‘Catch and kill’: Scientists reveal air filter ALMOST 100% effective against coronavirus

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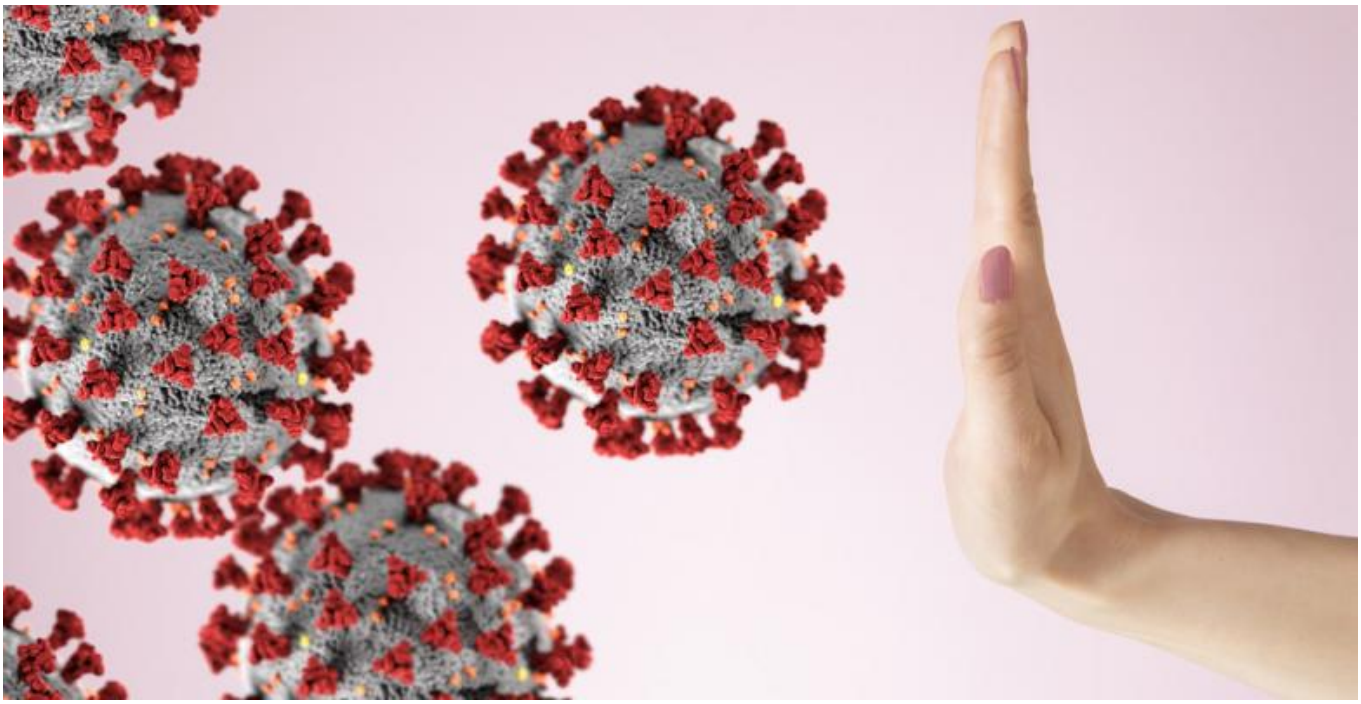

Scientists have designed an air filter that can both catch and kill the coronavirus by trapping and neutralizing it instantly. The new invention could be used to reduce the spread of the virus in enclosed spaces.

The study, which appeared in Materials Today Physics on Tuesday, states that 99.8 percent of Covid-19 is killed within a single pass through the filter.

The device was also found to kill 99.9 percent of the spores of the deadly bacterium Bacillus anthracis, which causes the anthrax disease.

What makes the device remarkable is that it is made by commercially available nickel foam heated to 200 degrees Centigrade.

“This filter could be useful in airports and in airplanes, in office buildings, schools and cruise ships to stop the spread of Covid-19, its ability to help control the spread of the virus could be very useful for society,” said Zhifeng Ren, director of the Texas Center for Superconductivity at the University of Houston, who collaborated with Monzer Hourani, CEO of Medistar (a Texan real estate firm) to create the device.

The filter is also thought to be scalable, with Medistar executives proposing a desk-top model that can purify the air in an office worker’s immediate surroundings.

In the hot southern state of Texas, the fact that the virus can survive for three hours and spread via air conditioning units is a problem.

This being the case, the creation of a filter that could neutralize the threat quickly was a viable plan.

Armed with the knowledge that the virus could not survive above 70 degrees Centigrade (about 158 degrees Fahrenheit), the researchers decided to incorporate heat into the solution.

Because the filter is electronically heated a minimal amount of energy is used up, making the device more efficient and viable.