *Chemical Engineering Journal*, **2020**, 384, 123329	14.7	79
232	Perspective on enhancing the anaerobic digestion of waste activated sludge. *Journal of Hazardous Materials*, **2020**, 389, 121847	12.8	72
231	New insights into the enhanced performance of high solid anaerobic digestion with dewatered sludge by thermal hydrolysis: Organic matter degradation and methanogenic pathways. *Journal of Hazardous Materials*, **2018**, 342, 1-9	12.8	72
230	Biostimulation by direct voltage to enhance anaerobic digestion of waste activated sludge. *RSC Advances*, **2016**, 6, 1581-1588	3.7	68
229	Impact of a high ammonia-ammonium-pH system on methane-producing archaea and sulfate-reducing bacteria in mesophilic anaerobic digestion. *Bioresource Technology*, **2017**, 245, 598-605	11	66
228	Enhanced dewaterability of sludge during anaerobic digestion with thermal hydrolysis pretreatment: New insights through structure evolution. *Water Research*, **2018**, 131, 177-185	12.5	65
227	Mesoporous amorphous FePO4 nanosphere@Graphene as a faradic electrode in capacitive deionization for high-capacity and fast removal of NaCl from water. *Chemical Engineering Journal*, **2019**, 370, 938-943	14.7	55
226	Rheology evolution of sludge through high-solid anaerobic digestion. *Bioresource Technology*, **2014**, 174, 6-10	11	55
225	Biodegradation of polyacrylamide by anaerobic digestion under mesophilic condition and its performance in actual dewatered sludge system. *Bioresource Technology*, **2014**, 153, 55-61	11	54
224	The influence of organic-binding metals on the biogas conversion of sewage sludge. *Water Research*, **2017**, 126, 329-341	12.5	48
223	Improving the treatment of waste activated sludge using calcium peroxide. *Water Research*, **2020**, 187, 116440	12.5	48
222	Unveiling the mechanisms of medium-chain fatty acid production from waste activated sludge alkaline fermentation liquor through physiological, thermodynamic and metagenomic investigations. *Water Research*, **2020**, 169, 115218	12.5	46
221	Effects of thermal hydrolysis on the metabolism of amino acids in sewage sludge in anaerobic digestion. *Waste Management*, **2019**, 88, 309-318	8.6	45
220	Effects of chemical pretreatments on microplastic extraction in sewage sludge and their physicochemical characteristics. *Water Research*, **2020**, 171, 115379	12.5	45
219	Pathways in bacterial and archaeal communities dictated by ammonium stress in a high solid anaerobic digester with dewatered sludge. *Bioresource Technology*, **2017**, 241, 95-102	11	41
218	The inhibitory impacts of nano-graphene oxide on methane production from waste activated sludge in anaerobic digestion. *Science of the Total Environment*, **2019**, 646, 1376-1384	10.2	41
217	Rotating Magnetic Field-Assisted Adsorption Mechanism of Pollutants on Mechanically Strong Sodium Alginate/Graphene/l-Cysteine Beads in Batch and Fixed-Bed Column Systems. *Environmental Science & Technology*, **2018**, 52, 13925-13934	10.3	41
216	Effect of the micron-sized silica particles (MSSP) on biogas conversion of sewage sludge. *Water Research*, **2017**, 115, 220-228	12.5	40

215	Impact of roxithromycin on waste activated sludge anaerobic digestion: Methane production, carbon transformation and antibiotic resistance genes. *Science of the Total Environment*, **2020**, 703, 134899	10.2	40
214	Coadsorption behavior and mechanism of ciprofloxacin and Cu(II) on graphene hydrogel wetted surface. *Chemical Engineering Journal*, **2020**, 380, 122387	14.7	40
213	Evaluation of thermal hydrolysis efficiency of mechanically dewatered sewage sludge via rheological measurement. *Water Research*, **2017**, 116, 34-43	12.5	39
212	Waste-Activated Sludge Fermentation for Polyacrylamide Biodegradation Improved by Anaerobic Hydrolysis and Key Microorganisms Involved in Biological Polyacrylamide Removal. *Scientific Reports*, **2015**, 5, 11675	4.9	39
211	Ultrasonic-pretreated waste activated sludge hydrolysis and volatile fatty acid accumulation under alkaline conditions: Effect of temperature. *Journal of Biotechnology*, **2012**, 159, 27-31	3.7	39
210	Interfacial interaction between micro/nanoplastics and typical PPCPs and nanoplastics removal via electrosorption from an aqueous solution. *Water Research*, **2020**, 184, 116100	12.5	38
209	Metabolic adaptation of microbial communities to ammonium stress in a high solid anaerobic digester with dewatered sludge. *Scientific Reports*, **2016**, 6, 28193	4.9	38
208	Metagenomic characterization of the enhanced performance of anaerobic fermentation of waste activated sludge with CaO addition at ambient temperature: Fatty acid biosynthesis metabolic pathway and CAZymes. *Water Research*, **2020**, 170, 115309	12.5	38
207	PHBV polymer supported denitrification system efficiently treated high nitrate concentration wastewater: Denitrification performance, microbial community structure evolution and key denitrifying bacteria. *Chemosphere*, **2018**, 197, 96-104	8.4	37
206	Carrageenan/Sodium alginate double-network hydrogel with enhanced mechanical properties, anti-swelling, and adsorption capacity. *Chemosphere*, **2019**, 237, 124417	8.4	37
205	Microbial responses and metabolic pathways reveal the recovery mechanism of an anaerobic digestion system subjected to progressive inhibition by ammonia. *Chemical Engineering Journal*, **2018**, 350, 312-323	14.7	37
204	A new method for the simultaneous enhancement of methane yield and reduction of hydrogen sulfide production in the anaerobic digestion of waste activated sludge. *Bioresource Technology*, **2017**, 243, 914-921	11	36
203	Development of nano-CaO2-coated clinoptilolite for enhanced phosphorus adsorption and simultaneous removal of COD and nitrogen from sewage. *Chemical Engineering Journal*, **2017**, 328, 35-43	14.7	35
202	Polybrominated diphenyl ethers (PBDEs) and dechlorane plus (DP) in a conventional wastewater treatment plant (WWTP) in Shanghai: seasonal variations and potential sources. *Science of the Total Environment*, **2014**, 487, 342-9	10.2	35
201	An overview of removing heavy metals from sewage sludge: Achievements and perspectives. *Environmental Pollution*, **2020**, 266, 115375	9.3	35
200	Partition and fate analysis of fluoroquinolones in sewage sludge during anaerobic digestion with thermal hydrolysis pretreatment. *Science of the Total Environment*, **2017**, 581-582, 715-721	10.2	34
199	Humification in extracellular polymeric substances (EPS) dominates methane release and EPS reconstruction during the sludge stabilization of high-solid anaerobic digestion. *Water Research*, **2020**, 175, 115686	12.5	34
198	Role of redox-active biochar with distinctive electrochemical properties to promote methane production in anaerobic digestion of waste activated sludge. *Journal of Cleaner Production*, **2021**, 278, 123212	10.3	33

197	Organic compounds evolution and sludge properties variation along partial nitritation and subsequent anammox processes treating reject water. *Water Research*, **2020**, 184, 116197	12.5	32
196	Combining Battery-Type and Pseudocapacitive Charge Storage in Ag/TiCT MXene Electrode for Capturing Chloride Ions with High Capacitance and Fast Ion Transport. *Advanced Science*, **2020**, 7, 2000621	13.6	32
195	A review: factors affecting excess sludge anaerobic digestion for volatile fatty acids production. *Water Science and Technology*, **2015**, 72, 678-88	2.2	31
194	Evaluation on the Nanoscale Zero Valent Iron Based Microbial Denitrification for Nitrate Removal from Groundwater. *Scientific Reports*, **2015**, 5, 12331	4.9	31
193	Reforming sewage sludge pyrolysis volatile with Fe-embedded char: Minimization of liquid product yield. *Waste Management*, **2018**, 73, 464-475	8.6	31
192	Methanogenic population dynamics regulated by bacterial community responses to protein-rich organic wastes in a high solid anaerobic digester. *Chemical Engineering Journal*, **2017**, 317, 444-453	14.7	30
191	Persulfate and zero valent iron combined conditioning as a sustainable technique for enhancing dewaterability of aerobically digested sludge. *Chemosphere*, **2019**, 232, 45-53	8.4	29
190	Post-thermal hydrolysis and centrate recirculation for enhancing anaerobic digestion of sewage sludge. *Waste Management*, **2019**, 92, 39-48	8.6	29
189	Effect of aromatic repolymerization of humic acid-like fraction on digestate phytotoxicity reduction during high-solid anaerobic digestion for stabilization treatment of sewage sludge. *Water Research*, **2018**, 143, 436-444	12.5	29
188	Effect of anaerobic digestion on sequential pyrolysis kinetics of organic solid wastes using thermogravimetric analysis and distributed activation energy model. *Bioresource Technology*, **2017**, 227, 297-307	11	28
187	New insights into the effect of sludge proteins on the hydrophilic/hydrophobic properties that improve sludge dewaterability during anaerobic digestion. *Water Research*, **2020**, 173, 115503	12.5	28
186	Two-phase high solid anaerobic digestion with dewatered sludge: Improved volatile solid degradation and specific methane generation by temperature and pH regulation. *Bioresource Technology*, **2018**, 259, 253-258	11	28
185	Carbonization of heavy metal impregnated sewage sludge oriented towards potential co-disposal. *Journal of Hazardous Materials*, **2017**, 321, 132-145	12.8	28
184	Thermal analysis and 454 pyrosequencing to evaluate the performance and mechanisms for deep stabilization and reduction of high-solid anaerobically digested sludge using biodrying process. *Bioresource Technology*, **2015**, 175, 245-53	11	27
183	Medium-Chain fatty acids and long-chain alcohols production from waste activated sludge via two-stage anaerobic fermentation. *Water Research*, **2020**, 186, 116381	12.5	27
182	Effects of temperature variation on wastewater sludge electro-dewatering. *Journal of Cleaner Production*, **2019**, 214, 873-880	10.3	27
181	Revisiting Microplastics in Landfill Leachate: Unnoticed Tiny Microplastics and Their Fate in Treatment Works. *Water Research*, **2021**, 190, 116784	12.5	27
180	Particle size reduction of rice straw enhances methane production under anaerobic digestion. *Bioresource Technology*, **2019**, 293, 122043	11	25

179	Exploring the potential of iTRAQ proteomics for tracking the transformation of extracellular proteins from enzyme-disintegrated waste activated sludge. *Bioresource Technology*, **2017**, 225, 75-83	11	24
178	Development of montmorillonite-supported nano CaO2 for enhanced dewatering of waste-activated sludge by synergistic effects of filtration aid and peroxidation. *Chemical Engineering Journal*, **2017**, 307, 418-426	14.7	24
177	Nitrogen transformation during pyrolysis of oilfield sludge with high polymer content. *Chemosphere*, **2019**, 219, 383-389	8.4	24
176	High-solid Anaerobic Co-digestion of Sewage Sludge and Cattle Manure: The Effects of Volatile Solid Ratio and pH. *Scientific Reports*, **2016**, 6, 35194	4.9	23
175	In SituReforming of the Volatile by Char during Sewage Sludge Pyrolysis. *Energy & Fuels*, **2016**, 30, 10396-10403	4.1	23
174	Mechanism insights into bio-floc bound water transformation based on synchrotron X-ray computed microtomography and viscoelastic acoustic response analysis. *Water Research*, **2018**, 142, 480-489	12.5	23
173	Degradation of Extracellular Polymeric Substances (EPS) in Anaerobic Digestion of Dewatered Sludge. *Procedia Environmental Sciences*, **2013**, 18, 515-521		23
172	Methane-rich biogas production from waste-activated sludge with the addition of ferric chloride under a thermophilic anaerobic digestion system. *RSC Advances*, **2015**, 5, 38538-38546	3.7	23
171	Microplastics Mitigation in Sewage Sludge through Pyrolysis: The Role of Pyrolysis Temperature. *Environmental Science and Technology Letters*, **2020**, 7, 961-967	11	23
170	Rhamnolipid pretreatment enhances methane production from two-phase anaerobic digestion of waste activated sludge. *Water Research*, **2021**, 194, 116909	12.5	23
169	Unraveling the water states of waste-activated sludge through transverse spin-spin relaxation time of low-field NMR. *Water Research*, **2019**, 155, 266-274	12.5	22
168	Earthworm eco-physiological characteristics and quantification of earthworm feeding in vermifiltration system for sewage sludge stabilization using stable isotopic natural abundance. *Journal of Hazardous Materials*, **2014**, 276, 353-61	12.8	22
167	Analysis on carbon dioxide emission reduction during the anaerobic synergetic digestion technology of sludge and kitchen waste: Taking kitchen waste synergetic digestion project in Zhenjiang as an example. *Waste Management*, **2017**, 69, 360-364	8.6	22
166	Spatial Configuration of Extracellular Organic Substances Responsible for the Biogas Conversion of Sewage Sludge. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 8308-8316	8.3	22
165	Two-dimensional FTIR correlation spectroscopy reveals chemical changes in dissolved organic matter during the biodrying process of raw sludge and anaerobically digested sludge. *RSC Advances* , **2015**, 5, 82087-82096	3.7	21
164	Zinc Spinel Ferrite Nanoparticles as a Pseudocapacitive Electrode with Ultrahigh Desalination Capacity and Long-Term Stability. *Environmental Science and Technology Letters*, **2020**, 7, 118-125	11	21
163	Occurrence of hexabromocyclododecane (HBCD) in sewage sludge from Shanghai: implications for source and environmental burden. *Chemosphere*, **2015**, 118, 207-12	8.4	21
162	Ferrate effectively removes antibiotic resistance genes from wastewater through combined effect of microbial DNA damage and coagulation. *Water Research*, **2020**, 185, 116273	12.5	21

161	Comparing two start up strategies and the effect of temperature fluctuations on the performance of mainstream anammox reactors. *Chemosphere*, **2018**, 209, 632-639	8.4	20
160	Nano-/Micro-confined Water in Graphene Hydrogel as Superadsorbents for Water Purification. *Nano-Micro Letters*, **2019**, 12, 2	19.5	20
159	Rapid and strong biocidal effect of ferrate on sulfidogenic and methanogenic sewer biofilms. *Water Research*, **2020**, 169, 115208	12.5	20
158	Treatment of printing and dyeing wastewater using MBBR followed by membrane separation process. *Desalination and Water Treatment*, **2014**, 52, 4562-4567		19
157	Enhancing acidogenic fermentation of waste activated sludge via isoelectric-point pretreatment: Insights from physical structure and interfacial thermodynamics. *Water Research*, **2020**, 185, 116237	12.5	19
156	Enhancing methanogenic fermentation of waste activated sludge via isoelectric-point pretreatment: Insights from interfacial thermodynamics, electron transfer and microbial community. *Water Research*, **2021**, 197, 117072	12.5	19
155	Pyrolysis of the mixture of MSWI fly ash and sewage sludge for co-disposal: Effect of ferrous/ferric sulfate additives. *Waste Management*, **2018**, 75, 340-351	8.6	19
154	Recognition of the key chemical constituents of sewage sludge for biogas production. *RSC Advances*, **2017**, 7, 2033-2037	3.7	18
153	Biomethane production by typical straw anaerobic digestion: Deep insights of material compositions and surface properties. *Bioresource Technology*, **2020**, 313, 123643	11	18
152	The synthetic effect on volatile fatty acid disinhibition and methane production enhancement by dosing FeCl3 in a sludge thermophilic anaerobic digestion system. *RSC Advances*, **2016**, 6, 21090-21098	3.7	18
151	The potential exposure and transmission risk of SARS-CoV-2 through sludge treatment and disposal. *Resources, Conservation and Recycling*, **2020**, 162, 105043	11.9	18
150	Evaluation the impact of polystyrene micro and nanoplastics on the methane generation by anaerobic digestion. *Ecotoxicology and Environmental Safety*, **2020**, 205, 111095	7	18
149	High-solid anaerobic digestion of sewage sludge: achievements and perspectives. *Frontiers of Environmental Science and Engineering*, **2021**, 15, 1	5.8	18
148	Pretreatment-promoted sludge fermentation liquor improves biological nitrogen removal: Molecular insight into the role of dissolved organic matter. *Bioresource Technology*, **2019**, 293, 122082	11	17
147	Thermogravimetry□ourier transform infrared spectrometry□ass spectrometry technique to evaluate the effect of anaerobic digestion on gaseous products of sewage sludge sequential pyrolysis. *Journal of Analytical and Applied Pyrolysis*, **2017**, 126, 288-297	6	17
146	Assessment of Heterotrophic Growth Supported by Soluble Microbial Products in Anammox Biofilm using Multidimensional Modeling. *Scientific Reports*, **2016**, 6, 27576	4.9	17
145	Hydrothermal treatment of erythromycin fermentation residue: Harmless performance and bioresource properties. *Resources, Conservation and Recycling*, **2020**, 161, 104952	11.9	16
144	Enhancing Anaerobic Digestion of Waste Activated Sludge by Solid□iquid Separation via Isoelectric Point Pretreatment. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 14774-14784	8.3	16

143	Principles and advancements in improving anaerobic digestion of organic waste via direct interspecies electron transfer. *Renewable and Sustainable Energy Reviews*, **2021**, 148, 111367	16.2	16
142	Mechanism analysis to improve sludge dewaterability during anaerobic digestion based on moisture distribution. *Chemosphere*, **2019**, 227, 247-255	8.4	15
141	Development of sludge-derived mesoporous material with loaded nano CaO2 and doped Fe for re-utilization of dewatered waste-activated sludge as dewatering aids. *Chemical Engineering Journal*, **2018**, 335, 161-168	14.7	15
140	A new process to improve short-chain fatty acids and bio-methane generation from waste activated sludge. *Journal of Environmental Sciences*, **2016**, 43, 159-168	6.4	15
139	Multiple selection of resistance genes in arable soil amended with cephalosporin fermentation residue. *Soil Biology and Biochemistry*, **2019**, 136, 107538	7.5	15
138	Effects of stepwise thermal hydrolysis and solid-liquid separation on three different sludge organic matter solubilization and biodegradability. *Bioresource Technology*, **2019**, 290, 121753	11	15
137	Effects of free nitrous acid and nitrite on two-phase anaerobic digestion of waste activated sludge: A preliminary study. *Science of the Total Environment*, **2019**, 654, 1064-1071	10.2	15
136	Hygienic treatment and energy recovery of dead animals by high solid co-digestion with vinasse under mesophilic condition: feasibility study. *Journal of Hazardous Materials*, **2015**, 297, 320-8	12.8	14
135	Development of polymeric iron/zirconium-pillared clinoptilolite for simultaneous removal of multiple inorganic contaminants from wastewater. *Chemical Engineering Journal*, **2018**, 347, 819-827	14.7	14
134	Effect of temperature on tertiary nitrogen removal from municipal wastewater in a PHBV/PLA-supported denitrification system. *Environmental Science and Pollution Research*, **2019**, 26, 26893-26899	5.1	14
133	Assessing chromate reduction by dissimilatory iron reducing bacteria using mathematical modeling. *Chemosphere*, **2015**, 139, 334-9	8.4	13
132	Impact of application of heat-activated persulfate oxidation treated erythromycin fermentation residue as a soil amendment: Soil chemical properties and antibiotic resistance. *Science of the Total Environment*, **2020**, 736, 139668	10.2	13
131	Operation of pilot-scale nitrification-anammox reactors for the treatment of reject-water produced from the anaerobic digestion of thermal hydrolysis-treated sludge. *Bioresource Technology*, **2020**, 314, 123717	11	13
130	Electrochemical pretreatment of waste activated sludge: effect of process conditions on sludge disintegration degree and methane production. *Environmental Technology (United Kingdom)*, **2016**, 37, 2935-44	2.6	13
129	Sludge age impacted the distribution, occurrence state and structure of organic compounds in activated sludge and affected the anaerobic degradability. *Chemical Engineering Journal*, **2020**, 384, 123261	14.7	13
128	Dosage effects of lincomycin mycelial residues on lincomycin resistance genes and soil microbial communities. *Environmental Pollution*, **2020**, 256, 113392	9.3	13
127	Effects of humic matter on the anaerobic digestion of sewage sludge: New insights from sludge structure. *Chemosphere*, **2020**, 243, 125421	8.4	13
126	Integrating multi-state and multi-phase treatment for anaerobic sludge digestion to enhance recovery of bio-energy. *Science of the Total Environment*, **2020**, 698, 134196	10.2	13

125	Simultaneous in situ nutrient recovery and sustainable wastewater purification based on metal anion- and cation-targeted selective adsorbents. *Journal of Hazardous Materials*, **2020**, 382, 121039	12.8	13
124	Characterizing the sludge moisture distribution during anaerobic digestion process through various approaches. *Science of the Total Environment*, **2019**, 675, 184-191	10.2	12
123	Effects of NaCl and phenol on anammox performance in mainstream reactors with low nitrogen concentration and low temperature. *Biochemical Engineering Journal*, **2019**, 147, 72-80	4.2	11
122	Model-based assessment of estrogen removal by nitrifying activated sludge. *Chemosphere*, **2018**, 197, 430-437	8.4	11
121	New insight into the effect of thermal hydrolysis on high solid sludge anaerobic digestion: Conversion pathway of volatile sulphur compounds. *Chemosphere*, **2020**, 244, 125466	8.4	11
120	Influential mechanism of water occurrence states of waste-activated sludge: specifically focusing on the roles of EPS micro-spatial distribution and cation-dominated interfacial properties. *Water Research*, **2021**, 202, 117461	12.5	11
119	Free-conditioning dewatering of sewage sludge through in situ propane hydrate formation. *Water Research*, **2018**, 145, 464-472	12.5	10
118	Change of thermal drying characteristics for dewatered sewage sludge based on anaerobic digestion. *Journal of Thermal Analysis and Calorimetry*, **2013**, 114, 307-312	4.1	10
117	Ecosystem activation system (EAS) technology for remediation of eutrophic freshwater. *Scientific Reports*, **2017**, 7, 4818	4.9	10
116	Ferroferric oxide promotes metabolism in Anaerolineae other than microbial syntrophy in anaerobic methanogenesis of antibiotic fermentation residue. *Science of the Total Environment*, **2021**, 758, 143601	10.2	10
115	Sludge-to-energy approaches based on pathways that couple pyrolysis with anaerobic digestion (thermal hydrolysis pre/post-treatment): Energy efficiency assessment and pyrolysis kinetics analysis. *Energy*, **2020**, 190, 116240	7.9	10
114	Effect of reusing the advanced-softened, silica-rich, oilfield-produced water (ASOW) on finned tubes in steam-injection boiler. *Desalination*, **2015**, 372, 17-25	10.3	9
113	Partial nitritation with aerobic duration control of carbon-captured blackwater: Process operation and model-based evaluation. *Chemical Engineering Journal*, **2020**, 401, 126060	14.7	9
112	Effect of nitrite addition on the two-phase anaerobic digestion of waste activated sludge: Optimization of the acidogenic phase and influence mechanisms. *Environmental Pollution*, **2020**, 261, 114085	9.3	9
111	Alkaline-thermally treated penicillin V mycelial residue amendment improved the soil properties without triggering antibiotic resistance. *Waste Management*, **2020**, 105, 248-255	8.6	9
110	A new biological process for short-chain fatty acid generation from waste activated sludge improved by Clostridiales enhancement. *Environmental Science and Pollution Research*, **2016**, 23, 23972-23982	5.1	9
109	Performance and microbial ecology of a nitritation sequencing batch reactor treating high-strength ammonia wastewater. *Scientific Reports*, **2016**, 6, 35693	4.9	9
108	Pretreatment using UV combined with CaO for the anaerobic digestion of waste activated sludge: Mechanistic modeling for attenuation of trace organic contaminants. *Journal of Hazardous Materials*, **2021**, 402, 123484	12.8	9

107	Excess sludge and herbaceous plant co-digestion for volatile fatty acids generation improved by protein and cellulose conversion enhancement. *Environmental Science and Pollution Research*, **2016**, 23, 1492-504	5.1	8
106	Alkaline-thermal pretreatment of spectinomycin mycelial residues: Insights on anaerobic biodegradability and the fate of antibiotic resistance genes. *Chemosphere*, **2020**, 261, 127821	8.4	8
105	Anaerobic digestion of sludge differing in inorganic solids content: performance comparison and the effect of inorganic suspended solids content on degradation. *Water Science and Technology*, **2016**, 74, 2152-2161	2.2	8
104	Novel CaO beads used in the anaerobic fermentation of iron-rich sludge for simultaneous short-chain fatty acids and phosphorus recovery under ambient conditions. *Bioresource Technology*, **2021**, 322, 124553	11	8
103	A review on application of single and composite conductive additives for anaerobic digestion: Advances, challenges and prospects. *Resources, Conservation and Recycling*, **2021**, 174, 105844	11.9	8
102	Exploring the bioaccessibility of polybrominated diphenyl ethers (PBDEs) in sewage sludge. *Environmental Pollution*, **2015**, 207, 1-5	9.3	7
101	Transcriptomics Uncovers the Response of Anammox Bacteria to Dissolved Oxygen Inhibition and the Subsequent Recovery Mechanism. *Environmental Science & Technology*, **2020**, 54, 14674-14685	10.3	7
100	Integrated anaerobic digestion and CO2 sequestration for energy recovery from waste activated sludge by calcium addition: Timing matters. *Energy*, **2020**, 199, 117421	7.9	7
99	Micron-sized silica particles in wastewater influenced the distribution of organic matters in sludge and their anaerobic degradation. *Journal of Hazardous Materials*, **2020**, 393, 122340	12.8	7
98	New insight into volatile sulfur compounds conversion in anaerobic digestion of excess sludge: Influence of free ammonia nitrogen and thermal hydrolysis pretreatment. *Journal of Cleaner Production*, **2020**, 277, 123366	10.3	7
97	Novel perspective for urban water resource management: 5R generation. *Frontiers of Environmental Science and Engineering*, **2021**, 15, 1	5.8	7
96	Nitrogen loss reduction by adding KHPO-KHPO buffer solution during composting of sewage sludge. *Bioresource Technology*, **2018**, 264, 116-122	11	7
95	Variations of physical and chemical properties in relation to erythromycin mycelial dreg dewaterability under heat-activated persulfate oxidation conditioning. *Science of the Total Environment*, **2019**, 687, 2-9	10.2	6
94	Dosing effect of nano zero valent iron (NZVI) on the dark hydrogen fermentation performance via lake algae and food waste co-digestion. *Energy Reports*, **2020**, 6, 3192-3199	4.6	6
93	Micro-aerobic digestion of high-solid anaerobically digested sludge: further stabilization, microbial dynamics and phytotoxicity reduction. *RSC Advances*, **2016**, 6, 76748-76758	3.7	6
92	Quantitative and qualitative validations of a sonication-based DNA extraction approach for PCR-based molecular biological analyses. *Analytical Biochemistry*, **2016**, 501, 44-6	3.1	6
91	Composting of oxytetracycline fermentation residue in combination with hydrothermal pretreatment for reducing antibiotic resistance genes enrichment. *Bioresource Technology*, **2020**, 318, 124271	11	6
90	Evaluation of Biogas Performance and Process Stability from Food, Kitchen, and Fruit/Vegetable Waste by Mono-, Co-, and Tridigestion. *Energy & Fuels*, **2020**, 34, 12734-12742	4.1	6

89	Modelling Methane Production and Sulfate Reduction in Anaerobic Granular Sludge Reactor with Ethanol as Electron Donor. *Scientific Reports*, **2016**, 6, 35312	4.9	6
88	Optimization of a digested sludge-derived mesoporous material as an efficient and stable heterogeneous catalyst for the photo-Fenton reaction. *Chinese Journal of Catalysis*, **2016**, 37, 735-742	11.3	6
87	Microbial production of lactic acid from food waste: Latest advances, limits, and perspectives. *Bioresource Technology*, **2021**, 345, 126052	11	6
86	Coconut shell ash enhances short-chain fatty acids production from anaerobic algae fermentation. *Bioresource Technology*, **2021**, 338, 125494	11	6
85	The release of organic matter, nitrogen, phosphorus and heavy metals from erythromycin fermentation residue under heat-activated persulfate oxidation conditioning. *Science of the Total Environment*, **2020**, 724, 138349	10.2	5
84	Full-scale semi-centralized wastewater treatment facilities for resource recovery: operation, problems and resolutions. *Water Science and Technology*, **2020**, 82, 303-314	2.2	5
83	Kinetic assessment of simultaneous removal of arsenite, chlorate and nitrate under autotrophic and mixotrophic conditions. *Science of the Total Environment*, **2018**, 628-629, 85-93	10.2	5
82	Evaluating the biogas conversion potential of sewage sludge by surface site density of sludge particulate. *Chemical Engineering Journal*, **2017**, 327, 1184-1191	14.7	5
81	Effect of gentamicin mycelial residues disintegration by microwave-alkaline pretreatment on methane production and gentamicin degradation during anaerobic digestion. *Chemical Engineering Journal*, **2021**, 414, 128790	14.7	5
80	New insights into the evaluation of anaerobic properties of sludge: Biodegradability and stabilization. *Journal of Environmental Sciences*, **2021**, 100, 158-166	6.4	5
79	Revealing the Mechanism of Biochar Enhancing the Production of Medium Chain Fatty Acids from Waste Activated Sludge Alkaline Fermentation Liquor. *ACS ES&T Water*, **2021**, 1, 1014-1024		5
78	Molecular characteristics of the refractory organic matter in the anaerobic and aerobic digestates of sewage sludge.. *RSC Advances*, **2018**, 8, 33138-33148	3.7	5
77	Sustainable disposal of excess sludge: Post-thermal hydrolysis for anaerobically digested sludge. *Journal of Cleaner Production*, **2021**, 321, 128893	10.3	5
76	Removal of personal care products in greywater using membrane bioreactor and constructed wetland methods. *Science of the Total Environment*, **2021**, 797, 148773	10.2	5
75	Variations of heavy metals, nutrients, POPs and particle size distribution during "sludge anaerobic digestion-solar drying-land utilization process": Case study in China. *Science of the Total Environment*, **2021**, 801, 149609	10.2	5
74	Performance and Mechanism of FeO Improving Biotransformation of Waste Activated Sludge into Liquid High-Value Products.. *Environmental Science & Technology*, **2022**,	10.3	5
73	Nitrous Oxide Production in a Granule-based Partial Nitritation Reactor: A Model-based Evaluation. *Scientific Reports*, **2017**, 7, 45609	4.9	4
72	The transformation of phosphorus fractions in high-solid sludge by anaerobic digestion combined with the high temperature thermal hydrolysis process. *Bioresource Technology*, **2020**, 309, 123314	11	4

71	Performance and microbial communities of a batch anaerobic reactor treating liquid and high-solid sludge at thermophilic conditions. *RSC Advances*, **2016**, 6, 99524-99531	3.7	4
70	Nitrous Oxide Production in Co- Versus Counter-Diffusion Nitrifying Biofilms. *Scientific Reports*, **2016**, 6, 28880	4.9	4
69	Enhancement of anaerobic digestive efficiency by the use of exchange resin to remove cations in sewage sludge. *Desalination and Water Treatment*, **2016**, 57, 6202-6208		4
68	Enhancing immobilization of arsenic in groundwater: A model-based evaluation. *Journal of Cleaner Production*, **2017**, 166, 449-457	10.3	4
67	Interactions between virus surrogates and sewage sludge vary by viral analyte: Recovery, persistence, and sorption.. *Water Research*, **2021**, 210, 117995	12.5	4
66	Investigating antibiotics, antibiotic resistance genes in soil, groundwater and vegetables in relation to agricultural field - Applicated with lincomycin mycelial residues compost. *Science of the Total Environment*, **2021**, 777, 146066	10.2	4
65	Aging microplastics in wastewater pipeline networks and treatment processes: Physicochemical characteristics and Cd adsorption. *Science of the Total Environment*, **2021**, 797, 148940	10.2	4
64	Enhanced sludge dewaterability via ozonation catalyzed by sludge derived biochar loaded with MnFe2O4: Performance and mechanism investigation. *Journal of Cleaner Production*, **2021**, 323, 129182	10.3	4
63	Secondary acidogenic fermentation of waste activated sludge via voltage supplementation: Insights from sludge structure and enzymes activity. *Science of the Total Environment*, **2021**, 797, 149161	10.2	4
62	Coupling self-sustaining air flotation screening with conventional CSTR enhances anaerobic biodegradability of corn stover. *Bioresource Technology*, **2020**, 310, 123417	11	3
61	Preparation of activated sewage sludge char for low temperature De-NO and its CO emission inhibition. *Chemosphere*, **2020**, 251, 126330	8.4	3
60	Emerging Trends and Prospects for Municipal Wastewater Management in China. *ACS ES&T Engineering*,		3
59	The three-stage effect of hydrothermal treatment on sludge physical-chemical properties: Evolution of polymeric substances and their interaction with physicochemical properties.. *Water Research*, **2022**, 211, 118043	12.5	3
58	Anaerobic digestion of spectinomycin mycelial residues pretreated by thermal hydrolysis: removal of spectinomycin and enhancement of biogas production. *Environmental Science and Pollution Research*, **2020**, 27, 39297-39307	5.1	3
57	Defining interfacial abiotic driving forces for enhancing anaerobic biological treatment of organic solid waste. *Resources, Conservation and Recycling*, **2021**, 169, 105553	11.9	3
56	Linking nitrification characteristic and microbial community structures in integrated fixed film activated sludge reactor by high-throughput sequencing. *Water Science and Technology*, **2016**, 74, 1354-1364	2.2	3
55	Mechanism insights into polyhydroxyalkanoate-regulated denitrification from the perspective of pericytoplasmic nitrate reductase expression. *Science of the Total Environment*, **2021**, 754, 142083	10.2	3
54	The evaluation of GHG emissions from Shanghai municipal wastewater treatment plants based on IPCC and operational data integrated methods (ODIM). *Science of the Total Environment*, **2021**, 797, 148967	10.2	3

53	Enhancement of sludge dewaterability via the thermal hydrolysis anaerobic digestion mechanism based on moisture and organic matter interactions. *Science of the Total Environment*, **2021**, 798, 149229	10.2	3
52	Hyperthermophilic pretreatment composting to produce high quality sludge compost with superior humification degree and nitrogen retention. *Chemical Engineering Journal*, **2022**, 429, 132247	14.7	3
51	Characterizing and exploring the mechanism of formation of corrosion scales by reusing advanced-softened, silica-rich, oilfield-produced water (ASOW) in a steam-injection boiler. *Journal of Chemical Technology and Biotechnology*, **2017**, 92, 382-390	3.5	2
50	Characterizing and Exploring the Formation Mechanism of Salt Deposition by Reusing Advanced-softened, Silica-rich, Oilfield-produced Water (ASOW) in Superheated Steam Pipeline. *Scientific Reports*, **2015**, 5, 17274	4.9	2
49	Scavenging ROS to Alleviate Acute Liver Injury by ZnO-NiO@COOH.. *Advanced Science*, **2022**, e2103982	13.6	2
48	Influential mechanism of water occurrence states of waste-activated sludge: Potential linkage between water-holding capacity and molecular compositions of EPS.. *Water Research*, **2022**, 213, 118169	12.5	2
47	Implications for mitigation of antibiotic resistance: Differential response of intracellular and extracellular antibiotic resistance genes to sludge fermentation coupled with thermal hydrolysis. *Water Research*, **2021**, 209, 117876	12.5	2
46	Calcium peroxide significantly enhances volatile solids destruction in aerobic sludge digestion through improving sludge biodegradability.. *Bioresource Technology*, **2021**, 346, 126655	11	2
45	Design of facile technology for the efficient removal of hydroxypropyl guar gum from fracturing fluid. *PLoS ONE*, **2021**, 16, e0247948	3.7	2
44	A new approach to recycling cephalosporin fermentation residue into plant biostimulants. *Journal of Hazardous Materials*, **2021**, 413, 125393	12.8	2
43	Effects of sludge age on anaerobic acidification of waste activated sludge: Volatile fatty acids production and phosphorus release. *Journal of Environmental Sciences*, **2021**, 105, 11-21	6.4	2
42	Designing an in situ remediation strategy for polluted surface water bodies through the specific regulation of microbial community. *Frontiers of Environmental Science and Engineering*, **2019**, 13, 1	5.8	2
41	Novel micro-granular sludge process for highly efficient treatment of low-strength and low C/N ratio municipal wastewater. *Chemosphere*, **2022**, 287, 132322	8.4	2
40	A novel green composite conductive material enhancing anaerobic digestion of waste activated sludge via improving electron transfer and metabolic activity. *Water Research*, **2022**, 220, 118687	12.5	2
39	Mathematical modeling of microbial extracellular electron transfer by electrically active microorganisms. *Environmental Science: Water Research and Technology*, **2015**, 1, 747-752	4.2	1
38	Modelling of simultaneous nitrogen and thiocyanate removal through coupling thiocyanate-based denitrification with anaerobic ammonium oxidation. *Environmental Pollution*, **2019**, 253, 974-980	9.3	1
37	Enhancing simultaneous removal of nitrogen and phosphorus from municipal wastewater by Fe□u shavings. *Desalination and Water Treatment*, **2014**, 52, 7422-7428		1
36	High Proton Conductivity of MOF-808 Promotes Methane Production in Anaerobic Digestion. *ACS Sustainable Chemistry and Engineering*, **2022**, 10, 1419-1429	8.3	1

35	Alkaline thermal hydrolysis of sewage sludge to produce high-quality liquid fertilizer rich in nitrogen-containing plant-growth-promoting nutrients and biostimulants.. *Water Research*, **2022**, 211, 118036	12.5	1
34	Cation exchange resin pretreatment enhancing methane production from anaerobic digestion of waste activated sludge.. *Water Research*, **2022**, 212, 118130	12.5	1
33	Sludge treatment and resource recovery towards carbon neutrality in China: current status and future perspective. *Blue-Green Systems*, **2021**, 3, 119-127	5.2	1
32	Corncob ash boosts fermentative hydrogen production from waste activated sludge. *Science of the Total Environment*, **2021**, 807, 151064	10.2	1
31	Deciphering color for comprehensive utilization of sludge. *Resources, Conservation and Recycling*, **2020**, 153, 104579	11.9	1
30	Environmentally-friendly dewatering of sewage sludge: A novel strategy based on amphiphilic phase-transfer induced by recoverable organic solvent. *Chemical Engineering Journal*, **2021**, 409, 128212	14.7	1
29	Characterizing the interactions between humic matter and calcium ions during water softening by cation-exchange resins. *RSC Advances*, **2016**, 6, 93947-93955	3.7	1
28	The transition temperature (42□□C) from mesophilic to thermophilic micro-organisms enhances biomethane potential of corn stover. *Science of the Total Environment*, **2021**, 759, 143549	10.2	1
27	Responses of methane production, microbial community and antibiotic resistance genes to the mixing ratio of gentamicin mycelial residues and wheat straw in anaerobic co-digestion process. *Science of the Total Environment*, **2022**, 806, 150488	10.2	1
26	Enhancing short-term ethanol-type fermentation of waste activated sludge by adding saccharomycetes and the implications for bioenergy and resource recovery.. *Journal of Environmental Sciences*, **2022**, 113, 179-189	6.4	1
25	Insight into the evolution of antibiotic resistance genes and microbial community during spiramycin fermentation residue composting process after thermally activated peroxydisulfate pretreatment. *Journal of Hazardous Materials*, **2022**, 424, 127287	12.8	1
24	Coupling anammox and feammox via polymeric ferric sulfate: An efficient and aeration-saving way for nitrogen removal. *Journal of Cleaner Production*, **2022**, 355, 131788	10.3	1
23	Different Sizes of Polystyrene Microplastics Induced Distinct Microbial Responses of Anaerobic Granular Sludge. *Water Research*, **2022**, 118607	12.5	1
22	Novel anaerobic digestion of waste activated sludge via isoelectric-point pretreatment: Ultra-short solids retention time and high methane yield. *Water Research*, **2022**, 220, 118657	12.5	1
21	Contributions of MOF-808 to methane production from anaerobic digestion of waste activated sludge. *Water Research*, **2022**, 220, 118653	12.5	1
20	Targeted clean extraction of phosphorus from waste activated sludge: From a new perspective of phosphorus occurrence states to an innovative approach through acidic cation exchange resin.. *Water Research*, **2022**, 215, 118190	12.5	0
19	Highly efficient solid-liquid separation of anaerobically digested liquor of food waste: Conditioning approach screening and mechanistic analysis.. *Science of the Total Environment*, **2021**, 811, 152416	10.2	0
18	Zero valent iron greatly improves sludge destruction and nitrogen removal in aerobic sludge digestion. *Chemical Engineering Journal*, **2022**, 433, 134459	14.7	0

17	Erythromycin stimulates rather than inhibits methane production in anaerobic digestion of antibiotic fermentation dregs. *Science of the Total Environment*, **2021**, 807, 151007	10.2	0
16	Developing precise-acting strategies for improving anaerobic methanogenesis of organic waste: Insights from the electron transfer system of syntrophic partners. *Frontiers of Environmental Science and Engineering*, **2022**, 16, 1	5.8	0
15	Optimizing granular anammox retention via hydrocycloning during two-stage deammonification of high-solid sludge anaerobic digester supernatant. *Science of the Total Environment*, **2021**, 791, 148048	10.2	0
14	A novel thermal pretreatment method called air frying improves the enzymatic saccharification effect of straw. *Science of the Total Environment*, **2021**, 790, 148191	10.2	0
13	Enhanced depletion of antibiotics and accelerated estabilization of dissolved organic matter by hydrothermal pretreatment during composting of oxytetracycline fermentation residue. *Bioresource Technology*, **2021**, 339, 125618	11	0
12	Research on Ammonia Removal from Reject Water Produced from Anaerobic Digestion of Thermally Hydrolyzed Sludge Through Partial Nitrification–Anammox. *Water, Air, and Soil Pollution*, **2022**, 233, 1	2.6	0
11	Polyethylene terephthalate microplastic fibers increase the release of extracellular antibiotic resistance genes during sewage sludge anaerobic digestion.. *Water Research*, **2022**, 217, 118426	12.5	0
10	High concentration powder carrier bio-fluidized bed process: a new perspective for domestic wastewater treatment.. *Bioresource Technology*, **2022**, 127015	11	0
9	Medium-chain fatty acids production from carbohydrates-rich wastewater through two-stage yeast biofilm processes without external electron donor addition: Biofilm development and pH impact.. *Science of the Total Environment*, **2022**, 154428	10.2	0
8	Simultaneous enhancing phosphorus recovery and volatile fatty acids production during anaerobic fermentation of sewage sludge with peroxydisulfate pre-oxidation.. *Bioresource Technology*, **2022**, 127164	11	0
7	Decrease the effective temperature of hydrothermal treatment for sewage sludge deep dewatering: Mechanistic of tannic acid aided.. *Water Research*, **2022**, 217, 118450	12.5	0
6	Evaluation of a pretreatment method using cation exchange resin to enhance the sludge solubilization and disintegration for improving the efficiency of anaerobic digestion. *Desalination and Water Treatment*, **2014**, 1-8		
5	Effect of a Humus Soil Side-Stream Reactor (HSR) on the Bacterial Characteristics in Enhanced Biological Phosphorus Removal Process. *Journal of Chemical Engineering of Japan*, **2015**, 48, 498-505	0.8	
4	Unveiling the distinctive role of titanium dioxide nanoparticles in aerobic sludge digestion. *Science of the Total Environment*, **2021**, 813, 151872	10.2	
3	A specious relevance between theory and practice: Insights into temperature parameter and multi-phase strategy of anaerobic digestion of straw. *Science of the Total Environment*, **2021**, 753, 142212	10.2	
2	Conditioning of raw sludge and thermally hydrolyzed sludge by ferric salt and cationic polyacrylamide: rheological analysis. *Water Science and Technology*, **2021**, 83, 1566-1577	2.2	
1	Comparison of anaerobic phosphorus release from activated sludge with three carbon sources. *Water Science and Technology*, **2021**, 83, 1327-1334	2.2	