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**Gamma Pulse at CES in Las Vegas:**

**Air in pure state**

**Paris, December 20, 2022**

The French start-up presents **KillVidTM, the most powerful air decontamination technology** at the Consumer Electronics Show from January 5 to 8, 2023.

Air quality in confined spaces, a major public health issue revealed by the pandemic... As confinements progressed, the DeepTech installed within the École Polytechnique incubator in Palaiseau, France, with the ambition to become a world leader in the safety and protection of people is developing an innovative disruptive technology for the decontamination of air in enclosed spaces. And conceives a prototype capable of decontaminating the air which destroys all airborne pathogens including viruses and bacteria contained in the air, regardless of their size, using pulsed power plasma technology.

**La start-up française présente KillVidTM, la plus puissante technologie de décontamination de l’air au Consumer Electronique Show du 5 au 8 janvier 2023.**

**The pulsed plasma**

Put simply, pulsed plasma technology consists of miniaturizing the effect of a lightning bolt 1,000 times per second. “These are atmospheric plasma microreactors that operate simultaneously at very high voltage,” explains PhD Carmen Dumitrescu, president and founder of Gamma Pulse. "Simply put, the KillViDTM technology consists of sending discharges of several thousand volts at 1kHz into the thousands of micro reactors of the machine, which causes the air that passes through it to be transformed into plasma for a few nanoseconds and be subjected to an electroporation effect. This process removes all biological and VOC threats from the air. It being specified that, thanks to the pulsed power, the machine has a low power consumption.”

In practice, all biological materials that pass through the machine are disintegrated on the first pass (viruses and bacteria, VOCs, etc.).

Harmless to humans and the environment, the technology does not rely on UVC radiation nor chemical solvents. And it is extremely effective. The two test phases, conducted and validated jointly by the Engineering and Health Center of the École des Mines de Saint-Étienne, the EVS-Isthme laboratory (Environnement Ville Société), Jean Monnet University and the CNRS first of all in a 12m3 contamination chamber (PMA, Advanced Medical Post) and then in real life, in a 46m3 apartment reconstituted in the laboratory, show that pulsed power plasma technology can destroy viruses and bacteria to an unequaled level.

*“The KillViDTM Air Purifier has an intrinsic effectiveness in destroying airborne viruses and bacteria of at least 99.9999%. And a real-life use efficiency of the order of 99%. For me, what really makes the difference is the pulsed plasma technology which makes it possible to treat large volumes of air with very high efficiency. » Doctor Jérémie Pourchez, Research Director of the Saint-Etienne School of Mines - SAINBIOSE Laboratory (Inserm - UJM - School of Mines).*

**Countless industrial applications**

Hospitals, Senior Homes, classrooms, theaters, restaurants, offices, transport... KillVid is intended to equip all confined spaces subject to numerous constraints. The company is also considering a device that could be integrated directly into air conditioners.

Gamma Pulse has entered the industrialization and marketing phase.

**About Gamma Pulse** : Founded by a multidisciplinary team of scientists within the École Polytechnique incubator, Gamma Pulse develops a disruptive technology based on the use of pulsed power plasma originally to detect explosives and SNM (Special Nuclear Materials) concealed. Following the health crisis caused by Covid 19, it is developing KillViDTM, an innovative virucidal system capable of effectively decontaminating closed spaces shared by a large number of people. The process won over early shareholders, such as Sagemcom.

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