



Dear friends,

In this issue of the journal we are turning, once again, to the topic of the Earth's origin and evolution. How did our planet form from the protoplanetary gas-dust disk surrounding the young Sun? Was the young Earth "cold" or "hot"? What processes led to the formation of the interplanetary iron core? Was there a magmatic ocean at the Earth's early stages? And finally, how did our planet acquire its satellite, the Moon?

Today, there are a few hypotheses for the evolution of the Earth's interior and exterior. Some of them are universally acknowledged whereas others arouse controversy. And yet any theory, no matter how debatable it might be, appeals to scientists, especially if it is based on facts.

In this issue we are presenting to the readers an original theory proposed by Doctor of Geology and Mineralogy V.S. Shkodzinskii from the Diamond and Precious Metal Geology Institute (Yakutsk). Basing on the analysis of geological and cosmochemical data, the theory describes the nature of accretion (concentration of the earth substance) and the subsequent evolution of the magmatic ocean that formed at the early stages of the Earth's development and existed, in the author's opinion, for over four billion years. The author emphasizes the role of magnetic interactions in the protoplanetary cloud, which could have accelerated the formation of iron-containing planetary embryos, as a result of which the iron core of our planet could have formed much faster than postulated by the generally accepted hypotheses of the Earth's fractionation.

In another article, a different version is proposed based on a survey of the modern ideas of the stages of the Earth's evolution from the planetary embryo to the current state. The magmatic ocean, up to 1000 kilometers deep, must have existed but only for a brief time. The crucial factor that governed the changes

occurring in the planet's interior and exterior was its continuous cooling and the stepwise-progressive oxidization of its surface and near-surface shells (earth's crust, hydrosphere and atmosphere). The comment made by the well-known astrophysicist B. Wood supports the hypothesis of the magmatic ocean provided that the formation of the metallic core of the Earth was a very fast process. The role of such reconstructions of the distant historical past of our planet can hardly be overestimated – they allow us to gain a deeper insight into the modern state of our planet and to give a long-term outlook of its future development.

The new issue gives attention to the history of the State of Russia. We have already written about the full copy of The Book of Royal Degrees, the first corpus on the history of the Moscow Tsardom, discovered in Tomsk. In the current journal, Academician Pokrovsky presents a later work by the historian, poet and music scholar archimandrite Tikhon Makarievsky, published as recently as in 2011. This outstanding treatise that was referred to as The Latukhin Book of Degrees, noticeably expanded the territorial and chronological borders of Russian history. The chapters devoted to the "gloomy period" of Ivan the Terrible's reign and the subsequent dramatic events of the Time of Trouble were later used by N. M. Karamzin to create his famous History of the State of Russia in many volumes

The stories of all scientific discoveries, big or small, are as different as their contributions to the scientific-technological process but any pioneer can echo these words by Isaac Newton:

"I was like a boy playing on the sea-shore, and diverting myself now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me."

Academician N.L. Dobretsov,
Editor-in-chief

A handwritten signature in black ink, appearing to be 'N.L. Dobretsov', written in a cursive style.