



## Proactive Air & Surface Purification Solutions



### Where is the new PURADIGM technology beneficial?

- Athletics including Locker Rooms, Equipment Rooms, Exercise Rooms, Sports Medicine, etc. (odor, mold, mildew & infection management)
- College Dorms-(odor and allergen reduction)
- Educational-Schools-Nursery Schools-Day Care Facilities-(reduce pathogens to improve air quality)
- Residential-Residential Homes-Apartments including bedrooms,(allergen reduction), basements and garages (mold, mildew and odor management)
- Healthcare-Hospitals-Clinics-Assisted Living-Veterinary Clinics-(infection reduction and improved air quality)
- Commercial-Offices-Office Buildings-Malls-Retails Stores- (air quality and infection control)
- Hospitality-Hotels-Resorts-Tourist Attractions- remove smoke and odors and improves air quality
- Entertainment-Casinos-Movie Theaters-(smoke and odor management)
- Food Safety- Production Facilities-Packaging-Food Transportation( reduce potential food borne illnesses)
- Food Services-Restaurants-Bars-Fast Food Stores-(reduce potential food borne illnesses)
- Supermarkets & Convenience Stores-(Reduction of mold and fungi in food, improved Air Quality and reduction of odors)
- Government Buildings-Police and Fire Stations-(improved air quality)
- Military-( mold, mildew, infection reduction and improved air quality)
- Grow Houses-(reduce mold, mildew, fungi to preserve crop yield)
- Beauty Care-Nail Salons-Hair Salons-Spas-(improved Air Quality with reduction in chemical and VOC issues)

### Is the technology safe?

Yes. It is completely safe for occupied environments. The ion clusters break down into Oxygen, water vapor and CO<sub>2</sub> which we exhale every minute. GC-MS testing (gas chromatography-mass spectrometry) performed at Kansas State University shows that the technology does not create undesirable or harmful chemicals. Tests results concluded that the technology is completely safe for occupied spaces and does not harm humans, animals or plants. The GC-MS test is regarded as the “gold standard” for forensic substance identification.

### How long has this technology been around?

The technology has been around for approximately 20 years. Initially NASA used this PCO technology for their space station hydroponic growing system and space shuttle missions. The technology was also used for keeping the air and surfaces clean in their Zero Gravity Laboratory. Patented improvements have been made by Puradigm in the last few years that have significantly increased the technologies effectiveness.

### Does this technology kill mold and mildew?

Yes. This technology is very effective at managing mold and mildew. It has been tested at leading Universities and field tested in live environments validating its effectiveness both in the air and on surfaces. As the advanced oxidation is produced and circulated in the room, it kills airborne and surface residing spores throughout the facility including in those hard to reach areas.



### **Do your products remove odors?**

Yes. The advanced oxidation is able to break down and eliminate odors.

### **Will this technology help reduce VOC'S (Volatile Organic Compounds)?**

Yes. The oxidation process is able to break down most VOC's and convert them into carbon dioxide and water.

### **What is PURADIGM?**

Puradigm's state of the art air and surface purification technology is proven to be the most effective solution to managing and eliminate harmful pathogens, bacteria viruses, mold, mildew and odors that are problematic in indoor spaces of all sizes. Puradigm technology has been rigorously tested and validated by the Food Science Institute at Kansas State University and real-world setting to ensure the technology is effective, safe and serviceable. The technology can be applied to Athletic, Educational, Healthcare, Hospitality, Assisted Living, Day Cares, Residential communities, Food Safety, Government and Indoor Growing.

### **What is the new technology of PURADIGM?**

PURADIGM has recently been awarded patents on their proactive air and surface purification technology as a result of the significant advancement in their PCO technology. PURADIGM PCO technology effectively emits millions of ions as compared to thousands of ions as older technologies do. This significant achievement has made the technology scalable so that only a small device is required to treat a set cubic footage area in your indoor environments at an economical price.

### **How is the new PURADIGM technology beneficial?**

PURADIM is beneficial in any indoor area that would benefit from odor reduction, improved Air Quality, mold and mildew elimination, management of pathogens and infection and cross-contamination reduction.

Eliminates dangerous microbes on surfaces

Management of odors, mold, mildew and other pathogens

Reduce cross-contamination amongst staff

Reduce employee illnesses and absenteeism

Reduce airborne particulates & VOC's

Automated 24/7 system that continually sanitizes

Cost effective

Puradigm air and surface purification systems will provide a "pro-active" management system of pathogens and works as a solution to management of environmental issues.

### **What are the Benefits of PURADIGM?**

1. Reduced airborne particulates and dangerous microbes on surfaces
2. Manages odors, mold, mildew and other pathogens.
3. Reduction of cross-contamination
4. An automated 24/7 system that continually sanitizes.

### **How does PURADIGM technology work?**

Puradigm technology has been developed to deliver high energy ion clusters and advanced oxidation to assist in the management of indoor air & surface purification. Photo Catalytic Oxidation (referred to as PCO) works by having the light photons of the 254nm light bulb strike a matrix target plate dipped in several rare earth metals. This process creates a chemical reaction that produces the Advanced Oxidation Process made of Oxygen and Hydrogen ions. These positive and negative ions clump together in "clusters" that are then introduced into the indoor environment. The ion clusters quickly manage and control pathogens (mold, mildew, bacteria and viruses) that exist in the air and on surfaces. Our technology has been 3rd party validated by Kansas State University as safe and effective in the management of various types of issues throughout indoor environments. Using an automated process that operates 24/7, Puradigm provides the most advanced infection control solution available.



**Does this technology work well in high humidity?**

Yes. The technologies catalytic process utilizes oxygen and water vapor (humidity) to create the advanced oxidation. The higher the humidity, the greater the volume of oxidation will be created making the technology even more effective.

**Does this technology produce any chemicals or leave any residue on surface areas?**

No. The catalytic process converts oxygen and water vapor (humidity) into safe and friendly oxidizers that kill pathogens. After killing the pathogens, the oxidizers revert back into harmless oxygen, water vapor and carbon dioxide.

**Will these products affect the air pressure in our rooms?**

No. All of the products have small fans incorporated inside them to move the oxidation technology out of the unit and into the room but they do not create enough airflow to impact the pressure in the room.

**Do the products use a lot of energy?**

No. The various units do not use much electricity. It is equivalent to having a 45 watt light bulb on 24 hours a day.

**Should you run the units all the time or do you need to turn them off periodically?**

We recommend that you keep the unit's operating 24/7 to get continual protection for your environment.

**What voltage do the products use?**

All of our products plug into 120V outlets

**Is the technology scalable for large facilities?**

Yes. Our products can be scaled to effectively cover and protect any size room or facility.

**How do I determine how many units, what type and placement of units and total cost?**

Enhance's team can help you determine the best approach to protect your facility. Just provide a floor plan of the area with general measurements including ceiling height, air return and vent placements, as well as access doors to determine air flow. We can show you the best placement of units to maximize air and surface purification.

**Are there any parts to maintain or replace?**

Yes. The PCO cell should be replaced every 24 +/- 6 months depending on the type of commercial/industrial/residential settings. The PCO cell is the catalyst that creates the advanced oxidation that kills pathogens and reduces VOC's. Replacing the PCO cells is very easy and takes only a few minutes to unplug the old cell and plug in the new one. There are also filters on each unit, which are specifically meant to keep the PCO cell clean and these should be cleaned or changed every 3-6 months and more often if the environment is especially dirty.

**Are these products FDA approved?**

No. They are not medical devices and do not fall under the FDA jurisdiction. They are advanced air and surface purifiers and fall under the EPA. They meet all EPA guidelines.