

Key comparison CCRI(II)-K2.H-3

MEASURAND : Activity concentration of ^3H

NOMINAL VALUE : 37 kBq g $^{-1}$

x_i : result of measurement carried out by laboratory i

u_i : combined standard uncertainty of x_i

Lab i	x_i / (kBq g $^{-1}$)	u_i / (kBq g $^{-1}$)	Date of measurement
ANSTO	37.46	0.28	2009
BARC	36.46	0.58	2009
BIPM	35.66	0.53	2009
CMI-IIR	36.40	0.25	2009
CNEA	37.65	0.34	2009
IFIN	36.49	0.32	2009
IRMM	37.63	0.34	2009
KRISS	37.60	0.71	2009
LNE-LNHB	36.62	0.22	2009
MKEH	31.15	0.76	2009
NIM	37.03	0.26	2009
NMISA	37.56	0.27	2009
NPL	37.51	0.36	2009
PTB	36.69	0.26	2009
RC	37.90	0.16	2009

Key comparison CCRI(II)-K2.H-3

MEASURAND : Activity concentration of ^3H

NOMINAL VALUE : 37 kBq g^{-1}

The key comparison reference value is obtained by applying the power moderated weighted mean of the results giving $x_R = 37.10 \text{ kBq g}^{-1}$ with a standard uncertainty $u_R = 0.18 \text{ kBq g}^{-1}$.

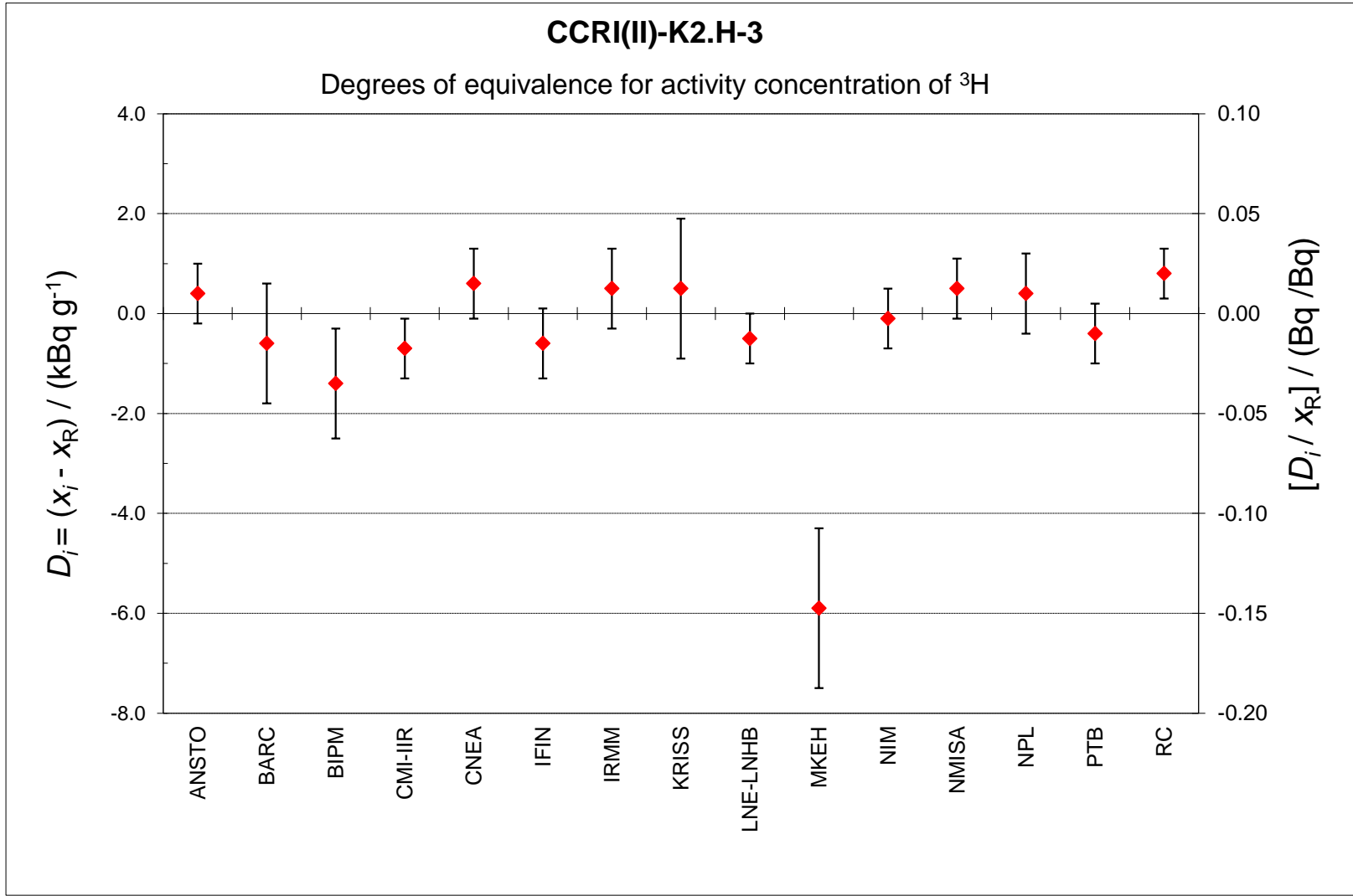
The value x_i is the activity concentration for laboratory i .

The degree of equivalence of each laboratory with respect to the reference value is given by a pair of terms:

$D_i = (x_i - x_R)$ and U_i , its expanded uncertainty ($k = 2$), both expressed in $\text{kBq}\cdot\text{g}^{-1}$, and

$U_i = 2((1 - 2w_i)u_i^2 + u_R^2)^{1/2}$, where w_i is the weight of laboratory i contributing to the calculation of x_R .

Lab i ↓	D_i	U_i
	/ (kBq g^{-1})	
ANSTO	0.4	0.6
BARC	-0.6	1.2
BIPM	-1.4	1.1
CMI-IIR	-0.7	0.6
CNEA	0.6	0.7
IFIN	-0.6	0.7
IRMM	0.5	0.8
KRISS	0.5	1.4
LNE-LNHB	-0.5	0.5
MKEH	-5.9	1.6
NIM	-0.1	0.6
NMISA	0.5	0.6
NPL	0.4	0.8
PTB	-0.4	0.6
RC	0.8	0.5



N.B. The right-hand axis shows approximate relative values only