

Geochronology Discuss., community comment CC3  
<https://doi.org/10.5194/gchron-2021-22-CC3>, 2021  
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## Comment on gchron-2021-22

Ian Duddy

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Community comment on "Simulating sedimentary burial cycles – Part 2: Elemental-based multikinetic apatite fission-track interpretation and modelling techniques illustrated using examples from northern Yukon" by Dale R. Issler et al., Geochronology Discuss., <https://doi.org/10.5194/gchron-2021-22-CC3>, 2021

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### ▪ **Summary**

- Serious problems with the quality of the EMPA and LAICPMS AFT data used in this paper irrevocably compromise the conclusions concerning the use and superiority of  $r_{mr_0}$  over chlorine (wt%) as a kinetic control on apatite fission track annealing. Because of these problems the subsequent thermal history modelling has no basis.
- A detailed assessment is provided in the attached PDF.

Ian Duddy and Paul Green

- October 15<sup>th</sup> 2021

Please also note the supplement to this comment:

<https://gchron.copernicus.org/preprints/gchron-2021-22/gchron-2021-22-CC3-supplement.pdf>