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±WATER: PROPERTIES OF WATER, UNDOUBTEDLY DEPENDENT ON ITS ELECTRICAL POTENTIAL

Previously, it was found that some properties of water certainly depend on its electrical potential. Thus, it was found that positively charged water has a much higher surface tension than negatively charged water [1]. This, in turn, made it possible to explain why positively charged water is able to distribute both starch powder and oil drops over its surface, while negatively charged water is not (Figures 1, 2) [1, 2].



Figure 1. Left: starch powder deposited on the surface of water with a potential of +250 mV. Right: starch powder deposited on the surface of water with a potential of -200 mV [1, 2].

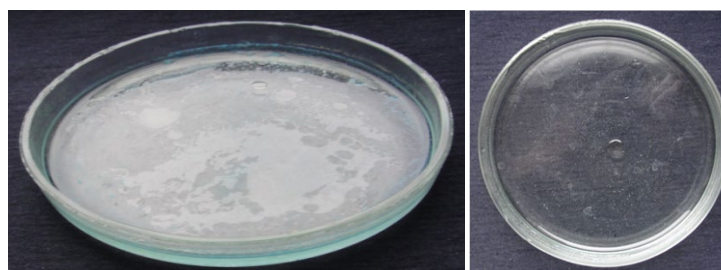


Figure 2. Left: This is a film formed on the surface of water with a potential of +500 mV from a drop of oil (compare with Figure 1, left). Right: it looks like a small oil drop placed on the surface of water with a potential of -500 mV (compare with Figure 1, right).

This also made it possible to explain the formation of compact crystals in salt solutions prepared with positively charged water, and the formation of plant-like crystals in salt solutions prepared with negatively charged water (Figure 3) [1, 2]. However, it has been found that positively charged water hydrates salts, biopolymers and oils better than negatively charged water (Figures 3 – 5).

At the same time, the productivity of extrapolation of the identified potentially dependent properties of water to biological objects has been repeatedly shown. So, it was this extrapolation that made it possible to give a clear explanation of the polymorphism of crystals formed in the drying fluids of the female body, i.e., to explain the phenomenon, the nature of

which remained unclear for a long time; this, in turn, allowed proposing a means to improve the efficiency of cloning [2].

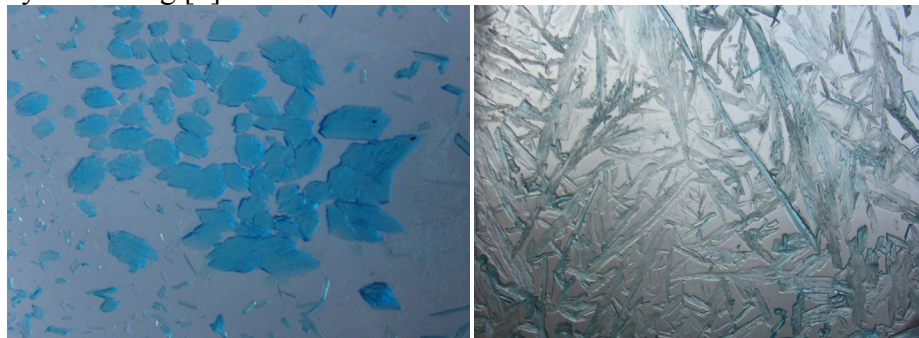


Figure 3. Left: these are intense blue prismatic crystals that formed in a CuSO_4 solution prepared in positively charged water, which has both a high surface tension and a high hydrating power. Right: These are pale blue grass-like crystals formed in a CuSO_4 solution prepared with negatively charged water, which has both low surface tension and hydrating power.

Analyzing these results, it should be taken into account that the intensity of the blue color of CuSO_4 reflects the degree of its hydration [4].

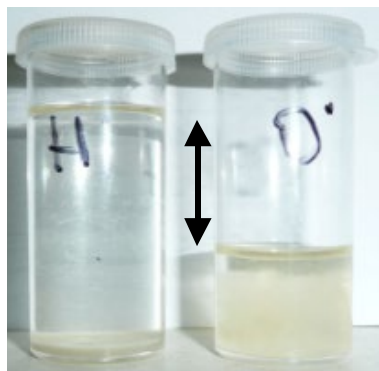


Figure 4. There is a swelling of starch in water with a different electric potential. Starch does not swell in water with the potential of -500 (left) and swells in water with the potential of $+500$ mV (right). Water with negative potential was obtained by bubbling uncharged water with hydrogen gas (left); water with a positive potential was obtained by bubbling uncharged water with gaseous oxygen (right) [1]. Water with a positive potential quickly evaporates even from a closed plastic flagon: the arrow shows how much during the day the level of such water has decreased. Both water used had $20 - 22$ °C [1, 2].



Figure 5. Suspensions formed by intensive mixing of oils with positively charged water do not stratify for hours and, accordingly, retain their milky white or yellowish color (left),

unlike suspensions formed by intensive mixing of the same oils with negatively charged water, which stratify within minutes (right). Both water used had 20 – 22 °C.

Also, the same extrapolation made it possible to explain the ability of positively charged water to stimulate cell division, including cancer cells; besides, the inhibitory effect of negatively charged water on cell division also received a clear explanation [3].

At the same time, both the inhibitory effect of negatively charged water on germinating plants (Figure 6, left) and the stimulating effect of positively charged water on the same germinating plants (Figure 6, right) received an equally clear explanation [5].



Figure 6. Bean growth when watered with charged water for two weeks; beans do not grow absolutely when irrigated with water with a potential of -150 mV (left), but grows well when irrigated with water with a potential of $+150$ mV (right) [5].

In addition, it has been shown that oppositely charged waters fluoresce differently. Moreover, it was also shown that this difference makes it possible to use a person's aurogram as a diagnostic indicator reflecting his antioxidant (or pro-oxidant) status [6], which is of undoubted importance, in particular, for doctors practicing hydrogen therapy [7].

Apparently, the results presented here clearly show that knowledge of the potential-dependent properties of water can be very productive. This productivity certainly confirms the need for further study of those properties of water that depend on its electrical potential; in this aspect, phenomena confirming the fact that the heat capacity of water is determined by its electric potential [1, 8] should undoubtedly be a priority.

References

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