

Dear Editor,

The following corrections have been made (written here in bold):

1) Please introduce IR50 and pIRIR signals properly - you did partly - but IR50 is "infrared stimulated luminescence signal measured at 50°C" (line 22) and pIRIR is not post infrared infrared, but post-IR IRSL (line 56).

**Line 56 has been corrected to "post-infrared infrared stimulated luminescence 225°C".**

2) Please check whether "g-value" is normalised to 2 days (g2days value) or not.

**Yes, we use the g-value that is normalised to 2 days.**

**We now indicate this in line 369.**

3) De (e should be in subscript) in line 289.

**Done**

4) "to test the suitability of SAR rather than measure a residual" is not a valid justification for using pIRIR bleaching in the dose recovery test. Once samples have been heated, a change in sensitivity can occur before the dose recovery test, meaning that the protocol's suitability cannot be strictly tested.

**We've adjusted the 3<sup>rd</sup> paragraph of Section 3.4.2 as follows:**

**For the pIRIR protocols, the pIRIR signal was depleted using a pIRIR  $L_n$  measurement (Table 2) in order to target the pIRIR traps and avoid leaving a slowly bleaching part of the signal that can remain if the sample is only exposed to daylight or a solar simulator for a finite period of time (e.g., Li and Li, 2011). A disadvantage of this approach is that the bleaching method (the pIRIR  $L_n$  measurement) can lead to sensitivity changes that may lead to inaccurate dose recovery test results. For all SAR protocols tested, the protocol was accepted if the ratio of the measured-to-given dose was within 10% of unity and few aliquots or grains were rejected from analysis due to dim signals, high recuperation or recycling ratios that are not within 10% of unity. However, these results should be viewed with caution until further experiments can be conducted.**

**Also line 562 has been adjusted to:**

**Despite some outlying values of the measured-to-given dose, most aliquots passed the dose recovery test suggesting that, after signal sensitisation during the  $L_n$  measurement, feldspars in these rocks were suitable for SAR.**

5) Y axis tick labels were cut in Fig. 6 (two left panels).

**Fixed.**

6) line 564 - the explanation of sigma-b was already made above.

**The explanation has been deleted.**

Best wishes, and congratulations on your hard work,  
Sumiko Tsukamoto

**Your time and efforts are much appreciated!**