

Press Release

Phoseon Technology UV Products Aid in the Fight Against Pathogens

Solid state technology for virus inactivation and pathogen research

Hillsboro, Oregon (March 31, 2020) - Phoseon's KeyPro™ family of products uses high-intensity, deep ultraviolet light to disinfect and decontaminate laboratory equipment and surfaces. Independent testing has shown efficacy of KeyPro against viruses, bacteria, fungi, and biomolecules like ribonuclease. KeyPro successfully inactivates influenza A virus in less than 5 seconds (see figure 1). Novel Coronavirus and Influenza A are both enveloped RNA viruses and may be susceptible to UV inactivation under similar conditions.

For vaccine development, researchers routinely need to work with inactivated viruses that have structures preserved. Preliminary results indicate that some viruses can be completely or partially inactivated with UV LED technology while retaining recognition features and antibody function. Retaining recognition features is challenging with existing methods of virus inactivation.

Microorganism	Dose (mJ/cm ²)	Inactivation (log reduction)	Exposure Time
Influenza A	24	4.25	<5 sec
Clostridium difficile	1000	>5.79	30 sec
Aspergillus brasiliensis	36000	>4.95	180 sec
Staphylococcus aureus	52	5	<5 sec

Figure 1: Rapid Inactivation of Microorganisms using UV LED

Phoseon KeyPro™ KP100 decontamination system is a stand-alone system where samples can be exposed to a controlled intensity and dose of UVC radiation (278nm), providing validated, simple and fast decontamination of microplates and preparatory slides. KeyPro™ KeyPro allows researchers to decontaminate microplates, inactivate viruses, and disinfect labware surfaces from bacteria and viruses.



Figure 2: KeyPro KP100 Decontamination System

In addition to KeyPro KP100, Phoseon offers a wide range of KeyPro UVC Germicidal/Virus Inactivation lamps (278nm) for various applications such as virus inactivation, pathogen research and materials research and development. These lamps are available in various sizes for easy integration.

Safety info on UVC: Warning RISK GROUP 3 UV EMITTED FROM THIS PRODUCT Avoid eye and skin exposure to unshielded product.

About Phoseon Technology

Since 2002, Phoseon Technology pioneered the use of LED technology for Life Sciences and Industrial Curing. Through our relentless innovation, we deliver high performance, reliable and patented LED based solutions. Our strong focus on customer collaboration has resulted in world-wide market leadership position and presence. Phoseon is an ISO9001 certified company manufacturing award winning products that are covered by more than 300 patents worldwide. We uniquely focus 100% on LED technology therefore ensuring superior reliability, business economics, and environmental benefits.

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