

## Form and discharge mechanism of stochastic wave clusters near the carbon-graphite recording electrodes

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### Abstract

It is advisable to refer to works by V.I. Arnold, which may provide clearer understanding of this article. Periodical processes are widely spread in colloid chemistry, considering that they are universal and are subject to comprehensive studies. And, it is coherent chemistry that conducts researches into the subject, that is to say, chemistry of oscillatory periodical processes. The problem is that both classical inorganic chemistry and colloid chemistry remain far from understanding and elaborating an oscillatory paradigm for the development of the phenomena. Therefore, we tend to overlook many subtle colloid chemical phenomena that can be very significant to, e.g., sorption and catalysis. Gel oxyhydrate systems of rare-earth elements, as well as oxides-hydroxides of certain d-elements, e.g., zirconium, niobium, titanium, etc. are of interest: having very low solubility, they tend to dissociate according to the acid-base mechanism, and, therefore, to manifestation of ionic-change and sorptive properties. Their properties are hardly reproducible or completely irreproducible, even with all the necessary conditions provided and all the necessary means implemented to reproduce the initial parameters.

The singularities that our research into the gel oxyhydrate systems in question detected were as follows: oscillatory dilatancy, oscillatory (pulsation) electrical conductivity, spontaneous electrical current of the gel self-organization accompanied by polarization phenomena, tinting of gel systems, oscillatory optical and sorptive properties, etc. Please visit our website (<http://oxyhydrate-gel.ru>), as well as our major works to learn more.