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Risk factors affecting the prevalence of breast cancer among female aged 40-69 years in Australia

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n relation to living organisms, E. Schrödinger [1] introduced the concept of "negative entropy" to explain the compensation for the production of entropy. L. Brillouin, justifying the process of obtaining information, called it negentropy [2]. At present, negentropy is used mainly as the amount of informati on equal to the difference between the initial (before receiving the message) and final (after receiving the message) entropy, and as the reciprocal of entropy, expressing the orderliness of material objects. The second law of thermodynamics represents the change in the entropy of an open system in the form of two components [3]. production of entropy due to irreversible processes and exchange of entropy with the environment. In chemical reactions far from the equilibrium state, ordered structures arise under the action of nonlinear interactions at the bifurcation point and lead to the production of entropy. Non-equilibrium situations according to I.Prigogin [4] lead to space-time structures - dissipative structures. The production of entropy and its exchange with the environment can lead to the evolution of the system, passing into the self-organization mode [5]. At the bifurcation point, the system loses stability and passes into a non-equilibrium state, in which it is possible to acquire a new quality of the evolution of a dynamic system. There is a restructuring of the nature of the movement and the structure of the system. When a system far from equilibrium moves to a bifurcation point, a significant role is played by the chemical potential and the affinity of the system. At the bifurcation point, the system begins to produce entropy caused by irreversible processes, the passage of the reaction is characterized by a certain rate constant. It is these factors that determine which evolutionary branch the system will follow after passing through the bifurcation point. At the bifurcation point, the components of the system undergo individual and conjugated transformations, and then a chemical reaction proceeds. Chemical reactions in an open system are accompanied by direct and reverse transformations of the components. In this case, irreversible processes are characterized by the production of entropy of both direct and reverse transformations. <u>Negentropy</u> is the production of the entropy of the reverse transformation. According to the II law of thermodynamics, the production of entropy is a positive value. Therefore, the value of negentropy is not negative, but positive. The amount of entropy produced both in the forward and backward directions determine the evolution of the system in the forward or backward directions.

Biography

Mailybi Aldabergenov is doctor of chemical science, professor. He works at "Modern Chemistry" LLP. He proposed a new concept for studying the nonequilibrium state on the basis of the "The Gibbs function normalized to the total number of electrons". On the basis of the proposed principles, the mechanisms of interaction of system components at the level of elementary collisions are explained. Technologies for obtaining polymer boron-phosphorus fertilizers "Phoskabor", "Borkristalin", plant growth stimulators GuPhos have been introduced into the industry. He has published over 300 articles, 18 patents. Under his leadership, 3 doctoral, 14 candidate and 2 PhD dissertations were defended. "Modern Chemistry" LLP - organization engaged in scientific research and production of plant growth stimulants. Currently produces sodium and potassium humatophosphates (GuPhos). Algae- humatophosphates are being prepared for production.

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