

Geochronology Discuss., editor comment EC1
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Associate editors comments on Smedley et al.

James Feathers (Editor)

Editor comment on "Erosion rates in a wet, temperate climate derived from rock luminescence techniques" by Rachel K. Smedley et al., Geochronology Discuss., <https://doi.org/10.5194/gchron-2021-5-EC1>, 2021

Associate editor here.

The two reviews of Smedley et al. on erosion rates in NW Scotland have now been posted. I read them over and think they made many good points. The authors should address all their comments, but two in particular need attention. First, both reviewers found Figure 7 difficult to understand. I found the graphs with mostly blue shading to be fully incomprehensible, yet as one of the reviewers pointed out it is the main figure of the paper. Second, the authors rely heavily on Lehmann et al.'s approach for determining erosion rates that are punctuated rather than steady state. The authors need to better explain that approach, so that the reader does not have to consult Lehmann et al. to understand what the authors are doing. I would suggest giving a working example of how this approach works, using one of their samples as the example.

So I think the paper needs major changes, but I do concur with the reviewers that the paper has merit and deserves publication once the problems are corrected.

A few other minor comments that I have:

Lines 153-158 – Were whole rocks or just portions collected in the field? Cores were drilled in the laboratory, but it is not clear how the rocks were collected.

Line 196 – What do you mean by "similar". You just mentioned fairly wide ranges in reduction.

Line 578,, Figure 4 caption. What do you mean by "replicate" core? Replicates of what?

Lines 229-239 – I have seen surfaces of cores show complete saturation when nearby cores from the same rock did not. I am not sure we understand fully why this should be.