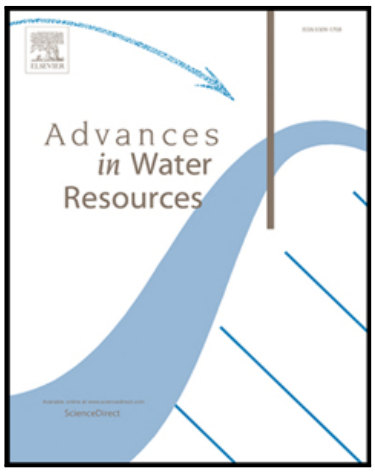

A data driven model for the impact of IFT and density variations on CO_2 storage capacity in geologic formations

Mohammad A. Nomeli, Amir Riaz

PII: S0309-1708(17)30096-9
DOI: 10.1016/j.advwatres.2017.06.015
Reference: ADWR 2875

To appear in: *Advances in Water Resources*

Received date: 30 January 2017
Revised date: 14 June 2017
Accepted date: 15 June 2017

Please cite this article as: Mohammad A. Nomeli, Amir Riaz, A data driven model for the impact of IFT and density variations on CO_2 storage capacity in geologic formations, *Advances in Water Resources* (2017), doi: 10.1016/j.advwatres.2017.06.015

Highlights

- A novel model is proposed to find the interfacial tension of the systems (CO_2/brine-salt)
- Multiparameters nonlinear regression method is employed to find the correlations
- The IFT showed a strong dependance on temperature, pressure, and salinity
- The results indicate that, CO_2 storage capacity increases with reservoir depth