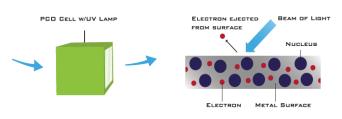


Active Radiant Catalysis - A.R.C.®

ABOUT THE TECHNOLOGY

A.R.C.® utilizes photo-catalytic oxidation technology that generates advanced oxidation products (AOP's), primarily consisting of hydro-peroxides, or vaporized hydrogen peroxide. Photo catalytic oxidation technology replicates natures purifying process through the use of ultraviolet energy to activate a multi-metal catalyst, converting water vapor into oxidizers including peroxide and hydroxyls. These oxidants will either inactivate the microbe by the process of cell lysing which compromises the cellular integrity by oxidation penetrating the cell wall, or by changing the molecular structure rendering the contaminate harmless.



THE ELECTRONS TRANSFERRED COMBINE WITH $Air(\Omega_2)$ and $Water(H_2\Omega)$ (supplied by the moisture from the PCO Cell's Hydrophilic coating) to form Positively and Negatively Charged Cluster Ions (Hydroxyl Radicals).



THE HYDROXYL RADICALS WORK TO RUPTURE THE SURFACE MEMBRANE LEADING TO MALFUNCTION AND EVENTUAL DEATH OF THE PATHOGEN CELL WITH ONLY CARBON DIOXIDE AND WATER VAPOR REMAINING.



