



Modeling cement reactivity in CO_2 saturated brine with the reactive transport code Dynaflow™



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Introduction

Background: Provide a solution for the reduction of global warming associated with the increased CO_2 content in the atmosphere. Storage of CO_2 in deep geological formations.

- depleted oil and gas reservoir,
- deep saline aquifer;

Objective of the work: Assess the reliability of the CO_2 storage with time.

- Reliability of geological formation limited by the presence of engineered high permeability path (well bore),
- Degradation of casing materials (steel, cement) in contact with CO_2 may lead CO_2 leak with time.

Reactive transport modeling of cement reactivity in CO_2 saturated brine

Validation against experiments:

