

Xiaoli Chai

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

2,211
citations

257450

24
h-index

223800

46
g-index

52
all docs

52
docs citations

52
times ranked

1770
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Critical review on dewatering of sewage sludge: Influential mechanism, conditioning technologies and implications to sludge re-utilizations. <i>Water Research</i> , 2020, 180, 115912. | 11.3 | 343 |
| 2 | Enhanced dewaterability of sewage sludge in the presence of Fe(II)-activated persulfate oxidation. <i>Bioresource Technology</i> , 2012, 116, 259-265. | 9.6 | 225 |
| 3 | Effect of different carbon sources on denitrification performance, microbial community structure and denitrification genes. <i>Science of the Total Environment</i> , 2018, 634, 195-204. | 8.0 | 197 |
| 4 | Occurrence State and Molecular Structure Analysis of Extracellular Proteins with Implications on the Dewaterability of Waste-Activated Sludge. <i>Environmental Science & Technology</i> , 2017, 51, 9235-9243. | 10.0 | 174 |
| 5 | Novel insights into enhanced dewaterability of waste activated sludge by Fe(II)-activated persulfate oxidation. <i>Bioresource Technology</i> , 2012, 119, 7-14. | 9.6 | 158 |
| 6 | Methane emissions as energy reservoir: Context, scope, causes and mitigation strategies. <i>Progress in Energy and Combustion Science</i> , 2016, 56, 33-70. | 31.2 | 92 |
| 7 | Enhanced phosphate removal using nanostructured hydrated ferric-zirconium binary oxide confined in a polymeric anion exchanger. <i>Chemical Engineering Journal</i> , 2018, 345, 640-647. | 12.7 | 67 |
| 8 | PHBV polymer supported denitrification system efficiently treated high nitrate concentration wastewater: Denitrification performance, microbial community structure evolution and key denitrifying bacteria. <i>Chemosphere</i> , 2018, 197, 96-104. | 8.2 | 56 |
| 9 | Development of nano-CaO ₂ -coated clinoptilolite for enhanced phosphorus adsorption and simultaneous removal of COD and nitrogen from sewage. <i>Chemical Engineering Journal</i> , 2017, 328, 35-43. | 12.7 | 51 |
| 10 | Characterization of coal gasification slag-based activated carbon and its potential application in lead removal. <i>Environmental Technology (United Kingdom)</i> , 2018, 39, 382-391. | 2.2 | 43 |
| 11 | Unraveling the water states of waste-activated sludge through transverse spin-spin relaxation time of low-field NMR. <i>Water Research</i> , 2019, 155, 266-274. | 11.3 | 43 |
| 12 | Mechanism insights into bio-floc bound water transformation based on synchrotron X-ray computed microtomography and viscoelastic acoustic response analysis. <i>Water Research</i> , 2018, 142, 480-489. | 11.3 | 42 |
| 13 | Enhanced dewatering of waste-activated sludge by composite hydrolysis enzymes. <i>Bioprocess and Biosystems Engineering</i> , 2016, 39, 627-639. | 3.4 | 40 |
| 14 | Development of montmorillonite-supported nano CaO ₂ for enhanced dewatering of waste-activated sludge by synergistic effects of filtration aid and peroxidation. <i>Chemical Engineering Journal</i> , 2017, 307, 418-426. | 12.7 | 39 |
| 15 | Enhanced dewatering characteristics of waste activated sludge with Fenton pretreatment: effectiveness and statistical optimization. <i>Frontiers of Environmental Science and Engineering</i> , 2014, 8, 267-276. | 6.0 | 38 |
| 16 | Influential mechanism of water occurrence states of waste-activated sludge: Potential linkage between water-holding capacity and molecular compositions of EPS. <i>Water Research</i> , 2022, 213, 118169. | 11.3 | 34 |
| 17 | Exploring the potential of iTRAQ proteomics for tracking the transformation of extracellular proteins from enzyme-disintegrated waste activated sludge. <i>Bioresource Technology</i> , 2017, 225, 75-83. | 9.6 | 32 |
| 18 | The use of the core-shell structure of zero-valent iron nanoparticles (NZVI) for long-term removal of sulphide in sludge during anaerobic digestion. <i>Environmental Sciences: Processes and Impacts</i> , 2015, 17, 2013-2021. | 3.5 | 31 |

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|----|--|------|-----------|
| 19 | Emission characteristics and air–surface exchange of gaseous mercury at the largest active landfill in Asia. <i>Atmospheric Environment</i> , 2013, 79, 188-197. | 4.1 | 30 |
| 20 | 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. <i>Water Research</i> , 2021, 202, 117461. | 11.3 | 29 |
| 21 | Environmental impacts of a large-scale incinerator with mixed MSW of high water content from a LCA perspective. <i>Journal of Environmental Sciences</i> , 2015, 30, 173-179. | 6.1 | 27 |
| 22 | Novel insights into enhanced dewatering of waste activated sludge based on the durable and efficacious radical generating. <i>Journal of the Air and Waste Management Association</i> , 2016, 66, 1151-1163. | 1.9 | 27 |
| 23 | Mercury emission to the atmosphere from municipal solid waste landfills: A brief review. <i>Atmospheric Environment</i> , 2017, 170, 303-311. | 4.1 | 27 |
| 24 | Development of sludge-derived mesoporous material with loaded nano CaO ₂ and doped Fe for re-utilization of dewatered waste-activated sludge as dewatering aids. <i>Chemical Engineering Journal</i> , 2018, 335, 161-168. | 12.7 | 26 |
| 25 | Free-conditioning dewatering of sewage sludge through in situ propane hydrate formation. <i>Water Research</i> , 2018, 145, 464-472. | 11.3 | 25 |
| 26 | Site specific diel methane emission mechanisms in landfills: A field validated process based on vegetation and climate factors. <i>Environmental Pollution</i> , 2016, 218, 673-680. | 7.5 | 24 |
| 27 | Hybrid cement-assisted dewatering, solidification and stabilization of sewage sludge with high organic content. <i>Journal of Material Cycles and Waste Management</i> , 2016, 18, 356-365. | 3.0 | 24 |
| 28 | Development of polymeric iron/zirconium-pillared clinoptilolite for simultaneous removal of multiple inorganic contaminants from wastewater. <i>Chemical Engineering Journal</i> , 2018, 347, 819-827. | 12.7 | 21 |
| 29 | Implications of municipal solid waste disposal methods in China on greenhouse gas emissions. <i>Environmental Progress and Sustainable Energy</i> , 2020, 39, e13372. | 2.3 | 21 |
| 30 | A Simulation model for estimating methane oxidation and emission from landfill cover soils. <i>Waste Management</i> , 2018, 77, 426-434. | 7.4 | 20 |
| 31 | Effect of temperature on tertiary nitrogen removal from municipal wastewater in a PHBV/PLA-supported denitrification system. <i>Environmental Science and Pollution Research</i> , 2019, 26, 26893-26899. | 5.3 | 19 |
| 32 | Numerical modeling of methane oxidation and emission from landfill cover soil coupling water-heat-gas transfer: Effects of meteorological factors. <i>Chemical Engineering Research and Design</i> , 2021, 146, 647-655. | 5.6 | 17 |
| 33 | Ecosystem activation system (EAS) technology for remediation of eutrophic freshwater. <i>Scientific Reports</i> , 2017, 7, 4818. | 3.3 | 15 |
| 34 | Human health risk assessment of heavy metals in a replaced urban industrial area of Qingdao, China. <i>Environmental Monitoring and Assessment</i> , 2016, 188, 229. | 2.7 | 14 |
| 35 | NaHCO ₃ -enhanced sewage sludge thin-layer drying: Drying characteristics and kinetics. <i>Drying Technology</i> , 2017, 35, 1276-1287. | 3.1 | 14 |
| 36 | Greenhouse gas emission and its potential mitigation process from the waste sector in a large-scale exhibition. <i>Journal of Environmental Sciences</i> , 2015, 31, 44-50. | 6.1 | 11 |

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|----|---|------|-----------|
| 37 | A simulation model for methane emissions from landfills with interaction of vegetation and cover soil. <i>Waste Management</i> , 2018, 71, 267-276. | 7.4 | 11 |
| 38 | Novel micro-granular sludge process for highly efficient treatment of low-strength and low C/N ratio municipal wastewater. <i>Chemosphere</i> , 2022, 287, 132322. | 8.2 | 11 |
| 39 | Site-specific diel mercury emission fluxes in landfill: Combined effects of vegetation and meteorological factors. <i>Waste Management</i> , 2017, 59, 247-254. | 7.4 | 10 |
| 40 | Influential mechanism of water occurrence states of waste-activated sludge: Over-focused significance of cell lysis to bound water reduction. <i>Water Research</i> , 2022, 221, 118737. | 11.3 | 10 |
| 41 | Mechanism insights into polyhydroxyalkanoate-regulated denitrification from the perspective of pericytoplasmic nitrate reductase expression. <i>Science of the Total Environment</i> , 2021, 754, 142083. | 8.0 | 9 |
| 42 | Environmentally-friendly dewatering of sewage sludge: A novel strategy based on amphiphilic phase-transfer induced by recoverable organic solvent. <i>Chemical Engineering Journal</i> , 2021, 409, 128212. | 12.7 | 9 |
| 43 | Effects of plant radial oxygen loss on methane oxidation in landfill cover soil: A simulative study. <i>Waste Management</i> , 2020, 102, 56-64. | 7.4 | 8 |
| 44 | Effects of Water Level Fluctuations on the Growth Characteristics and Community Succession of Submerged Macrophytes: A Case Study of Yilong Lake, China. <i>Water (Switzerland)</i> , 2021, 13, 2900. | 2.7 | 8 |
| 45 | Simulative analysis of vegetation on CH ₄ emission from landfill cover soils: Combined effects of root-water uptake, root radial oxygen loss, and plant-mediated CH ₄ transport. <i>Journal of Cleaner Production</i> , 2019, 234, 18-26. | 9.3 | 7 |
| 46 | Mechanism insights into liquid polarity regulation for enhanced dewatering of waste-activated sludge: Specifically focusing on the solid-liquid affinity reduction depending on phase-transfer and conformational features of amphiphilic protein. <i>Water Research</i> , 2022, 221, 118793. | 11.3 | 7 |
| 47 | Mercury transport and fate in municipal solid waste landfills and its implications. <i>Biogeochemistry</i> , 2020, 148, 19-29. | 3.5 | 6 |
| 48 | Designing an in situ remediation strategy for polluted surface water bodies through the specific regulation of microbial community. <i>Frontiers of Environmental Science and Engineering</i> , 2019, 13, 1. | 6.0 | 5 |
| 49 | Co-immobilization of clinoptilolite and nanostructured hydrated ferric-zirconium binary oxide via polyvinyl alcohol-alginate covalent cross-linking for simultaneous deep removal of aqueous low-level nitrogen and phosphorus. <i>Arabian Journal of Chemistry</i> , 2021, 14, 103354. | 4.9 | 5 |
| 50 | Indicating landfill stabilization state by using leachate property from Laogang Refuse Landfill. <i>Frontiers of Environmental Science and Engineering</i> , 2014, 8, 405-410. | 6.0 | 4 |
| 51 | Highly efficient solid-liquid separation of anaerobically digested liquor of food waste: Conditioning approach screening and mechanistic analysis. <i>Science of the Total Environment</i> , 2022, 811, 152416. | 8.0 | 4 |
| 52 | Sequestration of Sulphide from Biogas by thermal-treated iron nanoparticles synthesized using tea polyphenols. <i>Environmental Technology (United Kingdom)</i> , 2020, 41, 741-750. | 2.2 | 1 |