

## **VOLKONSKOITES FROM WEST URAL: PROBLEM OF CHROMIUM CONCENTRATION**

SMAKOVA Y.S.

Volkonskoite samples were collected in 6 deposits from West Ural (Perm and Kirov region). Chemical analyses show great variations in chromium content (17-30 wt.%), which is the largest one in volkonskoites from upper parts of deposits and the least in the samples from lower ones. In volkonskoite-bearing rocks chromium is accumulated in clay cement of sandstones (2%). The XRD and IR spectrum indicates volkonskoites to be a mixture of different dioctahedral smectite phases. Microscopic and SEM investigations shows that in volkonskoite pseudomorphs on buried plant remains mineral often keep the form and inner structure of replaced tree, have a fibrous texture, which is often marked by finely disseminated inclusions of iron hydroxides, and is firstly formed on the weakening parts of silified wood, where an organic matter and microorganisms can remains. Despite the evidence role of organic matter as a Cr concentrator in forming volkonskoite, gas chromatographic investigations show the absence of initial organic matter both in volkonskoites, and in enclosing rocks.