Roger *et al.* Reply: In Ref. [1], the measurement of the beta-delayed alpha spectrum of ^{8}B was achieved using a double sided silicon detector (DSSSD) in order to extend the spectrum to lower energies, removing the contamination of other radioactive species present in the ^{8}B fragmentation beam by correlating the implantation and decay in the 48×48 pixels available. Freedman *et al.* [2] pointed out a possible source of systematic error specific to the use of a DSSSD, namely, the charge collection loss effect occurring in the interstrip region of those detectors. This effect was described in Ref. [3] and measured in Ref. [4] for X rays with a segmented Ge detector. It arises from the complicated shape of the electric field in the interstrip region, close to the surface. Freedman *et al.* suggested that the charge collection loss effect makes the calibration of the detector for measuring the decay of implanted nuclei delicate if an external source of radiation is used. In fact, external sources probe different regions of the DSSSD than the regions probed by implanted decays. As detailed below, we tested the suggestions of Freedman *et al.* by following a different calibration scheme than that presented in Ref. [1].

For technical reasons due to the KVI accelerator schedule, the calibration of the DSSSD used in Ref. [1] was performed in two separate runs. In the first run, the beta-delayed alpha lines of implanted ^{20}Na nuclei were used to calibrate the detector. Different external alpha sources (^{148}Gd, ^{239}Pu, ^{241}Am and ^{244}Cm) were then placed in front of the detector and their energies were recorded. Long tails were observed from the external alpha sources due to the dead layer of the DSSSD and the charge collection loss effect. However, events subject to this effect were identified by requiring an equal charge collection on both the front and the back side of the DSSSD, hence strongly suppressing the tails on the external alpha lines. This method was also successfully used in Ref. [4] to identify more than 99% of the events suffering from charge collection loss. Note that the front-back matching technique was used only to achieve a cleaner line shape for the external alpha sources, and was not applied to the ^{8}B implantation measurement. Owing to energy losses in the source material and in the dead layer of the DSSSD, the recorded energies of the external alpha sources were shifted down in energy compared to the literature values. Note that the events suffering from charge collection loss and not identified through the front-back matching technique could potentially contribute to this shift. Using SRIM stopping powers [5], the observed shifts were converted into an *average* effective thickness. In a second run, the decay spectrum of implanted ^{8}B was measured and the DSSSD was calibrated with the same external alpha sources using the *average* thickness obtained from the first run. The voltage and temperature settings were the same for the two runs.

However, the magnitude of the charge collection loss depends on the range of the alpha particle in the detector and the magnitude of the energy loss in the source material is obviously source-dependent. This causes different effective thicknesses for the different external sources used. As a consequence, instead of using an *average* effective thickness for calibrating the DSSSD for the ^{8}B decay study, we now performed a calibration using the individual responses to the external alpha sources determined in the first run, hence directly canceling out the effects of dead layer and charge collection loss and their dependence on the range of the implanted particles.

The maximum of the two-alpha spectrum found using the calibration described above lies at 2.923 MeV, i.e., 2 keV lower than presented in Ref. [1]. The shape of the spectrum is slightly changed. The deduced neutrino spectrum is hence changed by about 0.5% at energies above 15 MeV, which remains consistent with the error bars of Ref. [1]. The errors on the neutrino spectrum are of the same order as the ones quoted in the original Letter, but with a slightly different shape.

Finally, Freedman *et al.* [2] invoked the possible disagreement between the measured ^{8}B positron spectrum of Ref. [6] and the one deduced from the ^{8}Be final state distribution measured in Refs. [1,7]. We compared our deduced positron spectrum in the range of 11–15 MeV with the one reported in Ref. [6] and found an increase of about 20% of the χ^2/NdF with respect to the previous comparison reported in Ref. [8]. The residuals found in the normalization adjustment of our deduced positron spectrum are still uniformly distributed around zero, indicating that the fit is still satisfactory.

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