U. S. Department of Commerce
Frederick B. Dent
Secretary
National Bureau of Standards
Richard W. Roberts, Director

National Bureau of Standards Certificate of Analysis

Standard Reference Material 607

Potassium Feldspar
Trace Rubidium and Strontium

This material consists of a carefully sieved fraction (+200, -325) of SRM 70a, Potassium Feldspar. It is intended for use as a standard for the determination of Rb and Sr and Sr isotopic ratios as originally suggested by Compston, et al. [1].

Element	Concentration (μg/g)
Rubidium	523.90 ± 1.01[a]
Strontium	65.485 ± 0.320

[a] All error limits are reported as the 95 percent limit of error for a single analysis, calculated from the results of single subsamples from ten different bottles, and thus include a term for sample heterogeneity.

Isotopic Ratio	Value
$^{87}Sr/^{86}Sr$	1.20039 ± 0.00020[b]

[b] Normalized to $^{86}Sr/^{88}Sr = 0.1194$.

Samples should be dried before use by heating at 105 °C for two to four hours and then cooled in a desiccator.

Material homogeneity was determined using approximately 0.1g samples. The rubidium concentration was determined using SRM 984, Rubidium Chloride, as a comparative standard and the strontium concentration and isotopic ratios were determined using SRM 988, Strontium-84 spike, and SRM 987, Strontium Carbonate, as comparative standards

The analytical work was performed in the NBS Analytical Chemistry Division by J. R. Moody, L. J. Moore and I. L. Barnes under the direction of W. R. Shields.

The technical aspects leading to the preparation, certification, and issuance of this material were coordinated through the Office of Standard Reference Materials by W. P. Reed.

[1] Compston, W., Chappell, B. W., Arriens, P. A., and Vernon, M. J., Geochim. et Cosmochim. Acta, 33, 753-757 (1969).

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