

**BIOAEROSOL FORMATION
NEAR WASTEWATER TREATMENT FACILITIES**

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ABSTRACT

Bacteria, fungi and viruses are often encountered in aerosols and they can be pathogenic or cause allergies following inhalation. Wastewater treatment facilities have been found to generate bioaerosols, which are transported by the prevailing winds downstream to areas that can be several hundred meters away. Bioaerosol formation has a significant effect on air quality in the vicinity of the treatment plants. In this work we investigated bioaerosol formation at the wastewater treatment facility of Heraklion Industrial Park and at the Heraklion Municipal Wastewater Treatment Plant (Crete, Greece). Concentrations of airborne bacteria and fungi were measured downwind and upwind of the aeration tanks. Samples were taken using Merck's MASS-100 bioaerosol collector.