Abstract

A wearable device takes potentially contaminated air from the environment, sterilizes it with UVC light, and transports the sterilized air to a headgear. In the headgear it provides an air curtain at a slight overpressure, flowing from the top down. Used air exits the headgear at its bottom. The headgear includes a helmet or a full-face mask. An inline system connects to the headgear using an air hose. The inline system has two or more connecting pipes on the inside of which are UVC light sources. Air flows from an air inlet filter through the connecting pipes, where it is disinfected by the UVC light, to the air hose and headgear. Mounting brackets mount the connecting pipes, and may include fans, and brackets for the UVC light sources.

FIG. 3