

Interactive comment on “Unravelling the enigmatic origin of calcitic nanofibres in soils and caves: purely physicochemical or biogenic processes?” by S. Bindschedler et al.

Anonymous Referee #2

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This is an authoritative account of the hypotheses relating to formation of calcitic nanofibres in soils and caves. It is written by experts in the field and seeks to provide a critical review of what has gone before in this challenging field as well as advance understanding. In this regard, a new hypothesis for the origin of the nanofibres is presented, where fungal wall materials serve as the "template" for their formation. The hypothesis is supported by earlier work, and also experimental work in the laboratory and with field samples. The hypothesis proposes a major role for fungal organic templates and evidence supports this. However, other organic templates may also have a role and this is acknowledged by the authors. If this is so, then the formation of calcitic nanofibres may be of much wider biogeochemical significance.

C68

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C69