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

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Potential competing interests: No potential competing interests to declare.

This paper attempts to give linear relations to predict the shell correction energy for fission fragments, but there are few serious issues in this paper, which are listed below:

1. The author failed to give any general relation for fission fragments, and one has to use different equations for each nucleus, delaying as fission fragments. Shell corrections for each fragment have been calculated using a previously defined method, and the linear fitting of data in various mass ranges gave the linear relationships. Why not have the author just give the calculated shell correction energy in tables? This will avoid the errors due to linear fitting.

2. Even figures and equations are not agreeing with each other. For example, Fig. 2 and Eq. 4. Equation 4 predicts E_shell = 0 for A< 100, but in Fig. 2, E_shell for A<100 ranges from 1-3 MeV. Similar is the case in Eq. 5 for A>148. The author needs to re-examine all the equations.

3. The first paragraph of Section 1 is not clear; maybe it should be re-written.

4. The second paragraph of Section 1 talks about the excitation energy-dependent shell corrections, but the presented work does not deal with the excitation energy-dependent shell corrections. Hence, this section seems irrelevant to this work.

5. Authors should make sure that references are given in a uniform format; presently, it involves more than one format.