



INTERNATIONAL ATOMIC ENERGY AGENCY

REFERENCE MATERIAL FOR GAMMA-RAY SPECTROMETRIC ANALYSIS OF GEOLOGICAL MATERIALS

IAEA/RGTh-1

CERTIFICATE OF ANALYSIS

COMPONENT	CONCENTRATION*	CONFIDENCE INTERVAL**
Thorium	800 µg/g	± 16 µg/g
Uranium	6.3 µg/g	± 0.4 µg/g
Potassium	0.02%	± 0.01%

*Expressed on dry weight basis (constant weight at 130°C)
**At a significance level of 0.05

DESCRIPTION OF MATERIAL

RGU-1, RGTh-1 and RGK-1 are intended for use in calibrating laboratory gamma-ray spectrometers for the determination of U, Th and K in geological materials. RGTh-1 was prepared by the Canada Centre for Mineral and Energy Technology (CANMET) under a contract with the International Atomic Energy Agency. The material was prepared by dilution of Canada Certified Reference Material Project (CCRMP) thorium ore OKA-2 (2.89% Th, 219 µg/g U) with a floated silica powder of similar grain size distribution. The agreement between radiometric and chemical measurements of thorium and uranium in OKA-2 shows both series to be in radioactive equilibrium. The complete description of the preparation and certification of RGTh-1 may be found in the reference.

REFERENCE

Preparation of Gamma-ray Spectrometry Reference Materials RGU-1, RGTh-1 and RGK-1 Report - IAEA/RL/148, Vienna, 1987

This report may be obtained from:
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