

The invention relates to a process and an installation for air sampling from the atmosphere using a drone.

The installation for air sampling from the atmosphere comprises an air duct (12), an adjustable pneumatic pump (11), an air distribution device (10), equipped with a ventilation valve (9) and connection mechanisms (8), at least one container (2), equipped with inlet (7) and outlet (1) valves, inside which are placed a fibrous filter (6) and a filter (3) made in the form of a frame (3) of a porous composite material, wherein are placed carbon nanoclusters  $C_n$  (4), and a programmed control unit (13), connected to a drone (14).

The process for air sampling from the atmosphere consists in forced filtration of atmospheric air through a container of the installation for air sampling from the atmosphere, comprising a fibrous filter and a filter in the form of a frame of a porous composite material, wherein are placed carbon nanoclusters  $C_n$ , at the same time the container is preliminarily subjected to vacuum heat treatment and kept vacuumed until the air sample is taken, which is carried out by increasing the pressure at the entrance into the container, opening of the container valves for a period of time and successive closing of the outlet and inlet valves, with the possibility of dismantling the container for desorption of the air sample components delayed by filters, and transportation of the installation to the sampling site, registration of coordinates and management of the sampling process is carried out using a programmed control unit, connected to a drone.

Claims: 2

Fig.: 3

