LIST OF CHANGES

* 1. Line 2 from bottom of Abstract:

“The low energy component of the photoneutron is found in…”

* The low energy component of the photoneutron agrees with…
  1. Line 3 of paragraph 1 of “1. Introduction”

“These photons can interact with … produce secondary particles including neutron.”

* “These photons can interact with …, secondary particles including neutron are produced.”
  1. Line 1 of paragraph 2 of “1. Introduction”

“Until now, there are … photo-neutrons production of…”

* Until now, there are … photo-neutrons production in…
  1. Line 2 of paragraph 3 of “1. Introduction”

“The comparison between experimental and nuclear data on … provide new information …”

* Comparison between the experimental data and the evaluated data on DDXs of medium to heavy targets provides new information …
  1. Line 1 of paragraph 2 of “2. Experiment”

“In this measurement, we considered…”

* In this measurement, we determined…
  1. Line 3 of paragraph 2 of “2. Experiment”

“The cylindrical-pill targets, including Pb,…”

* “The cylindrical-shaped targets of Pb,…”
  1. Line 5 of paragraph 2 of “2. Experiment”

“The LCS photons interact with prepared targets…”

* The LCS photons interact with the prepared targets…
  1. Line 7 of paragraph 2 of “2. Experiment”

“…1500 degrees (horizontally), and 900 degrees (vertically)…”

* …1500 ~~degrees~~ (horizontally), and 900 ~~degrees~~ (vertically)…
  1. Line 8 of paragraph 2 of “2. Experiment”

“The distances from … were ranging …”

* The distances from … ranged …
  1. Line 9-10 of paragraph 2 of “2. Experiment”

“As the neutron detector detected both photoneutrons and gamma radiations from the background, … was employed by evaluating the charge ratio of tail and full signal.”

* As the neutron detector detected both photoneutrons and gamma radiations from the background, … was employed ~~by evaluating the charge ratio of tail and full signal~~.
  1. Line 10 of paragraph 2 of “2. Experiment”

“The time-of-flight (TOF) technique was employed to measure the neutron energy and build up the energy histogram.”

* The time-of-flight (TOF) technique was employed to measure the neutron energy ~~and build up the energy histogram~~.
  1. Lines 2-4 from the bottom of paragraph 2 of “2. Experiment” (page 3, above Fig. 2).

*These sentences were replaced to answer the question from reviewer: How can this system separate neutron and gamma by PSD and TOF?*

“Figure 2 and Figure 3 display neutron-gamma events separation of this system and neutron-gamma spectrum using PSD and TOF methods”

* Figure 2 displays neutron-gamma events separation. Figure 3 indicates neutron-gamma time-of-flight spectra after neutron-gamma events separation.
  1. Line 2 of paragraph 3 of “2. Experiment”

“…SCINFUL-QMD simulation [7], and evaluated …”

* …SCINFUL-QMD simulation [7] to evaluate …
  1. Line 3 of paragraph 3

“We normalized the energy spectrum by the solid angle, the number of incident LCS photons and the number of target atoms to get the DDX.”

* *This sentence was removed because it is a standard procedure that readers can imagine easily.*
  1. Paragraph 4 of “2. Experiment”

“The data at vertical 90 degrees was least affected by the polarized photon, while the data at horizontal 90 degrees was most affected.”

* *This sentence was removed because it is not easy to imagine how the detection angle results in this stage of this draft.*
  1. Line 5 of paragraph 1 of “3. Evaluated nuclear data library and PHITS”

“…using the 16.6 MeV incident photons,…”

* …using the monoenergetic 16.6 MeV incident photons…
  1. Line 6 of paragraph 1 of “3. Evaluated nuclear data library and PHITS”

“…was taken average to consider the photon energy resolution.”

* …was taken to yield the spectrum of the library that should be compared to the experimental data.
  1. Line 1-3 of paragraph 2 of “3. Evaluated nuclear data library and PHITS”

“We used PHITS to calculate the DDX of photoneutron produced by the 16.95 MeV photons incident on the Au, Pb, Sn, Cu, Fe, and Ti, which were natural targets. This energy was equal to the maximum energy used in the experiment.”

* The calculation was carried out for all targets, so I revised these sentences.

“Au target…”

* The targets…
  1. Line 3 of paragraph 1 of “4. Results and discussion”

“The experimental spectra indicate two the …”

* The experimental spectra indicate ~~two~~ the …
  1. Line 2 of paragraph 2 of “4. Results and discussion”

“In PHITS code has used…”

* “The PHITS code has used…”
  1. Line 3 of paragraph 2 of “4. Results and discussion”

“The energy distributions different due to the difference of models.”

* The different models predict the different DDX.
  1. Line 6 of paragraph 2 of “4. Results and discussion”

“…the high-energy is not showed on calculation spectra from PHITS and JENDL/PD-2004.”

* …the high-energy component was not reproduced by the PHITS and JENDL/PD-2004.
  1. Line 2 of paragraph 3 of “4. Results and discussion”

“…low energy, which is consistent with the experimental data while the high energy component is not.”

* …low energy, whereas this model cannot explain the high-energy component.
  1. Line 1 of paragraph 5 of “4. Results and discussion”

“as that was obtained by the experiment, there is a good agreement with data points lower than 4 MeV and a disagreement between the DDXs from the evaluated nuclear data library with the experimental data in high energy region”

* …while there is an agreement in the low-energy region below 4 MeV. Besides, the evaluated nuclear data library could not reproduce the high-energy region.
  1. Line 4 of “5. Conclusion”

“…be included in the simulation and the evaluated for the photonuclear reaction.”

* “…be included in the simulation ~~and the evaluated for the photonuclear reaction~~.
  1. Line 5 of “5. Conclusion”

“To develop the model, experimental data of DDX are strongly desired for various targets and energies.”

* To develop a model of high prediction power, further measurement on DDX is strongly desired for various targets and energies.