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Conference is dedicated to the 100-year anniversary of the V.I. Vernadsky Crimean Federal University, 120-year anniversary of A.L. Chizhevskiy, 100-year anniversary of V.A. Troickaya, 130-year anniversary of P.M. Nagorskiy

Конференция посвящена 100-летию Крымского федерального университета имени В.И. Вернадского, 120-летию А.Л. Чижевского, 100-летию В.А. Троицкой и 130-летию П.М. Нагорского

TIME DYNAMIC OF CRYSTALLIZATION IN FITZROY-RETORT (STORMGLASS) – DISTINCTION BETWEEN NATURAL AND SYNTHETIC CAMPHOR

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Every day measurements of the level of crystallization were carried out simultaneously for types of Fitzroy-retort (stormglass): with natural campher and synthetic one. All the devices have been made with the same techology and were in identical condituons of the temperatur and the illumination. The analysis of the data obtained in 2012-2016 years

shows that crystallization index changes in the main synchronously. However for some days essential differences have been observed including the anticoriletion indecns measured. Its propose that there distinctions wight be caused by different sensitivity of compher isomers to the polarization of electromagnetic fields magnitosphetic origin, which influence upon the crystallization jointly with atmospheric radiowaves.

BIOLOGICAL INFLUENCE OF COSMIC WEATHER'S VARIATIONS HAS SPATIAL ORGANIZATION?

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Influence of Cosmic Weather upon biological processes over the habitat realizes globally. For the most important channel of such influence – electromagnetic – acting agent is radiowaves of magnetospheric – ionospheric origin. These very long radiowaves

irradiate, of course, all the planetary surface. But at the ground, final intensity of the field depend on conductivity of botton soil – taking into account secondary component of the field. So, some spatial heterogeneity of background electromagnetic fields appears, and distinction in its biological effects from one place to another might be noticed. The same type of the spatial heterogeneity is known for other channels cosmic influence (e.g., ionizing radiation). The heterogeneity considered is the reflection of spatial organization of geological structures (the breaks). Biological effects of such heterogeneity is observed usually indirectly – as existence of "geopathological zones". The investigation of this phenomena might be made by standard method of heliobiology : it is necessary not only to fix the date of the event – for example, the calls for emergency medical care – but to notice the patient's address.

TCHIJEVSKY'S "PHYSICAL FACTORS OF HISTORICAL PROCESSES" IN OUR DAYS – TO THE 120 ANNIVERSARY OF SCIENTIST BIRTH

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The earliest publications of A.L. Tchijevsky – 1918-1928 years – are usually estimating up to now as mistaken. Their the most important theses might be formulated – using modern terminology – as the following:

- In world historical process there is periodical component;
- One observed period is 11 years; it is cycle of Solar activity; this period may be noticed clearly in the frequency of occurrence of the revolutions;
- The presence of 11-year period in historical dynamics is caused by psychoneurological agent, which is dependent on solar activity; so, the revolutions may be considered as mass neurosis.

Now all the empiric data of Tchijevsky is confirmed by independent authors. Physical nature of psychoneurological factor is determined : it is electromagnetic fields of magnetospheric – ionospheric origin in very low frequency range (very long radio waves). This main conclusion may be based on three independent classes of the arguments : 1)

correlation between indices of social instability and those of cosmic weather; 2) connection between cosmic weather variations and individual psychic indices; 3) connection between variations of natural electromagnetic fields and the parameters of encephalograms.

The availability of cosmic rhythms in social dynamics allow to make prognosis for some public phenomena. Using military welur index and the data about Long Kondratiev Waves, it is shown, that the most dangerous interval of appearing of world military conflicts falls on 2018-2023 years.
