



INTRODUCTION & OBJECTIVES

Three samples were submitted for K-Ar Geochronology test on whole rock (two granites and one mica schist): Samples are labeled as SB01, SB02 and SB03. Prior to digestion for K-Ar preparation, the samples were checked under a light microscopy; alteration was observed in all samples. The K contents of each samples was measured by XRF prior to the K-Ar geochronology test.

K-AR METHOD

K-Ar methodology:

Aliquots of the samples were weighted into Al container, loaded into sample system of extraction unit, degassed at ~100°C during 2 days to remove the surface gases. Argon is extracted from the sample in double vacuum furnace at 1700°C. The determination of radiogenic argon content was carried out twice on MI-1201 IG mass-spectrometer by isotope dilution method with ^{38}Ar as spike, which is introduced to the sample system prior to each extraction.

The extracted gases were cleaned up in two step purification system. Then pure Ar is introduced into custom built magnetic sector mass spectrometer (Reinolds type).

It shall be noted that the test was done twice to ensure the consistency of the result. Two globally accepted standards (P-207 Muscovite and 1/65 "Asia" rhyolite matrix) were measure for ^{38}Ar spike calibration.

For age calculations the international values of constants were used as follow:
 $\lambda_K=0.581 \times 10^{-10} \text{y}^{-1}$, $\lambda_{\beta}=4.962 \times 10^{-10} \text{y}^{-1}$, $^{40}\text{K}=0.01167$ (at.%).