WirexpR





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Characterize the performance of air treatment devices under experimental conditions that mimic different real-life environments



20 m³









Classroom



Office

- Generation of atmospheres highly contaminated with infectious viruses and complex microbiological mixtures (viruses, bacteria, molds)
- Air-flow characterization by computational fluid dynamics (CFD)
- Evaluation of the performance of air treatment devices in different environmental conditions to determine their deployment and operating mode in situ

WirexpR

VirexpR is a consulting laboratory with more than 10 years of academic research experience in the field of virology for indoor air quality (IAQ). Associated with the TERA group, this independent laboratory has know-how, technologies and BSL-2 and BSL-3 facilities dedicated to the handling, production and quantification of a wide range of viruses (influenza, pneumovirus, SARS-CoV-2...) and other respiratory pathogens (bacteria, molds). This advanced technology services company, particularly for industrial companies in the field of IAQ, has developed experimental protocols and test benches that have enabled it to conduct the first studies in Europe in early 2021 to evaluate mobile air cleaners for their ability to eliminate SARS-CoV-2 viruses in ambient air.

Its complex and large-volume test benches, in which atmospheres highly contaminated by infectious viruses or complex microbiological mixtures (viruses, bacteria, molds and biological fluids) are generated, integrate aeraulic simulation tools (computational fluid dynamics, CFD) and allow the evaluation of air treatment and respiratory protection devices under real use conditions. VirexpR aims at proposing future international standards that will eventually allow to recommend the deployment and operation modes of devices in confined spaces, such as classrooms, offices and clean rooms.

The company's ambition is to become an international reference in "the management of environmental pollution, particularly microbiological and virological, and IAQ in confined spaces", where the health, economic and societal stakes are high. In line with the #France2030 Health Plan, VirexpR is part of a national sovereignty approach in terms of protection against emerging infectious diseases and, more generally, in an approach to defend competitiveness and enhance the know-how of French and European industry.

