

Mineralogical Requisites and Methods of Improvement the Low Quality Charoitite.

¹ IVITCHEVA S.N., ²YACHONTOVA L.K. ¹VNIISIMS, ALEXANDROV, RUSSIA; ²MOSCOW STATE UNIVERSITY, MOSCOW, RUSSIA.

To develop methods for increasing quality of non-conditional charoitite acquires special actuality as it favours the complex and efficient application of the unique deposit "Sirenevy Kamen".

However it's impossible to carry out investigations in the field of improvement the gem stones without comprehensive mineral and genetic studies and further type-design practice of natural stones. In this connection the following has been done:

- to fix dependence of technological and decorative features of charoitite against its mineral compound, structure – textural peculiarities and genetic consequence of charoitite formation;
- to study the effective porosity of morphogenetic types of charoitite and its dependence of structure – textural characteristics which causes its stability to corrosion and possibility to improve non-conditional porous varieties.

Based on the above mentioned we has developed technique for improving colour parameters of the low quality charoitite using the active organic dyes and carried out the comparative characteristic of the colorimetric indexes of natural and improved stones. Also we offered methods for hardening brittle porous varieties of charoitite using some liquid glass and sols of silicic acid. These methods were tested on the samples of the low quality charoitite from the main industrial sections of the deposit "Sirenevy Kamen".

Obtained results favour to increase the efficiency of use the unique deposit and improvement of the violet stone is very important for this.