

Dear reviewer,

Thank you for your valuable feedback and for pointing out the remaining issues. We have carefully addressed your comments and incorporated the necessary corrections and improvements into the manuscript.

*Note: blue font means that this is text and figures which were replaced/added to the paper*

**Q1: l. 25: you wrote that you wanted to remove all "A MeV" in the text, but here there is still one**

Indeed, we apologize for the oversight. It has now been corrected. We went through the entire text again, and the term "AMeV" should no longer appear, ie. should be replaced by "MeV per nucleon".

**Q2: l. 28: please indicate what you mean by "high rate" experiment (at least some order of magnitude of event rate or data rate)**

The revised sentence, now with the info about the order of magnitude of the event rate:

To ensure optimal performance, extensive research has been conducted to refine the geometric design, minimize scattering and energy loss due to the mechanical structure [4], and develop a dead-time-free data acquisition system capable of handling hit rates in the active volume up to MHz[5].

**Q3: caption of figure 1: later in the text you use iphos and CEPA. I think it would be useful to indicate them already here**

Here is the revised caption, now including the proper and reasonable introduction of the "iPhos" and "CEPA" detector regions at this point in the text. Furthermore, the mix-up between "azimuthal" and "polar" in the sentence "*The azimuthal angular coverage of the crystals vary between 1.5° (End-Cap) to 3° (Barrel)*" has been corrected.

Caption: (a) Graphical representation of the CALIFA detector. Carbon fiber alveoli and aluminum holders fix the 15 to 22 cm long CsI(Tl) crystals. The gray boxes surrounding the holding structure represent the preamplifiers. (b) Cross profile and longitudinal section of the detector. The polar angular coverage of the crystals vary between 1.5° (End-Cap) to 3° (Barrel). The Barrel covers polar angles from 140° to 43°, while the forward End-Cap covers the range from 43° to 7°. The End-Cap is further subdivided into the iPhos region (43°–19°) and the CEPA region (19°–7°). Figures taken from Ref.[9]