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ULVÖSPINEL FROM XENOLITHS OF CONTACT-ALTERED VOLCANIC-SEDIMENTARY ROCKS
IN NEPHELINE SYENITES OF Khibiny AND LOVOZERO MASSIFS (KOLA PENINSULA)

Ulvöspinel is the typical accessory mineral in xenoliths of volcanic-sedimentary rocks of the trap formation in alkaline syenites of Khibiny and Lovozero massifs. In weakly altered olivine basalts, their tuffs and tuffites it forms homogenous grains enriched in chromium and vanadium, and while the contact-metamorphic alteration of those rocks ulvöspinel become significantly enriched also in manganese and silicon. The sharply reducing media of contact metamorphism, caused by rising flows of hydrocarbon gases and hydrogen sulfide, provides the subsolidus decomposition of the primary ulvöspinel and highly titanium magnetite with subsequent forming, at first, ilmenite lamellae, and later, with decrease of reducing potential, — the netting of ulvöspinel of the second generation.

Key words: ulvöspinel, xenoliths in nepheline syenites, contact metamorphism, subsolidus decay, lamellae, Khibiny, Lovozero.