

For Immediate Release

Contact: Robb Leer 612.701.0608



Aeio Introduces Adaptive Air Purification Technology to Target, Inactivate and Remove Specific Airborne Contaminants

Patent-pending technology lets users select from more than 100 airborne contaminants and automatically adjusts ion delivery for each target

South Padre Island Texas (October 20, 2026) — Wildfire smoke. Viruses. Allergens. Mold. Ultrafine particles. Indoor air can contain a constantly changing mix of contaminants, each with different characteristics and behaviors.

Yet most air-purification technologies operate essentially the same way regardless of the contaminant they are trying to remove.

Aeio is taking a different approach.

The indoor air-quality technology company envisions doing for indoor air what monitored security systems have done for homes and buildings: providing information about what is happening, allowing users to select the air-quality concern they want to address and deploying technology that adapts its response accordingly.

“People don’t need another air purifier that simply turns on and runs the same way regardless of what’s in the air,” said Charlie Waddell, co-founder and CEO/CTO of Aeio. “They need to know what’s happening in their indoor environment and have the ability to respond. Aeio is designed to give them that control — whether the concern is viruses, wildfire smoke, mold, allergens or ultrafine particles.”

Through the Aeiro app, users select what they want the system to target. Aeiro then automatically changes how it delivers ions into the air — adjusting their timing, polarity balance and output based on the selected contaminant.

To deliver on that vision, Aeiro today introduced its patent-pending Targeted Bipolar Pulsed Ionization (TBPI®) technology, an advancement of conventional needlepoint bipolar ionization that provides greater control over how ions are generated and delivered.

Rather than relying on a fixed ionization strategy, TBPI® allows Aeiro systems to modify ion delivery based on the characteristics of the contaminant being targeted.

The technology is being deployed today in commercial and residential settings, with portable air-purification products designed for individual consumers planned for early 2027.

Moving Beyond One-Size-Fits-All Air Purification

Different contaminants behave differently. Aeiro believes air-cleaning technology should be able to respond accordingly.

Americans spend approximately 90 percent of their time indoors, according to the U.S. Environmental Protection Agency. The EPA also reports that concentrations of some pollutants are often two to five times higher indoors than outdoors.

At the same time, wildfire smoke, seasonal allergens, airborne pathogens, mold, fine particles and other contaminants can change rapidly based on geography, weather, occupancy and outdoor conditions.

That changing environment presents a basic challenge for conventional air-cleaning systems: different contaminants have different physical, biological and electrical characteristics, yet most technologies continue to operate in essentially the same manner regardless of what is present.

Traditional needlepoint bipolar ionization systems typically generate positive and negative ions simultaneously. Because oppositely charged ions naturally attract one another, a portion can recombine before reaching the occupied space.

Aeiro's TBPI® technology takes a different approach.

TBPI® releases positive and negative ions in controlled pulses, with a brief delay between polarities. This approach is designed to reduce immediate recombination between opposing ions while giving the system greater control over the timing, polarity balance and concentration of ions delivered into the air being treated.

“The significant advancement is the ability to move away from a one-size-fits-all ionization strategy and toward a targeted response,” said Edward Sobek, Ph.D., Chief Science Officer at

Aeiro, founder of Assured Bio Labs, and a microbiologist who has spent years studying microorganisms, indoor air quality and ionization technology.

“When you understand the characteristics of the contaminant you are addressing, you can change how the system operates to more precisely target that contaminant,” Sobek said. “That gives us a level of control that conventional fixed-output ionization systems were not designed to provide.”

More Than 100 Selectable Contaminant Targets

The Aeiro platform currently offers more than 100 selectable contaminant options.

Users select the contaminant or air-quality concern they want to address, and Aeiro applies a target-specific operating profile that determines how the TBPI® system operates.

Those profiles are developed using laboratory testing, published scientific research, contaminant characteristics, field testing and input from Aeiro’s microbiology team.

Depending on the selected target, Aeiro can adjust how ionization is delivered rather than applying the same output profile to every condition.

The result is an air-purification platform designed to adapt its operation based on what the user is trying to address.

The technology builds on more than two decades of Waddell’s work developing HVAC and indoor air-quality technologies.

An engineer and inventor with more than 50 granted patents, Waddell previously founded Global Plasma Solutions, now GPS Air, where he served as founder and chief technology officer and helped develop and commercialize needlepoint bipolar ionization technology.

TBPI® represents his latest work advancing ionization technology from fixed-output operation toward digitally controlled, target-specific air treatment.

From Commercial Buildings to Consumers

Aeiro technology is currently being developed and deployed in commercial, healthcare, education, agricultural, aviation and residential applications, including systems integrated directly into HVAC equipment.

Beginning in early 2027, Aeiro plans to introduce portable residential air-purification products incorporating TBPI® technology, bringing the same adaptive approach directly into homes without requiring HVAC installation.

“People increasingly understand that indoor air isn’t a single problem,” Waddell said. “One day the concern may be wildfire smoke, another day respiratory viruses, allergens, mold or ultrafine particles.”

“We have an opportunity to give people more than another air purifier with an on-and-off switch,” Waddell continued. “We can give them greater information, greater control and technology that adapts to what they’re trying to remove.”

For more information, visit www.aeiro-iaq.com.

About Aeiro

[Aeiro](http://www.aeiro-iaq.com) develops intelligent indoor air-quality technologies designed to make air purification more targeted, adaptable and responsive. Its patent-pending Targeted Bipolar Pulsed Ionization (TBPI®) technology combines controlled pulsed ion delivery, active polarity control, tunable ion generation and connected digital controls to create an adaptive approach to air purification. Aeiro was co-founded by indoor air-quality technology pioneer Charlie Waddell, an engineer and inventor with more than 50 granted patents who previously founded Global Plasma Solutions, now GPS Air. Aeiro technology is currently being deployed across multiple commercial and residential markets, with portable consumer products planned for early 2027. Top Product Innovations is Aeiro’s master distributor for US commercial and residential sales. Investors interested to learn more about Aeiro contact: Charlie Waddell [540.502.1012](tel:540.502.1012) or cwaddell@aeiro-iaq.com

Media Contact

The newsmakers featured in this release are available for interviews. To schedule an interview, contact:

Robb Leer

Leer Communication & Consultants

612.701.0608

Robbl@Leercommunication.com

TBPI® is a registered trademark of Aeiro, LLC.