Review of: "Neutronic Chain Reactions for Polonium-210 Production"

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Potential competing interests: No potential competing interests to declare.

Report on

"Neutronic Chain Reactions for Polonium-210 Production" by Solomon Lim

The paper addresses the generation of polonium-210 through nuclear chain reactions and showcases novel findings. However, a few clarifications, as listed below, are essential prior to publication.

1. How does the current study differentiate from your previously published work found at http://dx.doi.org/10.2139/ssrn.4469519?
2. As we know, Po-210 has short half-life and decays to the stable isotope Pb-206 by emitting α particle. Producing, handling, and storing large quantities can be difficult. What safety measures were implemented given the high radioactivity of Po-210?

Minor comments:

1. The page numbers are missing in the manuscript.
2. Page 1 – in Abstract "also confers **its** intrinsic neutron moderation properties" (not 'it').
3. Page 3 - subsection 2.1 line 6 "and thus cause the chain reaction to fail" should be changed to "and thus caused the chain reaction to fail."
4. Page 6 – Line 2 "and two other plated neutron sources" (not 'source').
5. Page 6 - Line 6 "have cause the outer layers to receive very little neutrons." should be changed to "have caused the outer layers to receive a very few neutrons."
6. Throughout the manuscript, a comma (,) is missing before and after 'respectively'.