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Municipal solid waste disposal and the environmental impact reduction

Abstract:

Municipal solid waste is the main byproducts for the city, and the current treatment process of MSW in China and the main problems were summarized. The odor components and measurement methods were identified from waste stream and the potential control method were proposed, especially for the odor emissions from the food waste, which are the main sources for odor emissions from MSW. The associated GHGs of $CH_4$ from MSW were estimated, and the GHGs emission inventories from Waste sector in China were clarified. The main contributors of $CH_4$ and the potential reduction processes were compared, and the $CH_4$ emissions pattern in 2030 were also proposed from landfills. On the other hands, how to use the materials from the old landfills were identified based on the landfill stabilization process results. In sum, waste sectors bring negative impact for the surrounding environment, and the potential reduction methods should be developed according to their components, emission patterns and the technology levels.