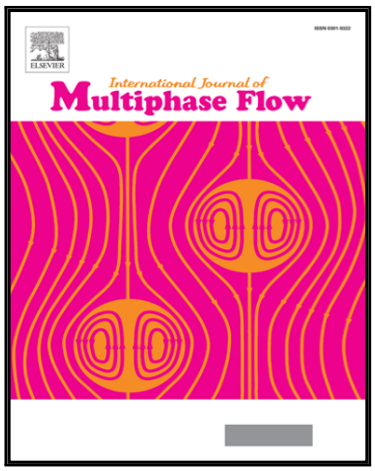

The effect of gravitational settling on concentration profiles and dispersion within and above fractured media

Tomer Duman , Ran Holtzman , Uri Shavit

PII: S0301-9322(17)30753-X
DOI: 10.1016/j.ijmultiphaseflow.2018.05.003
Reference: IJMF 2802

To appear in: *International Journal of Multiphase Flow*

Received date: 2 October 2017
Revised date: 8 March 2018
Accepted date: 2 May 2018

Please cite this article as: Tomer Duman , Ran Holtzman , Uri Shavit , The effect of gravitational settling on concentration profiles and dispersion within and above fractured media, *International Journal of Multiphase Flow* (2018), doi: 10.1016/j.ijmultiphaseflow.2018.05.003

Highlights

- Particle dispersion in flow above and within vertical fractures is modelled
- The combined effects of gravitational settling and horizontal advection was studied
- Gravity-induced dispersion is dominant near the source, where it cannot be ignored
- Highest dispersion flux location is linearly proportional to groove spacing and depth