УДК 591.044;577.3

ИНФОРМАЦИОННЫЙ ЭФФЕКТ ФОРМЫ

Коваленко В.Ф.
Херсонский национальный технический университет

UDC 591.044;577.3

INFORMATIONAL EFFECT OF A FORM

Kovalenko V.F.
Kherson National Technical University

Аннотация

Методом светорассеяния лазерного излучения проведено изучение влияния формового поля, совместного воздействия мысленного информационного и формового торсионных полей, а также последующей выдержки проб воды в поле формы после прекращения информационного воздействия на структуру воды. Использовались бумажные формы пирамиды, цилиндра и призмы.

Из экспериментальных данных следует, что механизм совместного воздействия на структуру воды формового и информационного торсионных полей зависел от исходных условий процесса её спиновой переструктуризации - конфигурации формы, типа формового поля – внутреннего или внешнего, исходной структуры воды.

Установлено влияние формового поля на информационное последействие, характер и степень которого определялись соотношением интенсивностей торсионного поля формы и информационного солитона.

Обнаружено явление аномально большого усиления информационного последействия во внутреннем поле пирамиды, проявляющее признаки положительной обратной связи между информационным солитоном и торсионным полем структуры воды, а также селекции размеров генерируемых кластеров.

Ключевые слова: кластер, структура воды, торсионное поле формы, информационное поле, воздействие, относительная индикатриса рассеяния.

Abstract

The study was conducted by method of light scattering of laser emission. The influence of the form field, mutual influence of mental informational and form torsional fields as well as the following exposure of water samples in the form field after the cease of informational influence on water structure were examined. Paper forms of a pyramid, a cylinder, and a prism were used.

The experimental findings show that mechanism of mutual influence on water structure of the form and informational torsional fields depended on the initial conditions of spin restructuring process – the configuration of a form, the type of the form field (internal and external ones), and the initial water structure.

The influence of the form field on informational aftereffect was determined, the character of which was defined by ratio of intensities of torsional form field and an informational soliton.

The phenomenon of the abnormally large amplification of the informational aftereffect in the internal field of a pyramid demonstrating the attributes of positive reverse connection between the informational soliton and torsional field of water structure and selection of generated cluster sizes were discovered.

Key words: cluster, water structure, torsional field of the form, informational field, influence, relative scattering indicatrix.

Introduction

The characteristic of objects of definite geometric and topological configurations to cause wide range of influence on the physical state of the substance, functioning of living systems, to induce change in parameters of some technical devices and relocation of objects is called the effect of the form. Multiple various demonstrations of the effect made it possible to draw the conclusion about its form nature which is not electrical, magnetic or electromagnetic [1].

Based on the light scattering method the influence of a form on water structure was studied and it was stated that the form field has torsional nature [2]. The source of this field is uncompensated atom spins of the object surface. Analogy or resemblance of the number of form effect in light scattering of water and its other manifestations which were earlier discovered [1] testify to identity of influence mechanisms of the form field both on the water structure and the objects of animate and inanimate nature that contain water in their structure.

The mechanism of the effect of the form which was studied in [2] involved the interaction of static torsional form fields and water. According to [3] the source of the latter is spin-oriented structure of oxygen clusters atoms where the information about the former energetic and/or informational influences on water i.e. the formation of water memory.

It is of interest to study the character of interaction among torsional form fields and water under the simultaneous mental informational influence on its cluster structure. Such an interest is conditioned, firstly, by the fact that informational aspect of the effect of the form is not studied yet. Secondly, unlike interaction of stationary spin configurations of form and water fields, thoughts and emotions emitted by the torsional field of the human brain are wave torsional field with variable in time spin configurations of the physical vacuum [4,5] which can condition some peculiarities of the informational influence on water structure with/without the form field.

The given work is addressed to find answers to these questions.

Experiment Methodology

In the given work the influence of the form field, mutual influence of the informational and form torsional fields, and the exposure of water sample in the form field after the cease of the informational influence on water structure are studied.

The study was conducted by scattering method of laser emission of the exposed water sample. Dependences of scattered light intensity to the scattering angle Q – the scattering indicatrix of the initial water samples $I(Q)_{int}$ and after the influence $I(Q)_{inf}$

were measured. From the measured indicatrices the set (the ensemble) and sizes of clusters, their relative concentrations, and the degree of change for the parameters of the water structure after the influence were determined. The methodology for measurement, data processing and parameters definition were stated in detail in [2,3]. The values of relative total concentration of $N_{\sum}$ cluster concentration were estimated against the integral intensity of the scattering light after the influence $I_{\sum}^{inf}$ to the initial one $I_{\sum}^{int}$. The value $I_{\sum}$, which is numerically equal to the square under the curve I(Q), is proportional to total concentration of clusters [2,3] in approximation of single scattering.

The degree of change in cluster concentration of specific sizes was determined by estimated values of relative scattering indicatrices R(Q) for every influence case, which are represented by the ratio of the measured scattering indicatrices of one and the same water sample after $I(Q)_{inf}$ and before $I(Q)_{int}$ the influence. The relative indicatrix R(Q) makes it possible to simultaneously determine the direction and degree of change in cluster concentration in the result of the influence by numeric value R(Q). It also allows to estimate sizes of oversize clusters with radii r>2мm by the character of interferential curve component R(Q) (under the periodic fluctuations of values R(Q)).

As the influencing forms a hollow tetrahedral pyramid, cylinder, and an equilateral trihedral prism with open end planes made out of writing paper were used. Geometric parameters of these forms are given in [2].

The influence of the form was performed by locating identical exposed samples inside and outside a form after the preliminary measurement of the initial scattering indicatrices. The time of expose was 10 minutes. The glass cylindrical cuvette which is 8 mm in diameter and 90 mm high was filled up with water and located inside the form so that the geometric centers of the cuvette and the form matched together. Outside the form there was a similar cuvette located at the distance of 10-15 cm from the side surface of the form and on the same height as the internal one. Upon the exposure scattering indicatrices $I(Q)_{inf}$ of both samples were measured.

The mutual influence of the form and mental informational fields was performed with new samples of the same initial water which was used for the previous stage 10 min long. All the other stages of influence process were carried out likewise the above described ones. By that mental influence was performed similarly to the stated one in paragraph 2 of the section “Experimental Results”.

Upon exposure of mutual influence measurement of scattering indicatrices in the cuvette the same water samples were set into their original places and their exposure in the form field was performed for certain period of time which was followed by measurement of scattering indicatrices. The given list and sequence of measurement stages were carries out likewise for all the used forms under the T=300K.

Two water samples with different total concentration of clusters in the initial form taken from the different artesian wells were used in the research.

The Mechanism of Torsional Field Influence on Water Structure

To perceive easier the hereinafter contained experimental data as well as to reduce the volume of their descriptive part it is expedient to briefly state the main aspects of torsional field influence on water structure previously determined by experiment.

Actually the influence is represented by interaction of the external field and torsional field of cluster water structure. The nature of the latter was experimentally stated in the works [3,6].It is described as follows.

In [7] it is stated that oxygen atom of free molecule in liquid phase of water is bivalent while in a solid phase it is tetravalent. It is connected with the change of its electronic structure namely by its transition from the state of P^2 into the hybrid one SP^3 due to excitation of one of the two P^2 electrons into 3S state and resulting in its containing 4 electrons with unpaired spins. Water molecules with tetravalent atoms of oxygen connect among themselves by hydrogen bonds into hexagonal fragments (further - rings) of ice structure $(H_2O)_6$ with subsequent formation of clusters. It is experimentally determined [8] that under room temperature three-dimensional form of clusters is in varying degrees sphere-like with developed surface relief depending on water origin.

According to [3] cluster tetravalent oxygen atoms having big atom spin are sources of proper torsional field of water structure. As determined in [3] spin configuration of the atoms is a carrier of water memory about the character and degree of influence on it. The influence of external torsional field (static or wave one) on water results in spin repositioning of cluster oxygen atoms when their initial dimensional orientation does not coincide with the spin configuration of the influencing field. Herewith every such atom turns to a certain angle regarding its initial position which results in the change of angles, lengths and energy of hydrogen bonds both within hexagonal rings and among neighbouring rings. This may lead to bond breaking which conditions in the initial period of influence partial or total destruction of some clusters containing the previous information. The period of influence can be rendered as the phase of its deletion.

In the process of further influence the formation of new water cluster structure with redirected spins of oxygen atoms clusters according to spin configuration of the influencing field takes place. The period of spin orientation can be associated with the phase of recording new information into the water memory. Due to the mutual attraction of like torsional charges i.e. objects rotating into the same side and subsequently having unidirectional spins [4] binding of unidirectional spin-oriented fine clusters against each other as well as with larger ones, cluster fragments destructed in the first phase takes place.

The degree of spin repositioning depends on intensity of influencing torsional field and duration of its influence, initial water structure and the other factors [2].
Under certain conditions at this phase transition of bivalent atoms of oxygen of free water molecules into the tetravalent ones with forming hexagonal rings $(H_2O)_6$ and binding them into new clusters takes place [2]. However, the mechanism of such a transition is not determined.

Experimental Results

1. Scattering Indicatrices of the Initial Water

Scattering indicatrices of initial water samples were decreasing functions with angle increase of scattering (pic.1.a). According to [9], the scattering centers are clusters – microcrystals of ice – that are present in a liquid water phase in the entire temperature interval of its existence. Their presence and parameters determine water structure properties. The observed form of curves I(Q) in small-angle space ($Q \leq 10°$) is formed by diffraction of incident light on (de bene esse) large-scale (further large) clusters with a radius r 0,9 μm < r <2,0 μm; in the angle sector $10° \leq Q \leq 24°$ - by diffraction on medium-scale (further medium) clusters (0,4 μm≤ r≤ 0,9 μm); within the angle interval $Q > 24°$ it is formed by the scattering on fine-scale (further fine) clusters with radius < 0,4 μm partially due to diffraction as well as in the result of reflection the significance of which increases while Q rises [10].

Insignificant fluctuations I (Q) in the angle sector $50° \leq Q \leq 70°$ testify to the presence of oversize clusters with r>2,0 μm in the samples of initial water with low concentration.

According to the sizes of scattering clusters given in the table below and value $I_{\sum}$ of initial samples, they both contained alike sets of clusters but I degree sample had higher total concentration of $N_{\sum}$ clusters the main part of which constitute the fine clusters. Besides, the sizes and concentration of oversize clusters were smaller in the structure of I degree water then the ones in the structure of II degree structure. Also, the large clusters were not identified there (tabl.).

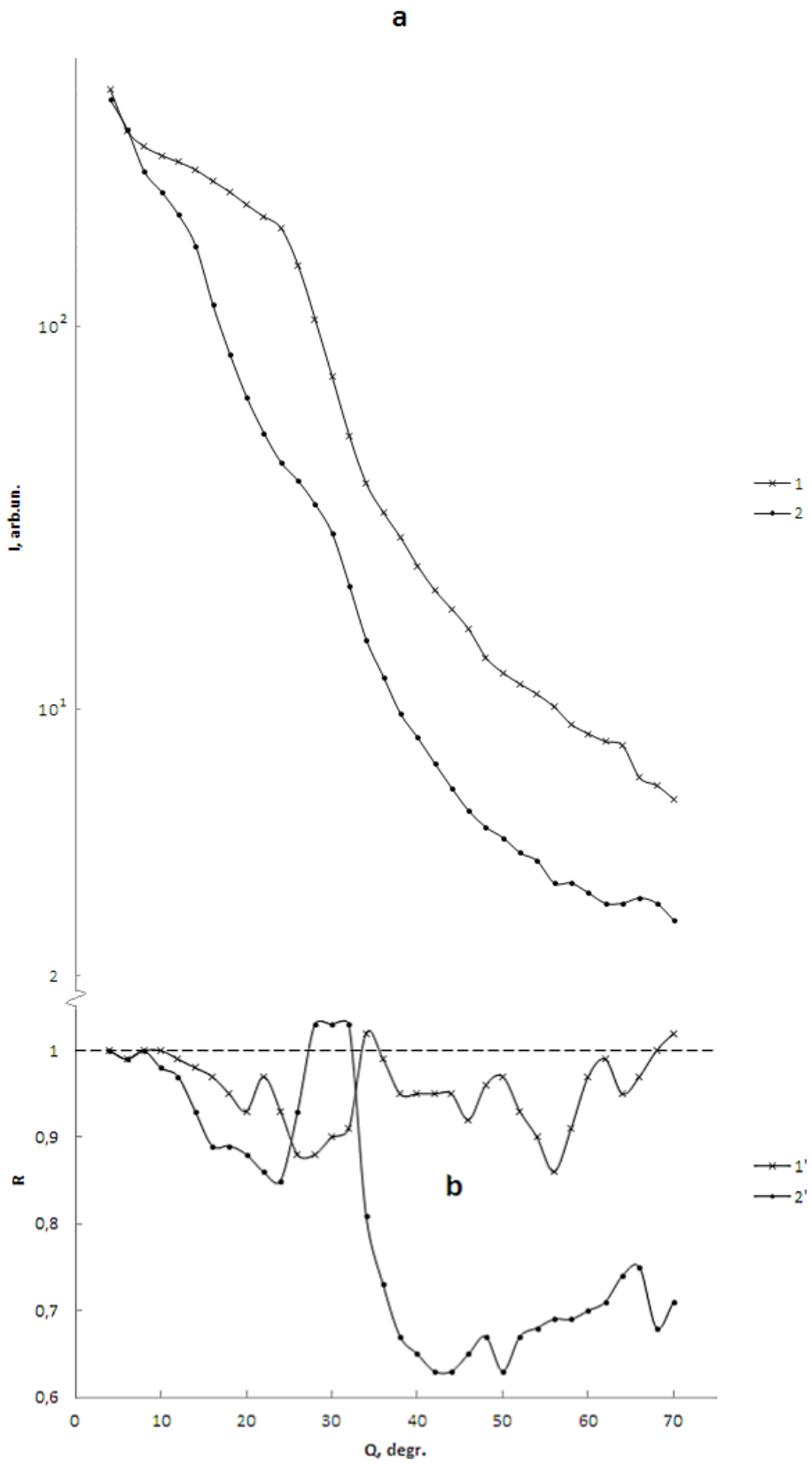
2. Informational Influence on Water Structure

The given below data of mental influence on the samples of initial water are necessary to be compared to the data in mutual influence of form and information on water structure.

Informational influence on I degree water sample was carried out with a prayer of divine love (love to the world without claiming the world [11]) that was of a narrative character and was mentally pronounced for the whole period of influence which was equal to 10 minutes.

The II degree water sample was influenced with a canonic Christian prayer (“The Lord’s Prayer”) that has a limited length text. In this case the influence was performed with twenty-fold mentally reiteration of its text for 10 minutes. At that the psychological state of the agent was the same as the one under the influence of I degree water sample.

Picture 1.b shows relative scattering indicatrices of samples of both structural degrees after the influenced was performed. The picture demonstrates that in both cases the influence caused decrease in concentration of fine and medium (in less degree) clusters which is proved by the value of $R<1$ under $Q>10°$, in the result of which the total cluster concentration $N_{\sum}$ decreased 7-8% and 19-20% in the I and II



Pic.1.a. Scattering indicatrices of the initial water of the first (curve 1) and second (curve 2) structure degrees.

b. Relative scattering indicatrices of the same water samples after the mental influence by a prayer of divine love (1ʻ) and a canonic Christian prayer (2ʻ) for 10 min long.

degree samples accordingly (tabl.) Moreover, there was an increase in sizes and a set of oversize clusters in I degree samples and there was decrease in sizes of the like clusters in II degree sample (tabl.)

The given data correspond to the above studied mechanism of spin restructuring with consideration for dependence of destruction degree of I influence phase on their mechanical endurance. It is determined in [3] that under formation of new spin-decluttered structure it is characteristic for fine clusters to be exposed to more significant change of concentration. Being less enduring they are easy to destroy in I phase of spin restructuring which lead to the observed decrease in their concentration in the experiment (pic.1.b).

Almost three-fold difference in decrease of fine and medium clusters concentration in I and II degree samples is conditioned mainly by difference in character of influencing torsional waves on water structure.

The prayer of divine love was a set of text fragments of diverse content formed in the number of torsional solitons of various configurations. It preconditioned multiple restoration of corresponding spin restructuring the insufficient duration of which did not allow every further restructuring to take place. Such a character of influence on I degree water structure caused insignificant degree of destruction of fine clusters in 1 phase of every cycle as well as to the binding of their spin-oriented fragments among themselves and with the existing oversize clusters in the initial structure in the 2 phase which also increased the sizes of the latter ones and their set.

The influence of a canonic Christian prayer on II degree structure was multifold reproduction of torsional soliton of one and the same configuration, every further influence of which on water increased degree of I phase of spin restructuring of fine and medium clusters. It is the very fact that can explain more significant degree of their concentration than that of I degree sample.

The decrease of oversize clusters sizes in the initial 2 degree structure can be determined by their higher mechanical durability. Due to it I phase of restructuring, which implies the destruction of surface layer, takes a longer time period for them than that for the less large clusters [3].Apparently the whole period of informational influence consisted only of I phase of spin restructuring for these clusters.

Table. Structure Parameters of Initial Water Samples before-and-after the Informational Influence.

Structure Degree	Sample	r,мm	I_{Σ}, rel.units	I_{Σ}, %
I	initial	3,1-3,5; 0,68; ≤ 0,40	15233	100
	after influence	6,7; 3,5-4,5;0,68; ≤ 0,40	14090	92,5
II	initial	5,3-6,7;1,58;0,68; ≤0,40	11663	100
	after influence	4,0-4,5;1,58;0,70; ≤0,40	9377	80,4

3. Internal and External Informational Effect of the Form

In the given section there are data on influence of field form, mutual influence of informational field and form torsional one, aftereffect of informational effect of the

form on the water structure of II degree. Mental influence of a canonic Christian prayer was performed in the similar way to the one of influence on the initial water structure.

The Pyramid Effect. Under internal influence by the form field the following changes took place: significant decrease of fine clusters concentration, concentration decrease of medium clusters (R< 1 under Q>20°) to a lesser degree, insignificant increase of large clusters (R> 1 under Q<15°).Parameters of oversize clusters (N, r) did not change.* Total concentration of $N_{\sum}$ clusters formed 91% compared with its value in the initial sample.

Mutual internal influence (pic.2.a. curve 2) caused decrease in cluster concentration of all sizes. Concentration of fine clusters decreased most (R<<1 under Q>4°).The identical directivity of influence of static field and the wave one decreased $N_{\sum}$ up to 74% and sizes of oversize clusters up to r≈4,0-4,5 мm.

The subsequent internal exposure of the sample entailed not only decrease in the value of $N_{\sum}$ up to 84% due to the increase of fine, medium and large clusters concentration (pic.2.a.curve 3), but also reconstruction of oversize clusters sizes up to the values r≈4, 0-6,7 мm which is proved by semblance of interferential constituent curves 3 and 1 in the angle interval Q>20°.

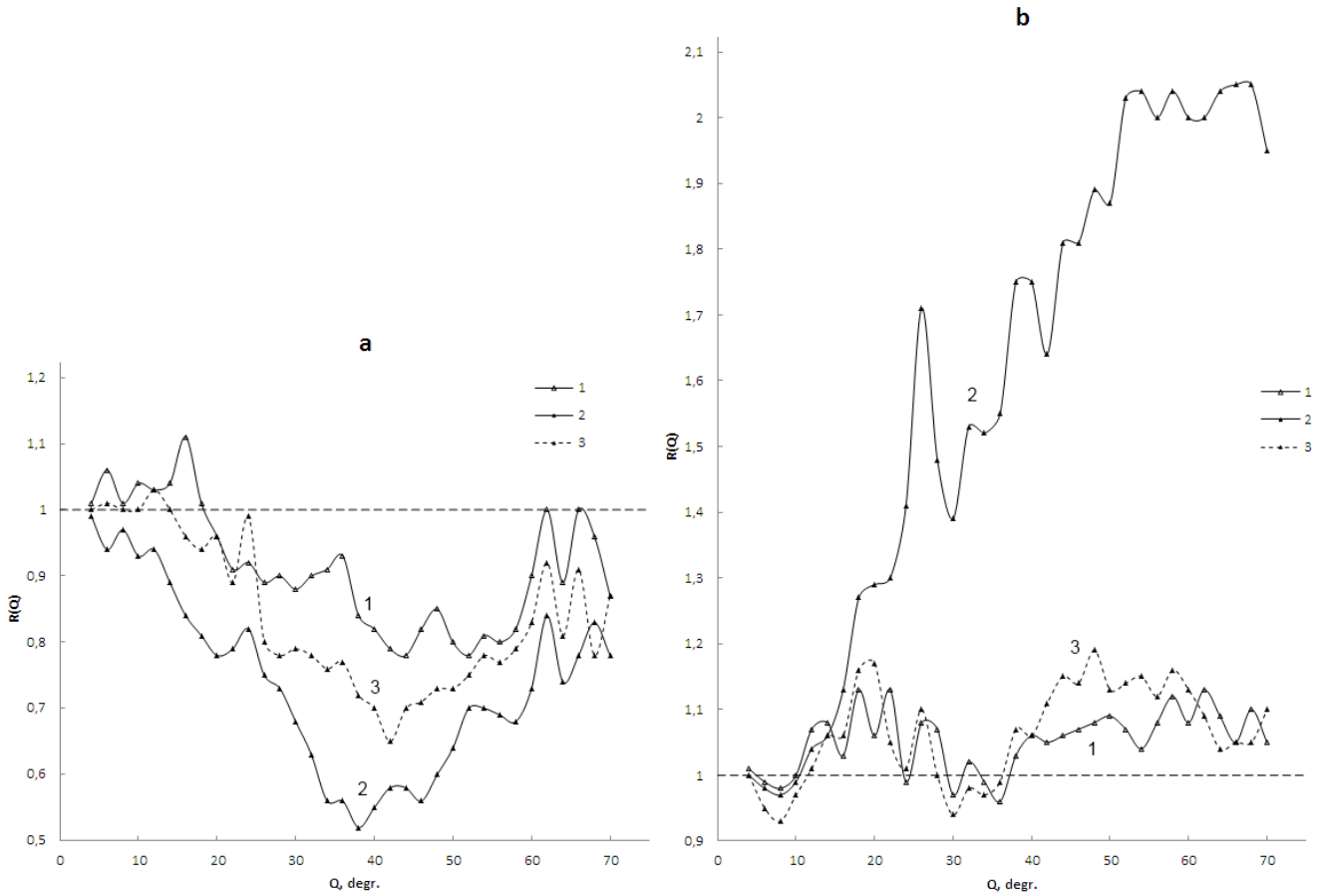
The external influence of pyramid field (pic.2.b. curve 1) induced increase of medium and fine clusters concentration (R>1 under Q>10°) and insignificant concentration decrease of large clusters (R<1 under Q<10°). The value $N_{\sum}$ was 105%. The mutual external influence caused significant increase of cluster concentration of all sizes but the large ones. (Pic.2.b. curve 2). The concentration of fine clusters went up the most significantly, with that the degree of its increase depended in inverse relation to their sizes (R>>1 under Q>24°). The value of $N_{\sum}$ grew up to 160%. The mutual influence also provided decrease of oversize clusters sizes up to r≈4,0-5,4 мm. The subsequent external exposure of the sample caused decrease in concentration of fine, medium, and marginally the one of the large clusters (pic.2.b.curve 3). Also, it lead to restructuration of oversize clusters sizes up to initial values which are r≈4,5-6,7 мm. The value $N_{\sum}$ was 107%.

The Cylinder Effect. Internal influence of form field (pic.3.a.curve1) consisted in decrease of fine clusters concentration and to a lesser degree the one of medium clusters (R<1 under Q>15°). The value of $N_{\sum}$ dropped to 94%.

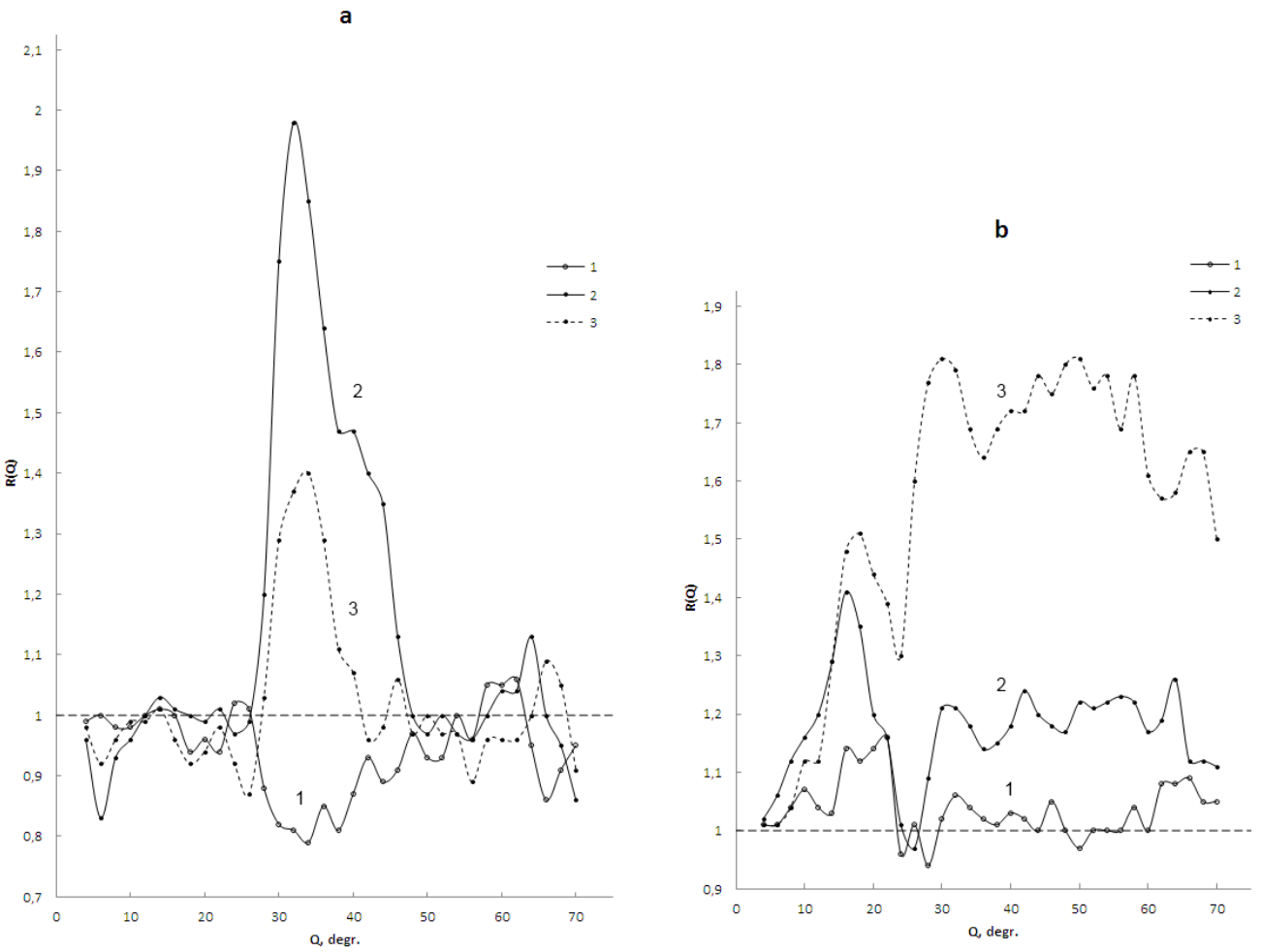
The mutual internal influence (pic.3.a. curve 2) caused decrease of large cluster concentration and led to intense formation of new oversize clusters with r =2,8мm which is proved by extremely intense interferential maximum of zeroth-order under Q=32°.

It is assumed that it its widening on high angle fall can be connected to overlapping of another interferential image conditioned by scattering on more oversize clusters with r≈3,5-4,5 мm forming under the influence. The form of double interferential maximum (pic.3.a. curve 3) confirms the given statement. The value $N_{\sum}$ increased up to 114%.

* If the parameters of oversize clusters do not change after the influence of torsional field, the information about it won`t be extended thereunder.



Pic.2. Relative scattering indicatrices of water samples of II degree after the internal (a) and the external (b) influence by the form field of a pyramid (1), mutual influence by informational and the form fields (2) and the following exposure of water samples inside and outside the form for 1 hour long (3).



Pic.3. Relative scattering indicatrices of water samples of II degree after the internal (a) and the external (b) influence by the form field of a cylinder (1), mutual influence by informational and the form fields (2) and the following exposure of water samples inside and outside the form for 1 hour long (3).

Exceeding of this characteristic over its value in the initial sample $N_{\sum int}$=100% in forming coarse-grained structure can not be connected with formation of oversize clusters due to binding of more small-scale clusters of the initial structure alone. Such a restructuring would have led to the significant decrease of total cluster concentration alike the one observed under the mutual influence in the pyramid (pic.2.a. curve2)*. Observed inequality $N_{\sum}>N_{\sum int}$ testifies to the fact that internal filed of the cylinder and informational field conduced mutually to building of spin-oriented fine clusters and binding them into the oversize ones.

The subsequent internal exposure of the sample (pic.3.a. curve3) caused decrease in concentration of oversize clusters which were formed under the mutual influence and to a lesser degree the one of medium and fine clusters. It also led to insignificant increase of large clusters concentration. The value $N_{\sum}$ was 102%.

External influence by field form (pic.3.b.curve1) induced the formation of insignificant concentration of new oversize clusters (r≈3,7 мm), new large clusters (r≈0,95 мm) and medium ones (r≈0,60 мm, r≈0,43 мm) (R>1 under Q<24°). The value $N_{\sum}$ was 101%.

Mutual external influence (pic.3.b. curve2) led to increase in concentration of fine, new medium and large clusters (R>1 under Q>4°).It also formed new oversize clusters with r≈2,4мm and decreased sizes of oversize clusters of the initial structure up to r≈3,5-4,8мm. The value $N_{\sum}$ increased up to 118%.

The subsequent external exposure (pic.3.b.curve3) conditioned the further significant increase in concentration of fine, medium and large clusters with r≈2,7мm. It also increased sizes of oversize clusters of initial structure up to r≈5,4-6,7мm. The value $N_{\sum}$ increased up to 150%.

The Prism Effect. Internal influence of field form (pic.4.a.curve1) induced increase in concentration of medium and large clusters of the initial structure and formation of new medium clusters (r≈0,53мm) and large ones (r≈1,19мm)(R>1 under Q<28°).

It also caused decrease in concentration of fine clusters (R<1 in the angle interval 30°≤ Q≤50°). The value $N_{\sum}$ was 103%.

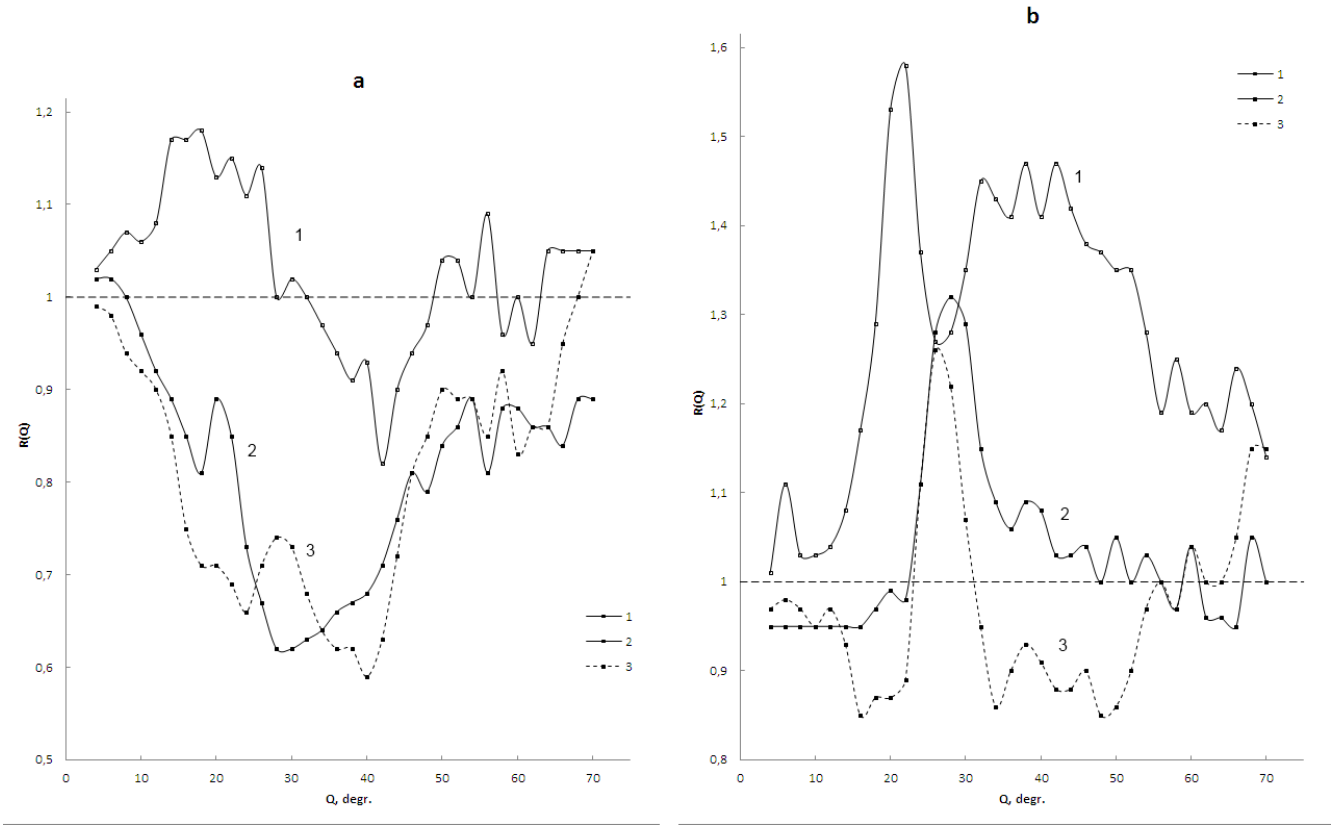
Mutual internal influence (pic.4.a.curve 2) conditioned significant decrease in concentration of clusters of all sizes (R<1 under Q>8°) but the large ones with r≈1,58 мm (R>1 under Q<8°). The value $N_{\sum}$ dropped to 82%.

The following internal exposure (pic.4.a.curve 3) led to the further insignificant decrease in concentration of medium and large clusters. The slightly expressed interferential component in the angle interval Q>45° as well as its absence under Q<45° (pic.4.a.curves 2,3) identify decrease in concentration of oversize clusters. The value $N_{\sum}$ was 81%.

External influence of field form (pic.4.b.curve1) provided significant increase in concentration of all sizes clusters of the initial structure (R>1 under Q>4°) and the formation of new oversize clusters with r≈4,4мm which is proved by interferential maximum of zeroth-order under Q≈22°. The value $N_{\sum}$ increased up to 128%.

---

* According to assessment [2], 10^3-10^4 of fine clusters with radius ≈0,2-0,4мm "are expended" to form one oversize cluster with radius r≈6-7мm.



Pic.4. Relative scattering indicatrices of water samples of II degree after the internal (a) and the external (b) influence by the form field of a prism (1), mutual influence by informational and the form fields (2) and the following exposure of water samples inside and outside the form for 1 hour long (3).

Mutual external influence (pic.4.b.curve 2) led to decrease in concentration of oversize clusters of the initial structure mostly with r≈3,5мm which is identified by interferential maximum under Q≈28°. It also induced insignificant decrease in concentration of large and medium clusters (R<1 under Q<22°). The value $N_{\sum}$ was 103%.Such value $N_{\sum}$ testifies to the building of fine clusters consumed to increase the concentration of oversize clusters.

In total the subsequent exposure kept the structural water state formed under the mutual influence which is proved by semblance of curves 2 and 3 pic.4.b. Taking into consideration that external form field caused intensive genesis of clusters of various sizes (pic.4.b.curve1) and the mutual influence significantly hampered the process we can draw the conclusion that action of total field did not after the informational influence was over.

It conditioned the destruction of fine and medium clusters (R<1 under 32°≤Q≤54° and 14°≤Q<24° accordingly) and decreased the sizes of oversize clusters up to r≈3,3-3,5 мm. The value $N_{\sum}$ was 97%.

4. Influence of Cluster Concentration of the Initial Structure

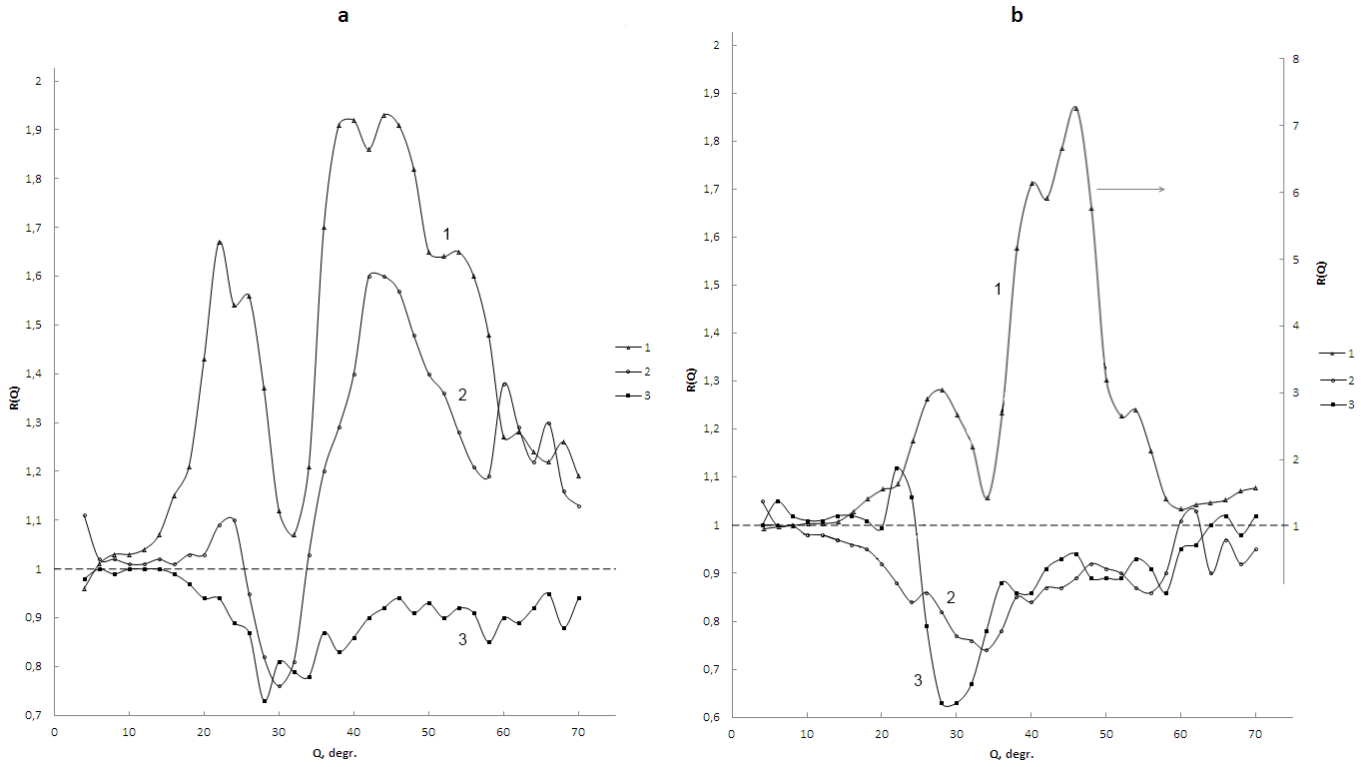
Picture 5.a demonstrates relative indicatrices for scattering in the water samples of I degree that has higher fine clusters concentration of the initial structure compared to the one of II degree (pic.1) after the internal mutual influence of form field of various configurations and informational field. The picture proves the character of the curves R(Q) differed to a various degree from the one of the shown in pic.2.a;3.a;4.a similar dependences of water samples II degree. The most significant the difference manifested itself under the influence in the pyramid (pic.5.a. curve1).In the given case the mutual influence of torsional fields conditioned significant increase in concentration of fine and medium clusters of various sizes and the one of the large clusters to a lesser degree (R>1 under Q>6°). Concentration of oversize clusters with r≈3,5-4,5 мm did not change substantially. The value $N_{\sum}$ was 141%.

The mutual influence in the cylinder (pic.5.a.curve2) led to the significant increase in concentration of fine clusters with r≈0,28мm (R>1 under Q>34°) and its decrease for the clusters with r≈0.30-0,38мm (R<1 in the angle sector 25°≤Q<34°).It also formed oversize clusters with r≈5,4-6,7мm. The value $N_{\sum}$ was 117%.

The mutual influence in the prism (pic.5.a.curve3) caused decrease in concentration of fine and medium clusters (R<1 under Q>14°) under the simultaneous increase in concentration of oversize clusters and their sizes up to r≈5,5-6,7мm. The value $N_{\sum}$ decreased to 88%.

The subsequent two-hour exposure of water sample in the pyramid after the informational influence (pic.5.b.curve1) caused abnormally big increase in concentration of fine and medium clusters (R>>1 under Q<14°, the right axis R). The value $N_{\sum}$ increased up to 255%.

The similar subsequent exposure of the corresponding water sample in the cylinder (pic.5.b.curve2) caused decrease in concentration of all fine and medium



Pic.5. Relative scattering indicatrices of water samples of I degree after the internal mutual influence (a) by informational field and the form field of a pyramid (1), the one of a cylinder(2), the one of a prism (3) for 10 min long and the following exposure for 2 hours long(b) inside the corresponding forms.

clusters (R<1 under Q>8°) and formation of oversize clusters with r≈4,5-5,4мm. The value $N_{\sum}$ was 90%.

The influence of the same subsequent exposure of the corresponding water sample inside the prism (pic.5.b.curve 3) was insignificant and mostly led to decrease in sizes of oversize clusters up to ≤4,5мm. The total cluster concentration was $N_{\sum}$ = 92%.

Discussion of the Results

The given findings demonstrate that identical informational influence on water samples of II degree led to various changes in its structure depending on the configuration of the form and the location of the sample in relation to it. These changes were different from the ones caused separately only by form field or by informational field. The given fact testifies to the structure difference of internal and external torsional fields of one and the same form which conditions different mechanisms of their interaction with informational field and the field of the initial water structure. To elucidate these mechanisms it is first of all necessary to determine the main components of internal and external form field structure at a first approximation at least.

Since the source of form field is uncompensated spins of rigidly fixed in solid amorphous or crystalline atom structure of its surface layer [2], it is assumed that form field do not possess its own informational aspect due to this reason i.e. the ability to change its spin configuration like water does consequent on mental influence. Form field provides only stationary polarization of physical vacuum both inside the volume of hollow form by its internal surface and outside it by its external surface. As it is seen from the comparison of curves 1 pic.2-4 the character of physical vacuum polarization inside the volume and the one outside the form differs significantly.

Every used in the work geometric form is symmetric in relation to its central vertical axis. Since in polarizing physical vacuum of internal form volume its entire surface takes place in the process it is evident that the form field in a horizontal plane of internal volume of every form is also symmetrical assuming that every elementary surface square creates torsional field of equal intensity “coming” normally from the surface.

The important aspect of torsional field of internal form volume lies in mutual compensation of intensity for normal field components of opposite surfaces or their parts (in a pyramid and cylinder accordingly), neighboring surfaces (in a three-edged prism).At that the character and degree of compensation as well as configuration of the field are determined by geometry of the internal form volume. Thus, horizontal parts of normal components in fields of opposite pyramid planes are antiparallel. Since the pyramid planes are inclined the normal field component has also a vertical part directed downwards within the volume. At that these components of different planes integrate among themselves and it influences the configuration of internal torsional field of a pyramid.

In the internal volume of a cylinder all of the normal components of the field surface on a circular perimeter of the horizontal plane are directed to its center implementing the focusing of the form field there. On the other hand every normal component has an antiparallel component to it on the diametrically opposite part of the surface that compensates the former one.

The form of a three-edged prism does not have opposite sides. In its internal space normal components of torsional fields of lateral edges are directed in a horizontal plane at the angle of 120° to each other which somewhat differs the character and the degree of their mutual compensation compared to the one in a pyramid.

Under the external influence of the form on water structure the influence is performed only by that part of the surface where the exposed sample is located. In this case the influencing field is unidirectional "stream" of its normal component "coming" from this part of external surface regardless of the form configuration. Since the effects of compensation and focusing are absent in external torsional field it is more uniform compared to the internal one. However, external field of every of the forms also has its peculiar characteristic making it different from the fields of the other forms. Thus, the field of a pyramid except of the horizontal part of a normal component has also a vertical part due to the above-said reason which is directed upwards and in its value it is 4 times as less as an internal component which is directed downwards.

The external field of a cylinder in a horizontal plane is spreading like a fan "stream" of a normal component due to which the density of the field decreased with the distance from the surface faster than that in the other forms.

The field of external surface of a prism edge is a parallel "stream" of a normal component which provides its higher density in a horizontal plane compared to that of the other forms with the equal distances between the surface and the water sample under test.

The examined peculiarities of form field structure manifested themselves in the character of its influence on water structure. Thus, the property of self-compensation of a torsional field of internal volume being common to all forms of all configurations caused the qualitatively alike effect of decrease in concentration of fine and medium clusters of II degree in a pyramid and cylinder and the one of fine clusters in a prism.

An individual peculiarity of internal form field structure was shown in quantitative aspect of the effect of decrease in cluster concentration. Thus, the vertical component of the pyramid field induced the most effect. The absence of antiparallel compensation of internal field of a three-edged prism conditioned the least decrease in cluster concentration.

External influence of a form field of all three configurations caused generative effect increasing in the following row: a pyramid- a cylinder-a prism. This effect involves increase: concentration of fine clusters in the field of a pyramid, a set of clusters in the form of a cylinder, concentration and a set of clusters in the field of a prism. It correlated with individual peculiarities of external form field of various configurations.

Being common the generative effect is determined presumably by uniformity and higher intensity of the field inducing the transition of some bivalent atoms of oxygen of free water molecules into tetravalent state followed by their binding into hexagonal rings and finally into clusters.

The character of mutual influence of form and informational fields corresponded to the phases of spin restructuring studied before. However, the mechanism of its implementation depended significantly on the initial conditions of the process – the configuration of the form, the location of the sample relating thereto, the initial water structure. Thus, the process involved decrease in concentration of fine, medium, large clusters and the one of oversize cluster sizes for the II degree water under the internal mutual influence in a pyramid and a prism. Such a result of restructuring corresponds its first phase. Qualitative and quantitative resemblance in character of curves R(Q) on pic.2.a.curve 2,pic.4.a.curve 2 and pic.1.b. curve 2ʻ identifies that contribution of the informational field into spin restructuring prevails due to insignificant intensity of self-compensating internal fields of these forms.

Decrease of oversize cluster sizes in this and the other variants of mutual influence could be connected with higher mechanical durability of these clusters. It was stated above that this fact prolongs the first phase of restructuring and the period of its implementation under the present experiment and evidently exceeds the duration of informational influence.

The peculiarity of mutual internal influence on water structure of II degree in a cylinder was that focusing of informational field led to increase of its intensity in a vertical cylindrical zone around axis of form symmetry where the examined sample was located. The increased intensity of the informational field in this zone caused generation of fine clusters followed by their binding with the clusters of the initial structure into new oversize clusters. The mechanism of restructuring was reasoned in the section “Experimental Results”.

Mutual internal influence on the structure of I degree induced significant generative effect conditioned by the torsional field of fine clusters in the initial water structure, spin-oriented informational field. Depending on configuration of internal form field this effect involved generation of fine and medium clusters under influence in the pyramid, the one of fine and oversize clusters under the influence in the cylinder, and increase in concentration and sizes of oversize clusters under the influence in the prism. In the latter case the increase of the oversize cluster parameters occurred due to binding of spin-ordered by total field of fine and medium clusters of the initial structure and new ones formed in the process of mutual influence. Such a conclusion can be drawn based on comparison of curve 3 on pic.5.a and curve 2 on pic.4.a and the corresponding values of $N_{\sum}$ after the samples of I and II degree were exposed to the influence.

The external mutual influence on samples of II degree also caused generative effect similar to the one under the internal influence on water samples of I degree. Thus, in the field of the pyramid dominating generation of fine clusters took place, in the field of the cylinder there was generation of clusters of various forms, and in the field of the prisms mainly there was one of oversize clusters.

In the given case it is evident that the generative effect as a whole was conditioned by higher uniformity, intensity and the peculiarities of external form field structure compared to those of the internal ones.

The study of the subsequent exposure of water samples in the form field was carried in order to determine the character of its influence on the discovered earlier [12] informational aftereffect involving the continuing spin restructuring of water after the mental influence ceased. The phenomenon is connected to the influence of the torsional field of physical vacuum formed in the process of influence (further – an informational soliton) and persisting after the influence stopped.

Elucidation of the character and degree of form field influence on informational aftereffect was conducted in comparison of curves 3 and 2 of every pictures 2,3,4 as well as of curves 1,2,3 pic.5.b with the corresponding curves 1,2,3 pic.5.a.

According to the degree of semblance the mentioned above pairs of curves R(Q) are divided into 3 groups given below. Every group is characterized by its own unique peculiarities of the interaction between the form field and informational soliton.

1. The large degree of semblance, close to matching, testifies, firstly, to informational aftereffect, secondly, to counterbalance of form field and informational soliton influence.(pic.4.a., pic.5.a. and b. curves 3).
2. The insignificant distinction which involves mainly the shift of one from the compared curves against the other one on the vertical axis indicates moderate predominance of one of the influencing torsional fields on water structure.

Thus, the shift of the curve R(Q) after the exposure which corresponds to lasting spin restructuring under the mutual influence is conditioned by more significant influence of informational soliton (pic.4.b) and under the reverse shift it corresponds its abatement compared to the effect of form field (pic.2.a; pic3.a).

3. The significant distinction of the stated above pairs of cures both in their character and values R(Q) testifies to intensive generative effect conditioned by the informational soliton when spin restructuring lasts (pic.5.a. and b., curves1; pic 3.b). In case of its total transformation into large grained structure the distinction shows the destruction of the informational soliton by the form field (pic.2.b; pic 5.a. and b. curves 2).

The cases of interaction corresponding to the 3 group are of the greatest interest. Absent informational aftereffect after the exposure of I degree sample in the internal field of the cylinder is conditioned by its focusing effect which has caused intensive formation of oversize clusters due to binding fine clusters in the water sample after the mutual influence stopped (pic.5.a and b. curves 2).

Forming of large-grained structure under exposure of II degree samples in the external field of the pyramid (pic.2.b) is induced by its predominance over the informational soliton which could be conditioned by destructive influence of the vertical component in the form field on spin configuration of the soliton.

The peculiarity of the restructuring process in the given case was formation of fine clusters on the whole under the mutual influence which is shown by the character of curve 2 on pic.2.b. The largest values were observed in the angel interval Q> 45°

which corresponds to the radii r<0,21мm. Insignificant informational capacity of these clusters conditioned low-level intensity of the total structure field, and their small sizes determined high mobility and easiness of binding among themselves into more large-scale clusters under the influence of uniform field of the pyramid.

The assumed amplification mechanism of informational aftereffect under exposure of I degree sample in internal field of the pyramid (pic 5.a and b. curves 1) is the following. High concentration of fine clusters in the initial structure which are spin-oriented by the informational field under the mutual influence provided formation of torsional field of water structure the intensity of which exceeded the intensity of internal form field of the pyramid.

The informational field along with structure field caused significant generation of spin-ordered fine and medium clusters, thus amplifying the field of water structure. Upon ceasing the mental influence on water the informational soliton continued its influence. Increase if informational aftereffect makes it possible to suppose the positive reverse connection between the soliton and the structure field that conditions their mutual amplification.

The important factor in amplification of informational aftereffect is a pyramid-shaped form which could be a peculiar resonator performing the positive reverse connection and size selection of generated clusters. Two clearly discernable maxima of large amplitude on curve 1 pic.5.b under Q_1=28° and Q_2=40°-46° testifies to the selective intensive generation of fine clusters with r_1=0,34 мm and r_2=0,23мm correspondingly. Absence of similar maxima on curves 2 and 3 (pic.3) shown in [12] testify to the assumption about the resonant selection of their sizes in the given case. These curves are also relative indicatrices of water scattering with similar initial structure, informational influence and subsequent exposure but performed without the form. Fluctuations of values R(Q) of insignificant amplitude on these curves have interferential character.

The similar mechanism of informational aftereffect amplification is evident to have taken place under the subsequent exposure of II degree sample in the external form of the cylinder as well (pic.3.b). In the given case the distinction was in absence of selection in sizes of generated clusters since the exposed water sample was located outside the resonant cavity.

Thus, unlike form fields of a cylinder and the one of a prism the form field of a pyramid provides significant amplification of water spin restructuring which is equivalent to increase in intensity of the informational soliton in the internal volume of the form. This fact enables us to make a supposition about the informational assignment of the ancient pyramids which are located in the various regions of the globe. They could have served both the amplifiers of the informational solitons and their transmitters and receivers.

Conclusions

1. The difference of the characteristics in internal and external torsional fields of hollow forms is determined. The influence of these fields in one and the same form causes the diverse changes in the water structure.

2. The mechanism of mutual influence of the form and informational torsional fields on water structure depended on initial conditions of its spin restructuring - the form configuration, the type of the form field – internal and external ones, the initial water structure.
3. The influence of the form field on the informational aftereffect is defined. The character and degree of which were determined by correlation of intensities of torsional form field and the informational soliton.
4. The phenomenon of abnormally large amplification of the informational aftereffect in the internal field of a pyramid was discovered. It demonstrated the characteristics of positive reverse connection between the informational soliton and torsional field of water structure and the ones of size selection of generated fine clusters.

References

1. Stepanov I.K. The Emission of a Form. The State of the Problem. Review//www.chronos.msu.ru/old/RREPORTS/stepanov-forma.pdf.
2. Kovalenko V.F. The Study of a Form Mechanism Influence// Biomedical Engineering and Electronics.2015, №1.
   URL:www.es.rae.ru/biofbe/201-992
3. Kovalenko V.F. Spin Nature of Water Memory//Science Journal of Physics 2013. Article ID sjp-206,11 Pages,2012.doi:10.7237/sjp/206
   http://www.sjpub.org/sjp.html
4. Akimov AE. Heuristic Discussion of New Long-Range Actions Problem. EGS-Concepts. -1991, M, Preprint №7A. ISTC, 54pp.
5. Shipov G.I. The Theory of Physical Vacuum.-1993, M, ST-Center,365pp.
6. Kovalenko V.F. Informational Influence on Water Structure// Biomedical Engineering and Electronics.2012, №1.
   URL:www.es.rae.ru/biofbe/182-805
7. Sinitsyn N.I., Petrosyan V.I., Elkin V.A., Devyatov N.D., Gulyaev Yu.V., Betsky O.V. The Special Role of the System “Millimeter Waves – Water Medium” in Nature.// Biomedical Radioelectornics.1998,#1,5-23pp.
8. Kovalenko V.F., Bordyuk A.Yu., Shutov S.V Definition of Water Clusters Form.//Optics of Atmosphere and Ocean.2011.24.7, 601-605pp.
9. Kovalenko V.F., Levchenko P.I., Shutov S.V. Cluster Nature of Water Scattering.//Biomedical Radioelectornics.2008, #5, 36-45pp.
10. Van de Hyulst. Light Scattering by Small Particles.-M., IL, 1961, 536pp.
11. Lazarev S.N. Diagnostics of Karma.1-4 V.-Academy of Parapsychology: Saint-Petersburg, 1993-1997.
12. Kovalenko V.F. Analogy of Memory Properties of Water and the Ones of the Brain.//Science Journal of Physics. Volume 2013.Article ID sjp-261,8 pages, 2013.doi:10.7237/sip/261
    http://www.sjpub.org/sjp.html

Сведения об авторе
Коваленко Виктор Фёдорович, д.ф.-м.н., профессор кафедры информационно-измерительных технологий, электроники и инженерии Херсонского национального технического университета
78008б г.Херсон, Бериславское шоссе,24
e-mail:viktor.kovalenko.00@mail.ru
Научные интересы: физика полупроводников, структурно-информационные свойства воды.

Information about the Author
Kovalenko Viktor Fiododrovych, Dr. Sci. in Physics and Mathematics, Professor of the Faculty for Informational Measuring Technologies, Electronics and Engineering of Kherson National Technical University
78008, Kherson, Berislavske Shosse,24
e-mail:viktor.kovalenko.00@mail.ru
Academic Interests: semiconductor physics, structural and informational properties of water.