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## **SOME ANALOGIES BETWEEN THE RATE OF PRECIPITATION OF COLLOID PARTICLES AND SPEED OF FILTRATION**

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In the 50ties of this century titrating colloid solutions G.Piccardi noticed that the reaction of precipitation depended on the intensity of constantly changing magnetic field "Can you imagine my astonishment when working with colloid solutions I found out that one and the same reaction of precipitation, in case it is sufficiently sensitive, proceeds at different times at different rate" (G.Piccardi, 1965, "provando e riprovando", "Pravda", Nauka i Žizn, 1965, Nr.8, p. 65-71).

Studying the filtration speed in Kamensky's quartz tube the authors of this article observed that it varies in time. As is often the case with chemists, who relate all aberrations from the standard reactions of precipitation to the errors of experiment, hydrogeologists tend to explain the variations of filtration speed by similar reasons. The authors of the present article determined that the speed of filtration in Kamensky's tube is regulated, among others, by electromagnetic-gravitational pulsations of the Sun - with main temporal fluctuation period equal to 160 min. - and vibrations of the Earth in periods equal to 3.27; 3.51; 3.97; 5.99; 8.24; 35.1 min. According to the data available in literature the dragon cycle - having the period of 27.2 days - represents one of the main lunar influences on gravity force.

Besides, by the method of cyclic components the authors modelled the dependence of hydraulic conductivity (K) on the mass of fraction grains composing the sand soil. On the ground of field investigations by the method of pouring in diggings it was determined that in the model of multiple regression of cyclic dependence K on m the main influence on the values of K is made by fractions in diameter  $<0.1$  mm and 0.25-0.1 mm and the mass fluctuation periods equal to 96 and 1920 grams respectively.