Solid Earth

Discussions

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Interactive comment on "Modifications to Kozeny–Carman model to enhance petrophysical relationships" *by* Amir M. S. Lala

Anonymous Referee #2

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Please see attachd document.

Please also note the supplement to this comment:
http://www.solid-earth-discuss.net/se-2017-8/se-2017-8-RC2-supplement.pdf

C1

This is a review of the paper "Modifications to Kozeny–Carman mo
petrophysical relationships" by Amir M. S. Lala. It presents an interesting
modification of the famous Kozeny-Carmon equation is given to estima
permeability from porosity, tortuosity and grain or pore size distributions
comments and suggestions to improve this paper.

General Comments:

1. One major criticism is that the paper needs to include recent studies in
   are many important and relevant papers that have investigated th
   proposed alternative forms. For this, the author needs to bring out cle
   in his work. For instance, Nooruddin and Hossain, 2011 did modify
   the KC model making it a function of porosity and other parameters.
   needs to explain his new idea very clearly and distinguish it from pre

Specific Comments:

- Eqs 2, 3, 4: citations are needed here.
- In Eq.2 : change q to Q
- Line 72: use the mathematical symbol used in Eq.2 to clearly indicate
  tortuosity – it looks as L^-1, while you mean (\ell/L)
- Line 91 – 93: This depends on how you define porosity in the KC mo
  most likely nothing but the effective porosity which - by definitio
  connected pores only (see for instance Nooruddin and Hossain, 2011