BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Mitsubishi's air purification technology potentially inactivates SARS-CoV-2

10 February 2021 | News

MHI Thermal Systems claims that it's proprietary technology can inactivate viruses through enzyme-urea formulation and irradiation of UV-C LED against microbes

Mitsubishi Heavy Industries Thermal Systems Ltd. (MHI Thermal Systems), a part of Mitsubishi Heavy Industries, Ltd. (MHI) Group in Japan, has confirmed its latest technology has the ability to remove and inactivate the novel coronavirus (SARS-CoV-2) by enzyme-urea formulation processing technology or irradiation by UV-C LED (ultraviolet-C light-emitting diode). Holding the potential to remove and inactivate airborne viruses with a unique air filer trapping innovation.

MHI Thermal Systems enzyme-urea formulation has properties that fight bacteria, viruses and allergens, with validated efficacy against viruses such as influenza and polio. Results confirm that almost all cells completely inactivate with the virus inactivation agent (urea and enzyme) contained in the MHI dust-collecting air filter. The UV-C LED has proven effective against microbial contamination. The tests further indicate that viral particles reduce almost entirely with an average inactivation rate of 60-minutes. Removing and inactivating the airborne virus from its room air-conditioning systems can help curb indoor contaminations.

Tests also confirm efficacy in removing and inactivating traces of the coronavirus through commissioned research from the Satoshi Omura Memorial Institute of Kitasato University, led by Professor Kazauhiko Katayama. MHI Thermal Systems will continue the commissioned research to validate the effectiveness of its latest developments further, before launching to its worldwide markets.