

Key comparison CCRI(III)-K1

MEASURAND : 24.5 keV neutron fluence

x_i : measurement result obtained by laboratory i
expressed as the mean ratio of measured
instrument response by laboratory i to the
reference instrument response

u_i : combined standard uncertainty of x_i

Lab i	x_i	u_i
VNIIM	0.988	0.013
CIAE	0.998	0.040
NIST	0.816	0.162
PTB	1.029	0.042
NPL	1.024	0.046

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Key comparison reference value: x_R is taken as 1

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

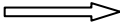

$D_i = (x_i - x_R)$ and U_i , its expanded uncertainty ($k = 2$), both expressed in cm^2/cm^2 ,

$U_i = 2u_i$.

The degree of equivalence between two laboratories is given by a pair of terms:

$D_{ij} = D_i - D_j$ and U_{ij} , its expanded uncertainty ($k = 2$), expressed in cm^2/cm^2 .

In evaluating $U_{ij} = 2u_{ij}$ for the table below account is taken of correlations between u_i and u_j (see the Final Report).

		Lab j 									
Lab i 		VNIIM		CIAE		NIST		PTB		NPL	
		D_{ij}	U_{ij}	D_{ij}	U_{ij}	D_{ij}	U_{ij}	D_{ij}	U_{ij}	D_{ij}	U_{ij}
		/ (cm^2/cm^2)		/ (cm^2/cm^2)		/ (cm^2/cm^2)		/ (cm^2/cm^2)		/ (cm^2/cm^2)	
	VNIIM	-0.012	0.026								
	CIAE	-0.002	0.080								
	NIST	-0.184	0.324								
	PTB	0.029	0.084								
	NPL	0.024	0.091								
		VNIIM		CIAE		NIST		PTB		NPL	
		D_{ij}	U_{ij}	D_{ij}	U_{ij}	D_{ij}	U_{ij}	D_{ij}	U_{ij}	D_{ij}	U_{ij}
		/ (cm^2/cm^2)		/ (cm^2/cm^2)		/ (cm^2/cm^2)		/ (cm^2/cm^2)		/ (cm^2/cm^2)	
				-0.010	0.093	0.172	0.328	-0.041	0.096	-0.036	0.102
		0.010	0.093			0.182	0.337	-0.031	0.123	-0.026	0.127
		-0.172	0.328	-0.182	0.337			-0.213	0.337	-0.208	0.339
		0.041	0.096	0.031	0.123	0.213	0.337			0.006	0.130
		0.036	0.102	0.026	0.127	0.208	0.339	-0.006	0.130		

CCRI(III)-K1
Degrees of equivalence for 24.5 keV neutron fluence:
 D_i and expanded uncertainty U_i ($k = 2$), both expressed in cm^2/cm^2

