The Use of the "Anomalous (Special) Points" of Electrolyte Solutions.

Depending on temperature and concentration some special conditions of electrolyte solutions (so-called "anomalous points") can be reached that make the given solution become anomalous.

"Anomalous points" are characteristic breaks, minimums and maximums that reflect the dependence of solutions and electrolytes/nonelectrolytes properties on concentration of the solution, its temperature and other characteristics.

The presence of such peculiarities of many-component solid systems and their liquid condition is well-known and presents one of the bases for physical and chemical analysis of metals and their alloys.

The first person to pay attention to such points in liquid solutions was one of the founders of chemical theory of solutions, D.I. Mendeleyev. He used the example of solutions with highly intensive chemical interaction of components - sulfuric acid and water ($SO_3 - H_2O$)

Our research findings showed that these points refer to any many-component system. And despite of their weak manifestation character their importance is difficult to overestimate.

First, their location is deeply connected with chemical nature of substances and can be used in chemical analysis for identification. Moreover, since for all the same substance there can be several special points interconnected with each other – the quality analysis error is not significant.

Second, these points can be characterized by a local minimum of energy, and solutions under not significant affect can self-adjust putting the system back to the sphere of a special point with error in concentration constituting approximately 0,0001% as the experimental evidence revealed. Dashes modify the character of special points in a way, but the points can be clearly observed and there is an opportunity of simultaneous determination of all components' properties.

Third, precise hitting of a special point leads to a row of events that are difficult to explain at the moment. For example, at a definite frequency of sound and electromagnetic oscillations it was troublesome to determine any observable losses of resistance; putting them through a solution caused the increase of signal and observable external changes of solutions could be seen in a form of stratification and motion of drops, especially if the solution was close to saturation.

The solution with a definite structure serves as a source of signals of different nature – in different frequency range. There is still some work to be done selecting and structuring sensors for some of these signals and developing the corresponding theory.

On our theoretical research basis we propose the organization of **the initial chemical transformers of information** production on Pavlodar Chemical Plant. Such production does not require high-tech equipment.

The sphere of these transformers application is in that they can be used as signal sources in Environmental Monitoring and Remediation. Its small size could also be considered as advantageous.

Research groundwork also indicated that brain liquid – liquor – is close to the structure of many-component solution with a special point in concentration (approximately 0,89%) and temperature (approximately 36,58%). In connection with this the solution self-adjusts without biological cell structures. These subtle researches wait for repetition in different techniques and further coverage in scientific literature.