

**Title: IDENTIFICATION OF FILAMENTOUS FUNGI PRESENT IN A BIOREACTOR OF MUNICIPAL SOLID WASTE**

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**Abstract:**

Fungi are the main microorganisms responsible for the decomposition of organic matter present in the solid waste. In this context it is necessary the study the action of the fungi in the middle of the mass of waste and the identification of these microorganisms in terms of gender and the species can generate important information in regards to upgrade degradative systems in MSW landfills. And one of the ways for study these microorganisms, though without encountering a great interference in the biological process, it's from bioreactors. The general aim of this study was to identify the filamentous fungi present in a bioreactor of municipal solid waste in the city of Campina Grande / PB. For this, the fungi had to be isolated and preserved for later proceed the identification. The preservation method chosen for this research was the Castellani. The identification process happened between April and August 2014. The microscopic identification was made according to identification keys of common species. From the results obtained, it was observed that the conservation of fungi in glass tubes with distilled water was considered easy handling, storage and transportation, represents an effective technique for filamentous fungi, and applicable to a wide variety of fungal genera. The practice of isolation and preservation of filamentous fungi found in MSW is important, since these fungi in the future can be used to accelerate biodegradation processes. During the identification process, the *Aspergillus* genus was what if proved predominant. This was expected since these fungi are commonly found in soils and the bioreactor studied presents a compacted soil cover layer, thereby fostering the emergence of these fungi in the mass of waste. Identify fungi can generate important information concerning to improve degradative systems in MSW landfills.

**Keywords:** Bioreactor. Fungi. Identification. Preservation. Municipal Solid Waste.

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