INTEGRATED VECTOR CONTROL STATION

ABSTRACT

An integrated vector control system for detecting pathogens carried by insects of a target insect species includes a memory for storing predetermined physical parameters of the target insect species, a luring control system for attracting an insect of the target insect species, one or more sensors for determining the physical parameters of the insect, a processor connected to the memory and sensors for generating an identification signal when the predetermined physical parameters match the physical parameters of the insect, and a fan connected to the processor that switches on based on the identification signal for pulling the insect into a compartment. The compartment includes a zapper circuit for killing the insect, a light source for emitting light, and an oxidizing catalyst for catalyzing a photocatalytic process by which the killed insect is decomposed. A biosensor connected to the compartment and the processor facilitates identifying pathogens carried by the killed insect.

Figure for publication: No suitable figure for publication