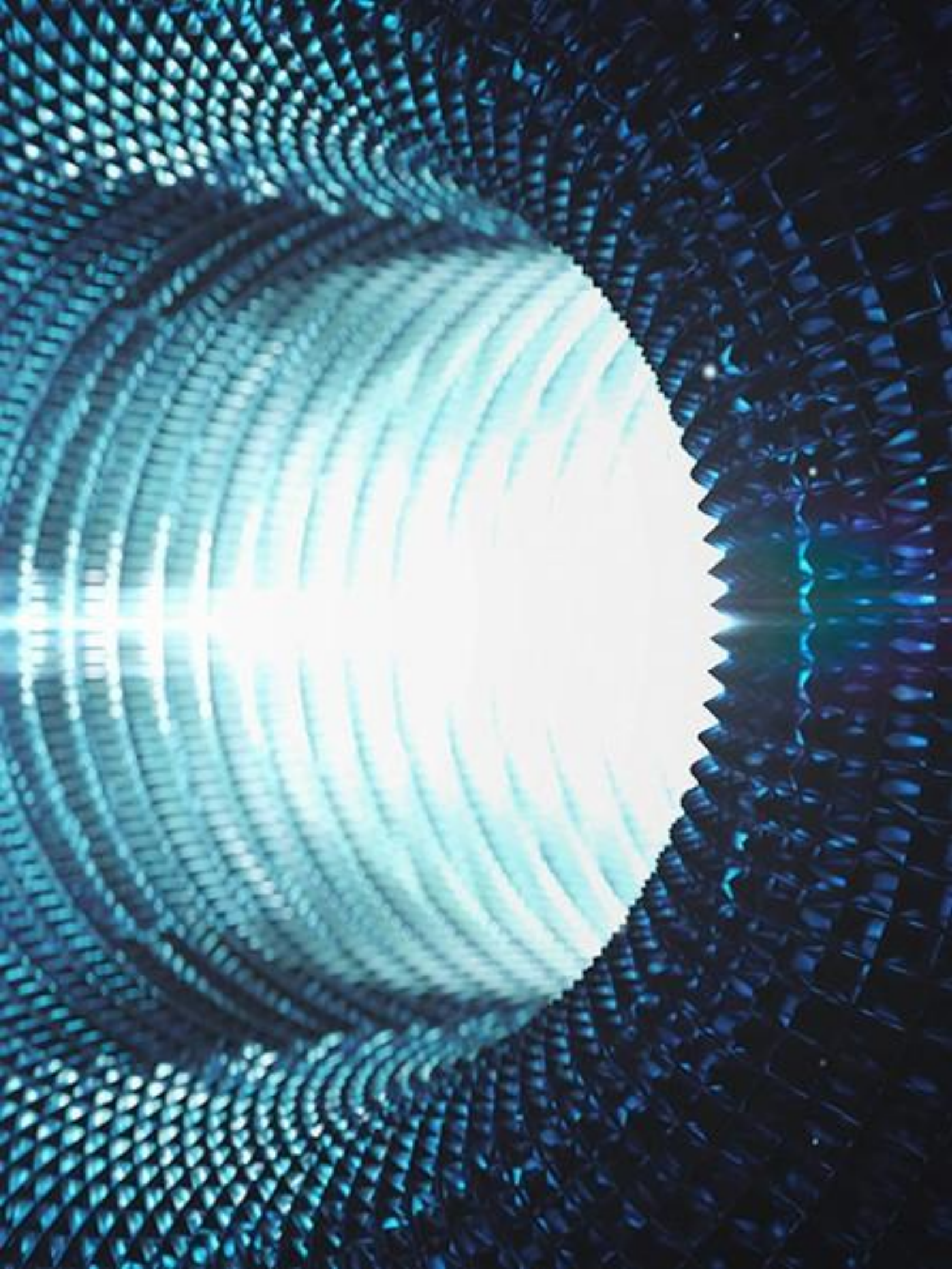


QUANTUMPURE PRESENTATION

QUANTUMPURE

PURIFYING AT THE QUANTUM LEVEL





The Best filtration system available

Unmatched Performance

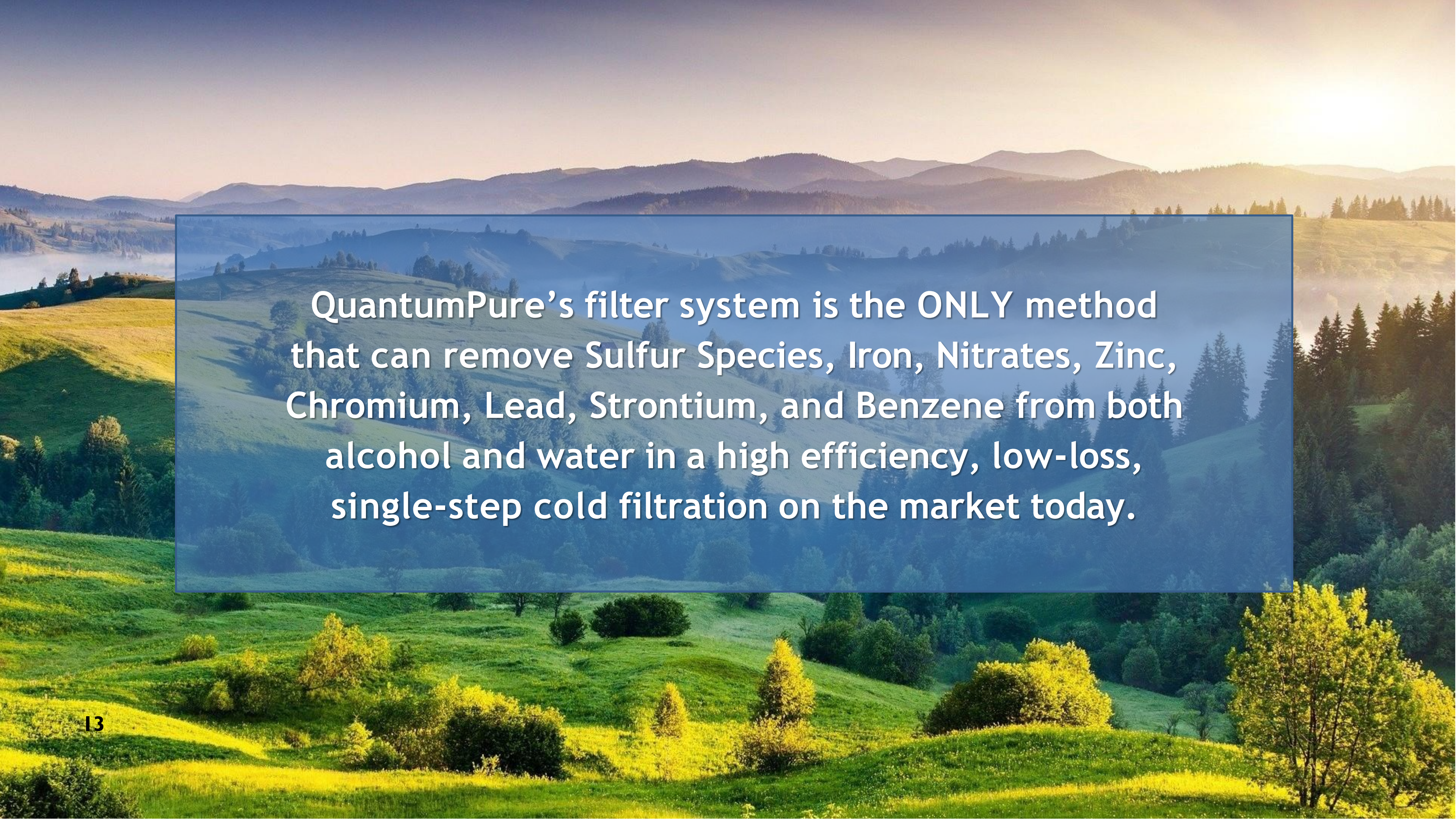
QuantumPure's worldwide patent-pending technology provides unmatched alcohol and water filtering technology to manufacturers nationwide.



**Make the essential feedstock
cleaner, purer**

-

**Use less
energy, labor, real estate
and get better products.**



QuantumPure's filter system is the **ONLY** method that can remove Sulfur Species, Iron, Nitrates, Zinc, Chromium, Lead, Strontium, and Benzene from both alcohol and water in a high efficiency, low-loss, single-step cold filtration on the market today.



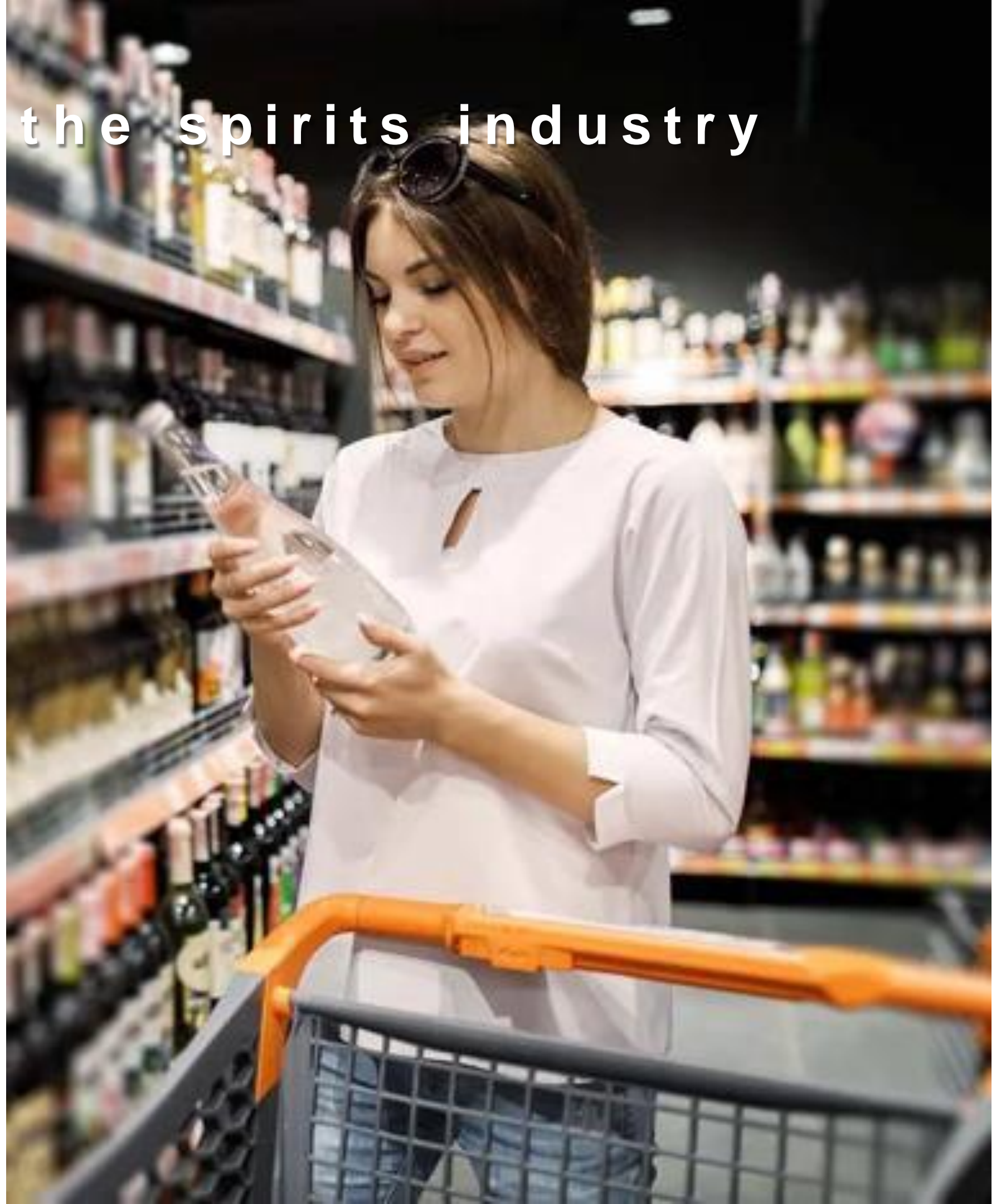
The Problems with Sulfur

- Sulfur compounds remain with the ethanol spirit during the process of distillation.
- These sulfur compounds are considered by many to be the cause of headaches, nausea, and hangovers associated with alcohol consumption.
- In addition, these compounds are known to cause much of the burning, “hot” flavors and harshness attributed to spirits.
- The QuantumPure filtering process removes these compounds from spirits.

Women overlooked by the spirits industry

WOMEN ARE INCREASING THEIR CONSUMPTION AND DRAWING MARKETING ATTENTION

- Women are becoming a much larger part of the consumer base across the board for alcoholic beverages. **Today, they are responsible for 85 percent of alcohol purchases in the \$12 to \$15 range.**
- They are also ordering more drinks at restaurants; in 2009, **the number of alcoholic beverages ordered by women at restaurants rose nine percent**, while men's drink orders decreased by four percent in the same year.
- Even when women aren't directly consuming the alcohol, **they are still making 65 to 70 percent of the purchasing decisions about alcohol consumed at home.**
- The fact that women are the primary shoppers is no secret to advertisers in other product verticals; even ads for male-only products are often designed to subtly appeal to the women who will be purchasing them for their families.
- In increasing numbers, **alcohol brands are realizing they need to speak to women more directly.** It's too much of a **missed opportunity for them to continue passively engaging a major part of their consumer base.**



The Solution for Sulfur

Spirit	Sulfur-32 content (ppm)	
	Before	After
Tequila	23.4	<LOD
Rum	18.7	<LOD
Blended Scotch	16.8	<LOD
Gin	14.2	<LOD
Vodka 1	4.1	<LOD
Vodka 2	16.9	<LOD

The removal of sulfur compounds along with other congeners makes spirits more healthful.

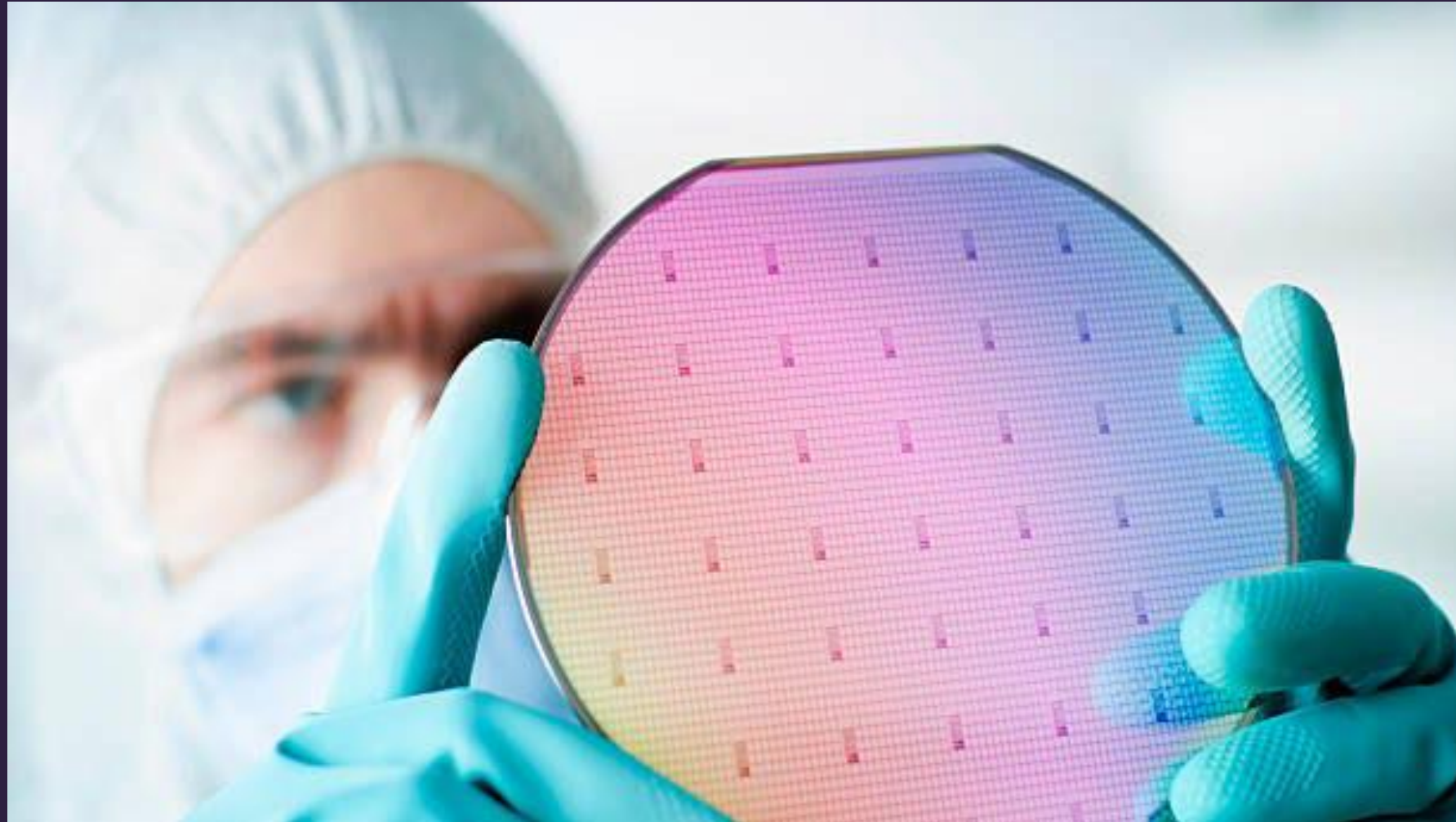
Hydes, T.J., Burton, R., Inskip, H. et al. A comparison of gender-linked population cancer risks between alcohol and tobacco: how many cigarettes are there in a bottle of wine?. BMC Public Health 19, 316 (2019). <https://doi.org/10.1186/s12889-019-6576-9>

The Problems with Sulfur - Medical

- **Sulfur causes skin dehydration, which reveals itself in dry, cracked skin.**
- **Moisturizers used to combat dry skin leave a barrier on the skin, rendering disinfectants useless in a clinical setting.**



The Problems with Sulfur - Electronics



Current alcohol (Isopropanol) used for cleaning has impurities in it (primarily Sulfur). Sulfur is a known defect-causing contaminant on etched wafers.

Those impurities can also be left behind in the equipment and transferred into the end product of the next run.

The Solution for Sulfur

Spirit	Sulfur-32 content (ppm)	
	Before	After
GNS 1	3.5	<LOD
GNS 2	4.1	<LOD
GNS 3	4.7	<LOD

	Before ppm	After ppm
Fe	<33	<33
Cu	8.06	<0.1
Mg	121	91
Ca	<63	<63
Zn	17.0	14.2
As	2.3	<0.1
Cd-111	<0.1	<0.1
Cd-114	<0.03	<0.03
Pb-206	0.23	<0.02
Pb-207	0.22	<0.02
Pb-208	0.22	<0.01
Co-59	0.14	<0.009
Cr-52	0.9	<0.3

Sulfur and Heavy Metal Free Alcohol offers the highest degree of purity for cleaning hospitals, medical laboratories, and electronics. While competitive filtering technologies take out pollutants at the parts per million (PPM) level, our technology filters at the parts per billion (PPB) level.

QUANTUMPURE Solutions

Medical

- Doctors and Nurses who have used QuantumPure sulfur-free, high quality USP+ alcohol have stated that the product heals their hands while they are using the product for disinfection.
- QuantumPure room disinfection has a faster turnaround time than the use quaternary ammonium compounds (quats).
- There are fewer safety issues when working with QuantumPure alcohol as opposed to quats.

Electronics

- The use of QuantumPure high purity USP+ Ethanol can clean equipment and product to an extent no other alcohol can, and prevent unintentional introduction of contaminants such as sulfur, acids, and other organics to your cleaning procedures.
- In addition, QuantumPure USP+ Ethanol can also be used on printed circuit boards

Cannabis/Hemp

Removing impurities to produce a better product, with less energy, and more product possibilities



Alcohols are used to clean the stainless-steel equipment in between each run to avoid cross contamination.

Impurities (like Sulfur) can be left behind in the equipment and transferred into the extract products of the next run, which can cause unforeseen reactions.*

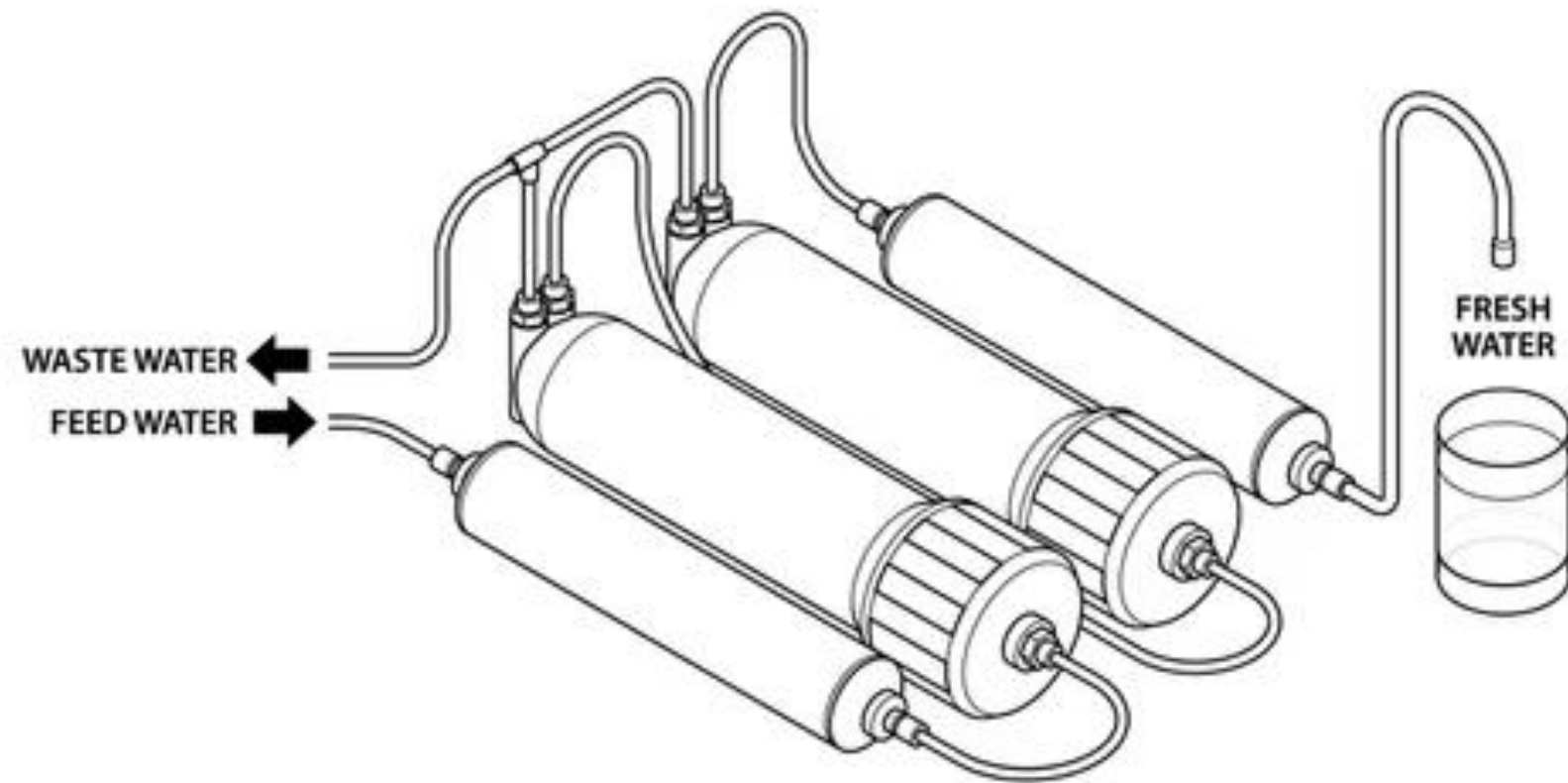
The use of QuantumPure-filtered USP+ Ethanol can clean equipment to an extent no other solvent can.

USP+ by QuantumPure can prevent unintentional introduction of contaminants such as sulfur, acids, and pesticides to your CBD or cannabis oil.

*Ray, C.L.; Bylo, M.P.; Pescaglia, J.; Gawenis, J.A.; Greenlief, C.M. Delta-8 Tetrahydrocannabinol Product Impurities. *Molecules* **2022**, *27*, 6924.

Water Treatment

Reverse Osmosis

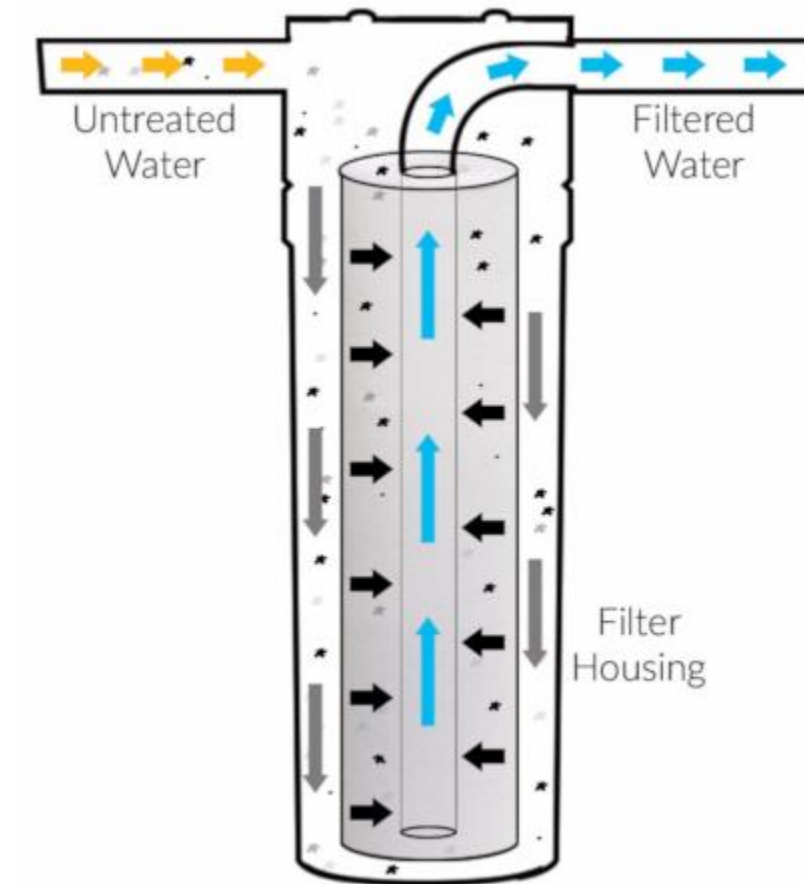


Feed Water = 3 gal
Fresh Water = 1 gal
Waste Water = 2 gal

Flow Out < 1/3 Flow In

Large Wastes of TIME and REVENUE!!!

QuantumPure



Feed Water = 3 gal
Fresh Water = 3 gal
Waste Water = 0 gal

Flow Out = Flow In

Water Treatment

QuantumPure removes the chemicals that make fresh water sources unsafe to drink without resorting to more expensive over-demineralization.

	Before *	After
pH	10.5	6.5
Alkalinity	50	180
Chlorine	0.2	0
Hardness	1000	250
Iron(II)	1	0
Copper(I,II)	0.05	0
Nitrite	0.3	0
Nitrate	10	5
Sulfate	500	0
TDS	750	50
Cr(VI) Chromate	0.25	0.1
Mercury	0.002	0
Silver	0.005	0
Phosphate	0	0
Pesticides, Qual	Positive	Negative
Lead, Qual	Positive	Negative

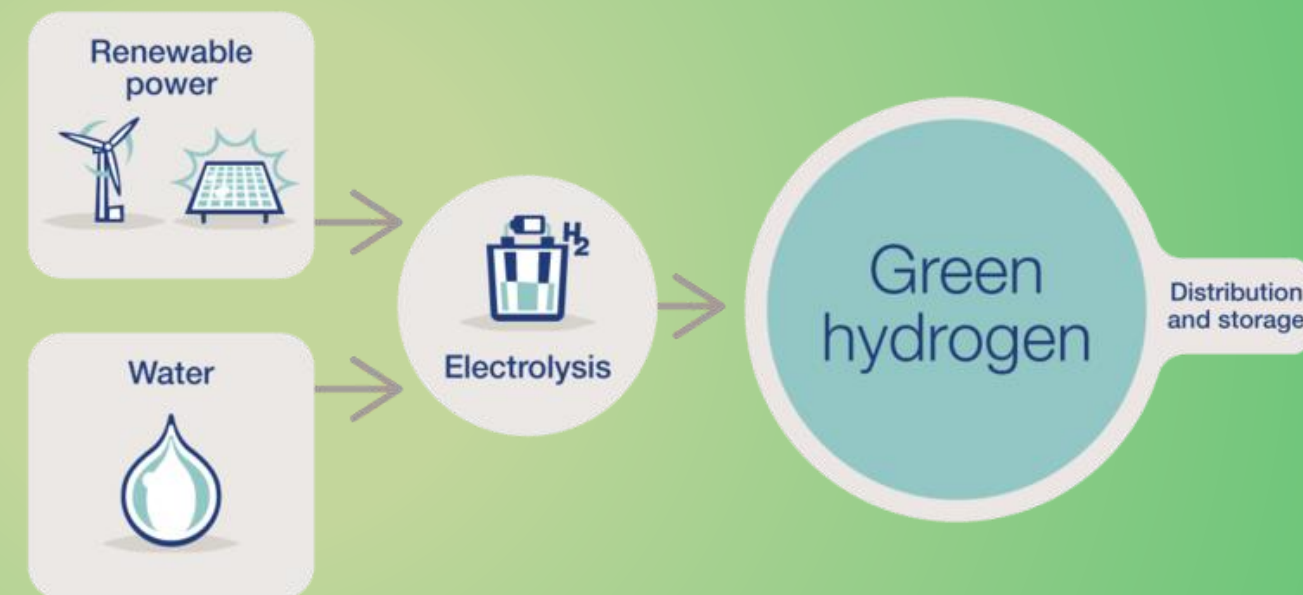
*Well water from Brazil, IN. Tested using Hach field testing unit by Sweetwater Science Labs.

Green Hydrogen

QuantumPure has the first zero-loss water filtration system substantially impacting the green power generation capabilities by significantly lowering costs of feedstock.

Green Hydrogen Feedstock from Poor Quality Wastewater

The QuantumPur process has the capacity to clean brackish well water and wastewater (greywater) to become feedstock in the production of green hydrogen



Waste management becomes asset management

This reconceptualization fits QuantumPur's design and concept for use of wastewater effluent as feedstock filtered through the QuantumPur system for green hydrogen production and other industries. This in turn changes the mindset of waste management into asset management, of which QuantumPur will be an integral part.

Cold Alcohol Filtration

- QuantumPure's patent-pending technology is capable of removing heavy metals, sulfur, pesticides and other impurities from water.
- Each system can run 1000 gal per hour (4-inch line).
- Depending on the customer's needs, we will install 1-3 parallel units per line.
- Customer can utilize multiple lines to increase flowrates
- Filters can be replaced easily

