Review of: "Approximate Relationships to Reproduce the Values of Shell Correction Energy for Fission Fragments"

Edward Shitsi[1]

1 Ghana Atomic Energy Commission

Potential competing interests: No potential competing interests to declare.

Reviewer comments on Qeios

The author presented linear relationships to reproduce the shell correction energy values of fission fragments. The following comments should be addressed to enable the Reviewer to make a decision on the suitability of the manuscript for publication.

1. Define “Shell Correction Energy” and state its importance at the beginning of the Introduction on page 1. Give brief details of specific applications of the “Shell Correction Energy.”
2. Correct the grammatical error in the sentence, “They have claimed that the Strutinsky shell correction method is essentially a semi-classical approximation [26, 27],” on page 1.
3. The author should add five (5) more linear relationships of fission fragments in addition to that of ^{232}Th, ^{235}U, 238U, $^{239\text{-}240}$Pu, and ^{252}Cf, which are already presented in the manuscript.
4. The linear relationship of ^{252}Cf has been presented in the publication, (Cold and spontaneous fission fragments mass yield of ^{252}Cf using the statistical scission point model with the pairing energy and temperature dependent shell energy corrections, https://doi.org/10.1016/j.cjph.2021.04.008) by P. Mehdipour Kaldiani, and M.R. Pahlavani. Are the linear relationships of ^{232}Th, ^{235}U, 238U, and $^{239\text{-}240}$Pu also already in existence in the literature?