

## **Reliability of Low-Salinity Waterflooding in Oil Recovery: Effects of Reservoir Conditions and Fractures**

Ali Namnoum and Ramadan Abdelaziz

TU Bergakademie, Freiberg

Low-salinity waterflooding is a relatively new technique for enhanced oil recovery. The paper aims at understanding the thermal, physical and chemical processes in the fractured reservoirs. The effects of water injection in the fractured formations are simulated by TOUGH2 and TOUGHREACT analyses with a case study. Using TOUGHREACT as a geochemical model provides an inclusive insight into possible changes in the mineral composition.