United Nations
Educational, Scientific and
Cultural Organization

UNESCO Chair on Sustainability

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**Jordi Morató i Farreras, as a Coordinator of the UNESCO Chair on Sustainability and Director of the MSMLab** at the Polytechnical University of Catalonia, with DNI num. 39340188E;

**CERTIFIES,**

That in the tested and environmental conditions developed during our study:

1) **The CATA DREAM devices demonstrated very high aerosol disinfection efficiency such as:**

   - 99% reduction of *E. coli* from aerosols after 5 minutes at full power, and 99% of *S. aureus* after 10-15 minutes.

   - 90% elimination of *Geobacillus* spores after 15 minutes and 99% after 50 minutes (the bacterial spores are the most resistant cells known).

   - These outstanding results on Geobacillus inactivation on aerosols were achieved in the LAB without the HEPA filter in the DREAM III.

2) **The DREAM devices have demonstrated better disinfection at the maximum power, even without the HEPA filter, comparing with other leader brand air purifier**. At full power the DREAM device achieves 99% removal in 5 minutes, unlike the competition which takes 10 minutes.

3) **The DREAM devices have also demonstrated very high surface disinfection efficiency.**

   - The DREAM device has a high capacity to reduce *E. coli* on surfaces under laboratory conditions, eliminating 100% after 30 minutes.

4) It is demonstrated that the action of **the DREAM plasma system together with the ozone released into the air, are capable of carrying out air and surface disinfection under extremely high microbiological air pollution conditions.**

5) In summary, the **CATA system demonstrated a superior disinfection activity against all bacterial models tested.**

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**6)** Considering the higher general resistance of the bacterial strains tested comparing with enveloped virus such as *Coronavirus*, **the inactivation of these bacterial surrogates selected in this work, can support the consideration of appropriate disinfection workflow for SARS-COV different strains**.

In recognition whereof, I sign the present certificate,

Prof. Jordi Morató i Farreras

Coordinador
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