

QUANTUM DISINFECTION™

No power. No chemicals. No maintenance.

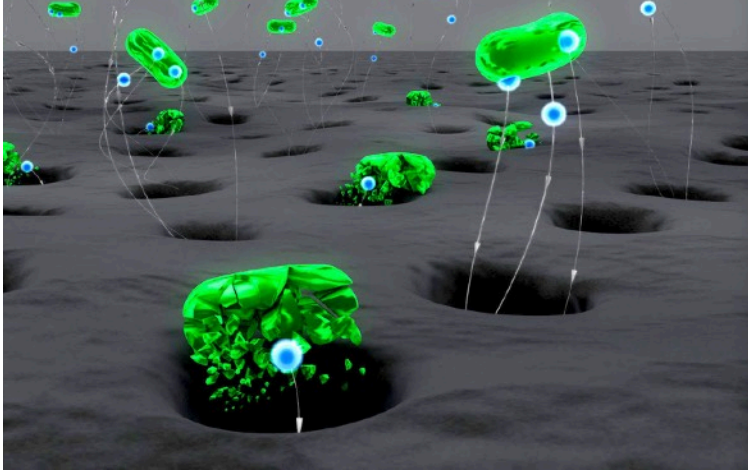


Claire Technologies



A Breakthrough in Water Disinfection Technology

Quantum Disinfection™ is a revolutionary, patented technology that uses quantum mechanic principles of electron movement to create surface catalytic sites. This is the first time such a technology has been used to disinfect water.



Before now, to disinfect water, users had to plug in a device or introduce a chemical into the water. Quantum Disinfection™ does away with all of that.

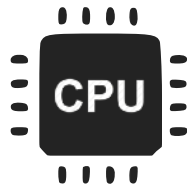
Water simply has to pass over the Quantum Disinfection™ media surface and the bacteria are instantly destroyed through a catalytic electron exchange. Disinfection can now be achieved with no power, no chemicals and no maintenance.



Quantum Disinfection™ technology is NSF 42 component certified



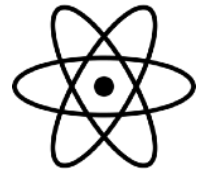
Quantum Disinfection™ is a catalyst. Disinfects with no power, no chemicals no maintenance



Quantum Disinfection™ uses semi-conductor principles



Quantum Disinfection™ is EPA listed under CRADA No. 865-15



Quantum Disinfection™ works by attracting electrons from microorganisms



Give Any Device Disinfection Capability.

Point-of-Entry Systems

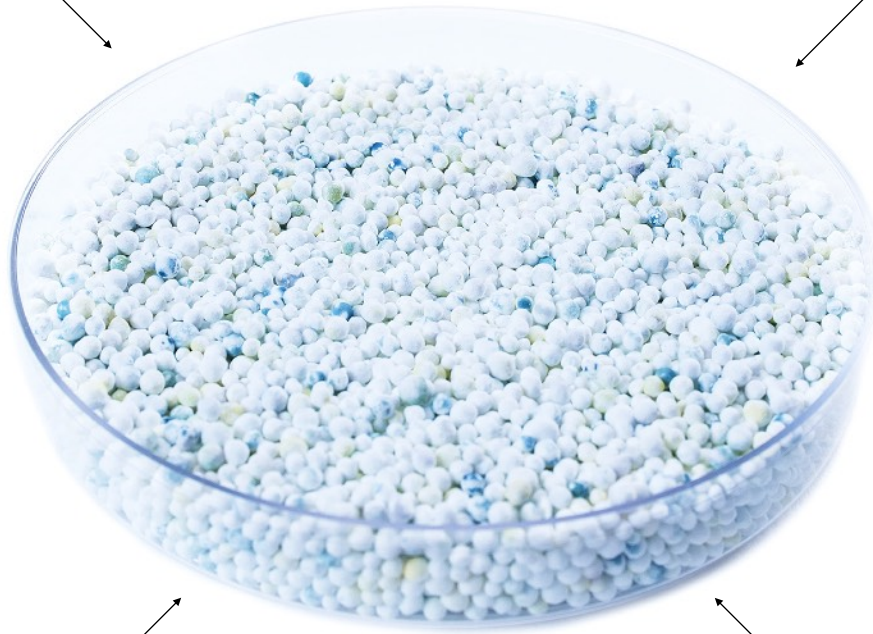
Quantum Disinfection™ can be used for POU systems from sources such as well water and city water for homes and offices.

Gravity-Based Purifiers

Quantum Disinfection™ allows for high-flows and high-level protection against bacteria, viruses and cysts.

Point-of-Use Systems

A small quantity of Quantum Disinfection™ media can disinfect a range of POU systems such as faucets, under sink systems, and water cooler spigots.



Food and Beverage

Quantum Disinfection™ can provide protection inside ice and drink machines, either inline or at the point-of-use.

Reverse Osmosis Purification

Quantum Disinfection™ can easily serve as a final bacteria barrier for reverse osmosis tanks, and as a safeguard against HPC's.

Custom Applications

Quantum Disinfection™ can be tailored to many custom applications across markets and flow rates.



Quantum Disinfection™ Frequently Asked Questions



How does Quantum Disinfection™ work?

Quantum Disinfection™ uses semi-conductor principles of electron movement to create small “catalytic sites” on the surface of the media. These sites are powerfully charged and attract electrons. Passing bacteria in the water lose their electrons to these sites and are instantly eliminated.

Is this filtration media?

No. Just like UV, Quantum Disinfection™ needs primary filtration to work properly, otherwise the charged sites can become clogged. It is disinfection media. Not filtration media.

Does Quantum Disinfection™ media put anything in the water?

No. Quantum Disinfection™ does not leach anything in the water. All of the bactericidal action happens because of a catalytic surface action.

Is Quantum Disinfection™ certified?

Yes. Quantum Disinfection™ media is component certified to NSF 42, meaning it does not leach anything into the water.

Packed or Fluidized Bed?

Quantum Disinfection™ needs a packed bed to ensure water contact.

Has the microorganism reduction claim been tested by 3rd party labs?

Yes. Quantum Disinfection™ technology has been rigorously tested and posted excellent results by reputable labs such as EPA, Eurofins, NC State University, Proteus and Avazyme. All of these results are available upon request by interested companies.

Does Quantum Disinfection™ work in low flows or high flows?

Quantum Disinfection™ works across a broad spectrum of flows and water sources. To date, Claire has tested in gravity-based purifiers and flows up to 30 GPM with success.

Is Quantum Disinfection™ like Reverse Osmosis?

No. Quantum Disinfection™ is more like UV. It is not a filter and its purpose is not to filter the water, but rather to disinfect the water.

Where can Quantum Disinfection™ be applied?

Quantum Disinfection™ can be applied in multiple industries, but our most popular application is potable water. Typically, Quantum Disinfection™ is applied after primary filtration, just before the water delivery to ensure disinfection just before use. Other industry uses have included surface water, cooling towers, cooling oils, wastewater and emergency drinking water disinfection.

How long does Quantum Disinfection™ media last?

Claire works closely with our OEM partners to design cartridges and devices that meet end-of-life criteria. For Claire’s own prototypes, such as the CLAIRIFY¹² unit, the warranted life is 140,000 gallons, or just over 1 year of normal household use.

Is Quantum Disinfection™ expensive?

Currently, Quantum Disinfection™ is less expensive than UV but more than chlorine treatment. Claire is committed to driving down the cost of this technology as it is more widely adopted.

