

# **REPORT: DETERMINATION OF WATER ACTIVITY IN 'X WATER'**

Conducted at the M.V. Lomonosov Biology Department

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## **INTRODUCTION**

Many types of water, primarily artesian\*, are capable of interacting with atmospheric oxygen. Part of the energy liberated during oxidation reactions may be stored within water as active oxygen formations (AOF) – higher order peroxides (HOOOH, HOOOOH) and other analogous metastable bonds stabilized in water clusters. As electron donors (salts of Fe (II) are introduced into water, recombination of unpaired AOF electrons and donated electrons occurs. Such reactions liberate energy equivalent to photons of perceivable light. If water contains fluorescence sensibilizers, a radiation flash can be observed through sensitive photon detectors.

The term 'water activity' refers to the intensity (amplitude) and the duration of the radiation flash, observed by a photo-electron detector of individual photons when a reagent (solution of Fe (II) and luminescence sensibilizer (luminol) is added to the water. In this way, the 'Activity of water' displays its energy reserve, which is perceived as light-range electromagnetic emissions.

## **METHODS**

All measurements in this test have been performed on only one type of water, which was presented to us unnamed, but what we will call 'Xwater' for the sake of clarity. Xwater was presented in a sealed plastic 5L bottle without a label\*. The bottle was opened and the water poured into four conical beakers 100 ml at a time for immediate measurements to be taken. The flasks were covered with filter paper on top and two of them placed on lab shakers for two days. Water activity measurements were carried out in one and two day intervals.

For measuring water activity in 1 ml, a disposable Eppendorf test-tube received 5 µl of the reagent, Fe (II) and the luminol solution, and two seconds later the radiation flash began to be registered on an individual photon detector of type 'Biotoks-7a'.

Additionally the measurements of:

- pH (measured with a glass electrode pH meter)
- O<sub>2</sub> content (measured by electrode method)

were taken on all water samples. All measurement results are stated in the table below; graphs depicting post-reagent addition radiation flashes as well as kinetics sketches of monitored daily water sample emissions are also attached.

## RESULTS

Measurement results show that water from a recently opened bottle of 'X Water' displayed activity with emissions showing 57 impulses/second, (*see Table and Graph 1-Picture 1*).

PARAMETER (29/08-31/08/06)	Incubation Time	WATER	
		SAMPLES 1 & 2 TESTING BEGINS 29/08/06 (0 TIME)	SAMPLES 3 & 4 TESTING BEGINS 29/08/06 (0 TIME)
		INCUBATION IN OPEN BEAKERS (STATIONARY)	INCUBATION IN OPEN BEAKERS (AGITATED)
<b>Max. emission (imp/sec)</b> <b>LUMINOMETER 'BIOTOKS-7A'</b> <b>(av. values)</b>	0 min	57	57
	day 1	31806	55435
	day 2	54762	54363
pH	0 min	7.22	7.22
	day 1	8.50	8.80
	day 2	8.75	8.82
<b>O<sub>2</sub> concentration (mg/L)</b> <b>(O<sub>2</sub> - CLARK ELECTRODE)</b>	0 min	6.63	6.63
	day 1	8.90	8.97
	day 2	8.75	8.90

The activity of the water samples contained in the glass beakers and in constant contact with air (Samples 1&2) increased in a day by an average 31,800 impulses/sec. At the end of the first day the samples that were agitated (Samples 3&4), reached 55,435 impulses/sec, which is almost double the activity of the stationary water (*see Table and Graph 1, Picture 2*). On the second day, emission intensity from the agitated water is practically unchanged (*see Table, Graph 1, Picture 3*), however emission intensity in the stationary samples (1&2) increased almost twice as much (from 31,806 to 54,762) from the first full day at stationary incubation to the second (*see Table and Graph 1, Picture 2 & 3*).

Though the majority of bottled mineral waters has an initial activity of no less than 100 impulses/sec, even the highest activity of the most unique mineral waters from rarified

places on earth, which are also capable of self-activation, approaches no more than 20-40 thousand impulses/sec on the second day using this same testing criteria.

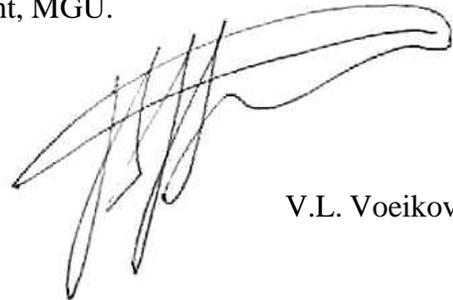
The pH reading of the “X water” samples do not exceed the norm and in fact alkalize upon contact with the air, which is characteristic of most water except for refined (filtered, reverse osmosis, desalinization, distilled) types of water (see *Table*). The oxygen content of a recently opened bottle of ‘X water’ is below the equilibrium (oxygen levels of air compared to water), but approaches equilibrium concentrations during contact with air over time (see *Table*).

#### CONCLUSION

According to the measurement results of the experimental ‘Xwater’ activity, the following can be concluded:

***Although the tested “Xwater” contains low initial activity, once in contact with an oxygen environment (air) and especially after being agitated, the water acquires a heightened ability to self-activate and expresses the highest number of photonic impulses that has been tested according to our test results at this facility to date. It can be classified as superior drinking water.***

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V.L. Voeikov

- \* ‘Artesian Water’ is water that rises up from the ground under its own pressure from a permeable stratum overlaid by impermeable rock
- \* ‘Xwater’ is Revitalized Premixed Biogenic Oxygen Activator
- \* ‘without a label’ so as not to influence the researchers’ intent, nor the results of the study. This understanding represents a body of study that was initiated by Russian scientists and most recently by Dr. Matsuuro Emoto