Corrigendum

Corrigendum to "Update of NIST half-life results corrected for ionization chamber source-holder instability"

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Unterweger and Fitzgerald (2014) published corrections to earlier NIST half-life values (Unterweger, 2002) to account for ionization chamber source holder instability. In preparing the publication, a mistake in the propagation of the correction factor, f, and its associated uncertainty led to incorrect results in Table 4 of that publication. Revised values are given below in Table 1. The data in Table 1 are a summary of the results reported on earlier by Fitzgerald (2012) in his Table 6 and should replace those given in Unterweger and Fitzgerald (2014). The authors regret the error.

References

Fitzgerald, R., 2012. NIST Ionization Chamber "A" Sample-Height Corrections. J Res. Natl. Inst. Stand. Technol. 117, 80-95. http://dx.doi.org/10.6028/jres.117.003

Unterweger, M. P., 2002. Half-life measurements at the National Institute of Standards and Technology. Appl. Radiat. Isot. 56, 125-130. https://doi.org/10.1016/S0969-8043(01)00177-4

Unterweger, M.P., Fitzgerald, R., 2014. Update of NIST half-life results corrected for ionization chamber source-holder instability, Appl. Radiat. Isot. 87, 92-94. https://doi.org/10.1016/j.apradiso.2013.11.017

Table 1 Half-lives with combined standard uncertainties summarized from Table 6 in (Fitzgerald, 2012). For ^{99m}Tc, * represents saline and ** acid solutions.

Nuclide	Half-life	Nuclide	Half-life
^{18}F	(1.8295 ± 0.0003) h	^{131m}Xe	(11.934 ± 0.021) d
^{22}Na	(950.4 ± 0.4) d	^{133}Ba	(3832.3 ± 10.8) d
^{24}Na	(14.951 ± 0.003) h	^{133}Xe	(5.2474 ± 0.0005) d
^{32}P	(14.262 ± 0.003) d	^{134}Cs	(753.43 ± 0.28) d
^{46}Sc	(83.828 ± 0.066) d	^{137}Cs	(10915 ± 55) d
^{51}Cr	(27.6999 ± 0.0013) d	^{139}Ce	(137.7 ± 0.09) d
^{54}Mn	(311.97 ± 0.05) d	^{140}Ba	(12.7525 ± 0.0023) d
^{57}Co	(271.95 ± 0.27) d	^{140}La	(40.293 ± 0.012) h
^{58}Co	(70.77 ± 0.11) d	^{141}Ce	(32.508 ± 0.024) d
^{59}Fe	(44.507 ± 0.007) d	^{144}Ce	(284.35 ± 0.08) d
^{60}Co	(1924 ± 0.9) d	^{152}Eu	(4929 ± 10) d
^{62}Cu	(9.672 ± 0.008) m	^{153}Gd	(239.29 ± 0.1) d
^{65}Zn	(244.14 ± 0.1) d	^{153}Sm	(46.285 ± 0.003) h
^{67}Ga	(3.2615 ± 0.0005) d	^{154}Eu	(3138 ± 4) d
^{75}Se	(119.78 ± 0.07) d	^{155}Eu	(1731 ± 3) d
^{85}Kr	(3905 ± 19) d	^{166}Ho	(26.794 ± 0.023) h
^{85}Sr	(64.848 ± 0.008) d	^{169}Yb	(32.011 ± 0.009) d
^{88}Y	(106.62 ± 0.04) d	^{177}Lu	(6.64 ± 0.01) d
^{99}Mo	(65.924 ± 0.006) h	^{181}W	(121.03 ± 0.07) d
$^{99m}Tc^{*}$	(6.0072 ± 0.0009) h	^{186}Re	(89.25 ± 0.07) h
$^{99m}Tc^{**}$	(6.012 ± 0.003) h	^{188}Re	(17.001 ± 0.022) h
^{103}Ru	(39.31 ± 0.04) d	^{188}W	(69.77 ± 0.05) d
^{109}Cd	(462.6 ± 0.7) d	^{192}Ir	(73.802 ± 0.019) d
^{110m}Ag	(249.91 ± 0.03) d	^{195}Au	(186.01 ± 0.06) d
^{111}In	(2.8048 ± 0.0005) d	^{198}Au	(2.69516 ± 0.00021) d
^{113}Sn	(115.06 ± 0.08) d	^{201}Tl	(3.0456 ± 0.0015) d
^{117m}Sn	(14 ± 0.05) d	^{202}Tl	(12.47 ± 0.08) d
^{123}I	(13.2235 ± 0.0019) h	^{203}Hg	(46.615 ± 0.027) d
^{125}I	(59.47 ± 0.13) d	^{203}Pb	(51.92 ± 0.04) h
^{125}Sb	(1006.5 ± 0.6) d	^{207}Bi	(11403 ± 61) d
^{127}Xe	(36.342 ± 0.003) d	^{228}Th	(698.4 ± 0.4) d
^{131}I	(8.0196 ± 0.0022) d		

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