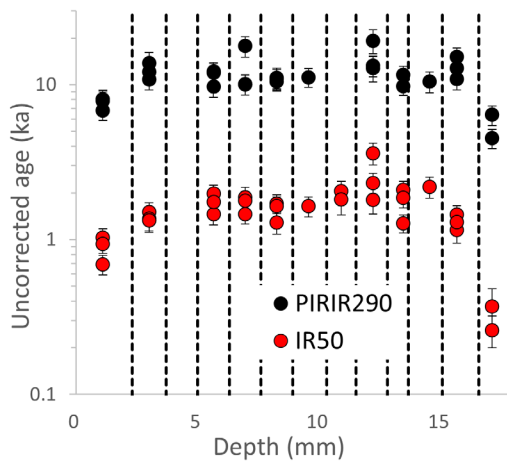
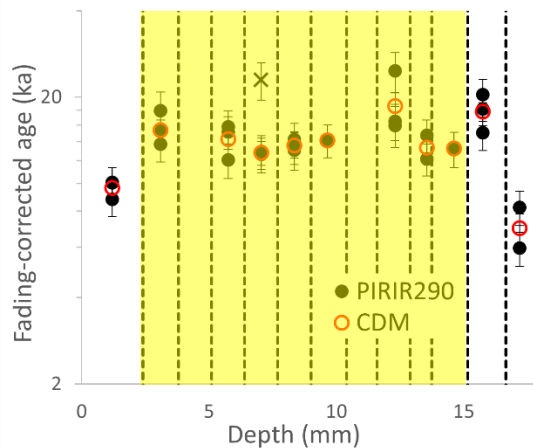


Figure A. Dose recovery test results (measured/given dose versus overdispersion) for limestone Rock #2 from Coal Valley (SG data measured with the IR50 signal), and volcanic Rock #18 from Cave Valley (multi-grain aliquot data measured with the PIRIR290 signal). Dose recovery test results have been re-analysed after changing either the recuperation rejection criteria or the recycling ratio rejection criteria. More lenient values are shown in the green, and more conservative or restrictive values are in orange. ‘N’ refers to the number of single grains/aliquots that were accepted after analysis. The original study (hollow symbol) accepted aliquots or grains with recuperation <5% of the natural signal and recycling ratios <10% of unity.

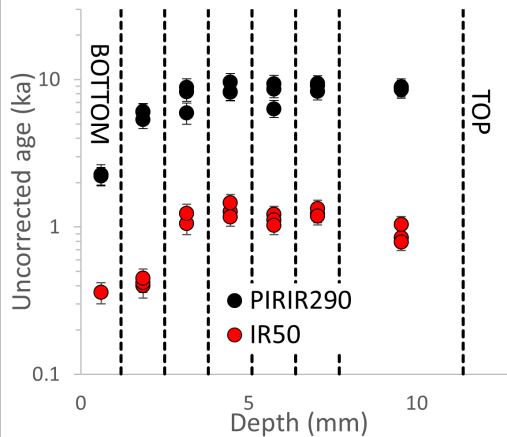
(a) Rock 4



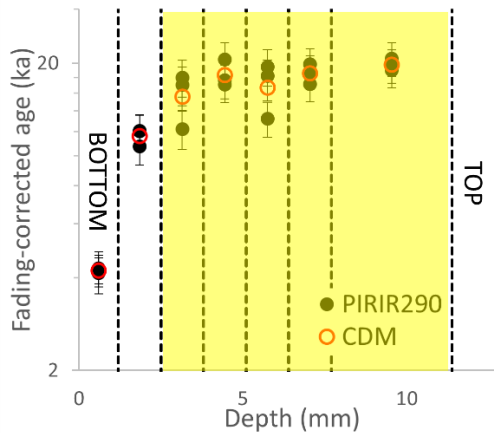
(b) Rock 4



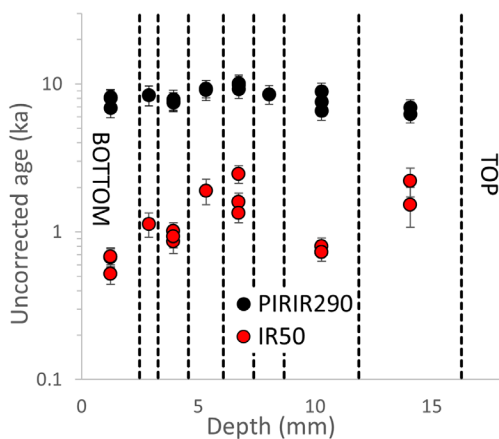
(c) Rock 7 core 1



(d) Rock 7 core 1



(e) Rock 7 core 2



(f) Rock 7 core 2

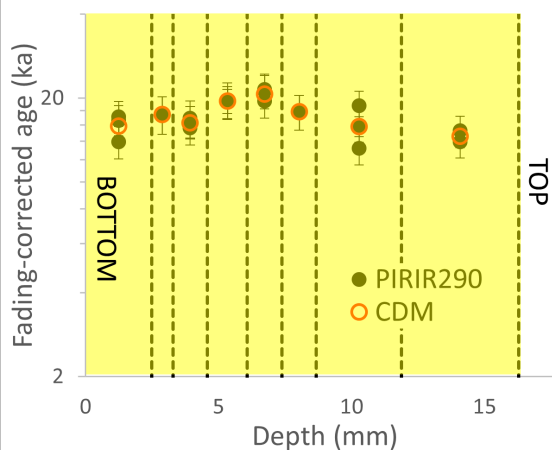


Figure 12. Uncorrected (left) and fading-corrected (right) age-depth profiles for volcanic Rocks 4 and 7 from CA21P1. Dashed lines denote slice thickness. Aliquots contain ~125 grains each of the 125-250 μm fraction. Top and bottom of the rock indicated for

oriented samples. Yellow shading highlights slices used for plateau age calculations. Black dots are pIRIR290 aliquot ages, X symbols are rejected aliquots, and red hollow circles are CDM weighted mean ages for each slice. The y-axes are plotted on a log scale.

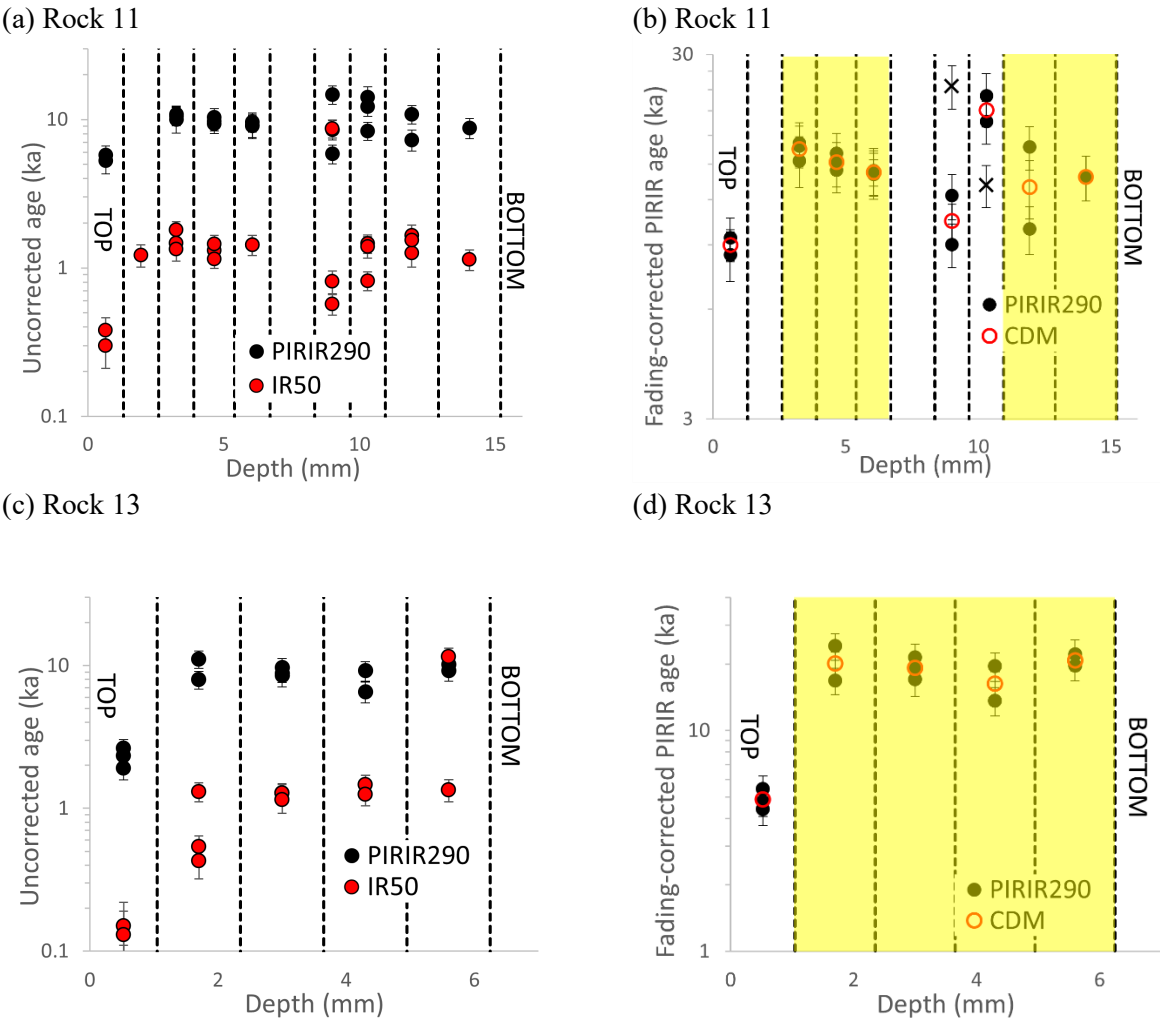
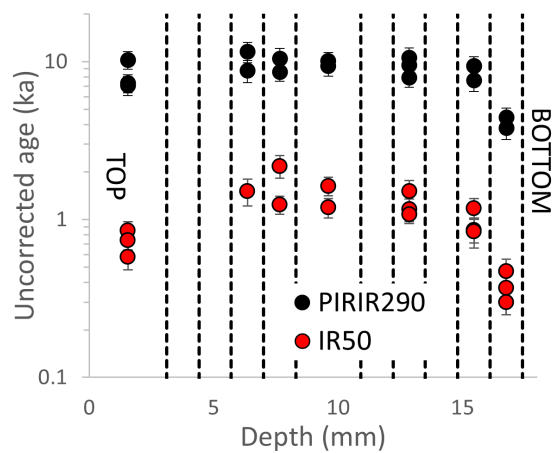
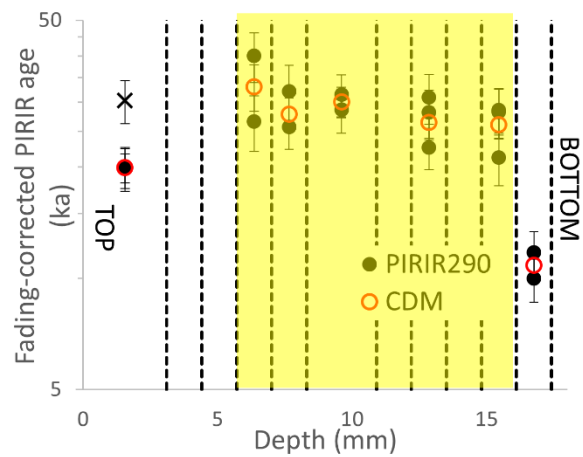


Figure 13. Uncorrected (left) and fading-corrected (right) luminescence-depth profiles for volcanic Rocks 11 and 13 from CA21P1. Dashed lines denote slice thickness. Aliquots contain ~125-165 grains each of the 125-250 μm fraction. Yellow shading highlights slices used for plateau age calculations. Black dots are pIRIR290 aliquot ages, X symbols are rejected aliquots, and red hollow circles are CDM weighted mean ages for each slice. The y-axes are plotted on a log scale.

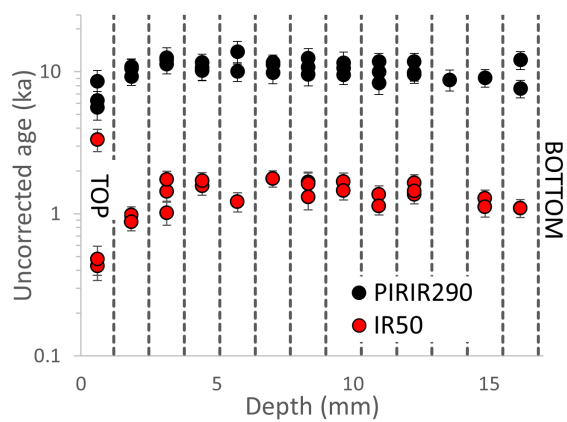
(a) Rock 18 Core 1



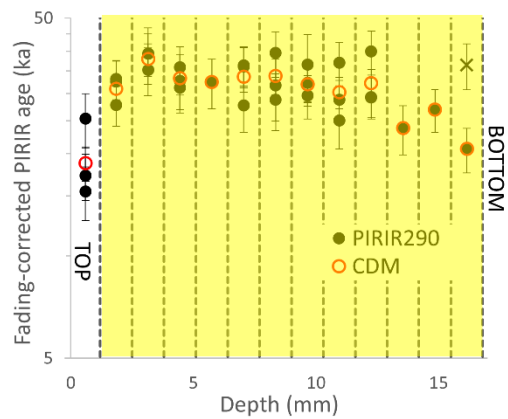
(b) Rock 18 Core 1



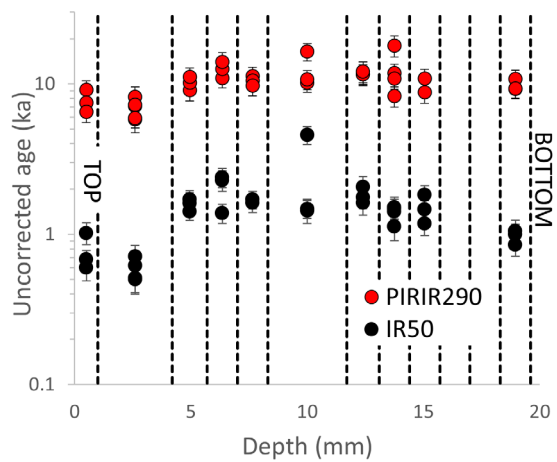
(c) Rock 18 Core 2



(d) Rock 18 Core 2



(e) Rock 18 Core 3



(f) Rock 18 Core 3

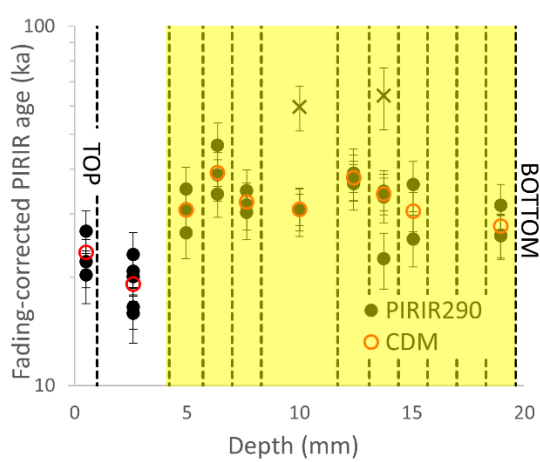


Figure 14. Uncorrected (left) and fading-corrected (right) luminescence-depth profiles for 3 cores from Rock 18 from CA21P1. Dashed lines denote slice thickness. Aliquots contain ~125 grains each of the 180-250 μm fraction. Yellow shading highlights slices used for plateau age calculations. Black dots are pIRIR290 aliquot ages, X symbols are rejected aliquots, and red hollow circles are CDM weighted mean ages for each slice. The y-axes are plotted on a log scale.

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