

Interactive comment on “Porosity and permeability determinations of organic rich Posidonia shales based on 3D analyses by FIB-SEM microscopy” by Georg H. Grathoff et al.

Anonymous Referee #1

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In general I think that this manuscript presents a clear contribution to the scientific community with respect to modeling permeability from FIB-SEM tomographies that show poor pore connectivity; hence I have no objection in publishing this paper. However, the results strongly depend on the assumed permeability of the organic-matter, which is hardly discussed, so I wish that the authors discuss this in more detail. Moreover, the results are not compared with values, both porosity and permeability, from published studies on the Posidonia Shale which would put the results in a broader perspective and would make the findings much stronger. Moreover, the methodology on the image and data processing need further explanation as indicated in the annotated pdf. The supplement also contains some minor comments that need to be taken into account

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and suggestions on the writing. Therefore, I recommend accepting the manuscript after minor revision.

Please also note the supplement to this comment:

<http://www.solid-earth-discuss.net/se-2016-38/se-2016-38-RC1-supplement.pdf>

Interactive comment on Solid Earth Discuss., doi:10.5194/se-2016-38, 2016.

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