



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material 70a

Potassium Feldspar

This Standard Reference Material (SRM) is intended for use in the determination of constituent elements in feldspar or material of similar matrix. SRM 70a is powdered potassium feldspar that was sieved to -200 mesh ($-75\ \mu\text{m}$) and blended to ensure homogeneity. The feldspar material was obtained from the Kingman (Arizona) feldspar mine. The material is a strained maximum microcline (perthite) with about 10-15% of albite.

The certified constituent elements of SRM 70a are given below and are based on measurements at NIST and a number of industrial laboratories. All values are based on samples that were dried for 2 hours at 105 °C.

Constituent	Certified Value ¹ Percent by Weight
SiO ₂	67.1 ²
Al ₂ O ₃	17.9
Fe ₂ O ₃	0.07 ₅
TiO ₂	0.01
CaO	0.11
BaO	0.02
Na ₂ O	2.5 ₅
K ₂ O	11.8
Rb ₂ O	0.06
Loss on Ignition	0.40

¹The certified value listed for a constituent is the present best estimate of the "true" value. The certified values are given as the oxide on an equivalent weight basis and assume stoichiometry in the form of the compounds listed.

²The estimated uncertainty of a certified value is expressed in significant digits. The certified value listed is not expected to deviate from the true value by more than ± 1 in the last significant figure reported; for a subscript figure the deviation is not expected to be more than ± 5 .

The original technical and support aspects involved in the preparation, certification, and issuance of this Standard Reference Material were performed under the direction of J.L. Hague, Standard Reference Materials Program (formerly Office of Standard Reference Materials).

The revision and update of this Certificate of Analysis was coordinated through the Standard Reference Materials Program by T.E. Gills.

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