A Coherent Water State

Selfregulation and Restoration of Biological Structures and Functions

Conference on the Physics, Chemistry & Biology of Water, Vermont 2012

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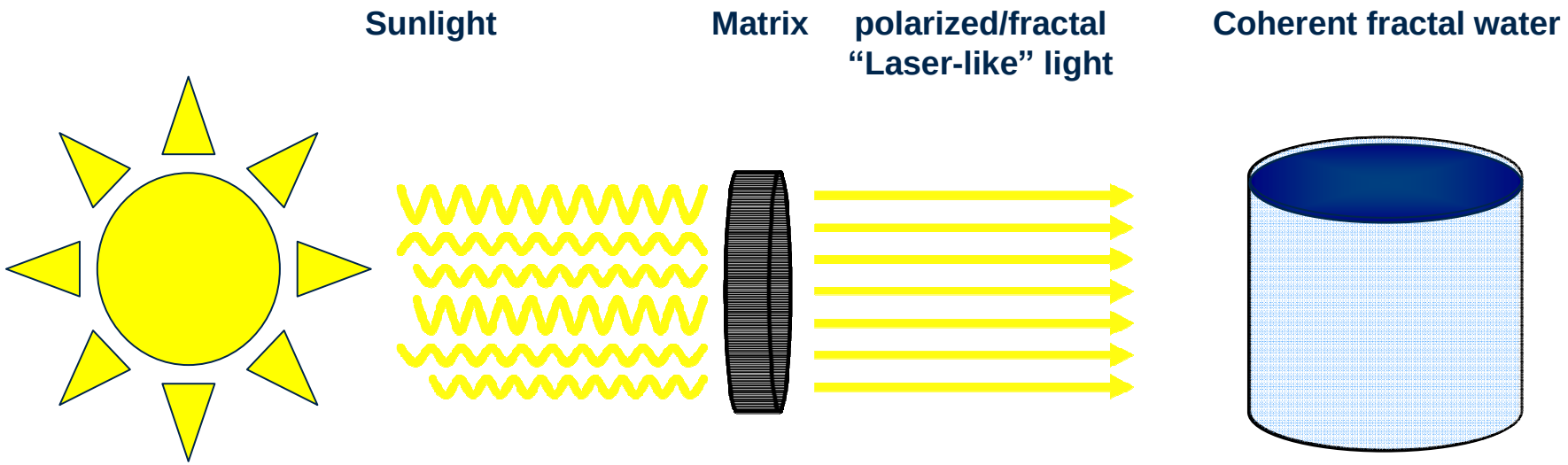
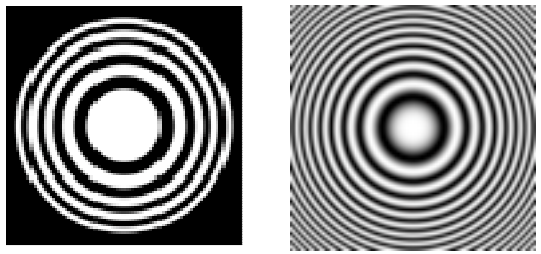
Aklo® technology mechanism: Geometry, Light & Water



Compare with Fresnel zones!



The Aklo® technology converts chaotic light to a “polarized fractal” light (low entropy & higher intensity) that affects water.

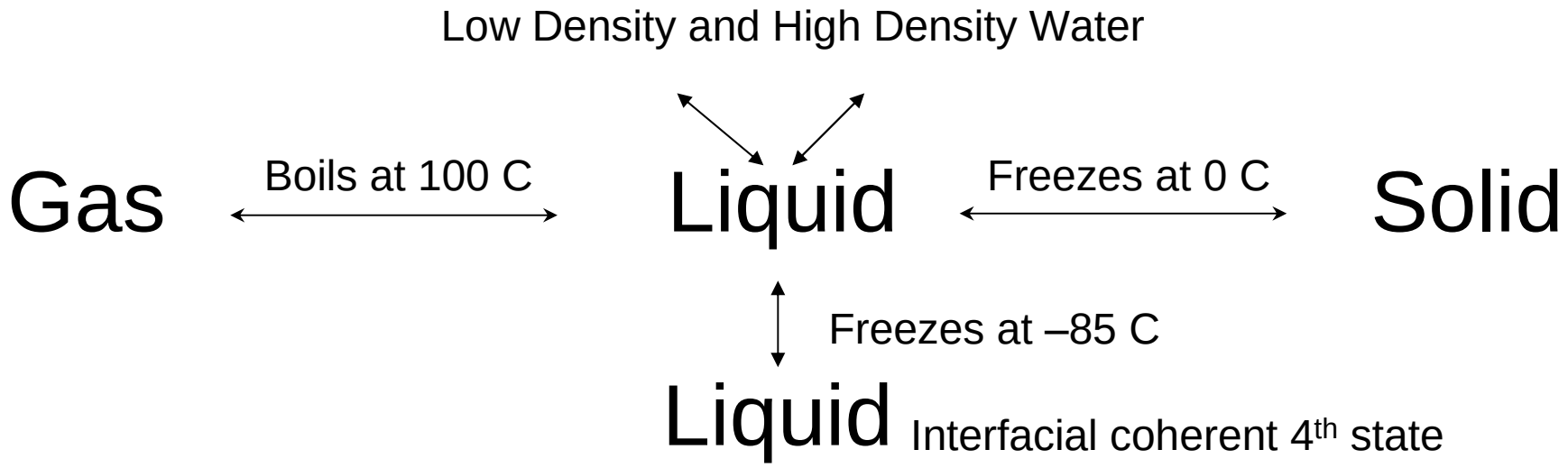
Light – Ordinary - ”Aklo”

- Light consists of electromagnetic waves
- Exits in “packets” or photons (acts as particles or waves)
- Photons has high entropy and are less well organized

- Laser light: spatially coherent, monocromatic and identically polarized with low entropy and high organization

- “Aklolight”: “polarized/laser-like” - spatially fractally organized with low entropy and high intensity

Water – low/high density - coherent

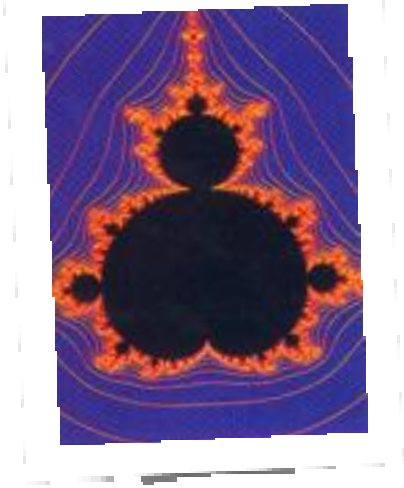


Humans comprise 70% water which equals
99 % of the molecules.

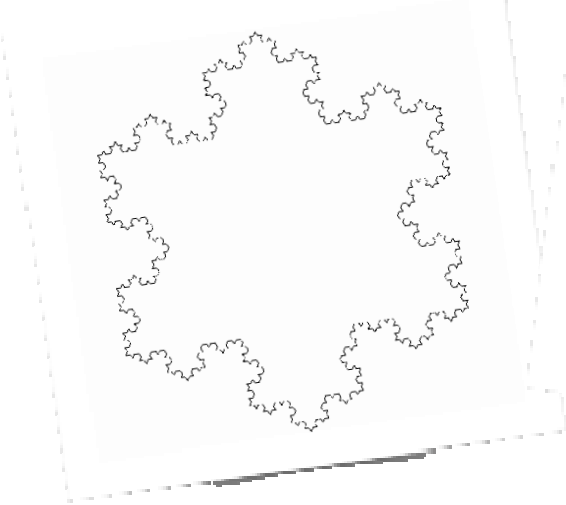
This planets most common solution is the sea
which covers 70 % of the earth.

There is more to water than normaly anticipated.

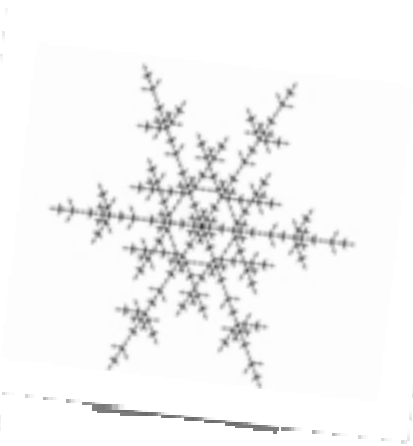
Coherent water is built from fractals



Mandelbrot fractal



Kock's snowflake

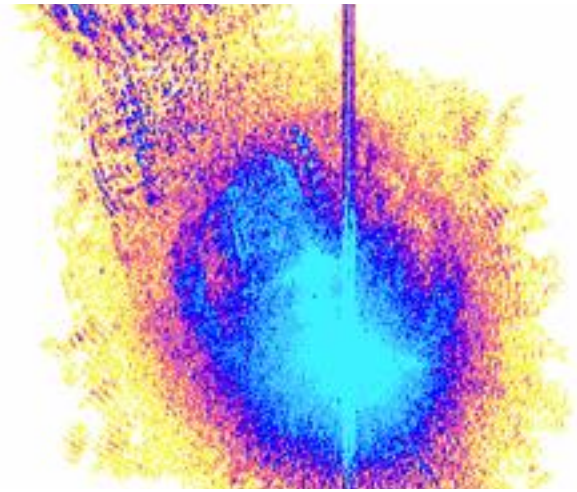


Snowflake fractal

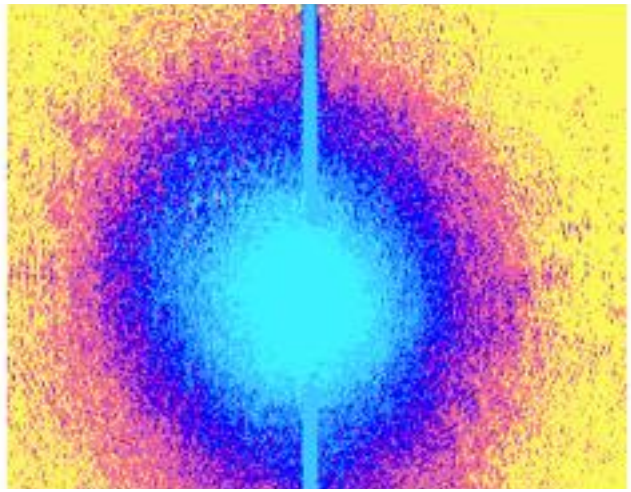
Fractal ice formation

Fractal build-up uses self-replicating building blocks.

Laser (645 nm) analyzed with GDV



Laser light

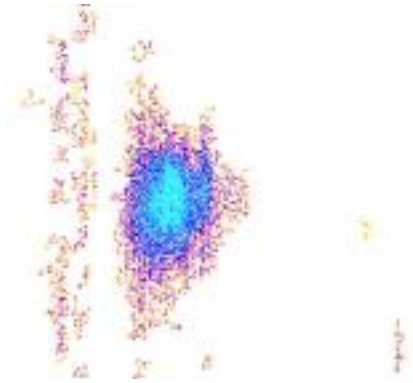


Laser light after passage through fractal matrix

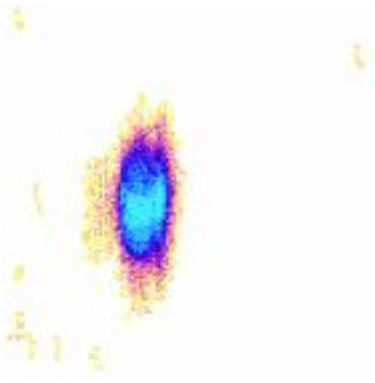
The fractalized laser light is more structured and less chaotic.

Aklo® tech light seen at 700 nm (red light)

Ordinary chaotic light
(pc camera)



Control light
(GDV analysis)



Aklo® conditioned light
(GDV analysis)

The fractalized light is more structured, less chaotic and less diffused.

Affecting light with Aklo® technology: Physical (spatial) properties for spectral light (634 nm)

	Control	Matrix*
Entropy G	3.55	3.31
Fractality G	9.68	6.04
BEO surface (pixels)	15625	16307

*) P<0.001
Matrix etched onto silica.

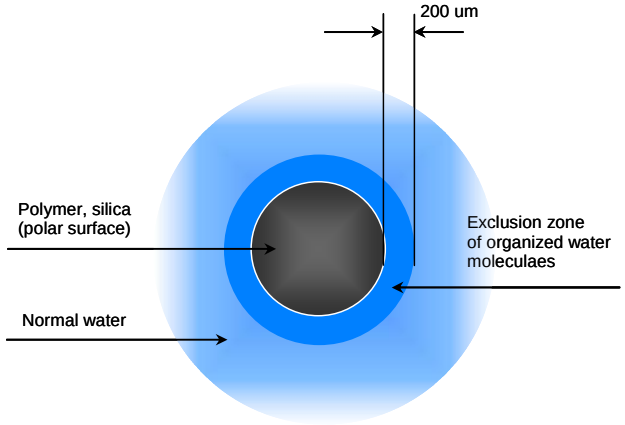
Light that has passed the Aklo® matrix has fractal self-building properties that is used to affect a fractal medium like water.

Reference for comparision: Interfacial properties of water close to polar surfaces

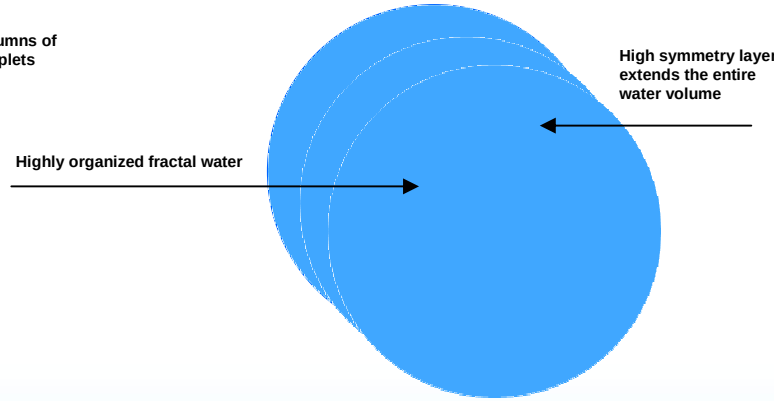
(Pollack 2008; Derjaguin 1987)

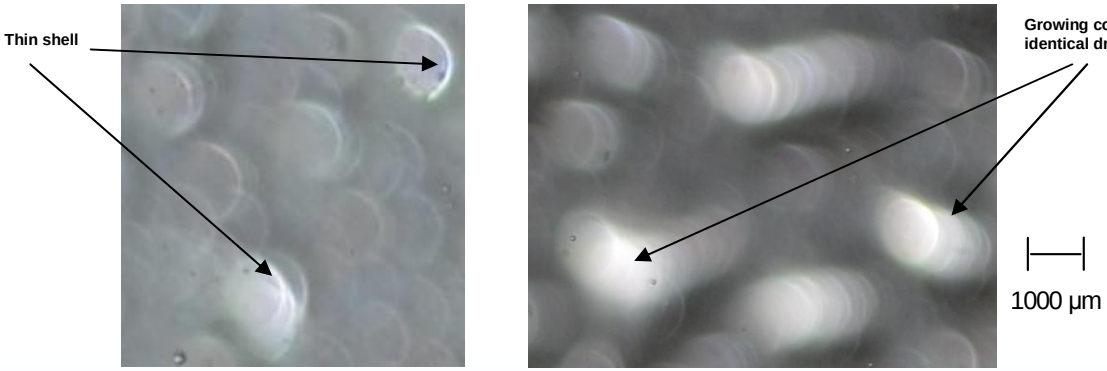
Physical Property	Interfacial	Coherent
Density	Increased	Increased
Freezing point	Reduced	Reduced
Permittivity	Reduced	Reduced
Electrode potential	150 mV	200 mV
Exposure to UV light at 270 nm	Absorbance	No change
Exposure to 485 nm light	Fluorescence	--
Exposure to IR light (3000 nm)	Increased	Increased
Transmission of UV light (plastics)	--	Specific wavelengths
Molecular organisation	Increased	Increased
Fractal structuring	--	Induction
IR imaging (temperature change)	Decreased	Decreased

Interfacial/Exclusion zone water



Coherent (bulk) water





Ordinary random water droplets

Organized coherent water droplets

The properties of Aklo® conditioned water are comparable to interfacial water.

Effects

Affecting distilled water with Aklo® conditioned light: Altering physical properties of water

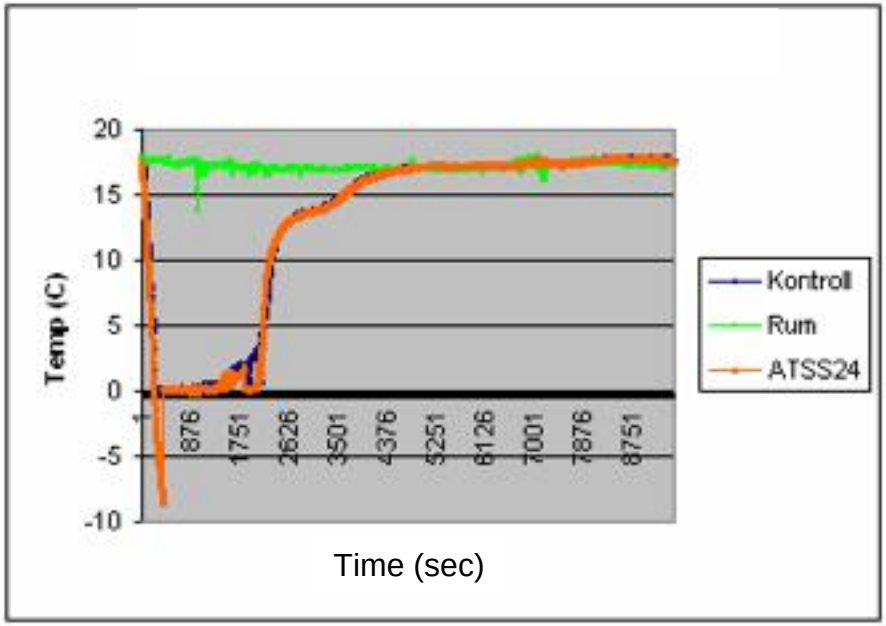
	Control	Coherent*
Density (g/ml, 22 °C)	0.997800	0.998246
Permittivity (F/m; 22 °C)	78.2	77.1
Do Faraday Box (F/m; 22 °C)	78.2	82.5
Water temperature at freezing (°C)	0	−6-7
Melting point (°C)	0	0.2
Surface tension (dyn/cm)	72.9	72.2

*P<0,01-0,001

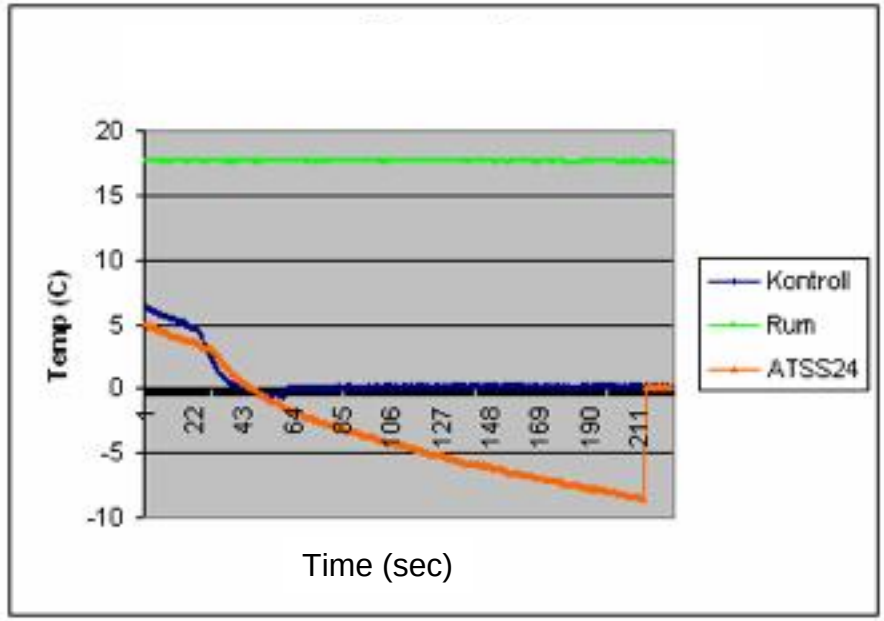
The altered physical properties of water treated with the Aklo® technology has effects similar with a highly organized interfacial water.

Aklo® conditioned water cools below zero before freezing

Freezing/melting point temperature cycle

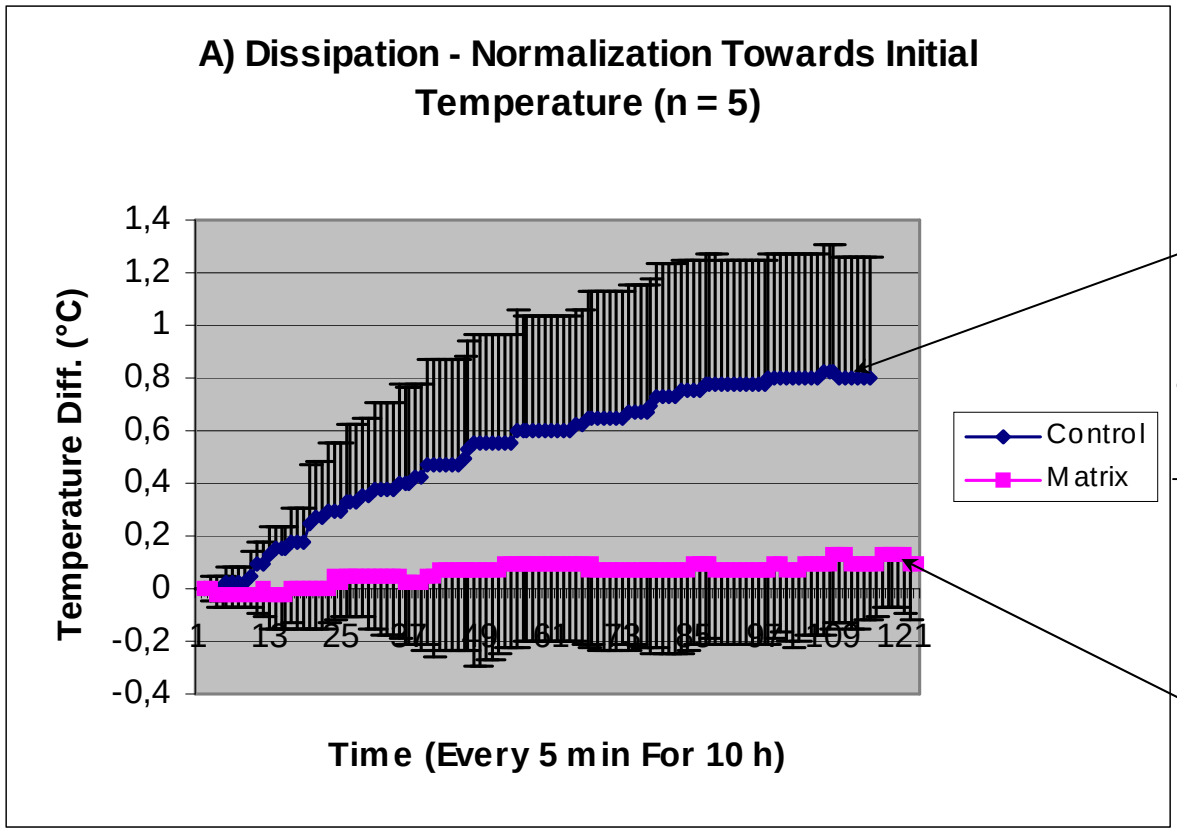


Cool-down behaviour around the freezing point



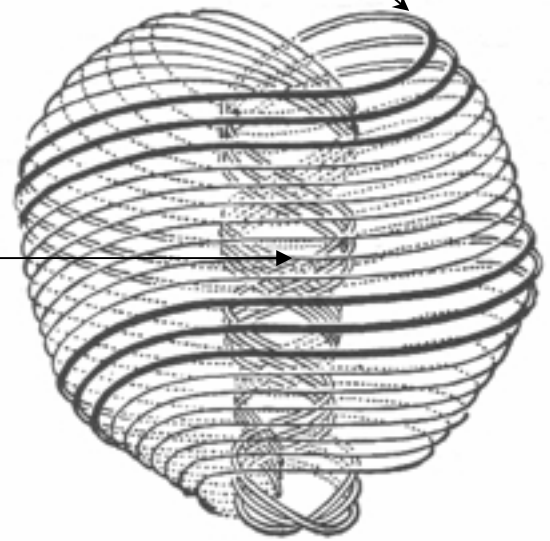
Treating water alters physical properties.

Dissipation in “coherent” water



Entropy ↑
Temperature ↑
Organization ↓
Explosion

Temperature gradient



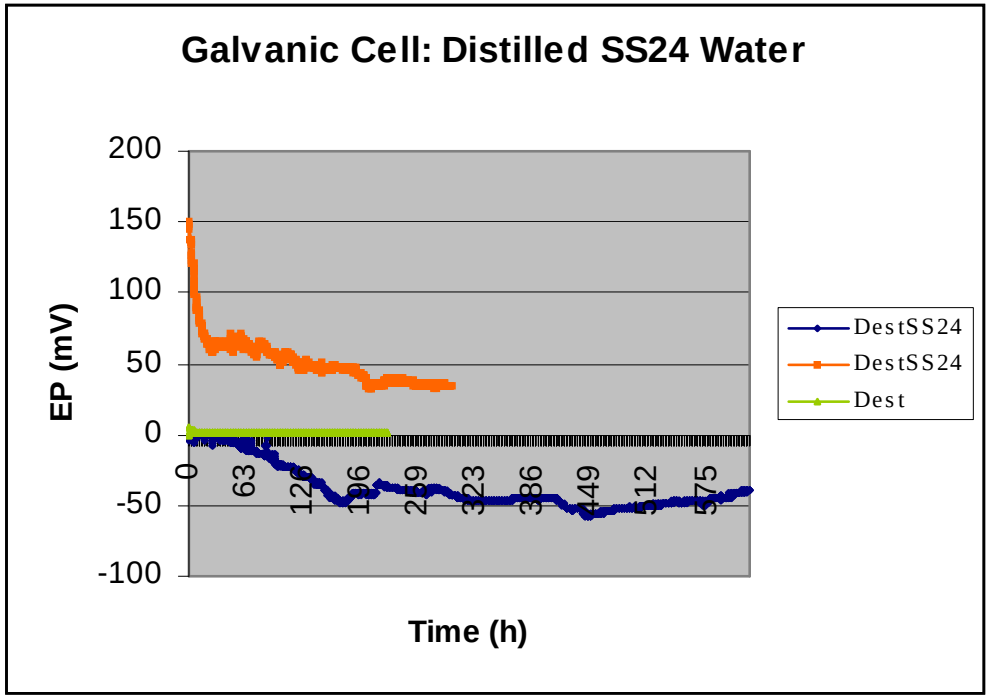
Implosion

Entropy ↓
Temperature ↓
Organization ↑

Increase in temperature is transformed into structure and form in Aklo® water.

”Native galvanic cell”
Electrode potential in coherent” water

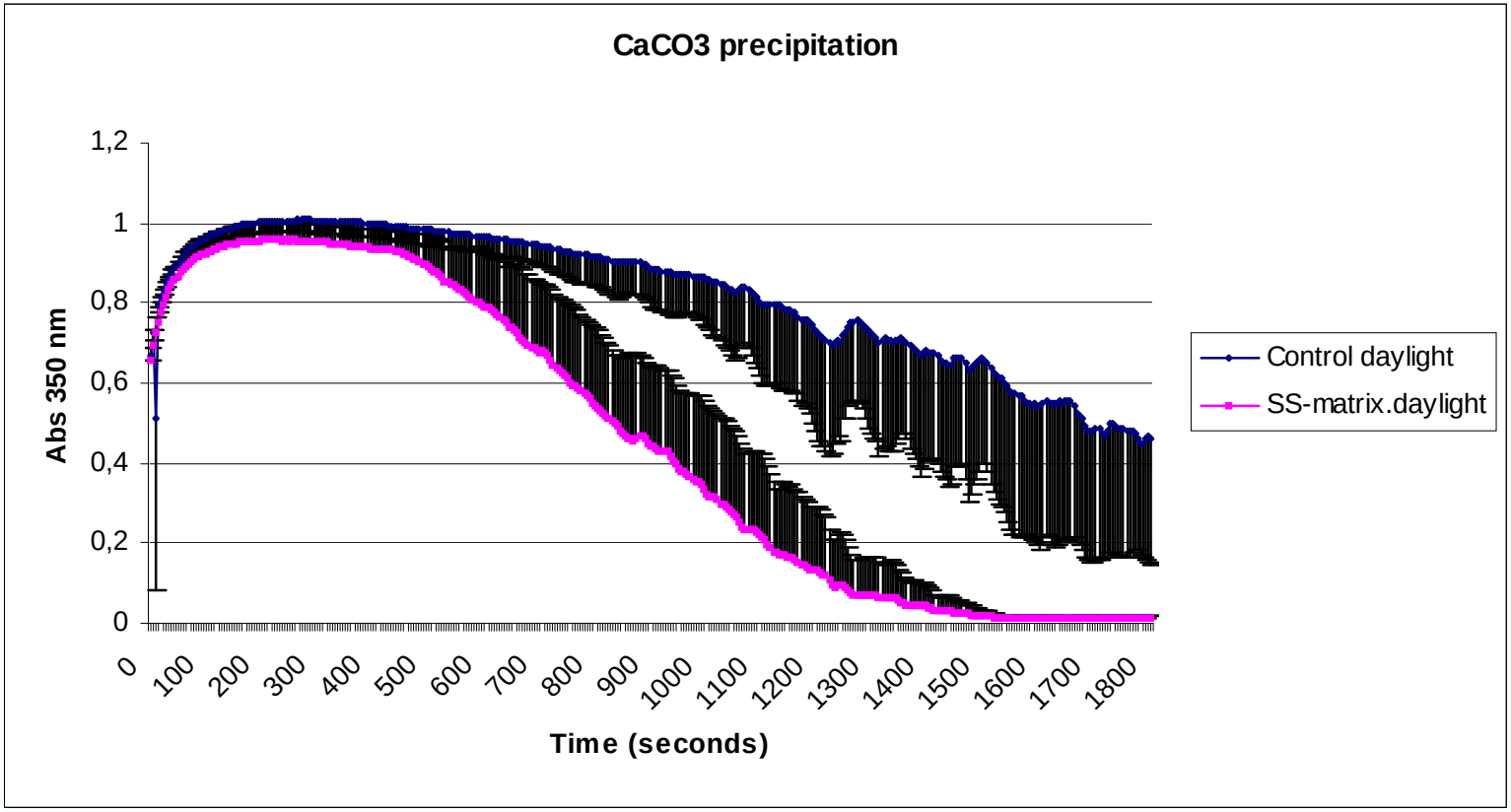
Formation of high density energy (electrons)



Formation of an electrode potential in Aklo® water (Battery effect).

Calcium carbonate precipitation in “coherent” water

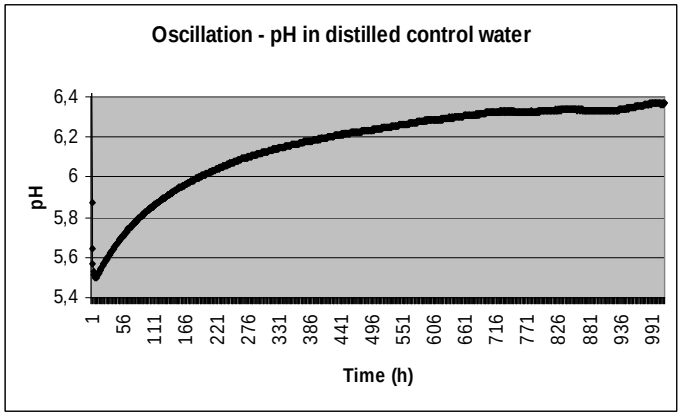
Effect of ”sync” distilled water on sedimentation rate



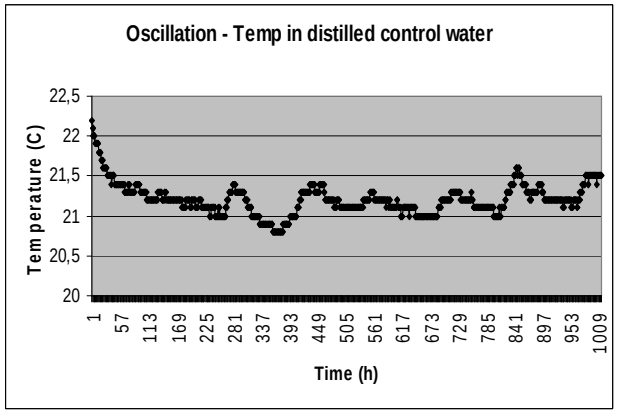
Calcium carbonate seeds grown in “sync” water show a sedimentation rate similar to particles exposed for a magnetic field.

Oscillation in pH and temperature in coherent water.

Control water

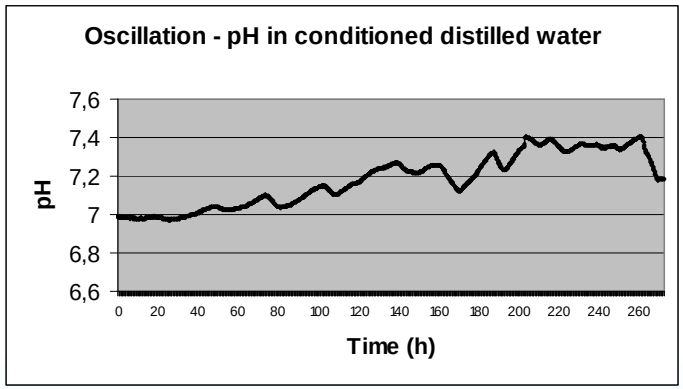


Control water

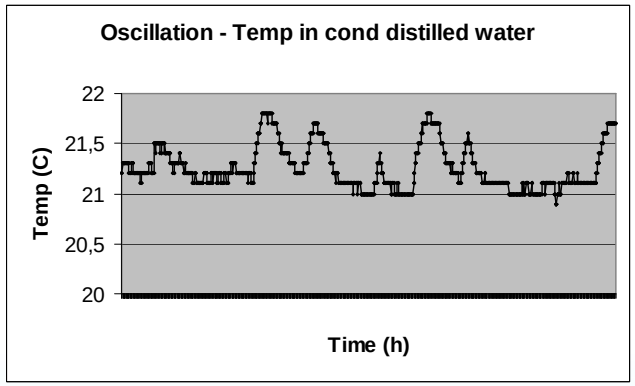


Faraday's box: (measuring magnetic fields only)

Coherent water



Coherent water

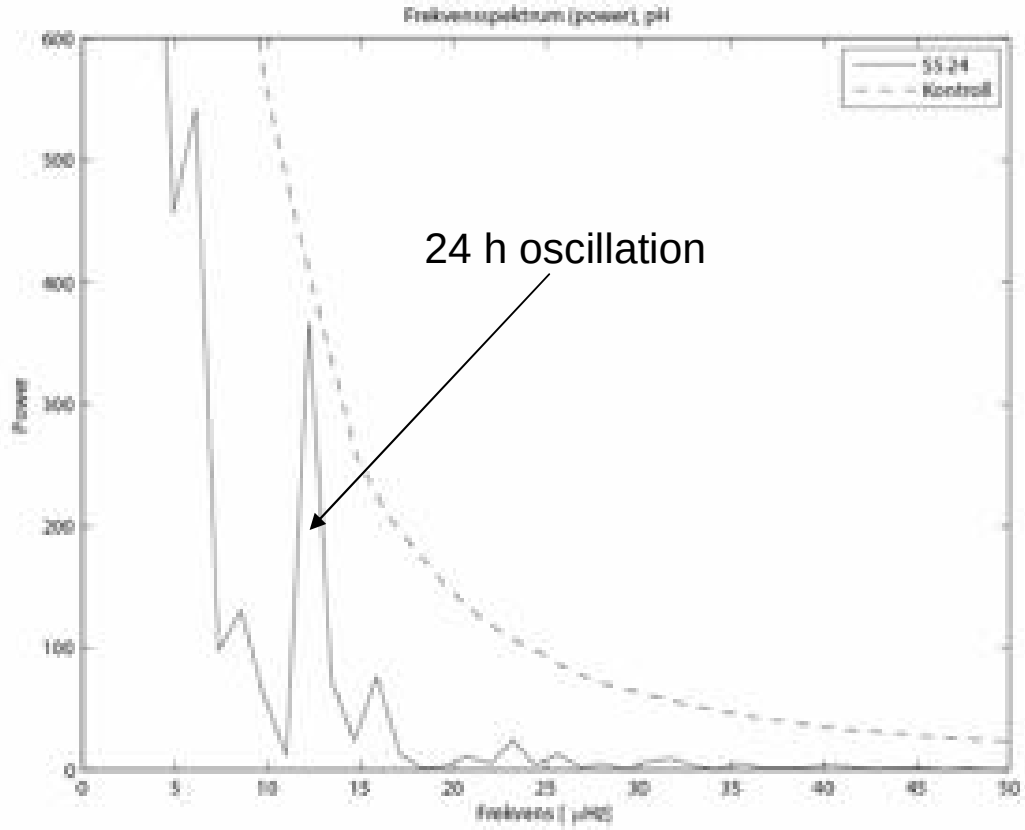


Temperature was measured outside the Faraday box

The results show that coherent water is affected by a self-trapped or superimposed magnetic field.

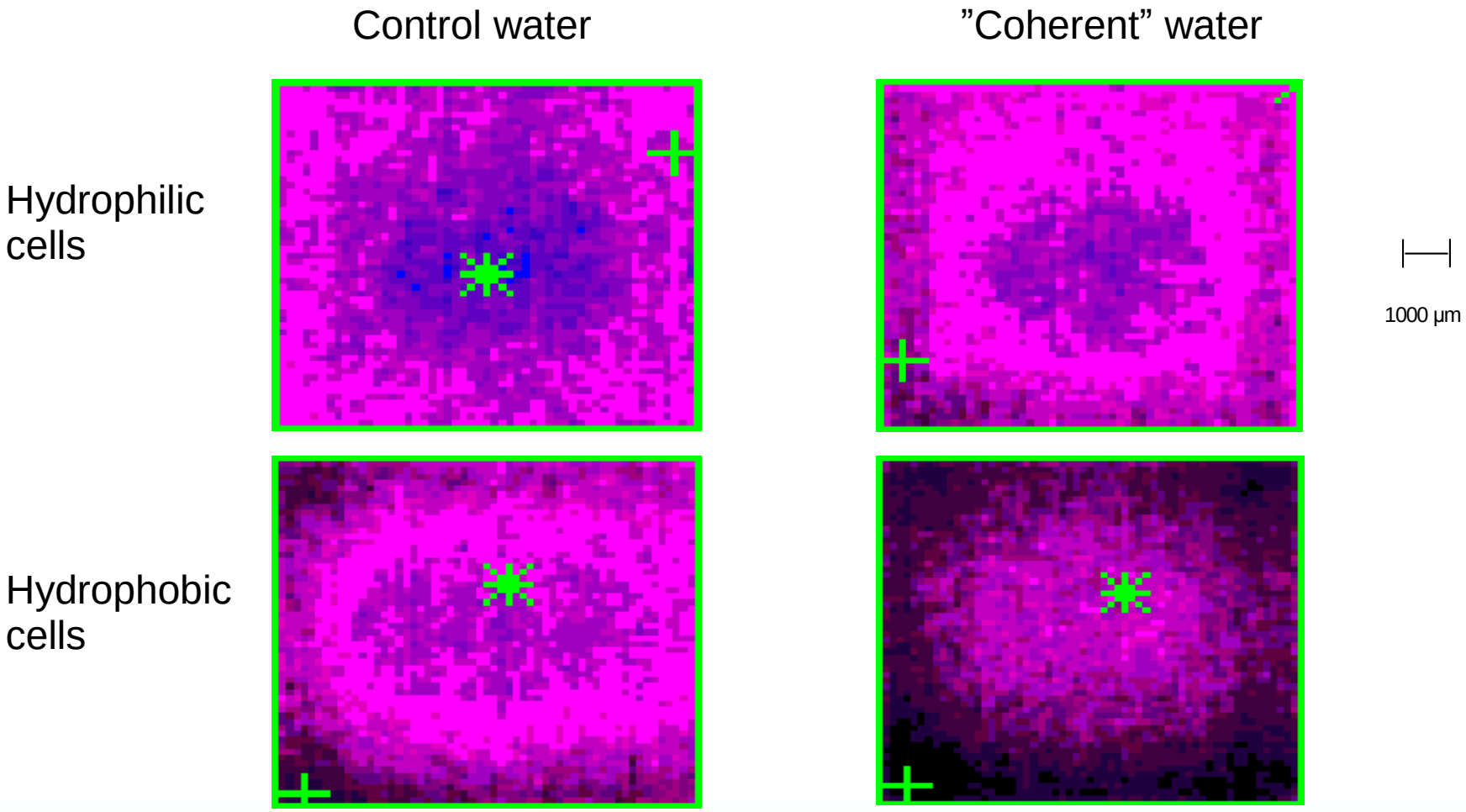
Fourier analysis: Non-thermal pH oscillation in coherent water

pH - frequency spectrum ”magnetic signature”



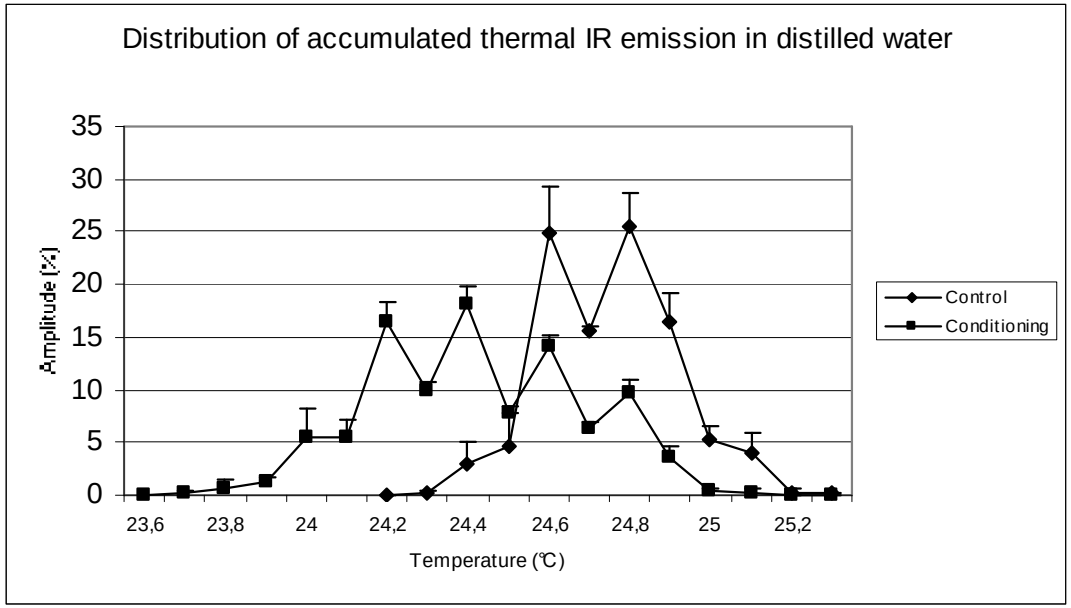
The results show that synchronous water has magnetic oscillations besides the thermal 24 h oscillation.

Thermal IR emission is reduced in ”coherent” water

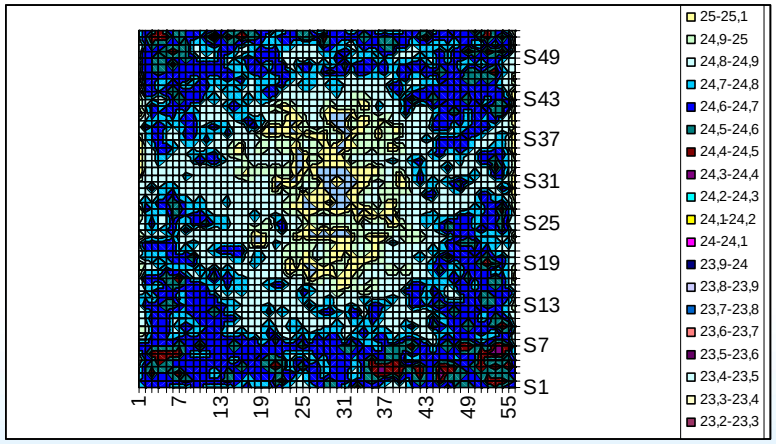


The temperature is 0.3-0,4 C lower in coherent water and ordering extends the bulk volume of water.

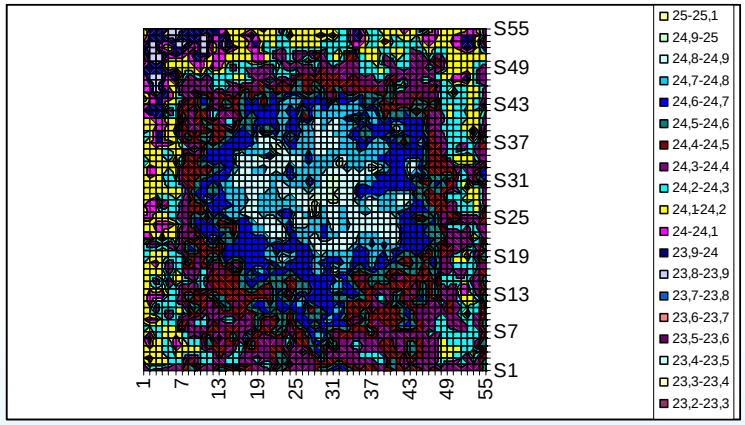
Distribution of accumulated thermal IR emission in ”coherent” water



Control water



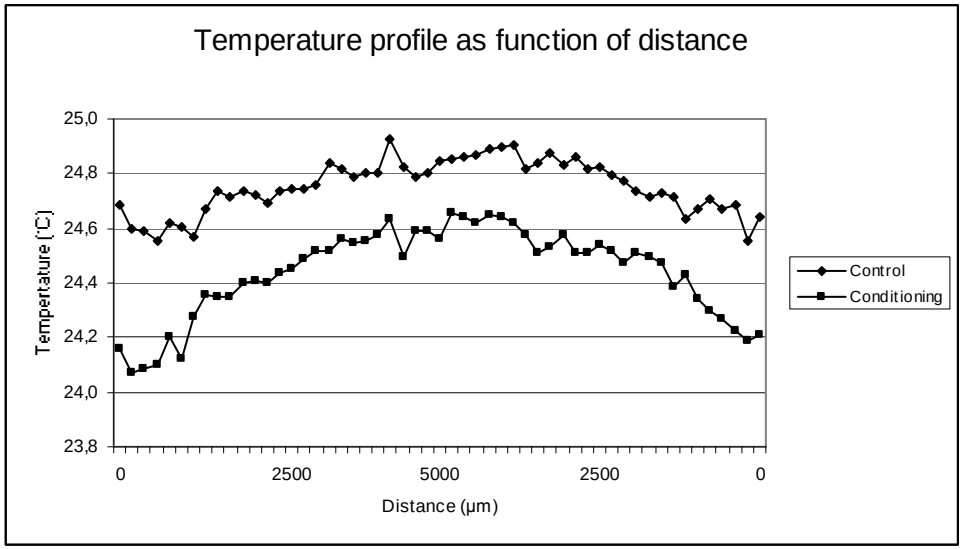
”Coherent” water

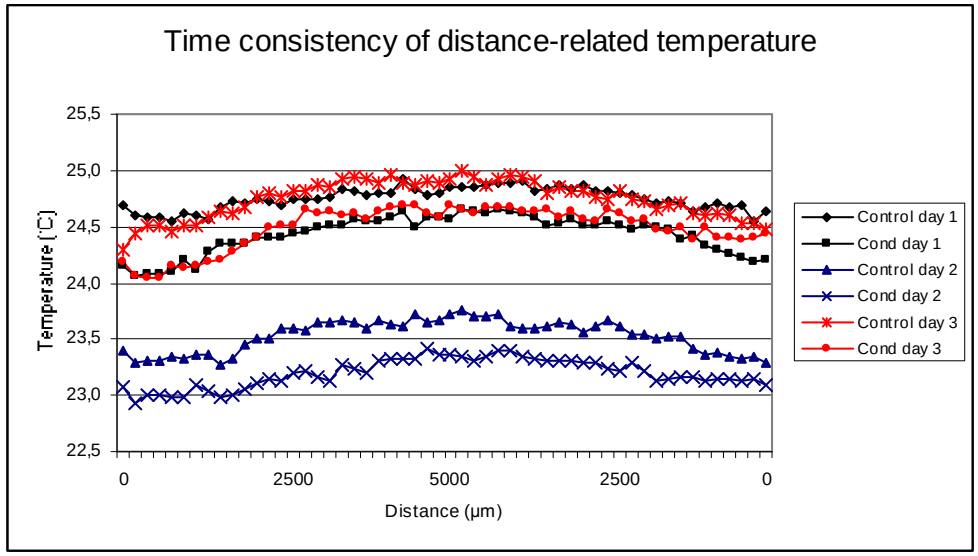


Coherent water forms vortex-like condensed temperature gradients

Time consistency of long-range effects on distance related temperature

Temperature silouette outlines as a function of distance and time measured from the fluctuations in thermal IR emisson of surface water

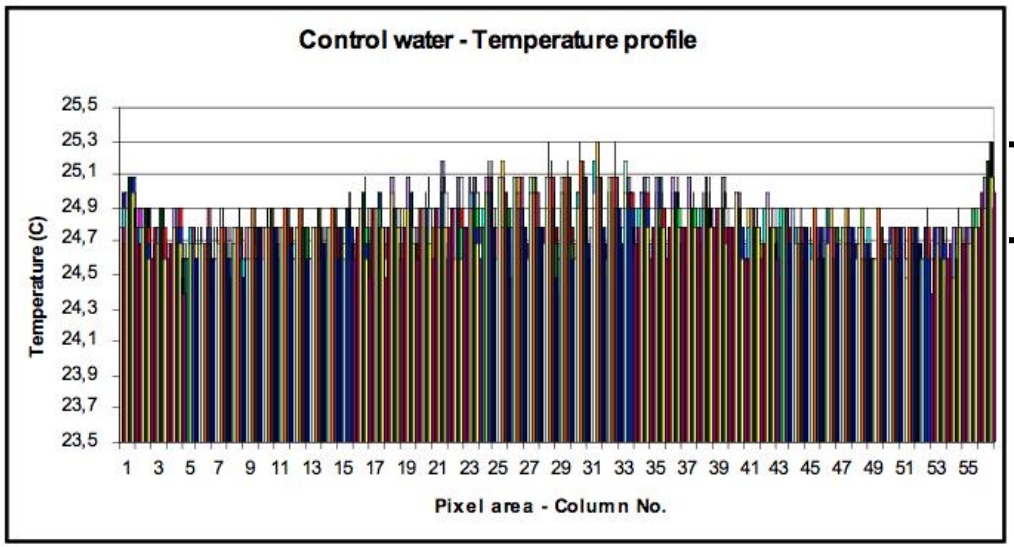




The difference in temperature towards control water is consistent over time and distance in coherent water irrespective of external temperature.

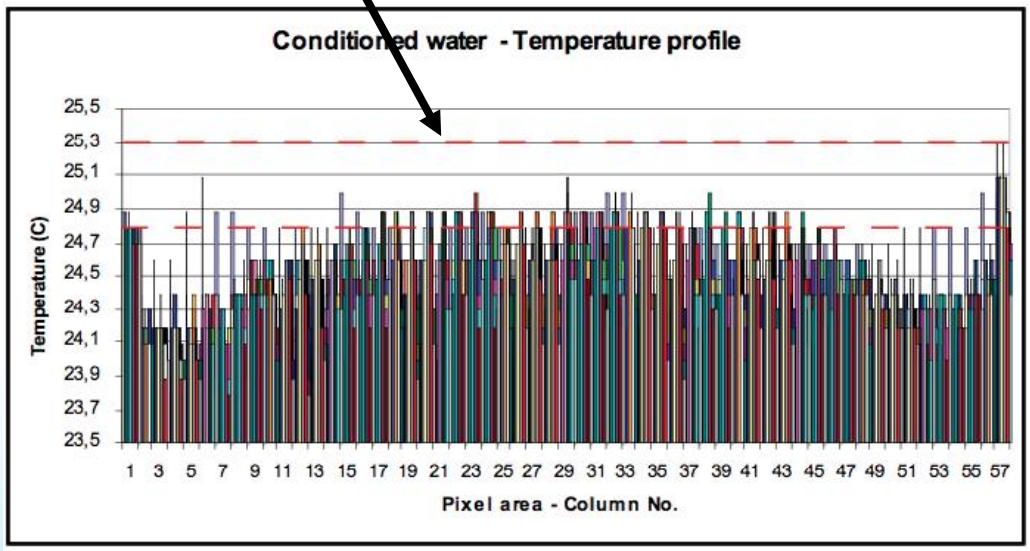
Non-thermal motion in ”coherent” water

A



Control water

”Coherent” water



Temperature horizon outlines show the change in distribution of surface temperature and non-thermal motion in water across the cell.

Thermal IR emission, fractal scaling, ORP and pH in ”coherent” water

Irradiation by low entropy sunlight forms a stable ordered water state

Table 1. Thermal infrared (IR) emission imaging, fractal scaling, redox potential and pH in control and conditioned distilled water

	Thermal IR emission		Fractal scaling		Redox potential	pH
Sample[a]	Temperature (°C)	Temperature Difference (°C)[b]	FD[c]	DFA[d]	ORP[e] (mV)	pH[e]
Control, Quartz	24,59 ± 0,19		1,442 ± 0,045	0,91 ± 0,02	331 ± 3,3	3,250 ± 0,270
Conditioning, Quartz	24,29 ± 0,14**	0,30 ± 0,05***	1,844 ± 0,008***	0,97 ± 0,02***	309 ± 1,9***	5,469 ± 0,088***
Control, Polystyrene	23,55 ± 0,20		1,809 ± 0,013	0,91 ± 0,01	311 ± 9,2	5,355 ± 0.018
Conditioning, Polystyrene	23,24 ± 0,21**	0,31 ± 0,04***	1,784 ± 0,001*	0,97 ± 0,01***	282 ± 4,3***	5,534 ± 0,039***

*P<0,05; **P<0,01, ***P<0,001

- **Decrease in surface temperature – formation of ordered water in polar and non-polar environment**
- **Fractal scaling reveals IR flickering a self-regulative long-range correlation among water molecules and a detailed thermal irregularity**
- **Reduction in ORP and increase in pH show an increased stock of “free” electrons**

Effect on Human neural stem cell recovery after damage

Human stem cells were grown in culture medium that was treated with Aklo® technology.

The stem cells were treated with laser pulse (Flyer plate model) to induce stress (Ø 1 mm gap in cell tissue).

The cells that were grown in Aklo® conditioned medium recovered form and function.

Further observations in the treated cell culture:

- increased proliferation
- increased reparative cell activity
- increased sustainability in the culture medium (pH, ORP)

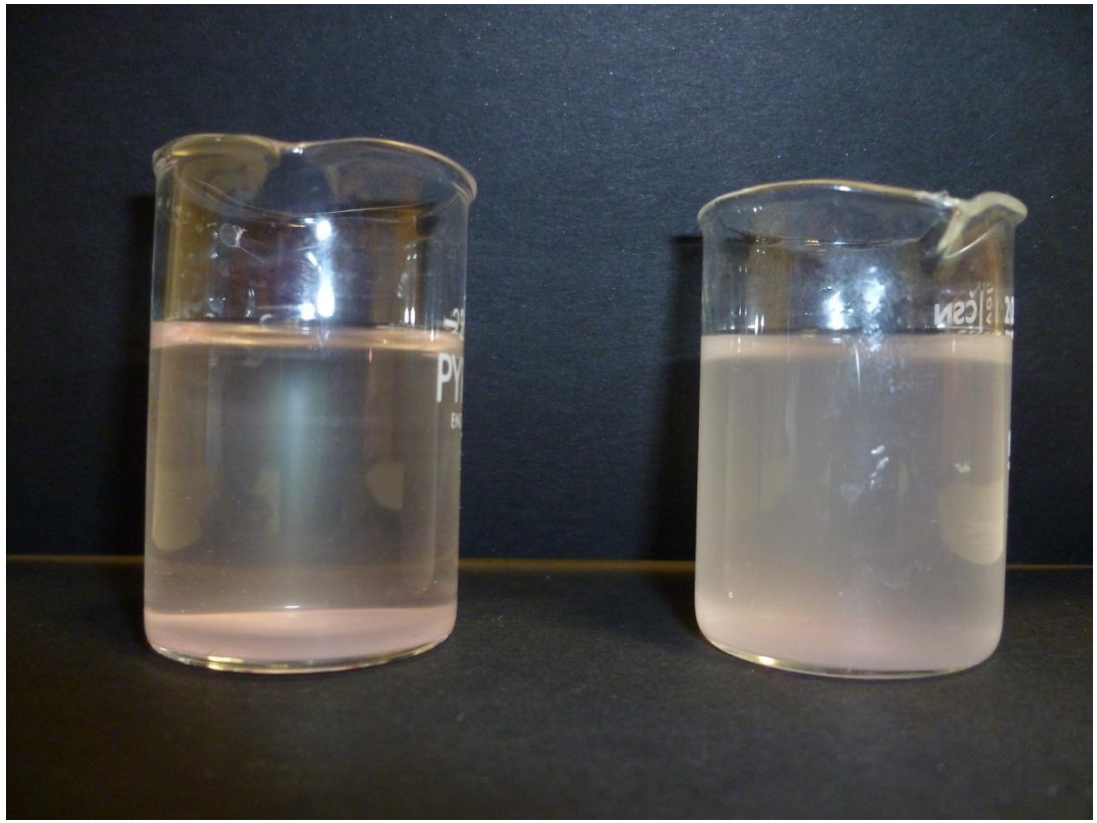
The left tube is treated with the Aklo® technology and was still fresh one month after the test. The control sample (right) is degraded and is no longer usable.

Coherent water stabilizes cell tissue towards external stress load

Applications

”Less” gravitation force on microspheres in coherent water

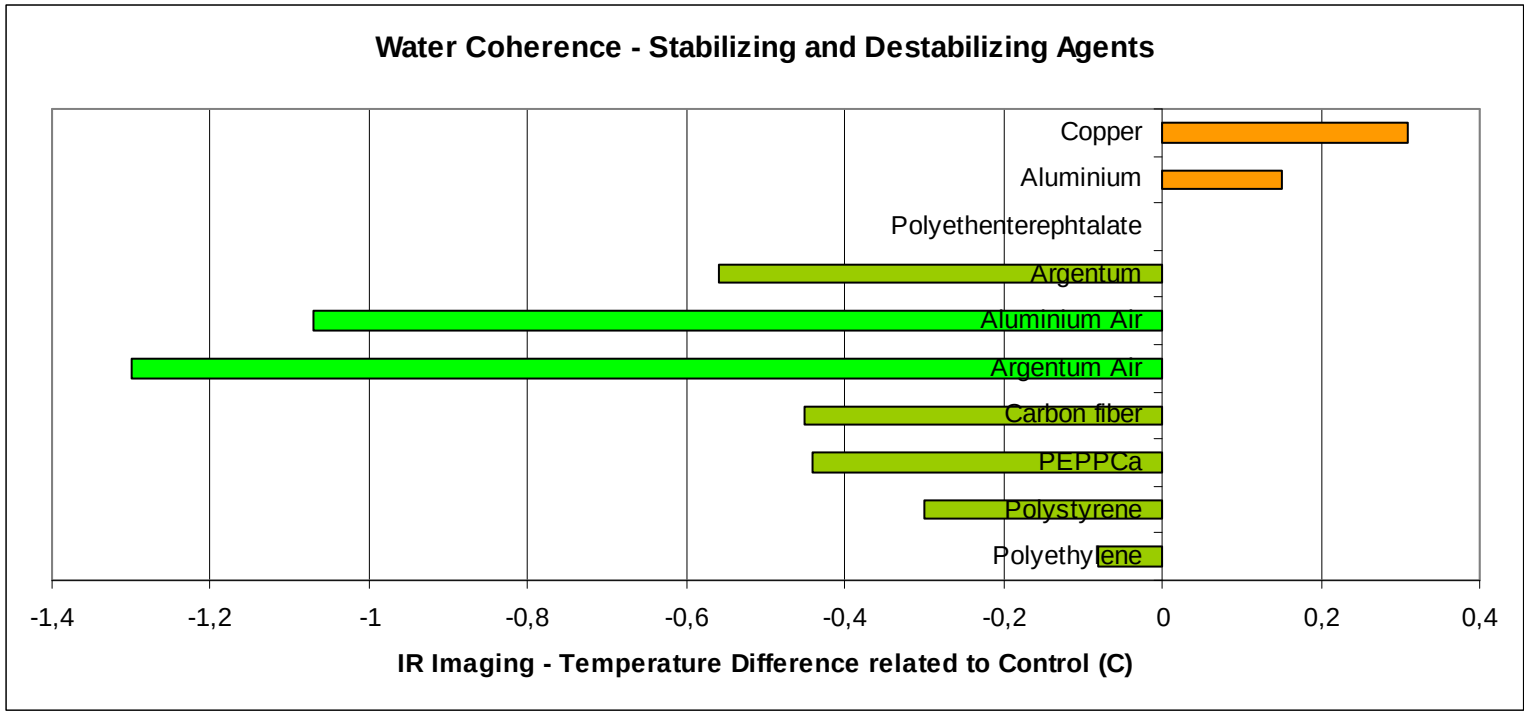
Control water



Conditioned water

The structure of coherent water keeps carboxylated polystyrene microspheres in suspension for weeks. Less gravitational force, long-range fractal boundary, tetrahedral and coordinated species, low energy state.

Hydrophobic and metal surfaces promote a coherent water state

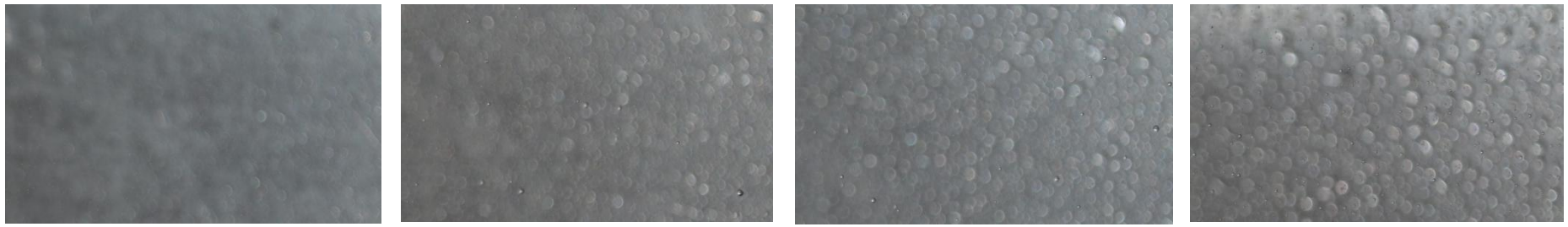


Temperature reduction of water in relation to control sample from the surface of Aklo-treated solid material.

The results show that Aklo-activated silver, carbon fiber and cyclic structured plastics amplify a coherent water state.

Activation of plastics and metals: Growing of water droplet columns in air on the surface of aluminium

Control water – Random distribution

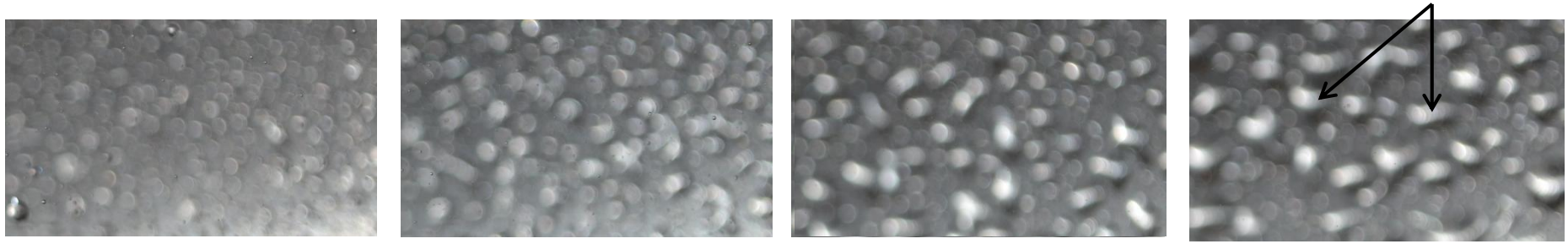


Start 2 sec 4 sec 6 sec

1000 µm

Coherent water - Organized distribution

Growing water droplet columns



Start 2 sec 4 sec 6 sec

Aklo® conditioned water acts a bridging agent stabilizing water and “guest” structures and molecules.

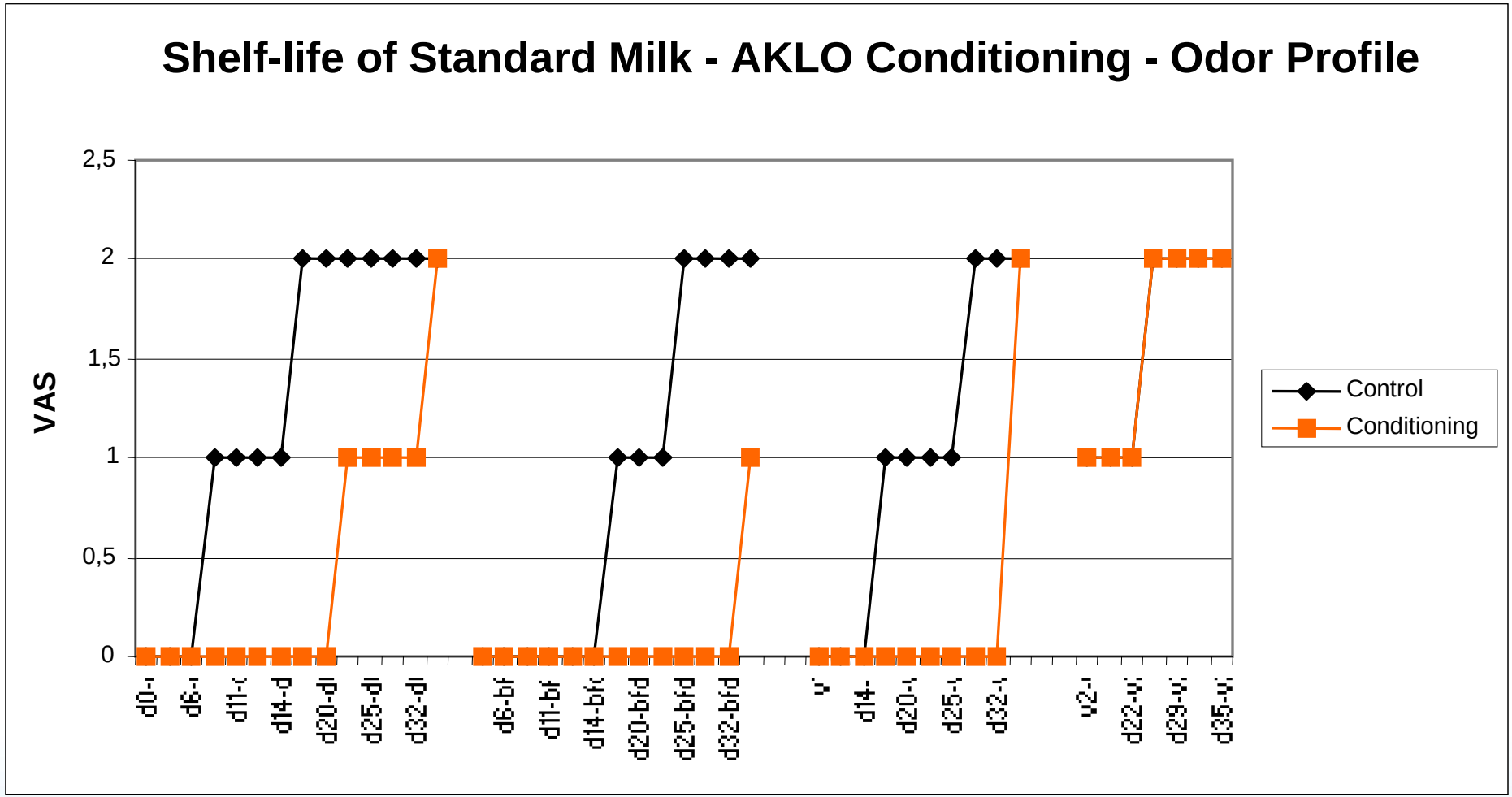
Freshness of plums kept inside an activated PE film

Activated PE film	Control PE film
	
Ripe Mellow, Nice smell	Brownish, Shriveled, Mouldy, Bad odor

Plums Belgium Class 1, Production in Peru, stored for 4 weeks at ambient temperature.

The results show that activated PE film keeps vegetables, fruits, mushrooms and meat fresh by protection from oxygen attack.

Shelf-life of Standard Milk Conditioning with AKLO®



Coherent water has significant health effect on the human heart

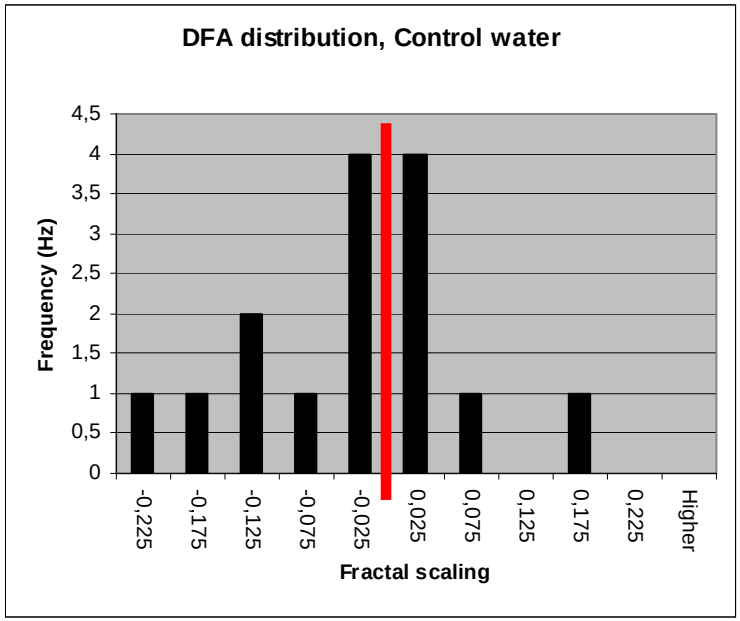
Tabell 1. Mean values of time and power spectral density parametars obtained from 10 min ECG in 15 healthy volunteers.

	Control 1	Mineral water	P	Diff Mineral-Control	Control 2	Synchronized water*	P	Diff Synch-Control	P Diff.
	Mean ± SD	Mean ± SD		Mean ± SD	Mean ± SD	Mean ± SD		Mean ± SD	
HRT (bpm)	65,6 ± 9,1	63,9 ± 8,5	0,016	-1,7 ± 2,4	63,9 ± 9,0	61,0 ± 8,1	0,002	-2,5 ± 2,6	NS
RR (ms)	931 ± 130	953 ± 125	0,021	22,4 ± 33,6	963 ± 147	1000 ± 139	<0,001	39,6 ± 34,1	NS
SDRR (ms)	69,7 ± 29,2	85,3 ± 44,7	NS	15,6 ± 41,2	87,0 ± 59,4	90,5 ± 45,8	NS	3,4 ± 33,0	NS
RMSSD (ms)	52,8 ± 31,9	69,6 ± 44,6	NS	16,7 ± 33,5	68,8 ± 62,7	72,2 ± 51,0	NS	3,4 ± 19,3	NS
Total Power (ms^2/Hz)	1714 ± 1463	2244 ± 2236	NS	530 ± 2481	1992 ± 2210	2566 ± 2608	0,013	574 ± 781	NS
VLF (ms^2/Hz)	804 ± 893	865 ± 733	NS	60,7 ± 1090	908 ± 892	1311 ± 1334	0,013	403 ± 549	NS
LF (ms^2/Hz)	569 ± 438	796 ± 837	NS	227 ± 857	569 ± 572	787 ± 921	NS	218 ± 542	NS
HF (ms^2/Hz)	271 ± 306	444 ± 589	NS	173 ± 579	356 ± 604	324 ± 396	NS	-32,5 ± 237	NS
HF norm (%)	23,9 ± 12,1	29,3 ± 9,6	NS	5,3 ± 13,9	26,8 ± 11,8	26,6 ± 7,8	NS	-0,1 ± 12,2	0,037
LF norm (%)	67,7 ± 16,0	59,7 ± 10,3	NS	-8,0 ± 18,9	63,1 ± 15,9	60,5 ± 11,5	NS	-2,6 ± 18,1	NS
LF/HF	3,7 ± 2,3	2,5 ± 1,5	NS	-1,3 ± 2,3	3,1 ± 2,3	2,5 ± 1,1	NS	-0,6 ± 2,4	NS
DFA	0,89 ± 0,11	0,84 ± 0,11	NS	0,049 ± 0,098	0,87 ± 0,14	0,91 ± 0,11	NS	0,036 ± 0,123	0,044

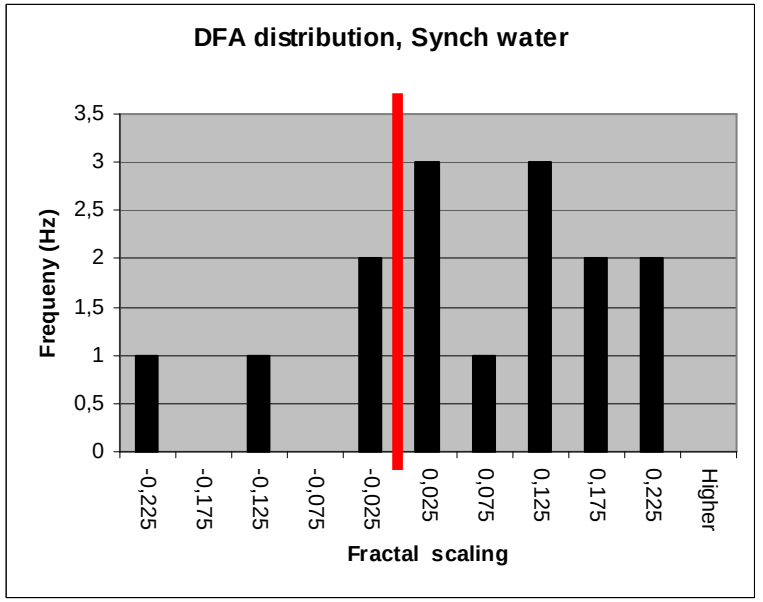
The results show that coherent water has a significant effect on heart rate, VLF frequency signals and fractal heart rate dynamics.

Fractal scaling in heartbeat fluctuation

DFA Distribution ratio 9/6

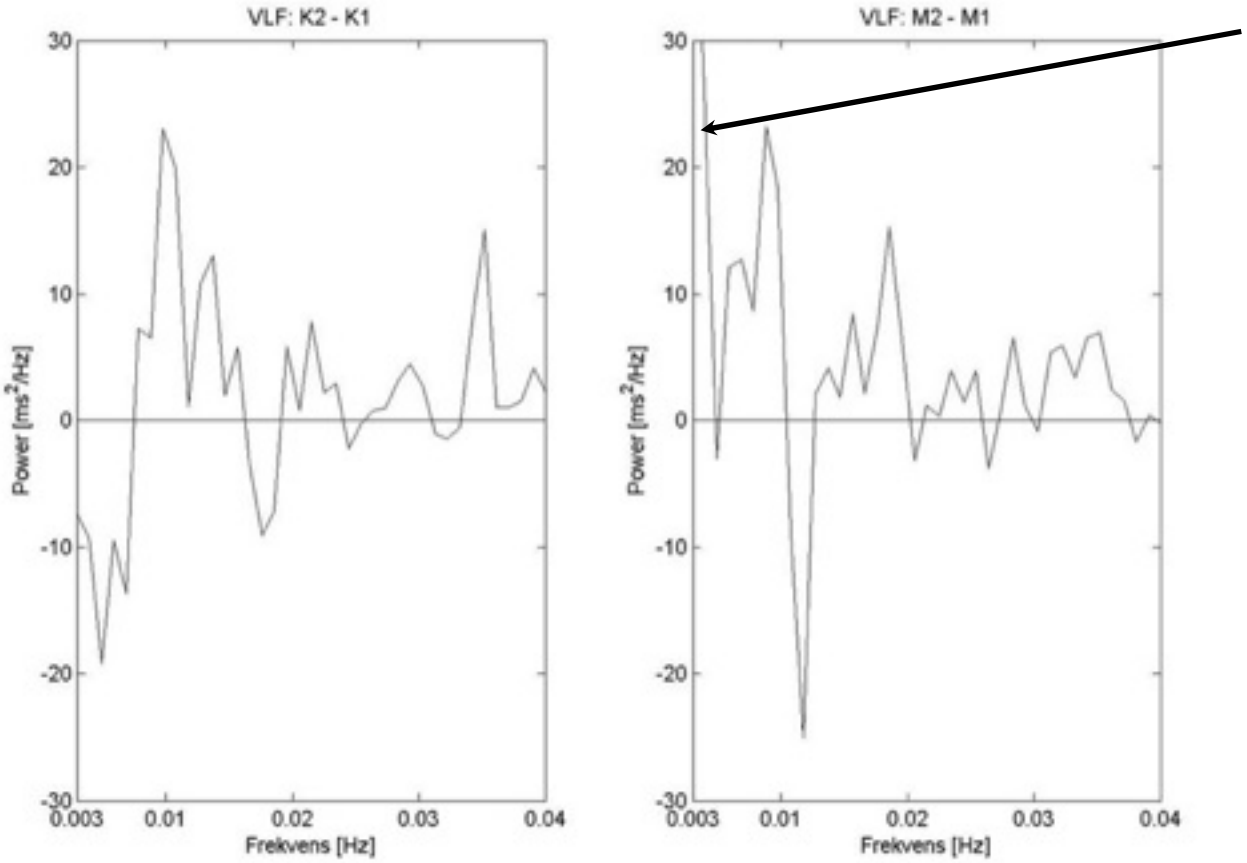


DFA Distribution ratio 4/11



The results show a shift in the distribution towards higher DFA values after intake of coherent water.

Fourier analysis of VLF signals on 10 minutes EKG



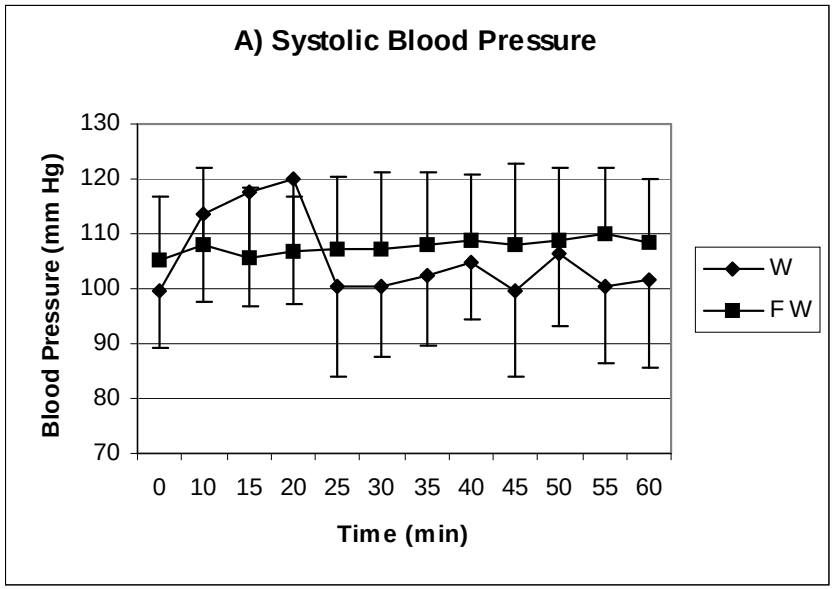
Control

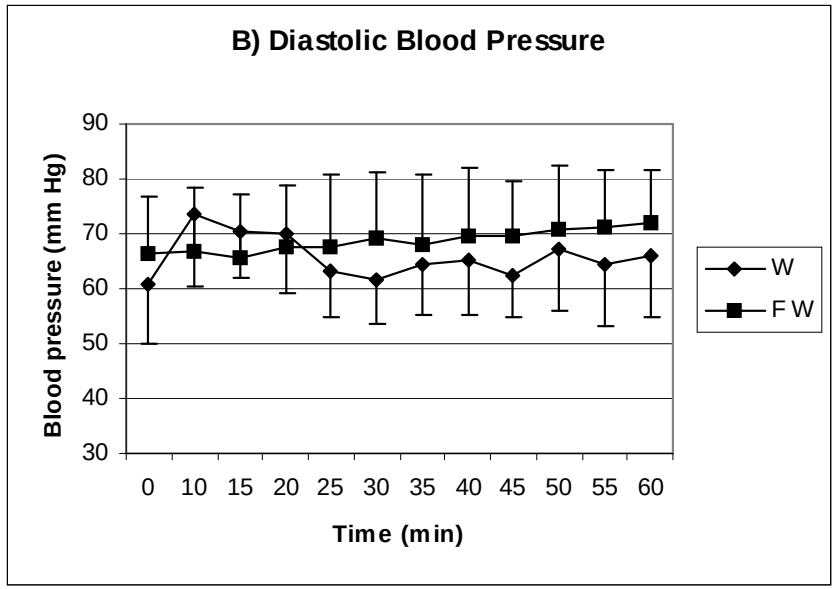
Coherent water

The presence of the extra peak (indicated) shows that consumption of coherent water induce signals with long duration in the VLF band.

Coherent functional water stabilizes normal blood pressure

Significant reduction in normal blood pressure variation

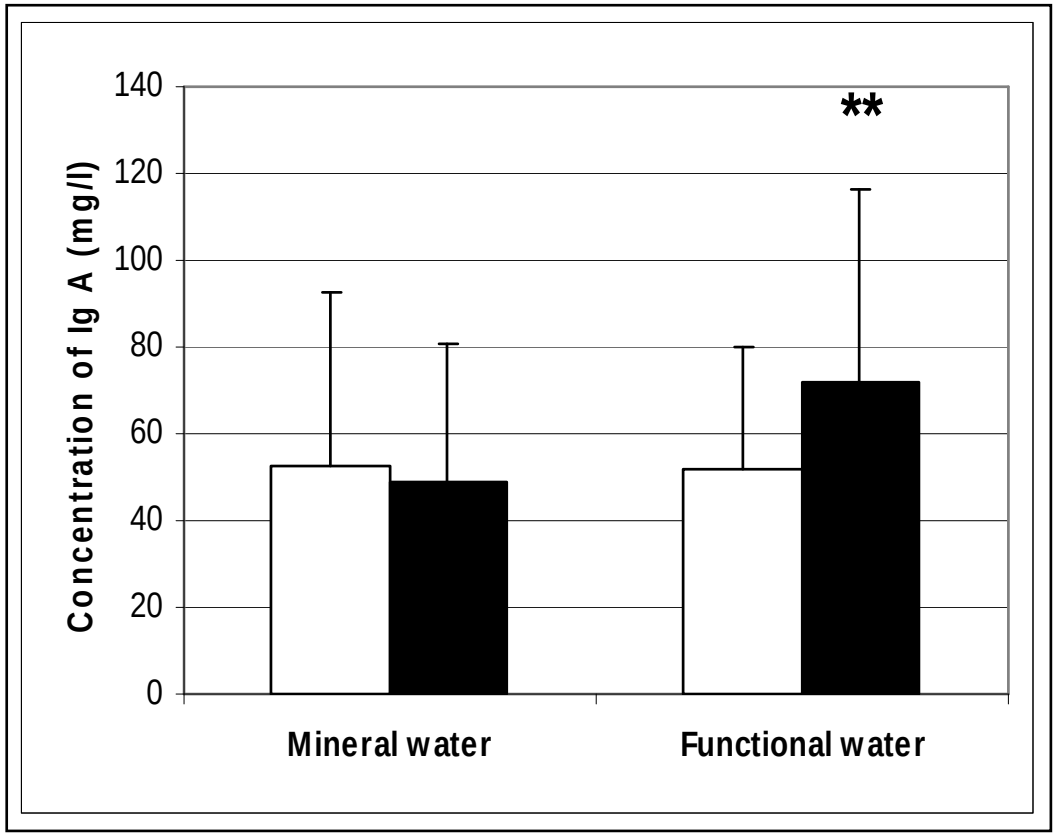




The normal immediate increase in BP after intake of 100 ml tap water was abolished after consumption of functional water.

Humoral immunity in saliva

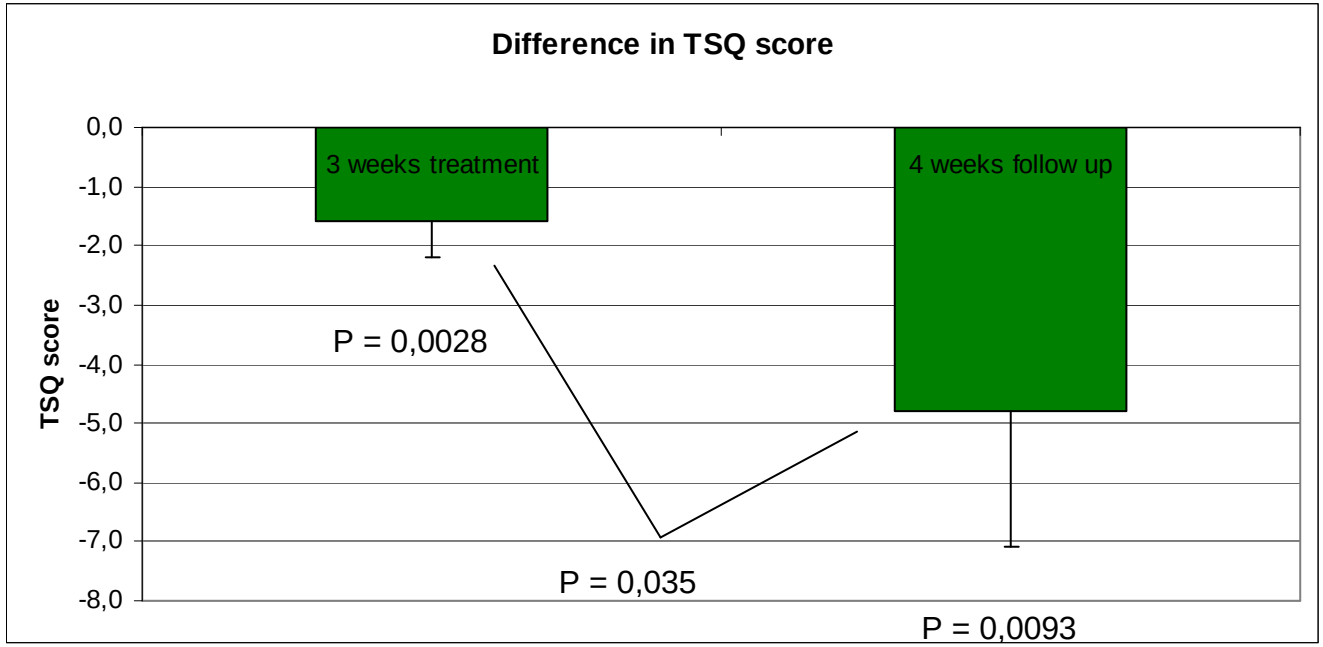
Functional Water Increases IgA in Saliva



Consumption of functional water protects against pathogenic invasion

Aklotechnology affects tinnitus sensations

Difference in total score of Tinnitus Severity Questionnaire after 3 weeks of treatment and 4 weeks follow up.



One treatment period (21 days) has proven to relieve tinnitus in 50 % of treated patients and for 90 % 4 weeks post-treatment.

AKLOMA

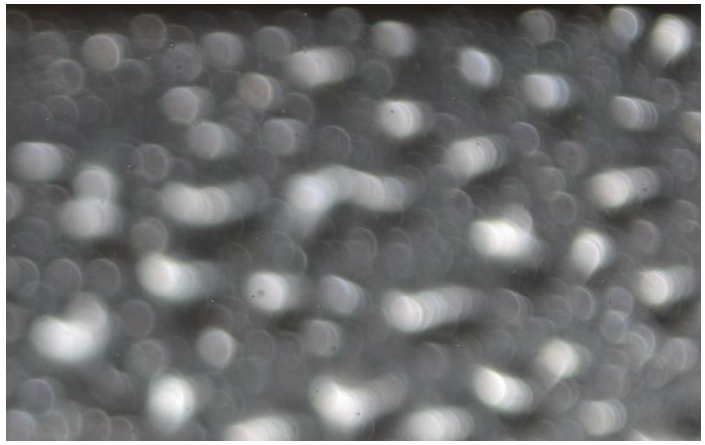
Thank you for your attention!

AKLOMA

Proposed Mechanism

Non-linear dissipation gains a coherent regim in water

- A wave-guide forms dynamical order in water
  (IR sensitive, long life-span, specific excitation, EMF oscillation)
- Directed by soliton mechanism
- Charged solitons emit EMF
- Forms coherent domains in water
- Contains collective electrons
- Non-local coupling (EMF only)
- Fractal engaged Self-regulation
- Coherent low-energy state
- All molecules (guests) oscillate in unison
- Thermal and EMF fluctuations couple
- Formation of ”cold” vortices - excitation energy is trapped
- Becomes a ”machine” able to collect energy and perform ”work”

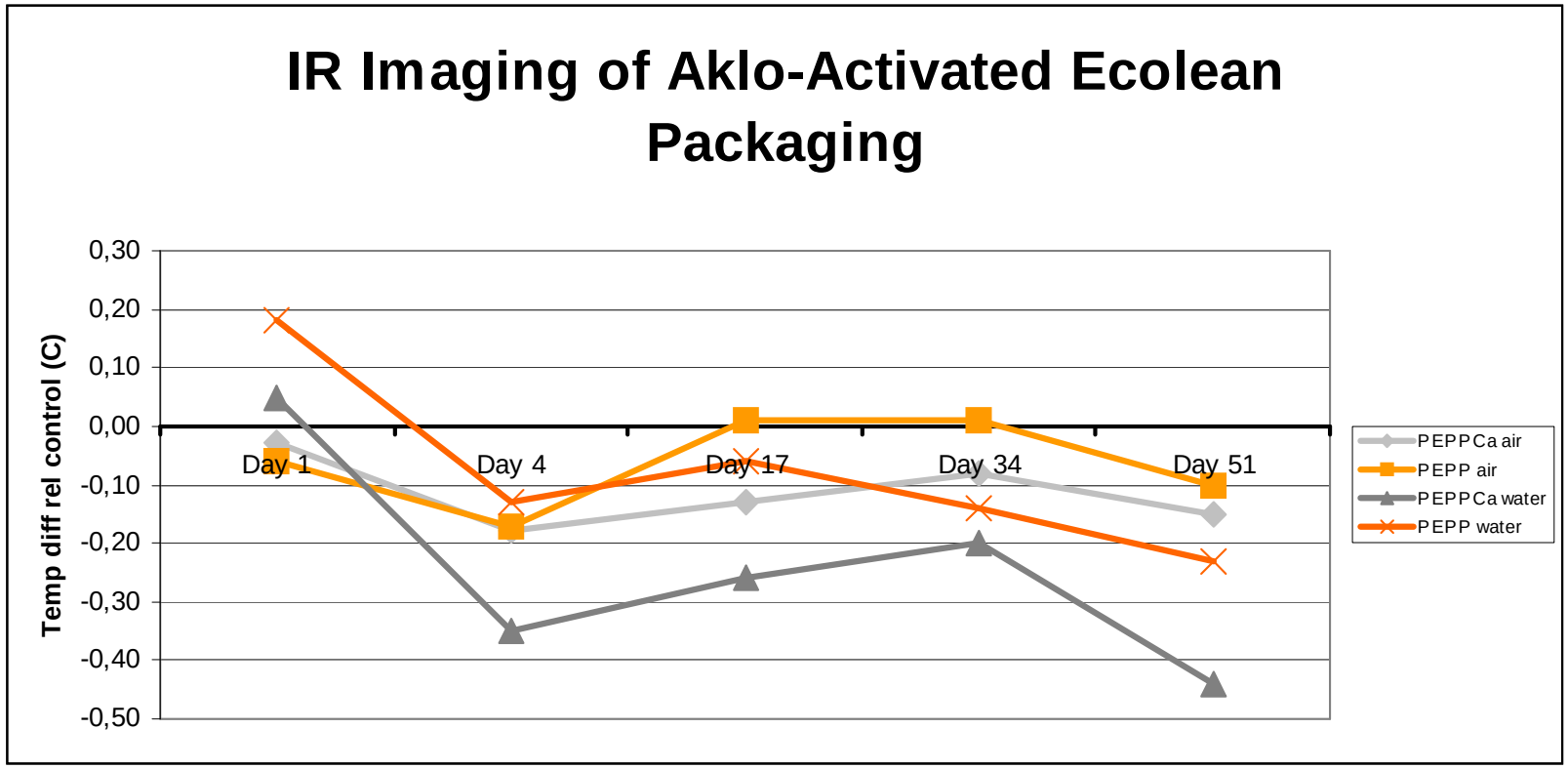


Spontaneous formation of fractal coherent water

The dynamics of self-organisation in non-linear biosystems depends on trapped EMF´s in coherent domains of water, directed by solitons, collecting energy and maintaining system coherence.

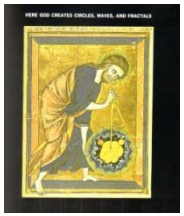
Brizhik et al 2009

Activation with AKLO®: Thermal IR Emission at Air- and Water-CaPEPP Surfaces



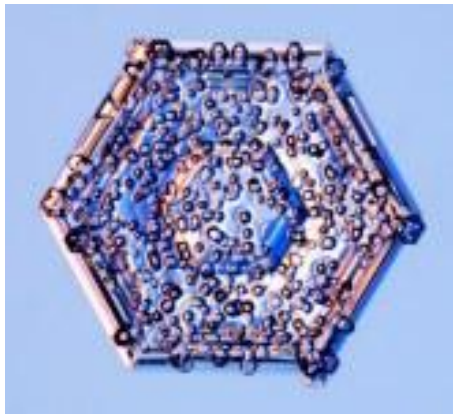
The results show a consistent activation and significant reduction in surface temperature of especially calcium containing PEPP packaging.

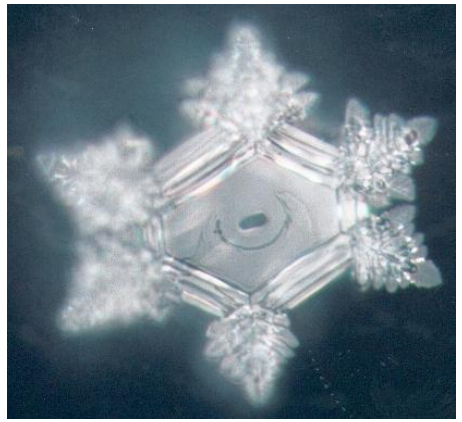
Fractal properties of real snow flakes



Ordinary Water

Coherent Water





FD = 1,92 **FD = 1,88** **FD = 1,85** **FD = 1,81**

FD = fractal dimension