

## SUMMARY

In this work was to bring newly discovered volcanic porous rocks in the Czech Republic. These rocks have been found by Dr. Peter Rojíkem who is employed as a geologist in the Sokolov coal and The rocks are of volcanic origin, and therefore occur in the Sokolov Basin in refractive Druzhba. Macroscopic appearance of found rocks and store them in the terrain resembled the character of pumice rock, and therefore the studies addressed the comparison and verification of whether these rocks are actually a pumice stone or not.

Geological position of porous volcanic rock is characterized by its deposit base in the bentonite clay in the form of a lahar, and can be attributed to the so-called epiklastickým deposits. Collected rock samples were subjected to analysis petrografickému. Researching, it became clear that these rocks in the initial stage of the research considered pumice from it in some cases differ. Identifying four basic categories of rocks according to macroscopic criteria. Silicate analysis identified according to their chemical composition as the samples trachyandesites, fonotefrit to basaltic trachyandesites, trachybasalts and tefrifonolit. Using other laboratory methods to deal with microscopy was observed in thin sections and holokrystalická hemikrystalická structure and a typical porphyritic texture. Was observed Microporosity, vrůstání pores in minerals, branched irregular shapes of pores and microcracks.

The text of the thesis describes other characteristics of porous volcanic rocks validated methods such as X-ray diffraction analysis identifying the main minerals in rock samples taken and or mercury porosimetry oriented pore space of rocks and its exploration in terms of the physical quantities.