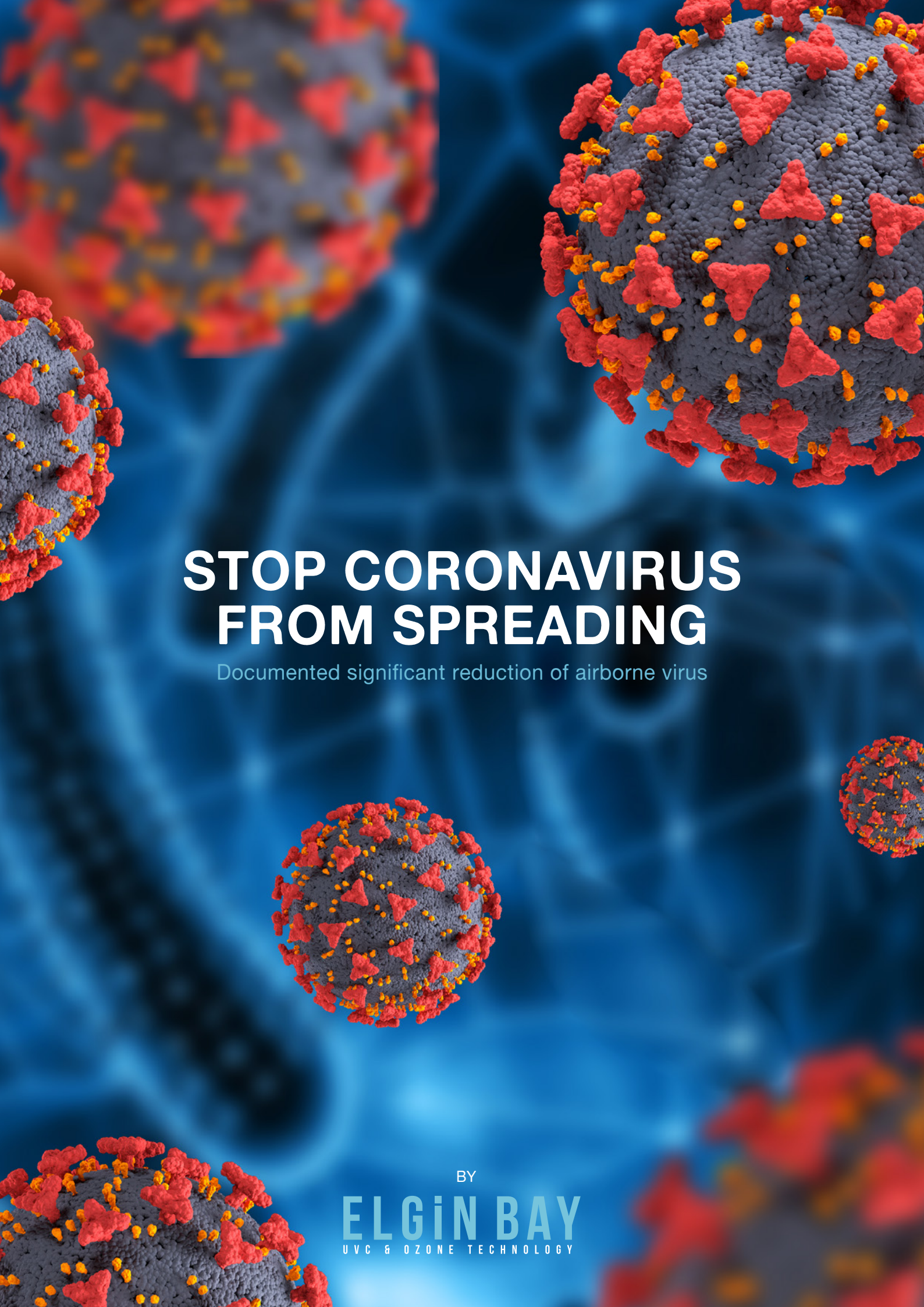


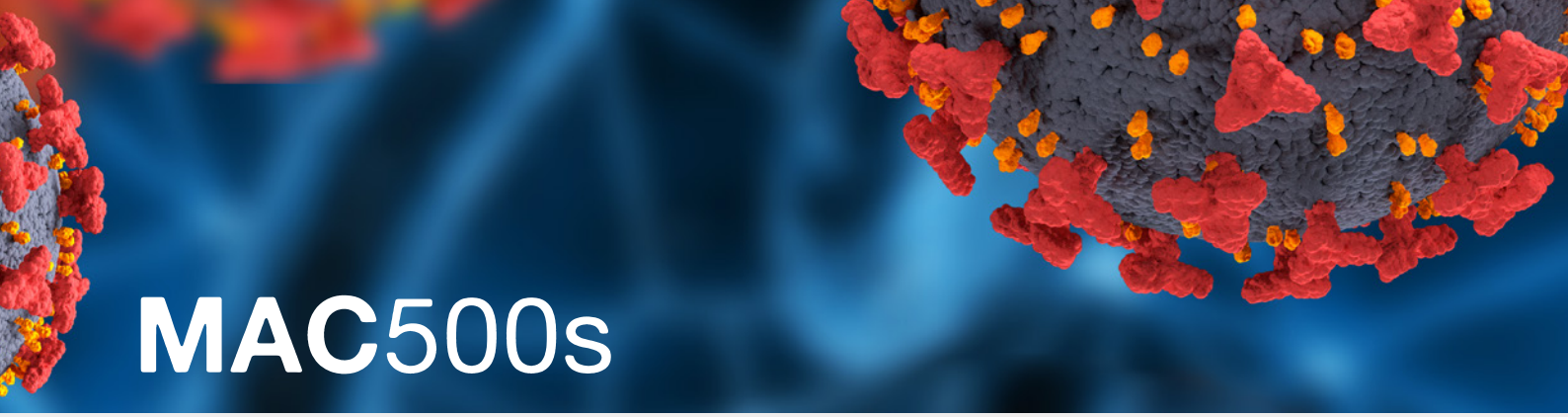
STOP CORONAVIRUS FROM SPREADING

Documented significant reduction of airborne virus

BY

ELGiN BAY

UVC & OZONE TECHNOLOGY



MAC500s

Reduces virus in the air significantly

Authorities shut down factories to avoid that people gather in big crowds and people are afraid of traveling with airplanes and cruise liners. The Coronavirus is paralyzing many businesses and especially the travel industry.

JIMCO A/S is specialized in some of the worlds most unique and environmentally friendly air purification technologies and has a broad portfolio to combat the spreading of the coronavirus or any virus for that matter. The JIMCO technology is based on UV-C and ozone, which is a natural way to reduce and elimi-nate unwanted viruses and bacteria.

The MAC500s air purifier works partly by burning harmful particles such as viruses with the help of UV-C rays, and partly by letting out a small amount of ozone, which can destroy bacteria and viruses.

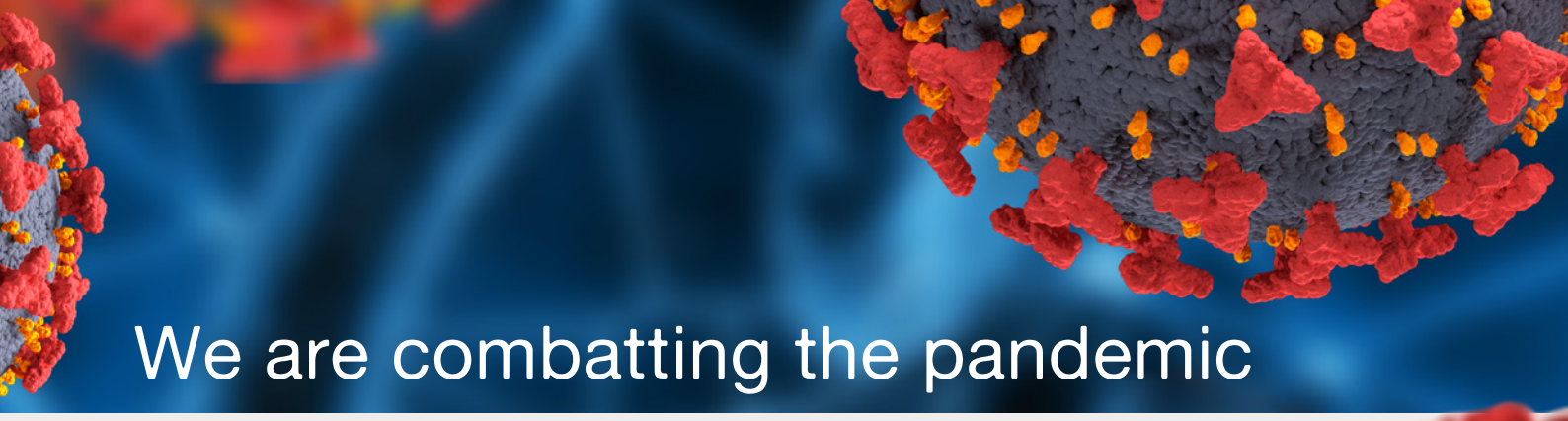
The amount of ozone is equal to the amount occur-ring in nature, and the method can be compared to the process taking place in a swimming pool when chlorine is added to reduce bacteria in the water. But the MAC500s is environmentally friendly and does not use chemicals.

Several studies have shown that SARS-CoV2 (the virus that causes the disease COVID-19) can infect us through the air and Governments are starting to wake up and realize that the battleground has changed.

The environmentally friendly MAC500s reduces viruses in the air quickly and significantly.

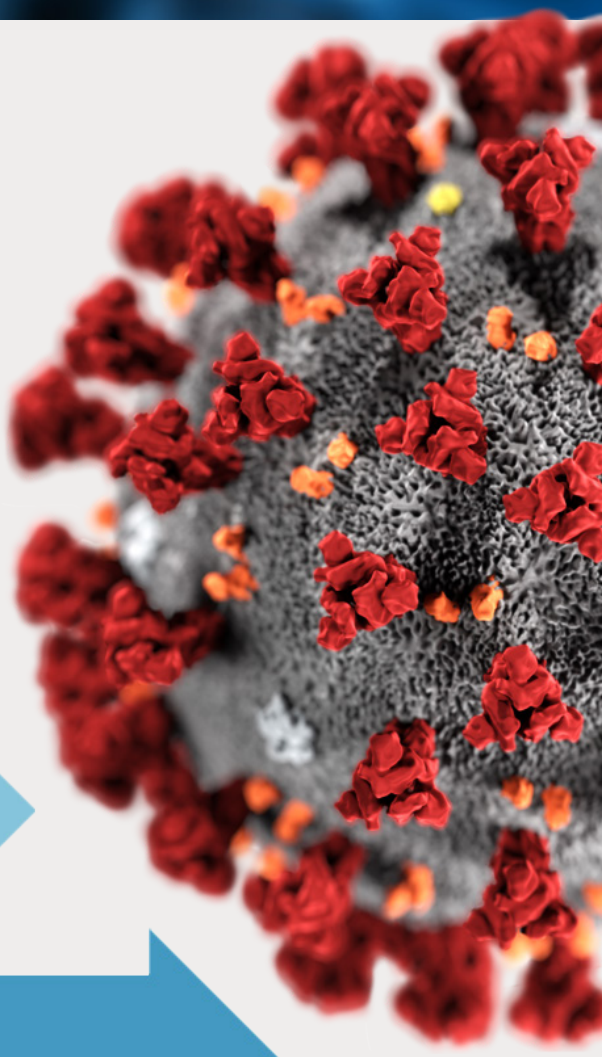
- **Effective reduction on SARS-CoV2** in an aerosol state (microdroplets in the air)
- **Reduction of 90% in 1 hour** and 99% after 2 hours* (MS2 which is 7-10 times more resistant than coronavirus)
- **No use of any chemicals** or filters
- **Safe to use 24/7** in occupied spaces
- **Easy to use** and only needs a power socket to operate
- **Significantly improves** indoor air quality
- **Tested** in a well recognised Danish laboratory

*Christopher M. Walker & Gwangpyo Ko
Environ. Sci. Technol. 2007, 41, 5460-5465



We are combatting the pandemic

Reduction of virus in the air



1h 89%

2h 99%

3h 99.9%

MAC500s reduces the amount of bacteria, viral disease, mould and fungi within the room and does not produce any NOx.

MAC500s reduces indoor air pollution and eliminates the sources of headaches, respiratory problems, fatigue, COPD and asthma.

MAC500s is designed for use 24/7 and to effectively decrease the spreading of any disease in rooms and areas where people are present.

MAC500s reduces airborne virus effectively

Airborne transmission of SARS-CoV-2 can occur under special circumstances."
CDC

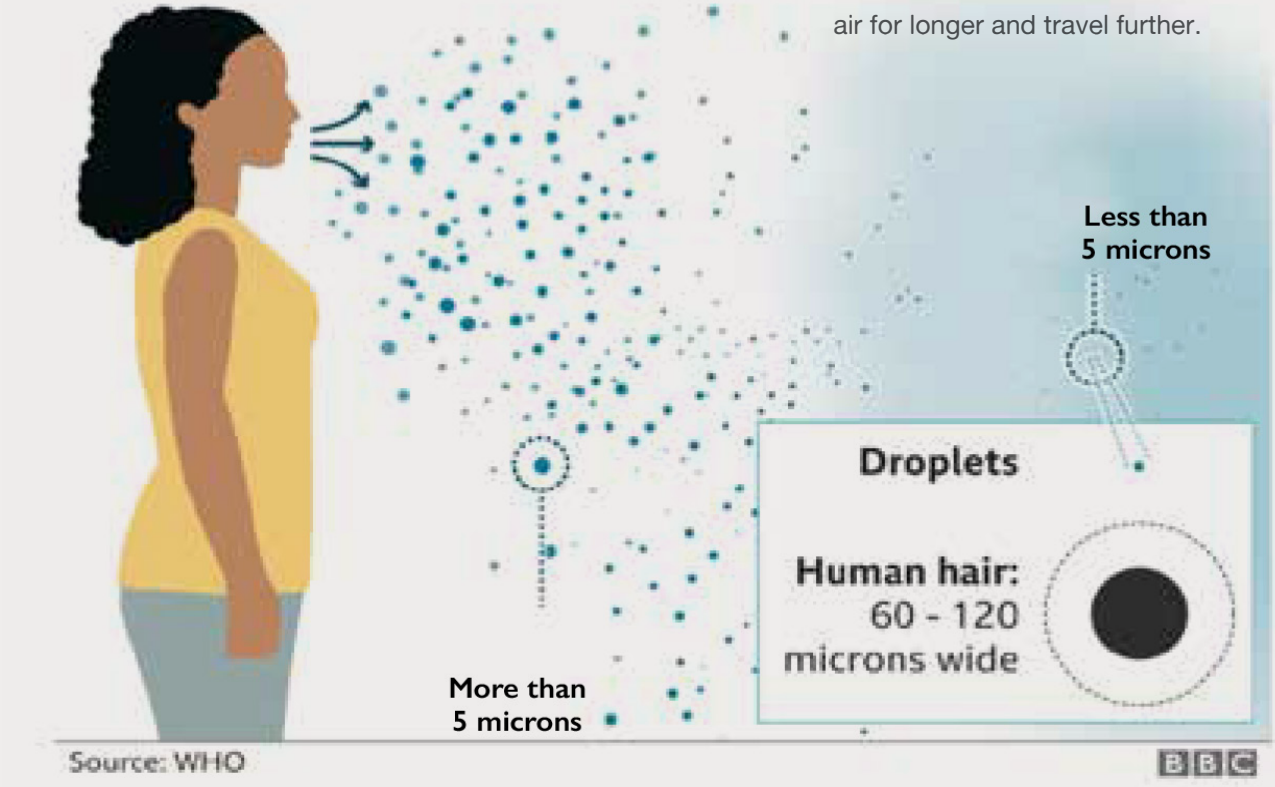
The balance of attention must be shifted to protecting against airborne transmission."

There is overwhelming evidence that inhalation of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) represents a major transmission route for coronavirus disease 2019 (COVID-19)."
American Association for the Advancement of Science

The difference between droplet and airborne transmission

Droplet transmission
Coughs and sneezes can spread droplets of saliva and mucus.

Airborne transmission
Tiny particles, possibly produced by talking, are suspended in the air for longer and travel further.



Viruses in aerosols (smaller than 100 μm) can remain suspended in air for many seconds to hours, like smoke, and be inhaled. They are highly concentrated near an infected person, so they can infect people most easily in close proximity.

But aerosols containing infectious virus can also travel more than 2m and accumulate in poorly ventilated indoor air, leading to superspreading events."
Science, 16 October 2020

Documented effect on reduction of virus in the air

How long the coronavirus can live in the air and on surfaces

Documented Effect

A study from a well recognized laboratory in Denmark states that the Danish-developed air purifier MAC500s effectively reduces viruses from the air. In a 20 m3 room where the air puri-fier is in use, the virus is reduced by 89 percent already during the first hour.

The study documents that the air purifier MAC500s reduces viruses in the air by 89% in one hour. After two hours, the virus is reduced by 99 percent, and after three hours, t he reduction is 99.9%.

The test was performed on a bacterium infected with the MS2 virus. Coronavirus is 7-10 times more susceptible to UV light than MS2 bacteriophages. This means that the virus on which the test was performed on is more difficult or as difficult to degrade as SARS-CoV2 (the virus that causes COVID-19).*

The effect has been compared to pathogens that are 3x and 5x more susceptible than the virus MS2. The reduction will then very quickly reach 100% as shown in table 3 and figure 4. on page 9 in the full report.

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Declaration of test and assessment

5th of October 2020

Danish Technological Institute has performed tests of the efficiency for inactivation virus of the Jimco MAC500 air purifier.

The test was conducted with the unit installed in a 20 m³ sealed room. The efficiency of the air purifier was tested using MS2 bacteriophages (ATCC 15597-B1) on host *Escherichia coli* (ATCC 15597) as a virus surrogate. The rate of inactivation of the aerosolized MS2 was determined as the difference between the natural inactivation rate and the inactivation rate measured during the use of the Jimco MAC500 air purifier. These inactivation rates were determined by sampling of the air in the chamber over a 2-hour period. The significant and consistent difference between the Natural decay test and the Product test clearly shows a reduction of the concentration of airborne and active MS2 caused by the air purifier.

Based on the measured inactivation efficiency of the MAC500, the reductions in % and in log-reductions are calculated and are found in the table below:

Product attribution	1 hour	2 hours	3 hours
Reduction, %	89% ± 8%	99% ± 2.3%	99.9 ± 0.5%
Log-reduction (base 10)	0.97 ± 0.24	1.93 ± 0.47	2.9 ± 0.71

The full testing procedures and results are presented in report no. 933322.

According to Kowalski* and Walker† the UV-susceptibility for bacteriophage MS2 is lower than the UV-susceptibility for the enveloped virus, vaccinia virus. Hence, the indicated efficacy of the tested MAC500 UV-C device to degrade the bacteriophage MS2 will be at least similar to the efficacy against enveloped vaccinia virus. Efficacy against vaccinia virus allows for a claim for efficacy against all enveloped viruses (e.g. MERS-CoV, SARS-CoV-1 and SARS-CoV-2) according to DS/EN 14885:2018.

* Kowalski W. Ultraviolet Germicidal Irradiation Handbook. Springer 2009
† Walker and Ko, ENVIRONMENTAL SCIENCE & TECHNOLOGY / VOL. 41, NO. 15, 2007

Best regards,

Casper Laur Byg, PhD
Bioengineering and Environmental Technology
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***Christopher M. Walker & Gwangpyo Ko**
University of Texas Health Science Center at Houston, Houston, TX, and Department of Environmental Health, Institute of Health and Environment, Seoul National University, Seoul, Korea. **Environ. Sci. Technol. 2007, 41, 5460-5465**

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Bioengineering and Environmental Technology
Danish Technological Institute

The COVID-19 battleground has changed

The war of COVID-19 has moved from surface to air

JIMCO
UV-C & OZONE
Technology

Clean Environment Using Forces of Nature

JIMCO A/S recommends placing a MAC500s in all rooms and areas where people are present and especially where the risk of disease spreading is high

Technical Data

UV lamp: 1x8w
Voltage: 230V

Power consump: 25w room area 60m^3
Operating lamp: 8000 hours
Size: 310mm x 90mm x 90mm

The MAC500s must be placed as high as possible in the room and can cover an area of 60m^3.

The MAC500s has been documented to reduce airborne virus. But the MAC500 should not be the only measure in the fight against the pandemic. It is important to still follow all guidelines from authorities.

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