

Errata

A few very unfortunate errors have been identified in the Publications after their publication. The author apologizes all the inconvenience these errors may have caused.

- Publication I, Page 168, Equation (22): The sign of the exponential term in the equation should be positive instead of negative. The correct formula is, thus

$$g(v, T, A) = \left(1 + \frac{1}{2\gamma(T, A)^2 v^2}\right) \text{Erf}(\gamma(T, A)v) + \frac{e^{-\gamma(T, A)^2 v^2}}{\sqrt{\pi}\gamma(T, A)v},$$

similar to Equation (3.11) in the current thesis.

- Publication II, Page 79, Equation (5): All γ symbols should be replaced with γ^2 in the equation. The correct formulation for the Maxwell-Boltzmann distribution is thus

$$P(\mathbf{V}_t, T, A)d\mathbf{V}_t = \left(\frac{\gamma}{\sqrt{\pi}}\right)^3 e^{-\gamma^2(\mathbf{V}_t \cdot \mathbf{V}_t)} d\mathbf{V}_t \quad (6.1)$$

- Publication II, Page 84, Section V.A: The nuclides that were recognized to require a DBRC treatment to get correct results in a test case involving burned fuel were correctly identified in Fig. 3, but two plutonium isotopes are missing in the list of the DBRC nuclides within the text. The corresponding sentence should be written

“The reference calculation was repeated such that the use of DBRC was extended to nuclides ^{95}Mo , ^{108}Pd , ^{131}Xe , ^{145}Nd , ^{147}Pm , ^{152}Sm , ^{239}Pu , ^{240}Pu , ^{242}Pu and ^{241}Am , in addition to ^{238}U .”

This is the list of DBRC nuclides actually used in the calculations.