



Composition and isotopic characterization of free and trapped gas in salt beds of a potash mine

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In the near future, the demand for storage facilities for renewable energy will increase significantly. In this context the storage of chemical energy in the form of gases (syngas) in salt caverns bears a high potential. In addition to commercial interest with regard to knowledge on the quality and capacity of these geo resources there is high scientific interest on an improved understanding of the genesis of naturally occurring, geogenic cavernous structures within salt-bodies and their reaction with free and entrapped fluids.

In the vicinity of an underground fluid occurrence in a potash mine we sample free fluids and gases encountered in different salt beds and seams from evacuated and packer-sealed borehole sections. These gases are characterized for their chemical and isotopic composition to conclude on their origin and evolution in the salt rocks.