**Mechanisms of Diatomite on facilitating pig manure composting: from the perspective of adsorption characteristics and bacterial community succession（Times New Roman, 小四/12 Pounds，加粗/Bold）**

Xiaoxiao Ren（Times New Roman, 小四/12 Pounds）

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（*Times New Roman, 小四/12 Pounds，斜体/Italic*）

Composting is widely accepted as a practical-economic way to deal with organic waste, while some disadvantages including nitrogen loss, low humification, greenhouse gas emission and high bioavailability of heavy metals, restricted the development of composting technology. Recently, the application of mineral additive into composting had caused more attention due to its wide distribution, cheap price, huge specific surface area and adsorb capacity. Diatomite, as a novel additive, had been used to reduce nitrogen loss and improve humification, while our knowledge about the mechanism of DM during pig manure composting was not clear. In order to explore the mechanisms of DM during composting, characterizations detection, batch adsorption experiments and a lab-scale composting experiment were carried out. (200~300 words) （Times New Roman, 小四/12 Pounds, 双倍行距/Double space）

**Keywords:** Composting; Diatomite; Characterization; Adsorption capacity; Bacterial community. (5~6 words)

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