

List of suspicious k_0 values that need to be re-measured, most important ones first.

Cd-115, 53.46h, 528 keV, 4.486h, 336 keV

Difficult to measure Q_0 for this one. Need to re-measure k_0 with well-thermalised neutron spectrum.

Ir-192, 73.83d, 296, 308, 316, 468

No k_0 values given in De Corte, Simonits, Atomic Data and Nuclear Data Tables 85 (2003) 47.

Hg-197, 2.67d, 77

No k_0 value given in De Corte, Simonits, Atomic Data and Nuclear Data Tables 85 (2003) 47. Difficult case because gamma-ray peak overlaps with x-ray peak but it is important to have a k_0 value.

Se-75, 119.8d, 121, 136, 265, 279, 401

Previous k_0 measurements used poor efficiency curve or were not corrected for coincidence summing, see my paper JRNC 257, 3 (2003) 475-480.

Gd-153, 240.4d, 97, 103

My paper JRNC 257, 3 (2003) 475-480 suggests that the k_0 values of De Corte, Simonits, Atomic Data and Nuclear Data Tables 85 (2003) 47 may be about 7% low, probably because of thermal neutron self-shielding.

Gd-159, 18.56h, 363

Published k_0 value may be OK, but it should be re-measured at the same time as Gd-153.

Ba-131, 11.5d, 124, 134, 216, 373, 486, 496, 620

k_0 values of our k_0 Workshop paper are in disagreement with those of X. Lin (MTAA11), and 4 to 6% lower than those of Smodis, De Corte, De Wispelaere, JRNC 186 (1994) 183.

Pd-109, 13.46h (4.69m 2.5%), 39.6s, 88

The k_0 value of our k_0 Workshop paper is $1.52E-3$, 6% lower than the value $1.62E-3$ calculated from Van Lierde et al. JRNC 245, 1 (2000) 179-184. (converting type Va to type Vc gives $1.58E-3 \times 1.025 = 1.62E-3$)

Ag-110m, 249.8d, 658, 764, 884, 1384

The values of our k_0 Workshop paper are 5% higher than those of De Corte, Simonits, Atomic Data and Nuclear Data Tables 85 (2003) 47.

In-116m, 54.15m, 417, 1097, 1293

The values of our k_0 Workshop paper are 5% higher than those of De Corte, Simonits, Atomic Data and Nuclear Data Tables 85 (2003) 47.

In-116m2, 2.18s, 162

Very short half-life, only measured once, Roth et al., JRNC 169, 1 (1993)159-175.
A good case for chopped-beam.

Cs-134m, 2.91h, 127

The value of our k0 Workshop paper is 5% higher than that of De Corte, Simonits, Atomic Data and Nuclear Data Tables 85 (2003) 47, probably due to error in efficiency curve at low energy.

Cs-134, 2.062y, 563, 569, 605, 796, 802

The values of our k0 Workshop paper are 0 to 5% lower than those of De Corte, Simonits, Atomic Data and Nuclear Data Tables 85 (2003) 47, probably due to errors in calculating areas of closely spaced peaks.

Tm-170, 128.6d, 84

The value of our k0 Workshop paper is 6% higher than that of De Corte, Simonits, Atomic Data and Nuclear Data Tables 85 (2003) 47, probably due to error in efficiency curve at low energy.

Re-186, 90.64h, 137

The value of our k0 Workshop paper is 3% higher than that of De Corte, Simonits, Atomic Data and Nuclear Data Tables 85 (2003) 47, probably due to error in efficiency curve at low energy.

Sm-153, 46.5h, 103

The measurements of my paper JRNC 257, 3 (2003) 475-480 suggest that the k0 value of De Corte, Simonits, Atomic Data and Nuclear Data Tables 85 (2003) 47 may be about 5% high.

S-36, 5.05m, 3103

Should be re-measured with system with accurate efficiency curve at high energy.

Ca-49, 8.718m, 3084

Should be re-measured with system with accurate efficiency curve at high energy.

Co-60m, 10.47m, 59, 1332

Should be re-measured with system with accurate efficiency curve at low energy.

U-239, 23.45m, 75

Should be re-measured with system with accurate efficiency curve at low energy.