

Formation temperature of perlite and its texture by heating experiments of obsidians from Hokkaido

IKEYAUCHI, Ryo¹ ; WADA, Keiji^{1*} ; SAITO, Takeaki¹

¹Hokkaido University of Education at Asahikawa

The obsidians from Hokkaido were heated in electric furnaces to transform the perlite in a form like pumice in vitreosity, because remained water in obsidians becomes the gas and makes air bubbles by heating.

We examined foaming temperature of the obsidians from 13 samples in 7 Hokkaido sources, and the relations with its foaming temperature and the water content of the obsidians. In addition, we changed a heating temperature and a condition of the heating time and examined the difference in foaming form of the perlite.

Finally, we considered a relations with foaming process of the obsidians and the internal structure of the perlite through the microscopy of the perlite.

Keywords: obsidian, heating experiment, perlite, vesiculation, glass