COMPOSITIONS OF MINERALS OF LOPARITE-BEARING ROCKS OF LOVOZERSKII ALKALINE MASSIF AND PHISICS-CHEMISTRY CONDITIONS OF MINERAL PARAGENESIS FORMATION

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A number of loparite-bearing rocks samples of Lovozerskii alkaline massif (lujavrites, juvites, fojaite-juvites ets) collected from differentiated complex and particulate from eudialite lujavrite complex have been investigated.
The compositions of rock-forming and accessory minerals have been studied by microprobe analysis.
The trend of clinopyroxene compositions from these rocks corresponds to low temperature part of trend for all alkaline rocks (and sodalite syenite particularly) of Lovozerskii massif. It is likely to connect with high alkalinity (the amphibole compositions testify this fact, too) and with elevated content of fluid components during their formation.
It has been shown that amphibole alkalinity increases in the sequence sodalite syenite→lujavrite→eudialite-lujavrite→juvitic rocks. In this sequence the average mole fraction of potassium in nepheline increases too. Based on the nepheline geothermometer proposed by Hamilton the conclusion about higher temperature conditions of nepheline from lujavrites formation is making.

Keywords: clinopyroxene, amphibole, nepheline, loparite, mineralogenesis, Lovozerskii alkaline massif.