

Pressemitteilung

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Tested for the first time under real conditions: UV-C (UVGI) light reduces airborne viruses up to 99% in classrooms

- UV-C (UVGI) light highly effective against corona viruses
- Fraunhofer Institute for Building Physics (IBP) tests air purification of a classroom under realistic conditions
- Virus load drops massively, even if person directly emits viruses
- UV-C (UVGI) also destroys virus mutations

Heraeus Noblelight, a world-leading German company for photonics-based solutions, together with Fraunhofer IBP, demonstrated for the first time under real conditions that UV-C (UVGI) disinfection significantly reduces the airborne virus load in a classroom.

At its Bavarian site in Valley, Fraunhofer IBP recreated a typical German classroom. Heatable mannequins simulated students, one of whom constantly exhaled viruses (Phi6 bacteriophages as corona surrogate virus). In the room, the Heraeus Soluva® equipment circulated the air and purified it with UV-C (UVGI) light. Measurements showed a virus count reduction of up to 99%.

"We have achieved a fantastic result with Fraunhofer IBP," says Martin Ackermann, Managing Director of Heraeus Noblelight. "We have a safe and reliable technological solution that, in addition to the hygiene, social distancing, and mask wearing measures, helps to significantly reduce virus exposure in schools, retail stores, restaurants or even museums and theaters. We therefore urge governments to give greater consideration to the use of UV disinfection technology in their reopening decision-making scenarios."

UV-C light directly destroys the RNA structure of viruses and other microorganisms, rendering them harmless. Even SARS-CoV-2 viruses are destroyed by 99.999% - as proven by many

international studies. This also includes the recently emerged COVID-19 virus mutations.

UV-C light has been used for decades to purify drinking water. "We further developed our devices with many new innovations. With our air disinfection units and the Fraunhofer IBP test, we now meet all the requirements of the Indoor Air Hygiene Commission (IRK) at the German Federal Environment Agency for use in classrooms", noted Mr. Ackermann.

Heraeus Noblelight UV disinfection devices are already in use today in many applications such as doctors' surgeries, kindergartens, ventilation systems and buses. The city of Hanau was the first city in Germany to retrofit some of its bus fleet with UV-C air purifiers. Within a few minutes, the devices disinfect the air with a virus reduction of 99.99%. The retrofit installation time is only two and three hours per bus.

Heraeus Noblelight offers UV-C (UVGI) air purifiers for many applications. The company has devices for rooms of different sizes and multiple devices can be installed into one space. Heraeus experts also offer retrofit solutions for ventilation systems or vehicles.

Heraeus UV-C air and surfaces disinfection devices provide maximum safety to room occupants - no UV-C light can escape. Several studies also verify that Heraeus' UV-C lamps do not increase natural ozone levels.

