

***Interactive comment on “Using reactive transport codes to provide mechanistic biogeochemistry representations in global land surface models: CLM-PFLOTRAN 1.0” by G. Tang et al.***

**G. Tang et al.**

tangg@ornl.gov

Received and published: 3 February 2016

Comment: P10646: L24-26, now it seems weird to me why you set `o_scalar` to 1. A RTM should be able to resolve gas diffusion by design, otherwise how could you claim CLM-PFLOTRAN will serve the purpose to do improved soil biogeochemical modeling, which is essentially multiphase?

Response: the `o_scalar` in CLM4.5 is 1 unless the methane module is turned on. As we respond to comment 1, 3, and 5 (R1), this is out of the scope of this work.

---

Interactive comment on Geosci. Model Dev. Discuss., 8, 10627, 2015.

C3951