



The facial levels of the melting of the Permian - Triassic trap basalts of West Siberian plate and Siberian platform.

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Statistical processing of numerical information allow to indicate the following regional petro- geochemical characteristics of Permo-Triassic trap magmatism in West Siberian plate WSP: 1) Examined regional petrochemical trend of major element chemistry variation of trap magmatism from north to the south is appeared in increase of the acidity, a decrease of Mg and alumina and potassium of the igneous rocks, for other components existing data do not allow to determine regularities; 2) According to $(La/Yb)_n$, $(Gd/Yb)_n$ and $(Tb/Yb)_n$ ratios all basic melts belong to the spinel facie.

In general the trap basalts of Siberian Platform reveal the following structural facial features are characteristic: 1) From west and east the region of the basalt effusions practically coincides with the area of Devonian sea depressions, 2) from the west to east lava shields are framed by the zones of the variously differentiated intrusive basic bodies grouped within the zones of arched and linear faults; 3) the region of effusive volcanics appearance has the zone - distributed structural - material areas, the tholeiitic "super-shield" (plateau Putorana) occupying the center part of the Tunguska syneclise), framed from the West, and NW by the local lava shields located in rounded depressions(mulda) in which the lavas are more magnesian, titaniferous and alkaline. 4) examined overall petrochemical zonation of basic rocks in Siberian platform reveal general decrease from the Norilsk mulda to Angara- Ilim iron-ore deposit region, with the growth of TiO_2 and alkalinity of the basic rocks. The statistical wavelet analysis of the cyclic recurrence of the effusive rock sections along the eastern board of Khatanga rift show substantially different characteristics of the spectra of time series, in Norilsk -Kharaelakh depression the low-frequency modules predominate, whereas for The Meimecha-Kotuy effusion section the high frequency values are characteristic.

The comparison of the possible facial levels of the melting of the initial magmas of trap basalts in WSP and Siberian platform showed that the magnesian melts were generated in garnet mantle facie, and major part of the basalt melts, forming volcanic plateaus in Siberian Platform and traps of WSP were apparently generated in the spinel facie of lithospheric mantle. The most obvious evidence of two - level magmatic sources is found on the border with the eastern margin of Khatanga depression and in the region of junction of volcanic plateau and Anabar craton. RFBR grant 12-05-00625