Key comparison BIPM.RI(II)-K1.Sc-47

MEASURAND : **Equivalent activity of ^{47}Sc**

x_i: **result of measurement carried out in the SIR for the sample submitted by laboratory *i***

u_i: **combined standard uncertainty of x_i**

Lab *i*	x_i / kBq	u_i / kBq	Date of measurement
IRMM	164590	340	83-10-14

Key comparison EUROMET.RI(II)-K2.Sc-47

MEASURAND : **Equivalent activity of ^{47}Sc**

x_i: **result of measurement carried out at laboratory *i***
converted to the equivalent activity through the IRMM

u_i: **combined standard uncertainty of x_i**

Lab *i*	x_i / kBq	u_i / kBq	Measurement report date
BNM-LNHB	164840	270	1983
NPL	164980	340	1983

Key comparison BIPM.RI(II)-K1.Sc-47

MEASURAND : **Equivalent activity of ^{47}Sc**

Key comparison reference value: there is currently no KCRV for this radionuclide

Linking EUROMET.RI(II)-K2.Sc-47 to BIPM.RI(II)-K1.Sc-47

The value x_i is the equivalent activity for laboratory i participant in EUROMET.RI(II)-K2.Sc-47 having been normalized to the value of the IRMM as the linking laboratory.

The degree of equivalence between two laboratories i and j, one participant in BIPM.RI(II)-K1.Sc-47 and one in EUROMET.RI(II)-K2.Sc-47, or both participants in EUROMET.RI(II)-K2.Sc-47, is given by a pair of terms expressed in MBq: $D_{ij} = x_i - x_j$ and U_{ij}, its expanded uncertainty ($k = 2$), approximated by $U_{ij} = 2(u_i^2 + u_j^2 - 2fu_l^2)^{1/2}$ with l being the linking laboratory when each laboratory is from the EUROMET and f is the correlation coefficient.

Degrees of equivalence for ^{47}Sc

Lab j ⟹

Lab i ⇩

	IRMM		BNM-LNHB		NPL	
	D_{ij} / MBq	U_{ij} / MBq	D_{ij} / MBq	U_{ij} / MBq	D_{ij} / MBq	U_{ij} / MBq
IRMM			**-0.25**	0.57	**-0.39**	0.71
BNM-LNHB	**0.25**	0.57			**-0.14**	0.57
NPL	**0.39**	0.71	**0.14**	0.57		

There is no graph of equivalence since no degrees of equivalence with respect to the key comparison reference value could be computed.