

Abstract

Cage Rack System and Method for sampling airborne particles from a cage rack system

The present invention is related to a cage rack system (1) for animals, particularly for laboratory animals. This system can accommodate or comprises a plurality of cages (4) ventilated individually or in groups. At least the majority of the cages (4) comprise at least one air-inlet (41) and at least one air-outlet (42). The cages (4) can be selected according to the race, size, the number and/or conditions of the animals. The invention further comprises an air guidance system (2) for delivering air to the air-inlet (41) and/or collecting air from the air-outlet (42) with integral or separated conduits (21-24). Further, there is provided at least one sampling unit (3) for collecting airborne particles from the air, the sampling unit (3) being adapted to collect the airborne particles by a cyclonic flow path to cause a separation of the particles from the air. The sampling unit (3) can have one or more components and can be arranged for analysing, evaluating, controlling and/or monitoring the incoming air and/or the outgoing air. The incoming air can be checked in order to have a basis for comparing the respective results with the results from one or more components of the air guidance system analysing, evaluating, controlling and/or checking the outgoing air. Alternatively or additionally to the cyclone the sampling unit (3) can be provided so as to be replacably insertable in one or more of the conduits (21-24).

Figure 1