

## **Experimental lab model study of biological effects of the Earth's magnetic pole inversion**

L.A. Pershakov<sup>1</sup>, P.A. Kashulin<sup>2</sup>, N.V. Kalacheva<sup>2</sup>

<sup>1</sup>*Polar Geophysical Institute*

<sup>2</sup>*Polar-Alpine Botanical Garden-Institute, Kola Science Centre, Apatity*

The problem of periodic inversion of Earth's magnetic pole is of utmost importance for the all planet habitants, in any case, it was widely assumed that the preceding ones had a far going consequence on biota. The some approaches to the experimental study to the question are offered. The work presented was carried out in terms of rectangular Helmholtz rings loaded with stationary current which was adjusted to provide complete reciprocal inversion of the three vectors of Earth's background magnetic field components in the Apatity plot. The round-the-clock 24 - 48 hours expositions throughout all experiments were used, if otherwise mentioned. The explicit effects were found in relation to rather diverse list of species which were as follows: representatives of microbiota *Pseudomonas* genera, herbaceous plant species *Maranta*, *Phaseolus*, and *Taraxacum* genera, cultural cereals. The biological aspects of the theme in question and the further directions of the investigations are presented.