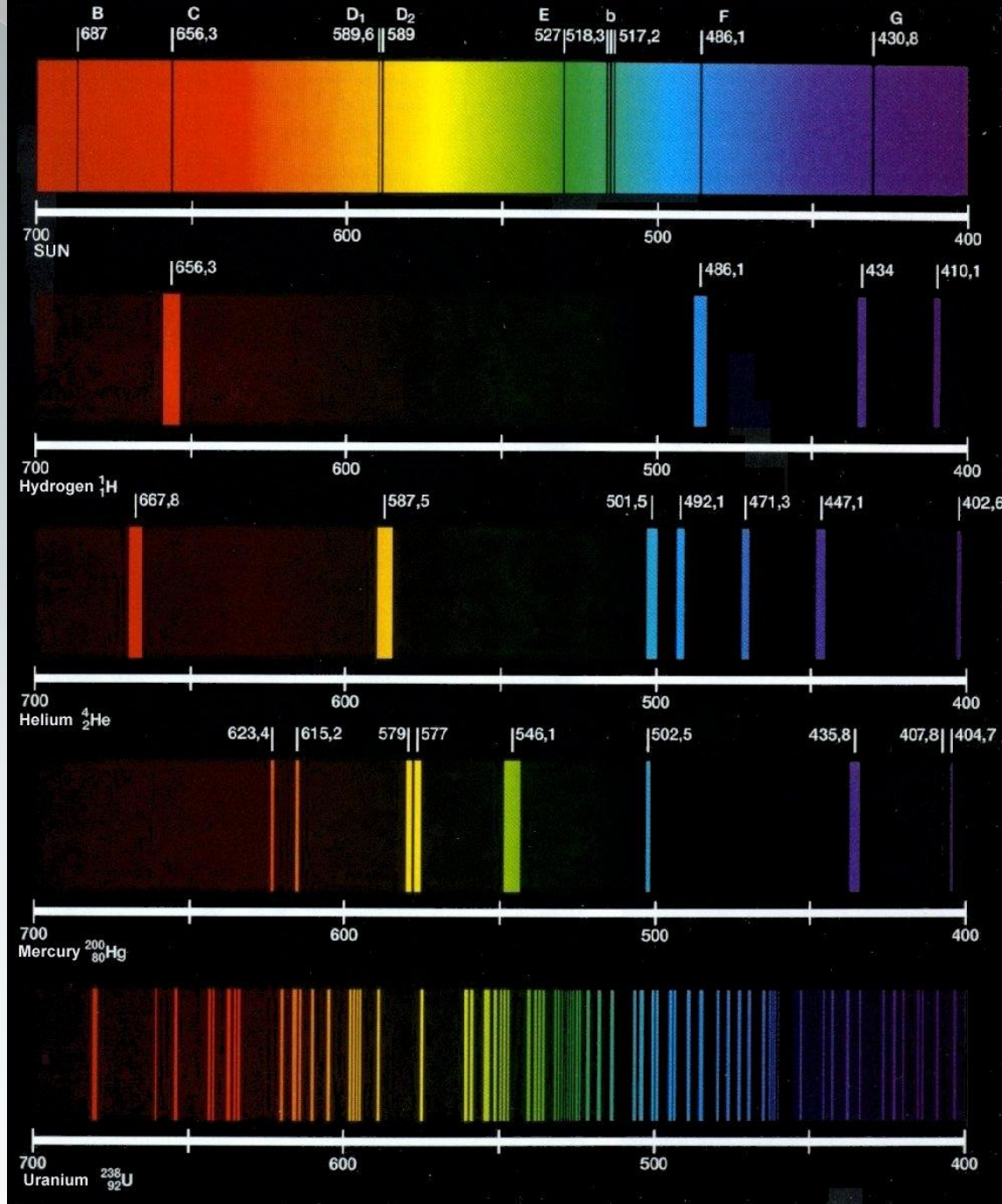


# Water imprinting with frequency bio-information

by

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C. Cardella Water imprinting with frequency bio-information

Since the 1980's Smith has postulated a dualistic relationship between frequency and substance, and that a biophysical treatment can be as effective as a chemical treatment

**The information of a chemical compound can be seen as its specific "bar code", where the bars are a group of distinct frequencies that uniquely define the identity of the compound itself**

The aim of this study is to show that by means of ultra low e. m. fields water can store the information of a chemical compound and the stored information can mimic the properties of the original compound

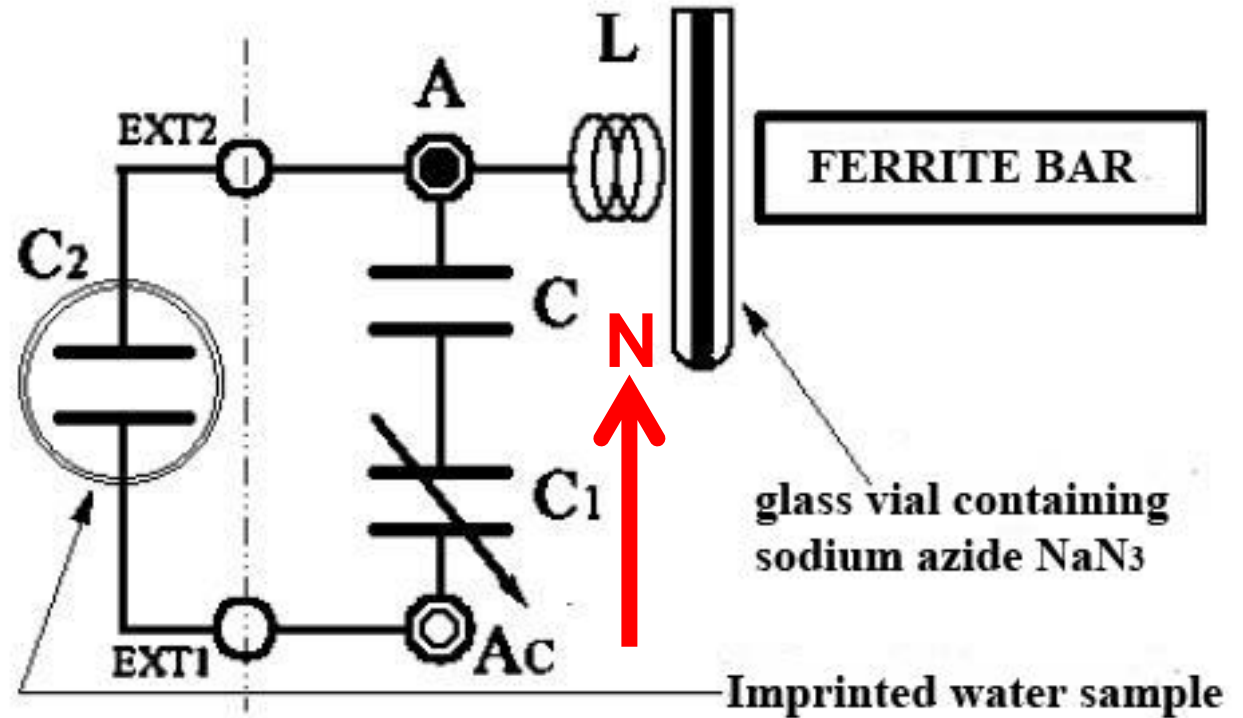
The term *bio-information* here is meant as the capacity of the above defined information to alter the status of a biological system

We choose to “imprint” water with **sodium azide ( $\text{NaN}_3$ )** frequency information because this compound is a well known inhibitor of cell respiration

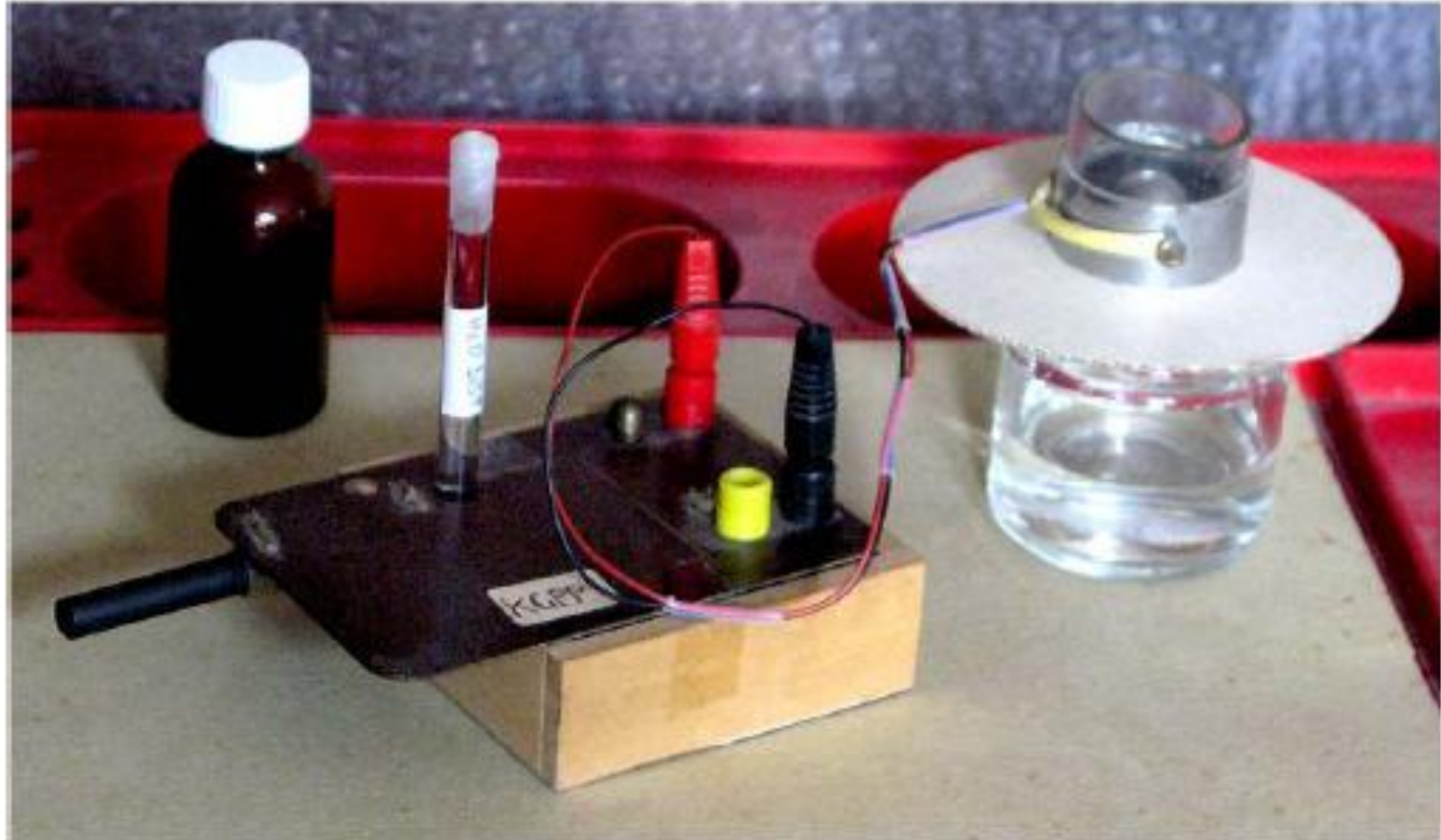
To imprint water we used the **ultra-weak electromagnetic field** produced by a very simple **RLC passive resonator**

$\text{NaN}_3$ (Hz)
$\uparrow 3.313 \times 10^{-3}$
$\downarrow 4.002 \times 10^{-1}$
$\uparrow 7.802 \times 10^0$
C: $3.313 \times 10^{-3}$

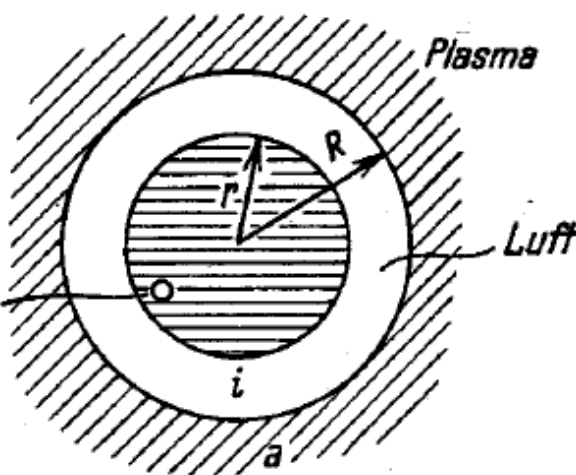
Frequency signature of a sodium azide specimen



# Experimental setup for imprinting the water

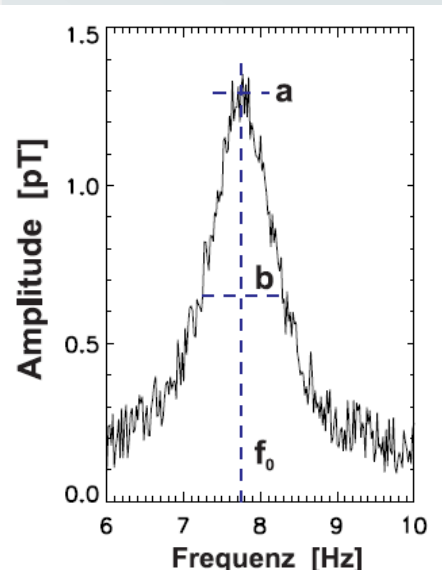


All tests were performed on bi-distilled and de-ionized water samples. All the water samples had a volume of 100 ml, and were exposed for 12 hours each, once and never again.

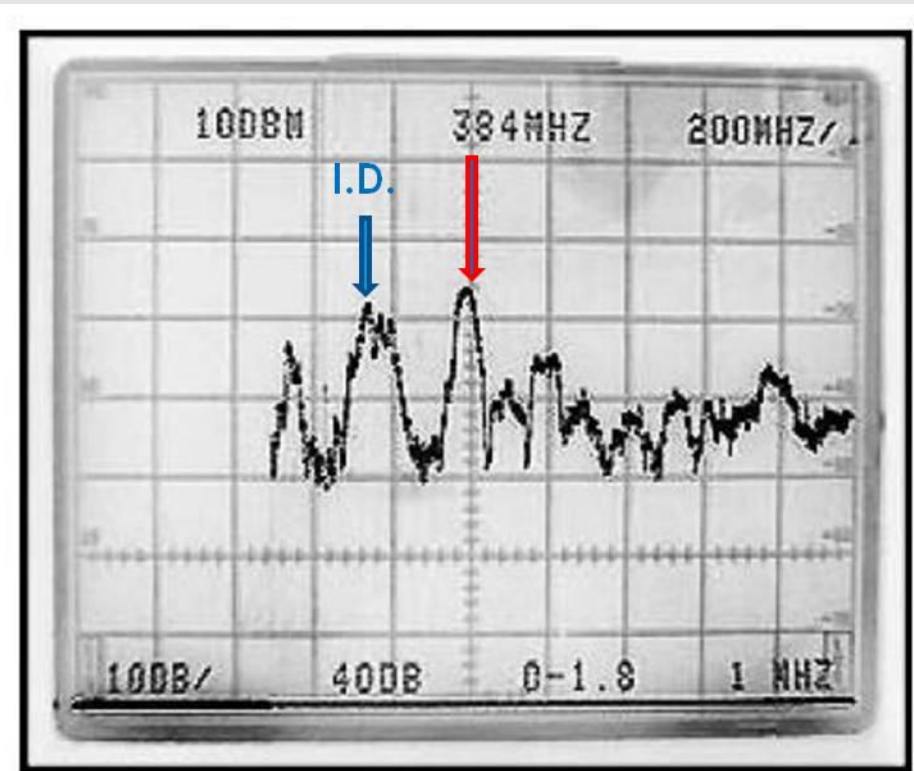


The frequency 384 MHz is the high frequency branch of the heart meridian and chakra endogenous frequency, the low frequency branch is 7.8 Hz. This frequency also “restores” a hidden imprint as does holding a hidden imprint near the heart chakra. That 7.8 Hz and 384 MHz have unusual effects on water is no more remarkable than the heart meridian and chakra having their endogenous frequencies on a Schumann (geophysical) resonance. (C. W. Smith)

The layer of electrically conducting air in the upper atmosphere called the ionosphere, which bounds the earth-ionosphere resonant cavity gives natural frequencies of resonance to oscillations excited by distant thunderstorms. These are the Schumann Bands of radiation which extend from about 7.8 Hz to about 30 Hz and come within the range of natural brain-wave frequencies.

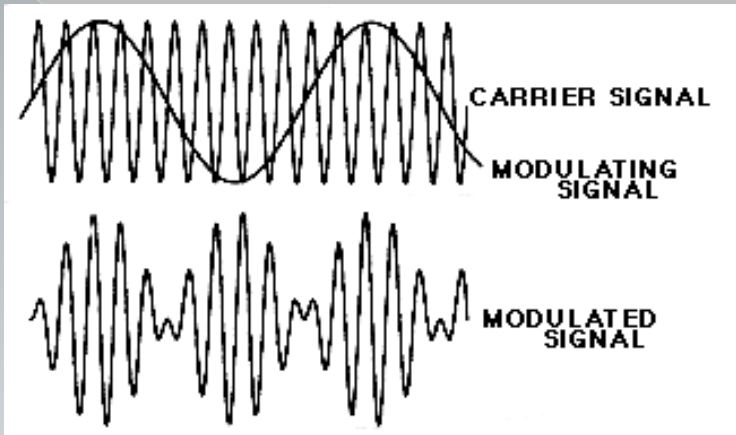


Resonance footprint of the **KGPP1** resonator connected to the Irradiation Device (courtesy of Dr. C. Vedruccio)



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# A possible mechanism for water imprinting by ultra-low e. m. fields



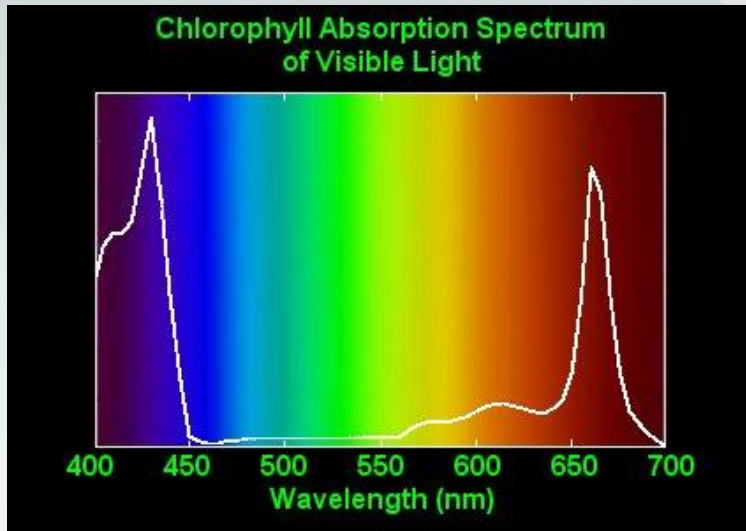
The geophysical fundamental Schuman freq. 7.8 Hz is detected by KGPP1



In response KGPP1 passive resonator transforms the SF into a 384 Mhz Carrier freq. that can “activate” water because it is equivalent to succussion



The carrier wave is modulated by the frequency pattern of the substance to be imprinted in the water



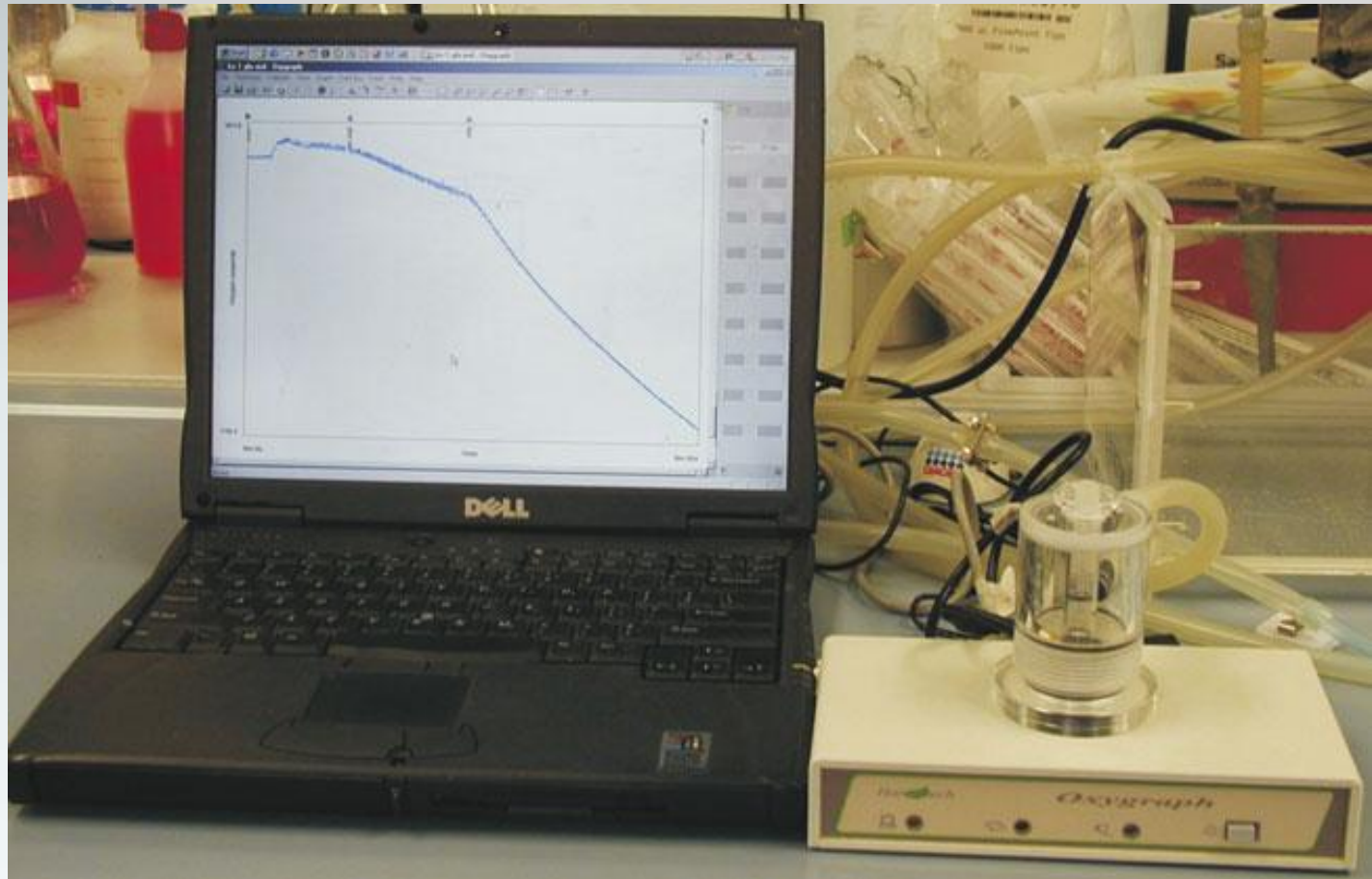
The imprinted frequencies, do not seem to be like those of “classical” electric or magnetic fields, but rather frequencies of magnetic vector potentials or quantum fields

Since the imprinted or stored information does not cause any chemical change in the water, its effect cannot be measured in terms of concentration; this was verified by ICP analysis.

In order to detect the presence and the amount of the information within the water sample, a specific "sensitive system" is required to act as a detector of this information. *Saccharomyces Cerevisiae* was chosen as the 'bio-detector' of the sodium azide imprinted information.

*Saccharomyces cerevisiae* (baker yeast) is easy to grow in a cell culture. It is a type organism because it is a eukariotic cell, with a structure as complex as the human one. It was the first eukariote genome to be sequenced completely.

Experimental setup for measuring O<sub>2</sub> consumption due to yeast respiration, by means of a Clark electrode



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## Experimental Procedure

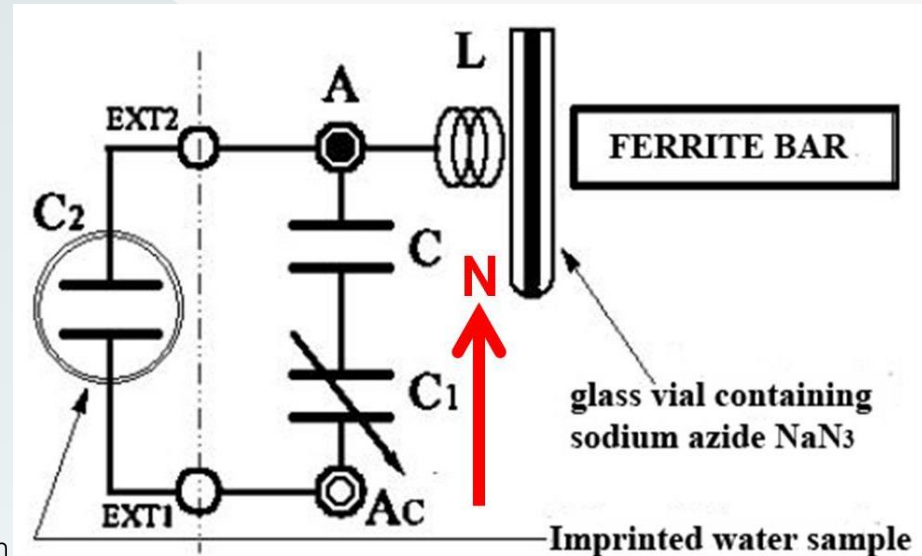
### Water Samples preparation

We prepared three kinds water samples, 100 cc each .

- 1) **W** (White): bi-distilled water in a dark glass container that was stored in a closet protected from electromagnetic fields.
- 2) **IW** (Irradiated Water): bi-distilled water in a container identical to the one above. All (**IW**) samples were exposed for 12 hours to the resonator where a transparent glass sealed vial containing 1g of sodium azide  $\text{NaN}_3$  was included . After the exposure all the **IW** water samples were stored in a closet protected from electromagnetic fields.
- 3) **Sham**, differed from the above only in that the vial was filled with bi-distilled water instead of sodium azide. These samples were stored, as the others, away from electromagnetic fields.

**Then** we diluted each water sample (**W**, **IW** and **Sham**) with the yeast mother solution in a 1/1 ratio. This gave us three different test solutions (**W**, **IW**, **Sham**) all with the same yeast concentration. These solutions were used in the yeast respiration tests; each one performed by adding to the glucose solution 0.500cc of one of these yeast solutions.

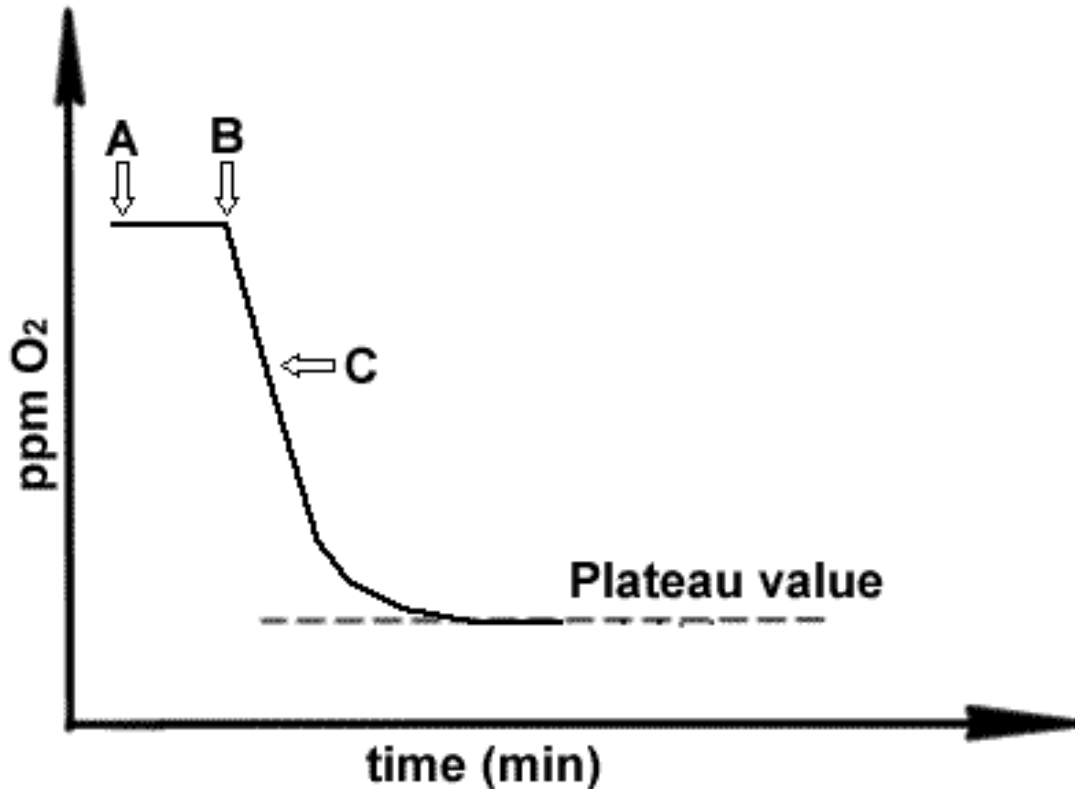
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# Experimental Procedure

Respirometric tests with yeasts *saccharomyces cerevisiae*

Yeasts, when mixed in a glucose solution during their aerobic respiration **consume oxygen** and glucose and they produce carbon dioxide, water and heat according to the following reaction



The respiration of yeasts can be observed experimentally by measuring the **oxygen consumption** (slope **C**).

Yeasts are added to the glucose sol. at time  $t = t_B$ .  $t_B - t_A$  is the time interval needed to stabilize the electrode.

The **Plateau value** marks the attainment of a second steady state where the dissolved oxygen consumption equals the atmospheric oxygen income.

## Experimental Procedure

It was chosen to “imprint” water with sodium azide ( $\text{NaN}_3$ ) frequency information because this compound is a well known inhibitor of yeasts respiration.

The inhibition of the respiration of yeasts can be assumed as an index of toxicity. We chose as toxicity index the yeasts respiration inhibition measured by the decreased oxygen consumption rate.

Higher toxicity values correspond to higher respiration inhibition and consequently greater decreases in oxygen consumption.

We assumed as the “% toxicity index” **T** the percentage difference between the oxygen consumption rates i.e. the slopes of the respirometric diagrams (**C**) for **W** and **IW** or **W** and **Sham** samples.

Thus **T** is expressed by the formula:

$$\mathbf{T} = (1 - \mathbf{b}/\mathbf{a}) * 100$$

Where **a** is the slope obtained with a **W** sample and **b** is either the slope obtained with an **IW** sample or with a **Sham** sample.

# Experimental Procedure

We performed :

17 respirometric tests with **IW** water samples (imprinted with sodium azide inform.)  
6 tests with **Sham** water samples, (imprinted with water information).

We repeated the same **IW** test after about 24 hours, to check if an overnight time delay had an influence on the results. This is to say that next day we used the same yeast preparation of the previous day and the imprinted water of the same imprinting.

Thus we made, *ideally* 8 series of 2 tests each, plus a spare one (the first). We say “ideally” because biological systems and preparations (such as the yeasts) never behave exactly in the same way, possibly because they are sensitive to very slight and hardly controllable variations in the operating conditions.

The **Sham** test were made with 6 different specimens obtained by 6 different imprintings.

The tests were performed independently by two different experimenters.

# Results

## Meaningfulness check by 3 $\sigma$ rule

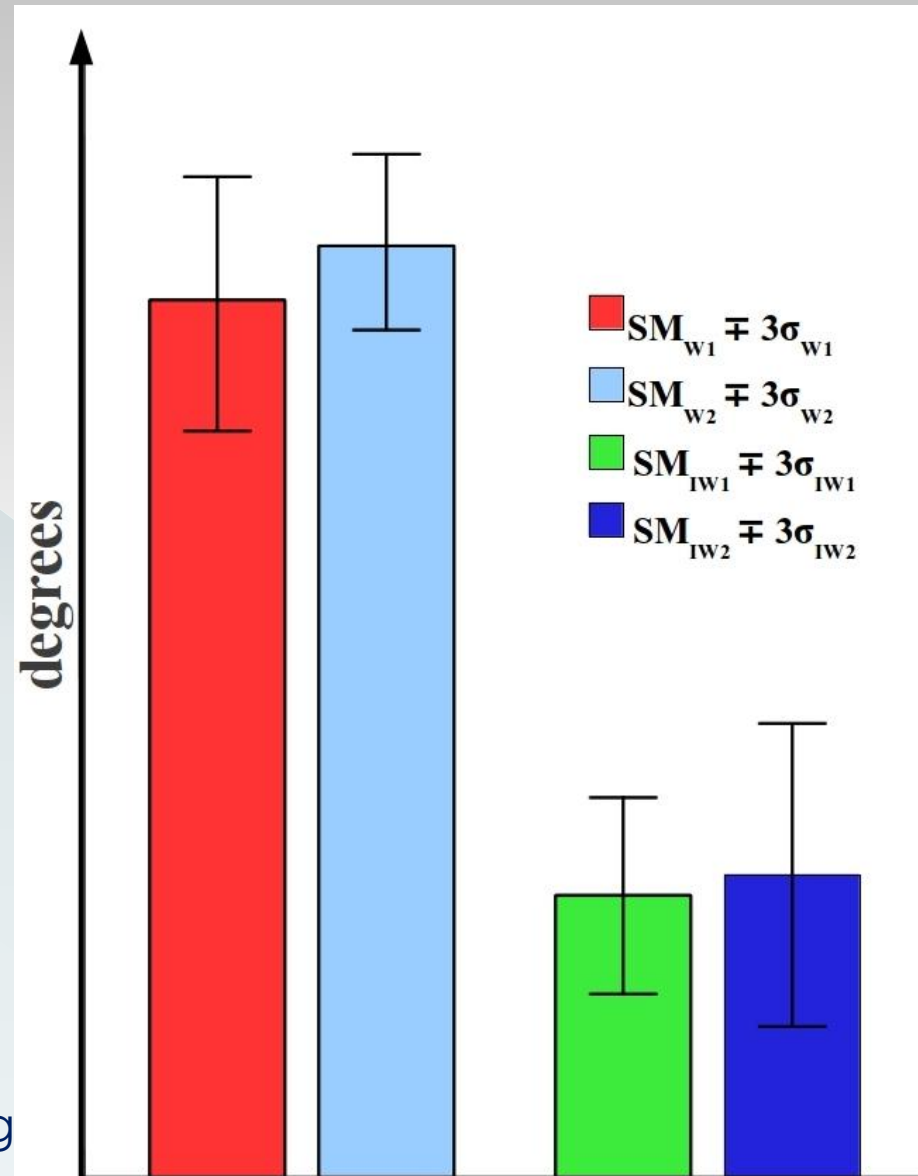
Meaningfulness of tests expressed by the 3 $\sigma$  rule encompasses the one expressed by double blind testing

In order to assign a meaningful value to the observed difference between blank and sample to be tested (in imprinted water) we performed up to 8 tests each for 2 sets of yeast's cells (each set from a different strain) in plain water (**W1** and **W2**) and in imprinted water (**IW1** and **IW2**), obtaining mean slopes (**SM**). All tests were measured within 16 minutes, i.e.: within 70-85% of the total  $\Delta$  of O<sub>2</sub> consumption

0 degrees  
90 degrees

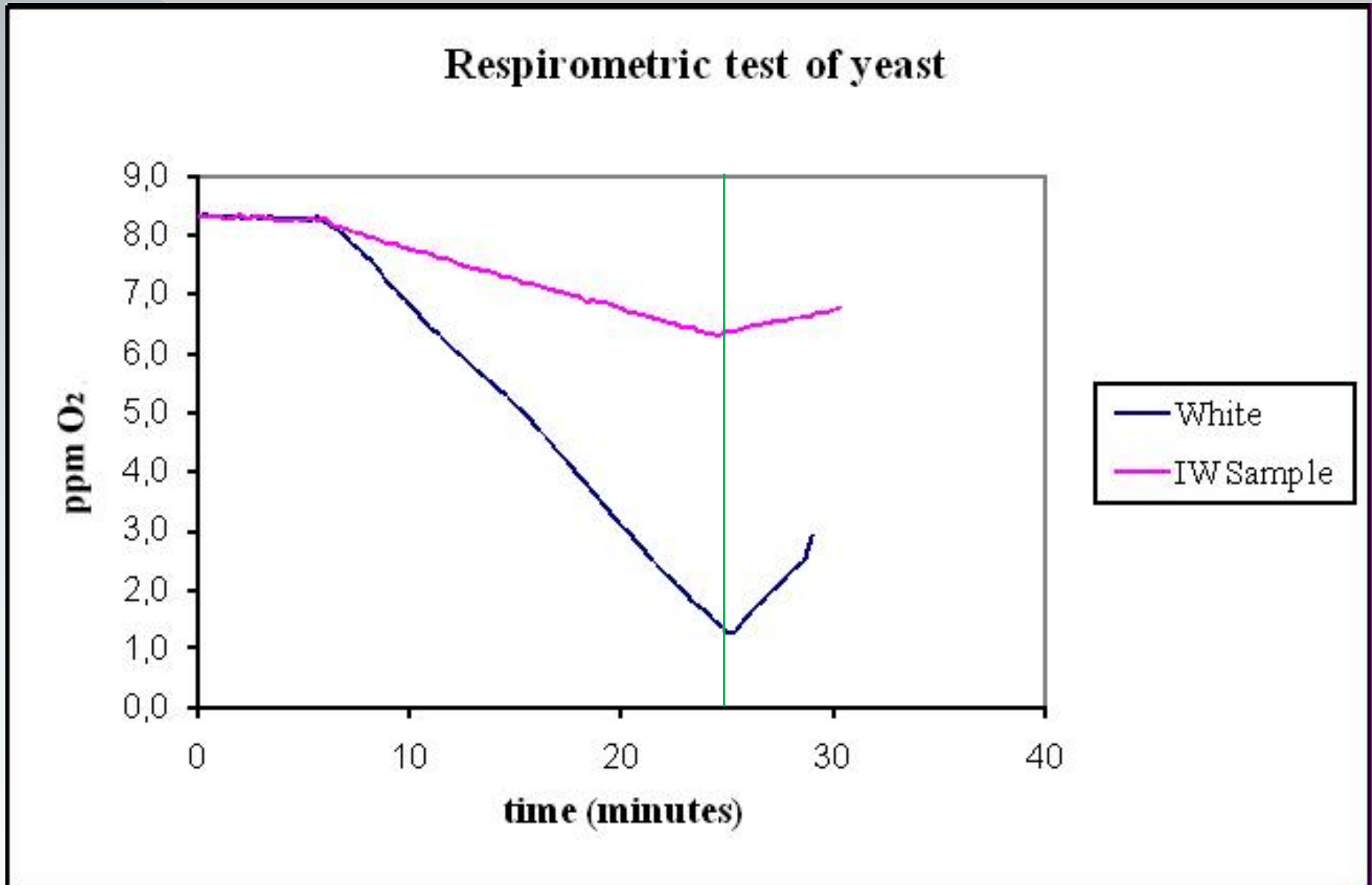
$$\begin{aligned} \text{SM}_{W1} \pm 3\sigma_{W1} &= 65 \pm 9.4 \text{ deg} \\ \text{SM}_{W2} \pm 3\sigma_{W2} &= 69 \pm 6.5 \text{ deg} \\ \text{SM}_{IW1} \pm 3\sigma_{IW1} &= 21 \pm 7.3 \text{ deg} \\ \text{SM}_{IW2} \pm 3\sigma_{IW2} &= 22 \pm 11.2 \text{ deg} \end{aligned}$$

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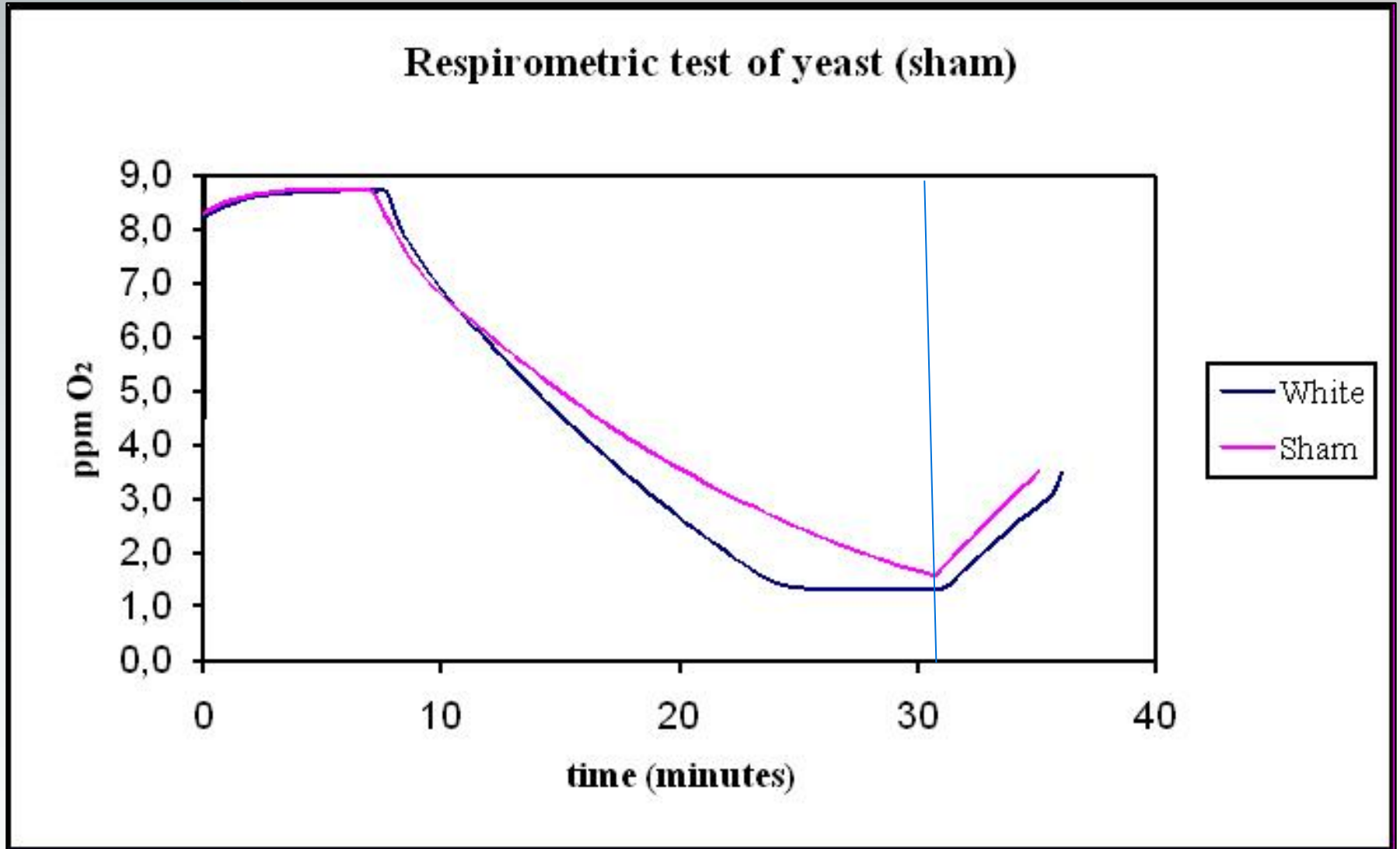
## Results

An example of the typical respirometric curves obtained in a **W** versus **IW** test.



## Results

An example of the typical respirometric curves obtained in a **W** versus **Sham** test. The slopes of the two curves show that the **Sham** water sample is also toxic for the yeasts



## Results

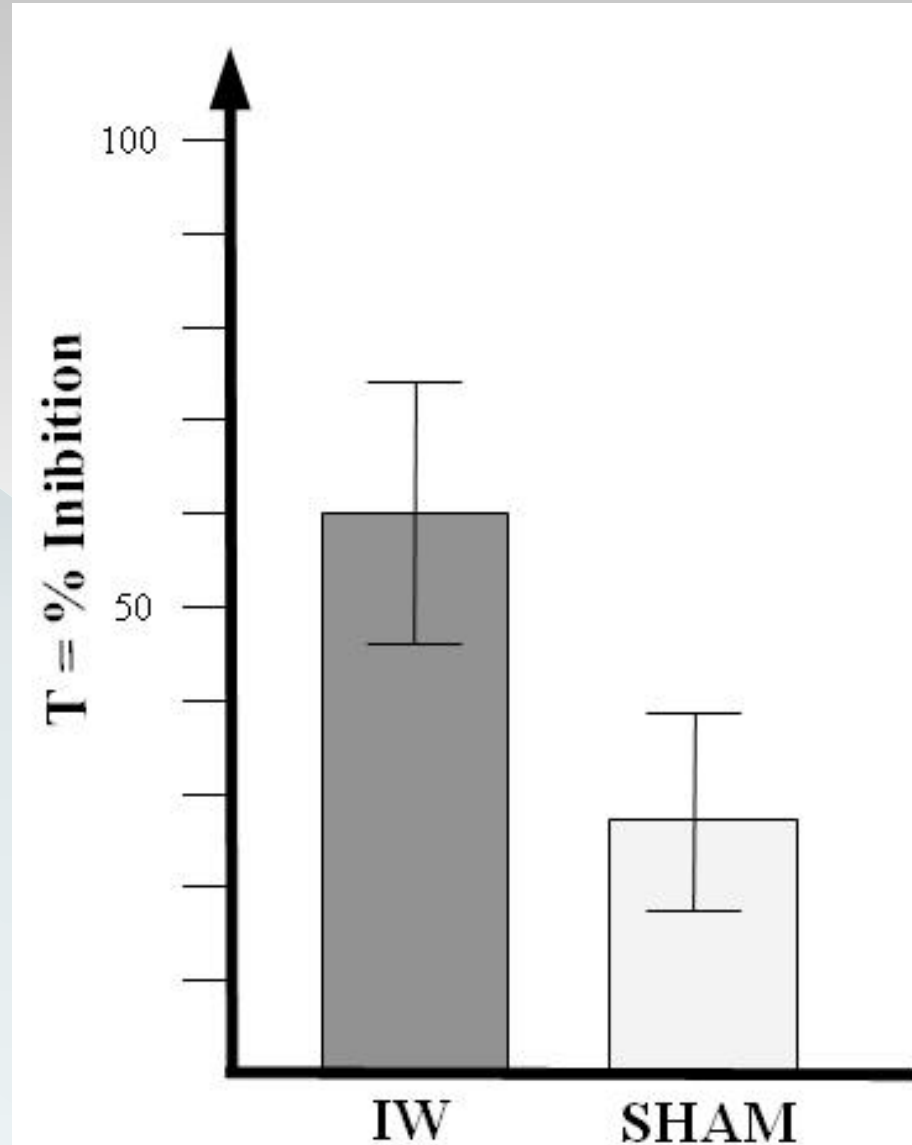
Average values of **IW** and **Sham** tests results with their relative total standard deviations  $\sigma$

Average value  $T_{IW} = 59.82 \pm 14.07$

$T_{IW}$  ranged between 43% and 89%

Average value  $T_{Sham} = 26.92 \pm 10.54$

$T_{sham}$  ranged between 8% and 30 %



## Results

The first basic question to be answered is why does the **Sham** exposed water produce any effect on the respirometric measurements?

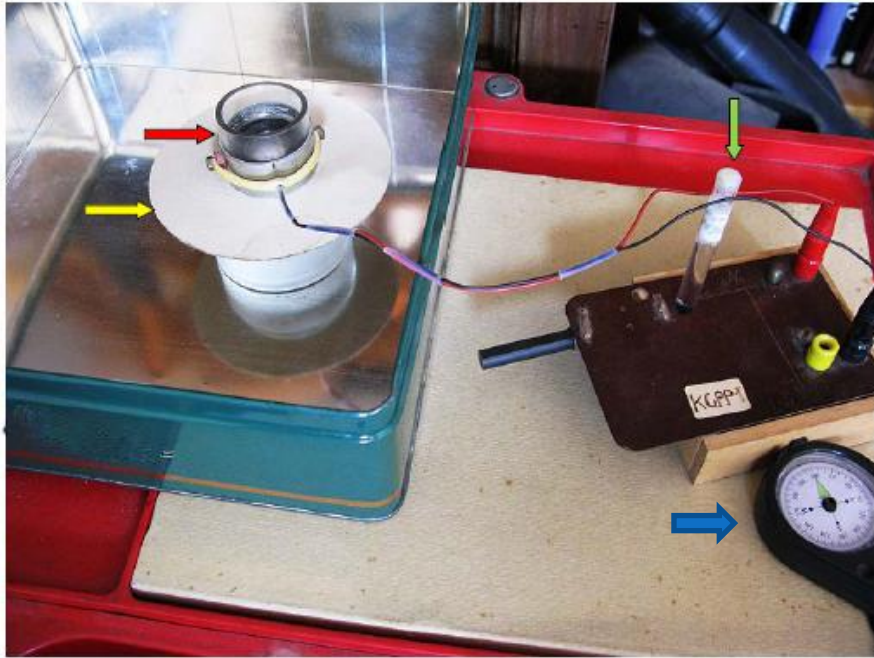
The combination of **IW** + **Sham** gives the correct pattern for sodium azide. This means that some information must have been left behind in the Irradiation Device.

The combination of **NaN<sub>3</sub>** + **Sham** gives the pattern of the **IW** thereby confirming that this **Sham** had picked up some frequency pattern from the Irradiation Device.

<b>NaN<sub>3</sub></b>	<b>IW + Sham</b>	<b>NaN<sub>3</sub> + Sham</b>	<b>IW</b>
↑ $3.313 \times 10^{-3}$	↑ $3.313 \times 10^{-3}$	↑ $3.313 \times 10^{-3}$	↑ $3.313 \times 10^{-3}$
↓ $4.002 \times 10^{-1}$	↓ $4.002 \times 10^{-1}$	↓ $5.805 \times 10^{-1}$	↓ $5.805 \times 10^{-1}$
↑ $7.802 \times 10^0$	↑ $7.802 \times 10^0$	↑ $7.802 \times 10^0$	↑ $7.802 \times 10^0$
<b>C: <math>3.313 \times 10^{-3}</math></b>			<b>C: <math>6.913 \times 10^{-1}</math></b>

## Results

The “biscuit tin” experiment for the preparation of a shielded **Sham** water sample



The glass vessel in the tin box is filled with distilled water. The Irradiating Device (red arrow) is set in place. It is held by a thin cardboard disk (yellow arrow) so that it never comes in physical contact with the water contained inside the vessel. In the resonant circuit, the sealed glass vial is filled with the same water (green arrow), the compass (blue arrow) checks the North orientation of the resonator. The compass is removed during imprinting.

These measurements showed that when the **Sham** experiment was done in the ‘biscuit tin’ it had no imprints over the frequency range  $10^{-4}$  Hz to  $2 \times 10^9$  Hz apart from the resonator frequencies 379 MHz and 384 MHz

## Conclusions

The respirometric tests showed that all the **IW** water samples imprinted by the resonator with sodium azide information became toxic for the yeasts. They have shown furthermore that since all the **Sham** water samples had a toxicity toward the yeasts, **the apparatus can retain a memory of materials which have been used within it.**

We can reasonably assume that the sodium azide information was transferred to the water samples in the apparatus through the **ultra-weak electromagnetic field**, and that this information was then **permanently stored in the bulk** of the water samples where it was **perceived and recognized as such by the yeast**, so that in presence of water “imprinted” with sodium azide information (but not containing the solute as such) the yeast behaved as if it was in a solution of the chemical substance. **In other words the water sample imprinted with sodium azide information “mimics” the sodium azide effects toward the yeasts.**

All this emphasizes the duality between frequency and chemical structure without which, spectroscopic analysis would be impossible. The yeast/glucose/sodium azide system imprinted with 384 MHz is robust and has considerable potential for investigating so-called ‘subtle-energy’ phenomena.