Our publications and about us

Below are the most referenced with time, to download use its pdf icon:

Alex Wekhof: "Treatment of Contaminated Water, Air and Soil with UV Flashlamps", *Environmental Progress* (Vol. 10, No. 4) Nov, 1991, pages 241-247.

It describes principles and the first data for this then fully new method both to oxidize hazardous compounds and to deactivate micro-organisms in each of 3 major media. Evaluation data were obtained with PG&E, Chevron and Chem. Waste Management Corporations plus came as news in 1989 by SF Chronicle after first successful trials.

Alexander Wekhof: "Disinfection with Flash Lamps", *PDF Journal of Pharmaceutical Science & Technology,* Vol. 54, No. 3, May /June 2000, pages 264-276.

Based on available published data on Intense Pulsed Light (PL) sterilization the Author was first to suggest that de-activating micro-organisms follows the suggested dependence between the specific power density of light in w/cm² reaching sterilized objects and optical/thermal properties of surrounding media. It was shown, that the major impact is provided by continuum and lines from UVC emitting Xenon pulsed plasma of a flash lamp.

Dr. Alex Wekhof, Dipl. Phys. Franz-Josef Trompeter, Dipl.-Ing. Oliver Franken: *„Pulsed UV Disintegration (PUVD): a new sterilization mechanism for packaging and broad medical-hospital applications",* The First International Conference on Ultraviolet technologies, June 14-16, 2001, Washington D. C. USA. Proceedings.

The experimental work at RWTH Aachen Lehrstuhl für Lasertechnik in the year 2000, using the PL system from wek-tec and the electron-microscope from RWTH have proved the validity of the Dr. Wekhof`s physical model of deactivating micro-organisms published a year earlier. This and previous works laid practical grounds and much of Worldwide following for the design and construction of intense Pulsed Light sterilization systems.

Pharmaceutical Business Review, UK, by PBR Staff Writer, 21 May 2013:

This very known web-publication brough as news the results of joint trails by Baxter Corp. (USA) and Steribeam Systems GmbH. It have shown for the first time the full (6 logs) deactivation of UV resistant spores of B. Pumilos in a saline solution packed in a PE bag. These spores are the ultimate test vehicle for the pharmaceutical and hospital applications. For trails a commercial pulsed UV system built by Dr. Wekhof was used. This opened a possibility to fully sterilize packed medications and filled vials.

Shedding New Light on UV Radiation and Pulsed Light Processing, J. Peter Clark, PhD, Contributing Editor to Non-Thermal Food engineering Operations, Springer, NY, Ortega-Rivas E. ,2012.

the Author describes advantages in sterilization capabilities of the broad (including UV) intense pulsed light vs. the UVC line radiation and gives as the example the Pulsed UV tunnel from Steribeam System GmbH (by Dr. Wekhof).

Kronenstr.3
D-78244 Gottmadingen

+49 (0)172 70844 37,
info@wek-tec.de
www.wek-tec.de