Comment: From E. J. M. Veling (Referee)

e.j.m.veling@tudelft.nl

Received and published: 26 February 2010

In order for me to understand all derivations, one thing needs to be clarified first. There is a factor "2" involved which comes out of the blue. It is not a typo, since that factor "2" is still present in equation (A14) which has consequences for the rest of the paper and so for the results. This equation (11) is based on equation (6), see Bear, "Dynamics of Fluids in Porous Media", 1972, equation (7.1.32), page 255. The change from (6) to (11) is not correct as far as I can see. My opinions about the Scientific Significance, Quality, and Presentation Quality are not relevant for the moment.

Reply:

We very appreciate Dr. Veling spending time in carefully reading our article. In fact, there is a typo in the definition of L which should be defined as $\sqrt{\frac{2KD}{n_e\omega}}$. Therefore, Eq. (6) can be dimensionalized to Eq. (11).