

Interactive comment on “Effective damage zone volume of fault zones and initial salinity distribution determine intensity of shallow aquifer salinization in geological underground utilization” by M. Langer et al.

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RC: Grid is very coarse, but it is justified.

AC: As demonstrated by various authors, the damage zone width of a fault zone can be linked to the displacement at the fault, however this relationship is highly dependent lithology, pressure, temperature, and strain rate during shear and potentially tensile deformation (Faulkner et al. 2010; Mitchel and Faulkner, 2009; Wibberley et al., 2008; Shipton et al., 2006). Faults with displacements between 10 m and 1 000 m can have

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damage zone widths between tens and hundreds of metres. In the present study, the displacements at the faults range between several hundred meters up to 1 000 m (as described in chapter 2 – study area). Therefore, a mean damage zone width of 250 m corresponding to the lateral grid discretization is still realistic.

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