Empirical Kinematic-Gravitational Model of Generation of Magnetic Fields of Planets

V.A. Kochnev

Institute of Computational Modelling SB RAS, Krasnoyarsk, Russia

e-mail address: kochnev@icm.krasn.ru

In [1] and [2] it was suggested that the main substance of Earth's core is liquid and ionized under high temperatures and generates Earth's magnetic field. The substance is moving under the influence of the same forces as the trade-wind and tidal currents of the ocean at the equator, that is under the influence of the horizontal components of the gravitational forces of the Moon and the Sun. This paper presents an empirical mathematical model of the relation between the parameters of the magnetic field of planets with gravitational and kinematic parameters of the Sun, planets and their satellites.

References

[1] Kochnev V.A., Goz I.V. Model of sources of the magnetic field of the Earth's core from the solution of the inverse problem of magnetometry. // Proc. of the 38th Session of the International D.G.Uspensky Seminar "Theory and practice of the geological interpretation of geophysical fields". Perm, (2011).

[2] Kochnev V.A. Circumstantial evidence and phenomena confirming the model of generation of a magnetic field from the motion of the charged molten core. // Proc. of the 39th Session of the International D.G. Uspensky Seminar "Theory and practice of the geological interpretation of geophysical fields". Voronezh, (2012).