

Ultrasonic Aerosol Functional Mediums

Dual Polarity Electrochemistry Systems

chlorOrgano™

Esperer.H₂O™

Paul E. Seaver

Palm Beach Springs Water Company Inc.



Dual Polarity Electrochemistry



Dual polarity electrochemistry creates specialized water mediums that can be ultrasonically dispersed into controlled environments.

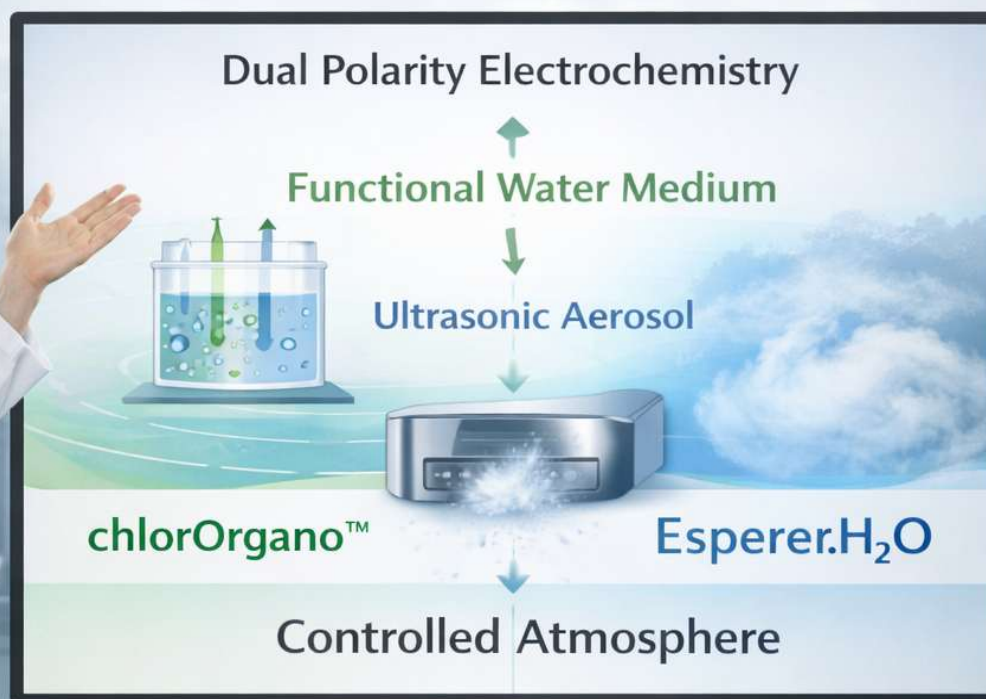
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The Big Idea

Water can be engineered to carry functional gases and ions.

When converted into ultrasonic aerosol droplets, these mediums become controlled atmospheric environments.



Two mediums:

- chlorOrgano™
- Esperer.H₂O

Why Aerosol Delivery?

Ultrasonic aerosolization creates micron-scale droplets.

Benefits:

- uniform distribution in air
- prolonged suspension time
- surface contact over time
- inhalation exposure environment

This turns a liquid into an atmospheric delivery system.



The Two Mediums

Medium	Category	Atmospheric Environment
 chlorOrgano™	NaCl organochlorine	sanitation oriented
 Esperer.H ₂ O	hydrogen water	hydrogen enriched

Both originate from dual polarity electrochemistry.

Slide 5 — Medium 1

Medium 1 — chlorOrgano™

NaCl electrochemical organochlorine medium

Characteristics:

- derived from NaCl electrochemistry
- electrochemically generated chlorine species
- stabilized electrochemical medium

When aerosolized:

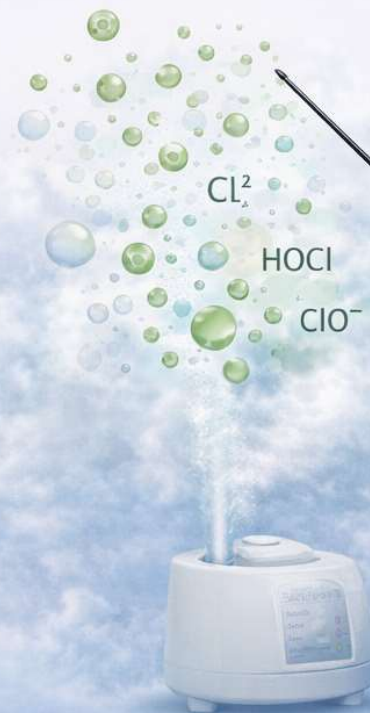
Creates organochlorine atmospheric fog



NaCl electrochemistry

When aerosolized:

Creates organochlorine atmospheric fog



Medium 2 | Esperer.H₂O™

Functional electrolyzed hydrogen water.

Characteristics:

- dissolved hydrogen gas
- dissolved oxygen
- neutral electrochemical environment.

RO pretreatment ensures purity.

When aerosolized:

- Creates hydrogen and oxygen atmospheric fog



Ultrasonic Distribution

Ultrasonic atomizers produce droplets typically:

1–10 microns

Droplets:

- remain suspended in air
- distribute through room volume
- deposit slowly on surfaces

When aerosolized:

- Creates hydrogen and oxygen atmospheric fog



System Architecture



Controlled Environments

Possible environments:

- wellness rooms
- spa hydrothermal rooms
- agricultural grow rooms
- sanitation environments
- specialty industrial environments



Scientific Foundation

Dual polarity electrochemistry influences:

- oxidation reactions
- reduction reactions
- dissolved gas formation
- ionic balance

Water becomes a
carrier medium
for gases and ions.



Why This Matters

Traditional systems treat water as a liquid utility.

This system treats water as a programmable atmospheric medium.

Potential impact areas:

- environmental control
- wellness environments



Opportunity

Technology platform combining:

- electrochemistry
- functional water
- ultrasonic aerosol physics

Creates new category of environmental systems



Closing

Water is more than H₂O.

It is a medium capable of carrying:

- gases
- ionic energy
- electrochemical potential

When dispersed ultrasonically, it becomes a controlled atmospheric system.



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chlorOrgano™ | Esperer. H₂O

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