Commission of the European Communities

JOINT RESEARCH CENTRE

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CERTIFICATE

ISOTOPIC REFERENCE MATERIAL CBNM-IRM 184

The IRM is supplied with with atomic isotope ratios certified as

$^{233}U/^{238}U$	< 0.000 000 1	
$^{234}U/^{238}U$	= 0.000 052 8	± 0.000 003 1
$^{235}U/^{238}U$	= 0.007 262 3	± 0.000 002 2
$^{236}U/^{238}U$	= 0.000 000 2	± 0.000 000 1

This corresponds to an isotopic composition with following abundances :

	Isotopic atom %	Isotopic mass %	
^{233}U	< 0.000 01	< 0.000 01	
^{234}U	0.005 24	0.005 15	± 0.000 31
^{235}U	0.720 96	0.711 92	± 0.000 22
^{236}U	0.000 02	0.000 02	± 0.000 01
^{238}U	99.273 78	99.282 91	± 0.000 38

The atomic weight of the uranium is 238.028 896 ± 0.000 014

NOTES

1. All uncertainties indicated are accuracies, computed on a 2s basis.

2. Values for isotope ratios, isotopic compositions and for concentrations are valid for 1985.10.10.

3. The IRM solution has a molality of 6 m HNO_3 (i.e. 6 mol $HNO_3 \cdot kg^{-1}$ of solvent) or a molarity of 5 M HNO_3 (i.e. 5 mol $HNO_3 \cdot l^{-1}$ of solution).

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