

***Interactive comment on “Frictional slip weakening and shear-enhanced crystallinity in simulated coal fault gouges at subseismic slip rates” by Caiyuan Fan et al.***

**Anonymous Referee #1**

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This is an unusual format for a review - for me. But I will supply comments as in a usual review.

The authors have completed a thorough study of the frictional characteristics of organic materials - in particular focusing on observations and in linking these observations with a mechanistic understanding - and in this case with a particular focus on chrysotile products and chemical transformation.

The work is thorough, has important conclusions - velocity sealing at high shear velocities and due to the creating of microcrystalline products - and is comprehensively but compactly presented.

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Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2020-43>, 2020.

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