

Studies confirm Daikin's patented streamer technology inactivates more than 99.9% of the coronavirus

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A bold statement indeed, but one backed by science. Daikin can now confidently confirm the effectiveness of their patented streamer technology, which successfully inactivates more than 99.9% of the novel coronavirus after irradiating the virus for three hours.

Daikin's Streamer technology, developed (by Daikin) in 2004, performs an oxidative decomposition of harmful substances. The Streamer discharge is a type of plasma discharge featuring an innovative air purification technology that stably generates high-speed electrons. Its oxidative decomposition capability is much higher than the conventional plasma discharge (glow discharge). Moreover, when combined with air components, these high-speed electrons have a capability for powerful oxidative decomposition that continuously remove odours, bacteria and indoor air pollutants such as formaldehyde.

"Ventilation & air purification technologies have proven to play an important role in limiting the spread of Covid-19. Public confined spaces have shown to be the biggest risk for the spread of the virus! Improving indoor air quality has always been part of Daikin's focus. We do not only want to provide a comfortable indoor temperature, we also aim to provide healthy air! This has been a focus for many years. An example of this is our streamer technology which was developed in 2004. Over the years we have been continuously working on proving the effectiveness of this technology against various viruses and bacteria. Today we are proud to announce that our Daikin Streamer Technology inactivates more than 99.9% of the coronavirus (SARS-CoV-2) after irradiating the virus for 3 hours with streamer discharge. We expect that this technology will support us in future in providing solutions that will play an important role in reducing the spread of this and similar viruses in general."

– Koen Van Wynendaele (Daikin South Africa Managing Director)

The study has been conducted by Daikin Industries Ltd in cooperation with Professor Shigeru Kyuwa from the Department of Biomedical Science of the University of Tokyo, and a group of research led by Professor Shigeru Morikawa from the Department of Microbiology of the Okayama University of Science.

The tests described herein only concern the patented Streamer Technology. The effects of products equipped with Streamer Technology or the effects in actual use environments may differ. For more information on the Daikin products incorporating the Streamer Technology, please refer to the relevant product information.

The research team conducted an experiment where the viruses were irradiated for a duration of 3 hours with Daikin Flash Streamer technology.

The results of this experiment showed that:

- Flash Streamer discharge inactivated 93,65% of coronavirus (SAR-CoV-2) after an irradiation time of 1 hour
- Flash Streamer discharge inactivated 99,97% of coronavirus (SAR-CoV-2) after an irradiation time of 3 hours

Source: "Study report on the inactivation effect of plasma ion generator (Daikin Streamer) on SARS-CoV-2" redacted by Shigeru Morikawa, Department of Veterinary Medicine, Microbiology Course, Okayama University of Science.

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