Raw data description

Due to incomplete data from journal papers for a particular study, our research also incorporated data from master's and doctoral theses of the authors of the journal articles. We selected 13 papers from Web of Science and searched for related master's and doctoral theses through the CNKI (China National Knowledge Infrastructure) database.

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| **Data** | **Literature** | **Database** | **Description** |
| Data.1 | Ammonia emissions and biodegradation of organic carbon during sewage sludge composting with different extra carbon sources (Paper)  Effect of carbon regulation on nitrogen losses and its mechanism during sewage sludge composting (Chinese thesis) | Web of science and CNKI | Paper  (International Biodeterioration & Biodegradation)  Thesis  (Harbin Institute of Technology) |
| Data.2 | A novel method for sewage sludge composting using bamboo charcoal as a separating material (Paper) | Web of science | Paper  (Environmental Science and Pollution Research) |
| Data.3 | Buffering phosphate mitigates ammonia emission in sewage sludge composting: Enhanced organics removal coupled with microbial ammonium assimilation (Paper)  Enhancement of sewage sludge composting by phosphate buffer solution-Mg2+ amendments and its mechanism research (Chinese thesis) | Web of science and CNKI | Paper  (Journal of Cleaner Production)  Thesis  (Shanghai Jiao Tong University) |
| Data.4 | Comparative evaluation of the use of acidic additives on sewage sludge composting quality improvement, nitrogen conservation, and greenhouse gas reduction | Web of science | Paper  (Bioresource Technology) |
| Data.5 | Effect of enriched thermotolerant nitrifying bacteria inoculation on reducing nitrogen loss during sewage sludge composting (Paper) | Web of science | Paper  (Bioresource Technology) |
| Data.6 | Impacts of adding thermotolerant nitrifying bacteria on nitrogenous gas emissions and bacterial community structure during sewage sludge composting (Paper) | Web of science | Paper  (Bioresource Technology) |
| Data.7 | Effects of chemical additives on emissions of ammonia and greenhouse gas during sewage sludge composting (Paper) | Web of science | Paper  (Process Safety and Environmental Protection) |
| Data.8 | Evaluation of total greenhouse gas emissions during sewage sludge composting by the different dicyandiamide added forms: Mixing, surface broadcasting, and their combination (Paper) | Web of science | Paper  (Waste Management) |
| Data.9 | Effects of urease inhibitors on enzymatic activities and fungal communities during the biosolids composting (Paper) | Web of science | Paper  (RSC Advances) |
| Data.10 | Effects of agricultural nitrogen fertilizer synergists on nitrogen transformation and microbial community during the sewage sludge composting | CNKI | Thesis  (Henan Normal University) |
| Data.11 | Effects of phosphogypsum, superphosphate, and dicyandiamide on gaseous emission and compost quality during sewage sludge composting (Paper) | Web of science | Paper  (Bioresource Technology) |
| Data.12 | Sulfur-aided composting facilitates ammonia release mitigation, endocrine disrupting chemicals degradation and biosolids stabilization (Paper) | Web of science | Paper  (Bioresource Technology) |
| Data.13 | Removal of artificial sweeteners in wastewater treatment plants and their degradation during sewage sludge composting with micro- and nano-sized kaolin | Web of science | Paper  (Bioresource Technology) |