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To the conclusion of the equations of state of the oxyhydrate colloid

© **Yury I. Sukharev**,[1*+] and **Boris A. Markov**[2]
[1] *Chelyabinsk State University. Street Brothers Kashirin, 129. Chelyabinsk, 454001. Chelyabinsk Region. Russia. E-mail: Yury_Sucharev@mail.ru*
[2] *Chelyabinsk Higher Military Aviation Red Banner School of Navigators, a Branch of Military Training Scientific Center Air Force "Professor N.E. Zhukovsky and Y.A. Gagarin Air Force Academy". Town, 11, 1. Branch of the VUNTS VVS "VVA". Chelyabinsk, 454015. Russia.*

*Supervising author; [+]Corresponding author

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Abstract

The operator of Liesegang and the corresponding phase diagram, passing through the gel optical electromagnetic field have been considered. A spiral form of distribution of clusters in the gel space, resulting in a periodic change in the intensity of electromagnetic radiation transmitted through the gel is shown. The influence of pulsation noise or self-organization current in a magnetic field on the optical characteristics of tin oxy hydrate, as well as on the kinetic curves of changes in the optical density of oxyhydrate systems, the sorbing properties of *d*- and *f*-elements, and the structural organization of their colloids is established.

The paper considers also non-linear properties of the gel oxygenated systems. The discovery of the periodic properties including sorption characteristics detected by electric fluctuation conductivity on the background of the polarization phenomena.

The answer to the question about the nature of oxyhydrate gels from the position of colloidal chemical representations is received. The performed quantum chemical calculations of oxyhydrate systems indicate macromolecular binding of some single elements in the spatial gel grid. Numerous data confirm the well-known model of the structure of co gels continuous spatial matrix that includes cells filled micellar environment.

The effect of pulsation noise or self-organization current of gel systems in a magnetic field on the optical characteristics of yttrium oxyhydrate, for example, as well as on the kinetic curves of changes in the optical density of oxyhydrate systems, as well as their structural organization, determining the properties of *d*- and *f*-elements, is shown. The excited systems in the presence of noise demonstrate the effect of coherent resonance of ion-cluster flows.

An analogue of the generalized schrödinger equation for colloids is obtained. The derivation of the equation is based on an experiment that allows us to find the oscillations of the colloid with a very high degree of reliability.

The analogue of the schrödinger equation allowed us to give a holistic description of the wave, oscillatory nature of the colloidal substance. Based on this approach, it is possible to apply experimental data to restore the interaction of substances in the colloid using the mathematical apparatus of its own functions, to find interacting substances and in some way to evaluate their characteristics.

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